



## CHAPTER

# 13

## Interactive Media

**Key Idea:** Interactive mass media are businesses that attract audiences to their Web sites where those audience members create the content.

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**T**he topic of interactive media is included in this section on content rather than in the industry section because it is the content that is most characteristic of interactive media. The content presented by noninteractive mass media is created by professional writers and producers

who are highly skilled at applying message formulas that will attract particular kinds of audiences and then condition them for repeat exposures. In contrast, the interactive mass media allow—actually require—their audiences to create the content. Audience members are not paid for creating any of this content; to the contrary, audience members not only create the content for free but often pay the interactive mass media companies for access to the content either through subscription fees (as with many games) or by agreeing to be exposed to advertising.

With the interactive mass media especially, it is important to make a distinction between content and the businesses. In this chapter, the focus is on the types of interactive content, especially informational/educational, social networking, and game content. But first, I need to lay out some basic ideas in the development of interactive services that allow users to create the content.

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## DEVELOPMENT OF INTERACTIVE MASS MEDIA

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Three forces have shaped the development of the interactive mass media and hence their content. These forces are the importance of a shared commons, the need for social contact and social networking, and the attraction of advertising support.

### Shared Commons

In *Viral Spiral: How the Commoners Built a Digital Republic of Their Own*, David Bollier (2008) explains that the Internet was initially designed as a creative commons where there is a great deal of sharing of resources for the common good. With free software in the 1980s and the rise of the World Wide Web in the 1990s, the Internet was created and is still maintained as an open-source network that allows all people to interact freely in a wide variety of ways.

The term *viral spiral* means that the Internet provides for an upward spiral of innovation because of its open networking structure. By giving all people free access to ideas, the creators of those ideas can easily disseminate them widely and allow others to build on those ideas and extend them in creative ways. Threads of thinking radiate dynamically through countless nodes and influence all kinds of people in all kinds of ways to work collaboratively. Thus, the Internet has been able to avoid the costly overhead that comes with centralized production and marketing and replaced it with a wide dispersion of vitality throughout the social commons. Therefore, change is not planned, ordered, or mechanical; rather, change is messy and serendipitous.

When the Internet is preserved as a “commons,” it allows all kinds of people to gather around an incredibly wide range of interests. “People who cluster around a particular topic create a virtual community that is created and maintained by the collective of people with special regard for equitable access, use, and sustainability. The commons is a means by which individuals can band together with like-minded souls and express a sovereignty of their own” (Bollier, 2008, p. 4).

This idea of a shared commons is more evident in the so-called Web 2.0 companies. Coined in 2004 by technology industry veteran Tim O’Reilly, the term *Web 2.0* had a complicated meaning. At one level, it was a catchall phrase for a generation of Internet companies such as Google, MySpace, and YouTube, to distinguish them from the older Internet companies (Web 1.0) of

Yahoo, AOL, and Netscape. Web 2.0 also referred to companies that use the Web as a platform; that is, they built technology to run on the Web the way that software companies built programs to run on operating systems such as Microsoft Windows (Angwin, 2009, p. 214). But for many, the key idea of Web 2.0 is a perspective about the Internet that fosters a social dynamic where people have the freedom to share their work through all sorts of open Web sites. People are free to access all these sites, use what they want, create their own messages, and make their messages available to anyone. The easy availability of these collective resources celebrates open participation, and this results in an enormous increase in creative activity.

## Need for Social Networking

There is a strong need among humans to experience social contact with other humans. This is why humans have created families, groups, organizations, and social institutions. Now with the widespread availability of the Internet, humans have a new tool to establish human contact.

Anthropologists have speculated that the maximum number of human beings in a stable social network is about 150 people. With the Internet and social networking sites, users can create networks of almost unlimited size. However, the average male user on Facebook leaves comments on 7 friends' pages, while the average female leaves comments on 10 friends' pages (Wolk, 2009).

Sociologists distinguish between weak and strong ties to others in social networks. The Internet allows people to enhance both strong and weak social ties. Strong ties are the close relationships we have with the friends and family members who are the most important to us. Weak ties are the acquaintances we make. People use social networking sites to create and maintain important friendships by continually messaging those people. While we find the stronger ties typically more valuable for some reasons (such as establishing and maintaining), weak ties are also highly valuable because they introduce us to new information and make us additional contacts that are valuable to giving us new opportunities for jobs, hobbies, and so on.

## Attraction of Advertising Support

Many of these interactive sites do not charge users a fee to use them, so they must support themselves through the selling of advertising. The largest of these sites have been very successful in attracting advertisers who want to appeal to their particular audiences. Over the past decade, advertising money has been shifting from the older media into the Internet. From 2002 to 2006, U.S. advertisers increased Internet advertising from \$6 billion to almost \$16 billion (Angwin, 2009, p. 238).

## INFORMATIONAL/EDUCATIONAL INTERACTIVE CONTENT

There are many informational and educational Web sites available, but what makes some of these interactive is their willingness to allow the audience members to add their own information and continually change the information that is posted on their sites. The software

technology that allows people to interact with these sites is called a *wiki*. A wiki is a Web site that allows any user to add material and to edit as well as delete what previous users have done. The term comes from the Hawaiian word *wikiwiki*, which means fast or speedy. In 1994, a computer programmer named Ward Cunningham developed an initial wiki server designed to be the simplest possible online database. He designed it so that information could be added and edited as easy as possible. Thus, this database is essentially democratic where every user has equal access and equal ability to contribute.

The most well-known wiki so far is Wikipedia, which is a free Web-based encyclopedia that does not hire experts to write the content but allows anyone access to add, delete, and edit content. Wikipedia began in 2001, and within 8 years, it had 10 million articles across 200 languages. The English edition contains more than 2.5 million articles, and there are another 25 language editions each with more than 100,000 articles. Anyone can create a new article, and anyone can edit an existing article. This open-editing model is guided by the values of good writing, neutrality, reliable sources, and verifiability. People who create and edit the content are unpaid, and access to the site is free to everyone. The content is created by users for free and belongs to the community, not to the creators of Wikipedia.

What makes it work is that a large number of knowledgeable people are willing to participate. Whatever errors they make usually receive rapid correction, simply because so many minds are involved. This ensures a much more comprehensive resource than a small group of experts could produce. Also, the great number of people involved contributes to the elaboration of each topic—thus, more detail can be provided because it is coming from many different people. At first, accuracy might seem to be a problem, but the editing function allows errors to be quickly corrected by others. (For more on how the collective knowledge of groups is superior, see *Infotopia* by Cass Sunstein, 2006.)

Wikipedia's greatest challenge early on was generating interest among the general public to volunteer to create articles for the encyclopedia without being paid. It met this challenge and by 2008 had generated close to 2.3 million articles and was growing by about 600,000 articles each year in the English edition (Lih, 2009). Now its challenge is to check the article writing and editing for accuracy. Also, there is a continuing challenge to ensure that people with certain political or religious orientations do not distort entries for their own purposes. For example, in 2006, Wikipedians noticed that unmet campaign promises of Congress people were being deleted from articles on those Congress people. It was discovered that these deletions were coming from Web addresses of congressional aides for those Congress people. Also, it was found that the justice department was removing references to certain groups they felt were involved in terrorist activities. And they noticed that supporters of the Church of Scientology were entering a pro-Scientology viewpoint while critics were editing that out in favor of a critical viewpoint. In all of these (and many more instances), Wikipedia had to lock out those people from the editing function (Linthicum, 2010).

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## SOCIAL NETWORKING MASS MEDIA

Social networking Web sites are designed to give all kinds of people the means to connect with others for all sorts of social reasons. Some sites are designed to help users make new friends and keep up their relationships with existing friends. People do this by creating a homepage

with information about themselves. They can access other people's homepages and send them messages. Other social networking sites allow users to interact with others by expressing their opinions and trying to influence others or by engaging in business exchanges by selling their unwanted household items and buying items that others offer for sale. There are many of these social networking mass media sites—too many to inventory in this chapter. What follows is a short description of six of the most popular social networking sites.

## MySpace

MySpace started in the summer of 2003 on a shoestring budget as a social networking site by an Internet company called eUniverse. It allotted each user a profile page with pictures and interests along with the ability to link to friends. It also provided games, blogging (called journals early on), and even horoscopes. The early adopters were teenage girls who used it to keep in touch with their friends around the clock by posting photos and actively blogging. MySpace allowed them to customize their profiles, and this had strong appeal for the early users. They also downloaded songs and “mashed up” songs in remixes. MySpace also allowed what it called “fakesters” by allowing users to be whoever they wanted to be—themselves, a celebrity, a pet animal, or a wholly made up person with a created identity. The major activity was “friending,” which is getting people to add you to their friends list and agreeing to be on your friends list; many users felt it was a competition to have the largest friends list (Angwin, 2009, pp. 59–62).

Until April 2004, only MySpace members could view the profiles of other MySpace members, but because of the shifting focus to advertising support, MySpace was opened up to the outside world. MySpace needed viewers more than it needed members (Angwin, 2009, pp. 88–89).

In July 2005, News Corp bought InterMix, an Internet company with several entertainment-type Web sites, including MySpace, for \$580 million and added it to its new and struggling Interactive Media division within News Corp. Not until December 2006 did this division start making a profit, and within 2 years, it was making over \$1 billion a year, primarily through advertising (Angwin, 2009, p. 238).

Over the years, MySpace has made some changes to increase its appeal. MySpace has created its own content to attract audiences and then rent those audiences out to advertisers. For example, in 2006, MySpace created Secret Shows, which is a program of free concerts for MySpace members. It costs MySpace \$20,000 a month to host the shows, and Chili's restaurants pays MySpace \$3 million a year for sponsorship rights (Angwin, 2009, p. 245).

There are many racy pictures of females on MySpace, the most famous of which is Tila Tequila and porn star Jenna Jameson. In fact, it has been estimated that 95% of porn stars have MySpace pages (Angwin, 2009, p. 184).

MySpace spent \$19 million to acquire iLike, a music recommendation service similar to a service used by its rival Facebook. This illustrates a continuing evolution from a teen hangout to a broad-based entertainment service. iLike allows users to post playlists of the songs they like most and indicate when they plan to attend a concert. iLike then takes this information and shares it with online retailers who then pay iLike for referring purchases of songs and concert tickets (Chmielewski, 2009).

In July 2008, Web surfers viewed 41.1 billion pages of MySpace, making it the most trafficked in terms of page views in the United States by a wide margin. Yahoo was second with

about 32 billion page views. Yahoo and Google both attracted more visits per month, but their visitors did not stay as long or view as many pages on their Web sites compared to MySpace. MySpace is by far the market leader in social networking with 75 million unique visitors, nearly twice the monthly visitors of Facebook, which is second. All kinds of people use MySpace. Individuals use it to connect with their friends in the same room or in some far-away foreign land with text, pictures, video, and music; dig out information on long-lost friends; meet strangers to make them friends, romantic partners, or even a spouse; make business contacts and advertise services for sale, legal and illegal; create an entirely new person; and even organize a political campaigns at all levels, including president of the United States (Angwin, 2009, p. 9).

Lots of different kinds of people have used MySpace as a platform for their own needs. For example, in May 2006, Buena Vista Pictures, a subsidiary of Disney, held a contest on MySpace inviting dancers to submit videos for a chance to appear in the credits of an upcoming low-budget movie called *Step Up*. Despite the short 2-week duration of the contest, Disney received several hundred submissions and accumulated more than 120,000 friends on its MySpace profile. Some of the dancers were cast in the movie, and some of the videos were run behind the ending credits of the movie. Disney also used MySpace to market the movie and ended up doubling the expected box office gross during the opening weekend of the movie's release. Since then, other movie studios have used MySpace for promoting their movies (Angwin, 2009, pp. 239–240).

Advertisers use MySpace to build a profile for their brands by creating a MySpace presence and tracking who is attracted to their profile, asking them questions, then altering their product image accordingly. This was done by Adidas in its sponsorship of the World Cup soccer tournament; Honda did it to profile Element, its compact sports utility vehicle; and Jack in the Box used it to build a profile for Jack, its mascot (Angwin, 2009, p. 240). Fans of celebrities have created profiles for their celebrities. People aspiring to a career in pornography will post suggestive photos (MySpace does not allow nudity) and information about themselves, hoping to catch the attention of people in the industry (Angwin, 2009, p. 185).

## Facebook

Facebook, a competitor with MySpace, was launched in 2004 by Mark Zuckerberg while he was a computer science undergraduate at Harvard University. The Web site's membership was initially limited to Harvard students but was expanded to other colleges in the Boston area, the Ivy League, and Stanford University. It later expanded further to include any university student, then high school students, and, finally, to anyone age 13 and older.

Facebook in October 2005 was a much smaller Web site than MySpace, with just 10 million monthly visitors compared with 24 million for MySpace, but it was growing quickly. Up until that time, it had been restricted to college students, but then it started letting high school students join (Angwin, 2009, p. 177). By November, Facebook was narrowing the gap with visitors by introducing several new features. One was "News Feed," which provided members with updates about their friends' activities. Second, it allowed anyone to join.

In May 2007, Facebook released a guidebook that enabled software developers to write programs called widgets (small slide shows) that could run on Facebook's Web site. This

allowed widget developers to use Facebook as a platform to make money through selling advertising on their own Facebook pages. MySpace prohibited third parties from advertising, thus controlling all the advertising themselves. By July, developers had built more than 2,000 widgets for Facebook.

By 2009, the Web site had more than 250 million active users worldwide. It employs 700 people and generates over \$300 million a year (Facebook, n.d.).

## eBay

eBay was founded in September 1995 by Pierre Omidyar as an online auction Web site where anyone who wanted to sell household items could post pictures and descriptions of their items online and allow viewers to bid on those items. When sellers accept a bid, they arrange for the sale of the item through eBay, then mail the item to the buyer. Within 2 years, eBay had accounted for more than 1 million items sold. In 1998, the company went public selling stock as a public corporation. By 2007, it had a quarter of a billion registered users worldwide with 100 million items on sale at any given time, ranging from items selling for a few dollars to a Gulfstream II business jet that sold for \$4.9 million in 2001 (*The Basics of Selling on eBay*, 2007). By 2008, it had grown to 15,500 employees and generated \$1.8 billion. (eBay, n.d.).

## YouTube

YouTube is a video-sharing Web site on which users can upload and share videos. Unregistered users can watch the videos, while registered users are permitted to upload an unlimited number of videos.

The company, which is based in San Bruno, California, uses Adobe Flash Video technology to display a wide variety of user-generated video content, including movie clips, TV clips, and music videos, as well as amateur content such as video blogging and short original videos. Most of the content on YouTube has been uploaded by individuals, although media corporations, including CBS, the BBC, UMG, and other organizations, offer some of their material via the site, as part of the YouTube partnership program.

Three former PayPal employees created YouTube in February 2005. The first YouTube video was uploaded in April. Entitled "Me at the Zoo," it shows one of the founders, Jawed Karim, at San Diego Zoo. The site was opened to the public in November 2005, and it grew rapidly. By July 2006, the company announced that more than 65,000 new videos were being uploaded every day, and that the site was receiving 100 million video views per day.

In November 2006, YouTube, LLC was bought by Google, Inc. for \$1.65 billion and is now operated as a subsidiary of Google. In June 2008, a *Forbes* magazine article projected the 2008 revenue at U.S.\$200 million, noting progress in advertising sales. In November 2008, YouTube reached an agreement with MGM, Lions Gate Entertainment, and CBS, which will allow the companies to post full-length films and television shows on the site, accompanied by advertisements. The move is intended to create competition with Web sites such as Hulu, which features material from NBC, Fox, and Disney.

According to data published by market research company comScore, YouTube is the dominant provider of online video in the United States, with a market share of around 43%

and more than 6 billion videos viewed in January 2009. It is estimated that 20 hours of new videos are uploaded to the site every minute and that around three quarters of the material comes from outside the United States. It is also estimated that, in 2007, YouTube consumed as much bandwidth as the entire Internet in 2000. In March 2008, YouTube's bandwidth costs were estimated at approximately \$1 million a day (YouTube, n.d.).

## Napster

A computer hacker named Shawn Fanning created Napster as a file-sharing software program while he was a student at Northeastern University in Boston. It was released in June 1999, and within a year, the software had been downloaded by 70 million users who used it primarily to allow other users to make copies of audio recordings they had stored in their computer memory. Napster used centralized file directories on the Internet to connect users to music files on thousands of individual computers, thus enabling any user to download virtually any recorded music in existence for free.

In December 1999, the Recording Industry Association of America (RIAA) sued Napster on the grounds that this music-sharing service allowed piracy of copyrighted music. The RIAA eventually succeeded in shutting Napster down in July 2001. Since then, many other P2P services (Grokster, Lime Wire, KaZaA, Gnutella, BitTorrent) have taken Napster's place in helping people facilitate online sharing and collaboration.

## Blogs

Blogs are Web logs where people create a Web site and then post their thoughts so that others can access them. Most blogs are not mass media; they are single individuals who post mundane information about their everyday lives (such as what they ate for breakfast) and their opinions about whatever they care about.

There are blogs that do qualify as examples of the mass media. These are highly organized sites usually focused on a particular topic with many postings designed to attract large numbers of a particular kind of audience; they are also supported by advertising messages. For example, the Drudge Report with 1.6 million unique monthly visitors and the Huffington Post with 773,000 visitors are political blogs but have postings on entertainment, business, media, lifestyle, and other topics. Both in the range and quality of their messages as well as their reach among readers, they rival major newspapers.

## INTERACTIVE MEDIA GAMES

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Video games, computer games, arcade games, consoles, and mobile games are regarded by some writers as many different media (e.g., see Aarseth, 2001), but the similarities are more striking than the differences, so it makes sense to treat them all as the same kind of content. For example, Kerr (2006a) argues that all these games have a digital game code that governs game appearance and play, all use electronic devices to present the game in a visual and audio manner, and all have input devices that the player uses to communicate with the digital code in playing the game. These are all technological characteristics that can be used

to define the set. Also, from a mass media point of view (recall the definition of mass media from Chapter 1), the games are created in a manner to be highly attractive to particular niche audiences, and the games themselves are constructed so as to condition habitual use of them. This definition rules out things like board games (Monopoly, Parcheesi) unless they have been adapted for digital play. Also ruled out are games of pure chance (such as picking a number) because there is no skill involved and therefore no chance for players to be reinforced into habitual game playing while they take steps to improve their play.

Arguably the most salient characteristic that distinguishes digital games from other media messages is that they lack characters or plots in the conventional narrative sense (T. Friedman, 1995). Games do not tell a story; instead, they offer the potential for players to construct their own stories as they move through the game. These games force the player to pay a heightened level of attention to the message stimuli, not to absorb its meaning passively but to make active decisions about those stimuli so as to enter into interactions with the game rules, characters, and environments. These decisions by the game player tend to change the arc and nature of the game. These changes give players a sense of power and wonder as they explore how far they can go into building a new story.

As you will see in the following sections, interactive media games are commercial products that are marketed by established media corporations (Giddings & Kennedy, 2006), but the key to the definition is that these games provide content that are designed to attract particular kinds of audience members and then condition them for repeat exposure, so they can be regarded as mass media. What distinguishes games from other content is that they are truly interactive, and this serves to pull players strongly into the experience as they compete against other players, a computer, or themselves to achieve goals.

## History of Video Games

The innovation stage for interactive media games began in the 1950s with use of early main-frame computers being programmed for simple games such as tennis and tic-tac-toe. Interactive media games shifted into the penetration stage in the early 1970s when game consoles were marketed to the broad consumer market. The first commercial home video game systems were launched in 1972 by Magnavox with its Odyssey game and by Atari with its game of Pong. Both of these were console systems where consumers had to buy a piece of hardware with controls; they hooked this up to their television sets and then manipulated handheld controls to play the game that appeared on their television screens. Throughout the 1970s, these companies marketed other games in the form of software that could be plugged into their consoles. The most popular among these games were Space Invaders, Zork, Pacman, Asteroids, and Battlezone. These companies also created arcade versions of their games to grow the interest in their games. By 1981, arcade video games were bringing in \$5 billion in the United States, and another billion was spent on home video gaming systems (Kirriemuir, 2006).

When IBM introduced the first desktop personal computer in 1981, video gaming took off with games such as Flight Simulator. People who bought a computer could use it as a console to play games on their screens when they bought the game software. Gaming consoles and their games also continued to sell well, attracting new gaming companies such as Nintendo with games such as Super Mario Brothers.

Mass media gaming has shown steady growth for the past several decades and has evolved into an industry with three components that are distinguished by their delivery systems. The three components of digital gaming are TV console, handheld devices, and personal computers.

The TV console market is dominated by three companies: Sony, Microsoft, and Nintendo. Sony markets its PlayStation console. Sony's most popular games are *Grand Theft Auto*, *Madden Football*, and *Gran Turismo*. Microsoft has its Xbox consoles and markets games such as *Halo*. Nintendo sells its GameCube consoles that play its Mario and Zelda games along with its *Resident Evil* series of games.

The dominant handheld game is Nintendo's Game Boy. Also, Sony now has a handheld game for PlayStation, called PSP.

Personal computers can act like TV consoles where players use their personal computer in place of a console. Players plug in handheld devices and run the game software to play the game on their computer screens. Some of these digital computer games are set up for one player; these function like console games. However, most computer games take you out on the Internet, where you play the game with others who could be anywhere in the world. Some of these games pit you against one other player, such as in a game of chess, while others pit you against a small number of players, such as five poker players. As for poker and gambling, by 2003, there were about 1,800 gambling sites on the Internet, and they generated \$4.2 billion (Malcolm, 2005). Then there are digital computer games where you can go out on the Internet and play a game with millions of other players; these games are called MMORPGs—Massively Multiplayer Online Role-Playing Games (more on this type of game later in this chapter).

Interactive media games continue in the penetration stage as companies develop more platforms and games to attract more and more audiences. Now cell phones also offer games that people can play by themselves or to connect to other players and compete with them (Kirriemuir, 2006). This may grow into yet a fourth platform on par with TV consoles, handhelds, and computer games.

As digital games have penetrated the culture, critics have speculated about their negative effects, especially on children. In response to this criticism, the video game industry established the Entertainment Software Ratings Board (ESRB) in 1994 to rate all games. The ESRB created an age-based system consisting of five levels of ratings: EC for early childhood (ages 3 and up), E for everyone (ages 6 and up), T for teen (ages 13 and up), M for mature (ages 17 and up), and AO for adults only (ages 18 and up). However, researchers have found that the ratings have been poorly enforced. One study showed that 69% of children under the age of 17 were able to buy M-rated games (Meehan, 2004). Furthermore 87% of boys and 46% of girls played M-rated games.

## Business of Interactive Media Games

For the past 25 years, growth of digital games has been about 7% in a typical year. However, when a company introduces a new innovation, such as a new platform, growth can spike 20% in that one year. By 2006, the digital gaming industry generated about \$18 billion per year in software sales and another \$9 billion in hardware sales (Kerr, 2006b). This 2006 revenue for digital games is about three times the box office revenue for the film industry. Digital games have truly grown into a healthy mass medium.

Like all the other mass media, digital game companies increase their overall income by developing multiple revenue streams. For example, Blizzard Software, the maker of *World of Warcraft*, has made more than \$300 million thus far from its multiple revenue streams, which include selling software, monthly access fees, merchandising (T-shirts, jackets, hats, and a non-digital board game), seven novels based on their games, and a movie deal (Levy, 2006b).

There is a good deal of vertical integration in the digital game industry. That means a company that owns the platform also develops the games and distributes them. The industry is controlled by Sony, Nintendo, and Microsoft with about 20 independent publishers of games. Small independents are usually bought up by the larger companies, thus increasing vertical integration (Kerr, 2006a). Most publishers of games own their own distribution channels. When you buy a game at a retail store, about 30% of price goes to the retailer, 40% to the game developer/publisher, and 20% to the hardware company on which the game is played (Kerr, 2006a). Some firms are producers of the games; some are publishers that manufacture the disks and distribute them through stores; some are operators of the games (control the servers and maintain the play). But the large companies perform all these functions (Sony, Electronic Arts, Mythic Entertainment, Disney).

**Game Development.** The cost of developing a new game and getting the game's "world" up and running is \$5 million minimum with an investment of \$30 million being spent by the larger companies. The big expenses are licensing (*Star Wars*) and providing the continuing live service. The key to success lies in understanding the consumer and having the talent at designing the game itself. The development of digital games is highly risky. Only about 3% of all games make a profit. Like with film, they use tried-and-true formulas, spin off new games from previously successful games, and engage in a lot of promotion of new games (Kerr, 2006b).

The United States, United Kingdom, and Japan are the main centers of digital game development and production. The United States and Japan employ about 30,000 people each, and the United Kingdom employs another 20,000 in digital gaming. Teams of about 12 to 20 people work on developing each game, which takes about 15 to 18 months to create and test.

The process of designing a game is a complicated endeavor involving many people and many tasks that can be organized into nine steps (Castronova, 2001). First, an idea is conceived and sketched out in a demo. Second, a team of designers determines what a player will do while playing the game. Third, artists render the environments and characters. Fourth, programmers take the instructions from the designers and artists and write the digital code. Fifth, when enough code is written, an alpha version is tested. Sixth, where the alpha test reveals design flaws, corrections are made. Seventh, a beta version is made available for wider testing. The goal of the beta test is to get a community of insiders hooked on the game so they make it available on downloads for free during a trial period. Eighth, when management is satisfied with the beta testing, the game "goes gold" and is released to the publisher. And ninth, the publisher designs the box, reproduces the game disks, and distributes them to wholesale and retail outlets.

Sykes (2006) elaborates the game design process by pointing out that game developers must make three fundamental decisions about the game they want to design. These decisions concern category of play, formality of play, and the affective tone. He says that there are six categories of play as determined by the objective of the game: Agon (competition is the primary focus; enjoyment derives from competing), Alea (games of chance), Mimicry (play involving make-believe; players take on a new identity), Ilinx (players seek vertigo,

which is the temporary destabilization of the perceptual system, such as fairground rides), Exploration (fun experiences exploring new places and discovering new things), and Social play (contact with others by joining special clans with secret languages, nicknames, initiation rights, etc.). While there is a different niche audience for each of these six, the popular games usually combine two or more of these features in a single game to appeal to a broader base of players.

As for formality of play, Sykes (2006) says there is a range in the number of rules that a game can have. At the informal end of this range are games with very few rules or rituals; players experience the spontaneous expression of the animalistic impulse to play. At the formal end of the range of formality are games with many rules and rituals that require discipline to follow; players who learn the rules best and who are capable of using those rules to their advantage succeed the most.

As for affective tone, Sykes (2006) again points out that there is a range open to game designers. These designers must think about what they want their players to feel as they interact with the game. One feeling is aggression as players fight a series of stronger and stronger opponents; as they conquer these opponents, players themselves feel stronger and more confident in their abilities. Another popular feeling is mystery or suspense where players must figure out what is happening before something bad happens to them or others.

In addition to the design decisions outlined in the above paragraphs, designers also follow some generic-type rules to ensure that their games are able to attract players and then condition them for repeat playing. There are six design rules that apply to all successful digital games. Game developers carefully follow these rules to reduce the risk that players will reject their games. First, there must be some reward to the player, and the rewards must only go to the good players. Bad players should be punished, but the punishment should never be for something that happened outside a player's control. Second, the game should be relatively easy to learn. Of course, some games are very complex, but the complexity is not revealed to a player in the beginning. Instead, the complexity is gradually revealed step-by-step as the player moves through the game. Third, the game should be predictable. The game should follow logical rules so that players can predict the outcome of their actions. Fourth, the game should be consistent. The outcome of a particular action must always be the same. Fifth, there should be a fair degree of familiarity. This means that designers should consider what players bring to the game and use it. And sixth, the game should be challenging. If it is too simple, players will quickly lose interest. Instead, designers must build in layers where players advance to greater and greater challenges to keep them playing.

*Marketing.* Like with almost all media messages, digital games are marketed to niche audiences. Marketers of digital games typically see four types of audiences: explorers, socializers, achievers, and controllers. Each of these four niches is characterized by a different kind of player. Explorers are players who are curious and want to see what is in the game. They want to discover things and are happy when the world inside the game is very big and can only be found by persistence and creativity. Socializers are players who like to interact with other players. They want the game to present challenges that require forming groups so that players have an opportunity to work together in accomplishing shared objectives. They like games where there are towns and other clusters of people. They want social interaction in the games, so they want opportunities to join clubs and engage in cultural activities with

others, such as weddings, parties, and other social rituals. Achievers are players who come to the games to build something, like a city, an empire, great personal wealth, or the like. These players want games that allow for the accumulation of resources that are visible and engender respect from other players. Finally, controllers are players who want to dominate others. They want games with a high degree of competition so they can figure out ways to defeat and dominate worthy opponents.

While games are typically marketed to players, game developers are also starting to market their game code to other game developers. This is called the middleware market. There are would-be designers of games who lack a depth of programming skills required to design a game from scratch; these developers are in the market to buy game engines, which is the basic programming needed to support a game. Buyers of a game engine then build the specifics of their games from the basic code (Castronova, 2001).

## Experience of Playing Games

When a digital game has been designed well, it delivers an experience to players that has been called “flow” or “telescoping.” *Flow* is a term coined by a social psychologist with the almost unpronounceable name of Csikszentmihalyi (1988). He observed people getting lost in tasks and called this experience “flow.” To achieve this state of flow, people must deeply immerse themselves in a task so that they lose all track of time and place. With digital games, players often get so involved in the playing of the game that it is as if they enter the world presented by the screen and lose the sense that they are in the real world. Players become so focused on the pleasure of the game that other needs (such as thirst, sleep, hunger, etc.) become secondary; that is, satisfying those secondary needs gets put off in the interest of satisfying the primary need of achieving the next objective in the game. The expectation of completing the next game objective is so pleasurable that everything else is forgotten while in the flow state.

*Telescoping* is a term used by another social psychologist with a much more pronounceable name of Johnson (2006). He used this term to refer to a digital game player’s focus on steps in the process. Each objective is nested within another one in sequence. Players must focus on their immediate object but only in the context of getting themselves in position to meet the next one and so on until they reach their ultimate objective. Working on players’ immediate objective only makes sense in the context of the series of objectives, so when players meet their immediate objective, they do not stop playing; instead, they feel immediately propelled onward to meeting their next objective. Johnson says, “Talented gamers have mastered the ability to keep all these varied objectives alive in their heads simultaneously” (p. 54). Telescoping is not the same as multitasking. Multitasking is handling a chaotic stream of unrelated objectives, such as talking on the phone, instant messaging friends, listening to music on an iPod, and Googling topics. Telescoping focuses more on structure, that is, ordering objectives in a hierarchy of priority and then moving through them in the correct sequence.

Experiencing flow and telescoping can be very intense and rewarding. It can be like a narcotic that draws players back to gaming for a repeat of the experience. And once players feel the experience, they want it to continue uninterrupted. When it is interrupted, they want to get back to it as quickly as possible.

Castronova (2005) argues that one attraction of games is to escape the Sisyphus nature in the lives of many people. Sisyphus was the character in Greek mythology who was doomed to push a heavy boulder up a hill, and each time as he neared the top, he would weaken from the exertion and the boulder would roll back down the hill. Sisyphus would have to start all over again. Castronova says that many people feel like some burdens of their everyday life are too onerous to push over the top of a hill, so they play digital games where they can be successful—metaphorically, get that boulder all the way to the peak so it will roll down the other side. This gives game players a sense of elation over having met the challenge and motivates them to undertake the next challenge in the game. This movement through progressively stronger challenges along with the success of meeting each challenge is a powerful draw.

## MMORPGs

The most mass media–like of all digital games is the MMORPG (Massively Multiplayer Online Role-Playing Game). These games are designed to attract a certain kind of audience and then massively condition that audience into continual play, even to the point of making the cyberworlds of the games more important to players than their real worlds. Although these games are relatively new, there is evidence of major effects.

One of the most popular and elaborate MMORPGs is the *World of Warcraft* (WOW). Players of WOW “live” in a medieval-type world called Azeroth and aspire to venture into a dungeon to slay a group of villains known as the Four Horsemen. Beginners spend months building their characters while avoiding being killed (called “ganked” in WOW) by more experienced players. After months of play, the good players get to level 60, where they join with other players in guilds and undertake intricately planned raids on dungeons and engage in massive rumbles against other guilds.

To play WOW, players must purchase the computer software for \$50 and then pay a monthly fee of \$15 to play online and another \$30 to \$50 a month for a high-speed Internet connection (Levy, 2006b). As of the summer of 2009, WOW had 11.5 million players worldwide, making it the most successful online video game in the world (Fritz, 2009).

Another popular MMORPG is *EverQuest*, which is played by several hundred thousand people. It has generated a real-world economy comparable to that of a medium-sized country (Lichtarowicz, 2002). About one third of the adult players of *EverQuest* spend more time in a typical week in the virtual world than in paid employment (Castronova, 2001).

Key to MMORPGs is the creation of a cyberworld. Cyberworlds are growing. By 2004, there were already 15 cyberworlds, each with more than 10,000 subscribers. Castronova (2001, p. 55) estimates that worldwide, there were at least 10 million regular players and perhaps as many as 30 million. Looking at video games in general, more than 50% of the population older than age 6 play video or computer games. While many people may think of game players as teenage boys, the average age of a player is 29, and 43% of all players are women (Castronova, 2001, p. 57).

Amazingly, as yet no cyberworlds have gone out of business. It is very risky and expensive to get a game introduced and successful: 95% of all titles will fail and disappear from the shelves within 6 weeks. But once a game gets established, the players take over, and the game takes on a life of its own. Castronova (2001) says, “All of the oldest games have

amazingly robust population counts. Synthetic worlds, it seems, almost never die” (p. 56). It should be noted here that a decade is considered very old for such games.

The effects of MMORPGs are profound. There is evidence of addiction. Yee (2002) found that many players of *EverQuest* considered themselves addicted to playing the game. There is also anecdotal evidence of other harmful effects, such as a Korean player who died of exhaustion after spending 80 continuous hours in *Lineage* without a break. An *EverQuest* user who committed suicide was said to have done so out of desperation at events within the game world (Castronova, 2005, p. 64).

To say that many players become addicted to playing and spend a large proportion of their waking hours playing—while true—underestimates the profound effect of these games on many players. The most profound effect of these games is that they create a cyberworld that often takes the place of a player’s real world. For many players, the cyberworlds offer experiences they cannot get in their real world, so players move into the cyberworld and live their lives there, where they create economies, political systems, friendships, romantic attachments, and careers. In his book *Synthetic Worlds*, Edward Castronova (2005) argued the thesis that “the synthetic worlds now emerging from the computer game industry . . . are becoming an important host of ordinary human affairs. There is much more than gaming going on there; conflict, governance, trade, love. The number of people who could be said to ‘live’ out there in cyberspace is already numbering in the millions; it is growing and we are already beginning to see subtle and not-so-subtle effects of this behavior at the societal level in real Earth countries” (p. 2).

He says that the games are a virtual reality different from what scientists have been experimenting with. Scientists are interested in developing hardware (like glasses, gloves, and chairs) that manipulate senses in a way to make people believe they are in a place or doing something they are not in the real world. Castronova (2005) says that gamers are instead developing software that engages players mentally and emotionally so strongly in a synthetic world that people stop paying attention to the fact that they are in a synthetic, nonreal world. He says that gamers have been much more successful than scientists such that virtual reality is thought of as a software paradigm rather than a hardware paradigm.

Castronova (2005) says “the fading of boundaries between our world and the synthetic worlds of cyberspace is what justifies serious inquiry, in my view. As the lines disappear, we move toward a state in which there is really no barrier to a complete translation of every interpersonal human phenomenon on Earth in the digital space” (p. 48). Castronova conducted a study of users of these games and found that about 57% said they would quit their real-world job and work in the cyberworld if they could make enough money there to support themselves, and three quarters of players wish they could spend all of their time in the cyberworld of the game (p. 59).

All of these MMORPG cyberworlds have an internal economy where players are given opportunities to perform a range of work-like tasks ranging from simple tasks to highly complex challenges. Players earn some type of “coin of the realm” for this work. Players can then enter into exchanges with other players. In this way, players can satisfy their game-playing needs and gradually amass wealth.

Players in many of these games have also created an economy external to the games where they pull resources out of the game and exchange them in real-world markets, then move resources back into the game. For example, many players of *EverQuest* will work at

menial tasks in that particular cyberworld where they are paid around 300 platinum pieces an hour on average. The platinum piece is the coin of the *EverQuest* cyberworld. These players can then go to online markets such as eBay and sell their platinum pieces to other *EverQuest* game players for U.S. dollars. The exchange rate is about U.S.\$3.50 for 300 *EverQuest* platinum pieces. Thus, a person can go to work in *EverQuest* and make \$3.50 per hour (Castronova, 2005). Of course, \$3.50 an hour is far below the minimum wage in America, but in other countries, it is a good income. So ambitious people in poor Third World countries can enter the *EverQuest* cyberworld and perform a task such as hammering metal into suits of armor by clicking a mouse all day, then sell these suits of armor to other *EverQuest* game players on eBay.

As of 2004, eBay was hosting about \$30 million of annual trade for goods that only exist in synthetic worlds. Much of this trade was for real currencies, meaning that eBay was in the foreign currency exchange market (Castronova, 2005, p. 149). There are now Internet sites that have been created especially for resource exchanges that cross the boundaries between the real world and the cyberworld.

This raises a serious concern for real-world economies. What if a lot of people choose to work in cyberworlds producing digital goods and services rather than work in the real world? This would reduce the workforce in the real world. What if then these cyberworkers sold their cyber pay units in the real world for real-world currencies? This would shift resources out of the real world and into the cyberworld. Thus, the gross domestic product (GDP) of real-world economies would shrink while the cyberworld GDP would grow.

In addition to economic effects, there are also political effects of playing these games. These games give powerless people the chance to band together in groups or guilds that exercise considerable power against other groups or guilds in the cyberworld. Thus, players have the chance to compete for leadership positions and move up the ladder of power within the game. Most of this power is exercised within the playing of the game and directed at other players, but there are times when players will band together and attempt to exercise power against the creators of the games themselves with the goal of getting them to change some aspects of the game, that is, to rewrite the rules of the game.

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## MEDIA LITERACY

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What are the implications of digital games for media literacy? To answer this question, I will highlight the difference between opportunity and addiction. Opportunities are good. If digital games are used by people as opportunities to expand their experience, challenge the limits of their lives, and give people a deeper understanding of who they are, then games are useful tools. People can use games to practice a wide variety of skills in relatively low-threat environments. Failures are easily forgiven, and it is easy to start a task over again.

In contrast, addictions are harmful. With addictions, people become slaves to the games and cannot exercise self-discipline. They are playing not to lose certain experiences rather than to gain more experiences. At this point, the games control the player, and the player has no power.

Therefore, if people are aware of their own goals and use the games as tools to achieve those personal goals, they are acting in a media-literate manner. However, media literacy is reduced to the extent that the games take over the person's personal goals and the person

slavishly works to achieve the game's goals beyond the point where the game is bringing excitement or pleasure to the player.

One final concern, and this relates to whether players' goals are prosocial or antisocial. Prosocial goals are those that help the person function better and more successfully with other people and in society. Thus, players who spend time with games that teach business principles, leadership, interpersonal interaction, and the like are learning the value of prosocial behaviors and are developing their prosocial skills. However, many games are available that teach the techniques of fighting, stealing, deception, and even killing people with guns. The players who spend time with these games will learn that antisocial behaviors are successful in resolving conflicts, and they will build their confidence that they can be successful with such actions. Thus, these games have great potential for teaching behaviors, attitudes, emotions, and knowledge. If we use them as tools to help us live a better life for ourselves and other people, society can get stronger.

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## CONCLUSION

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Interactive mass media content has been made possible by three factors: the development of the Internet as a shared commons, audiences' need for social networking, and the ability of interactive sites to attract advertising support. Interactive content can be arranged in three broad categories of informational/educational, social networking, and games. Each of these forms of content is relatively new and fast growing in terms of attracting users.

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## FURTHER READING

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Angwin, J. (2009). *Stealing MySpace: The battle to control the most popular website in America*. New York: Random House. (371 pages with index)

This is a detailed history of MySpace from its launch in the summer of 2003. It also includes some background on the Web site's founders (Chris DeWolfe and Tom Anderson) along with the companies that owned the Web site (eUniverse, Intermix, and News Corp.). It is written in a journalistic style by a reporter for the *Wall Street Journal*. The author also deals with some larger issues such as the development of advertising on the Internet and personal privacy.

Bollier, D. (2008). *Viral spiral: How the commoners built a digital republic of their own*. New York: The New Press. (344 pages with index)

The thesis of this book is that the Internet was created as a creative commons where there is a great deal of sharing of resources for the common good. With free software in the 1980s and the rise of the World Wide Web in the 1990s, the Internet was created and is still maintained as an open-source network that allows all people to interact freely in a wide variety of ways. By viral spiral, Bollier argues that this open networking structure feeds an upward spiral of innovation. The Internet's transformative power comes from allowing people free access to the ideas of other people

so they can build on and alter those ideas. Therefore, change is not planned, ordered, or mechanical; rather, change is messy and serendipitous. Threads of thinking radiate dynamically through countless nodes and influence all kinds of people in all kinds of ways to work collaboratively. Thus, the Internet has been able to avoid the costly overhead that comes with centralized production and marketing and replaced it with a wide dispersion of vitality throughout the social commons.

Castronova, E. (2005). *Synthetic worlds*. Chicago: University of Chicago Press. (332 pages, including index, appendix, and endnotes)

Professor and economist Edward Castronova says that the computer industry is not only producing synthetic worlds in which their games are played but also stimulating the creation of other synthetic worlds by its players. People who use the games are not simply players; they often try to live the games and perform other human activities there, such as looking for friendships, love, employment, social connectedness, power, and prestige. There is much more than gaming going on there: conflict, governance, trade, love. The number of people who could be said to “live” out there in cyberspace is already numbering in the millions; it is growing, and we are already beginning to see subtle and not-so-subtle effects of this behavior at the societal level in real Earth countries. He focuses primarily on massive multiplayer online role-playing games (MMORPGs), treating the phenomenon from an economic point of view by showing that there are economies within the game-playing worlds that extend out of cyberspace and into the real world.

Lih, A. (2009). *The Wikipedia revolution: How a bunch of nobodies created the world's greatest encyclopedia*. New York: Hyperion. (246 pages with index)

This book tells the story about how the idea for Wikipedia was first conceived in 1995 and then went online in 2001. Within 8 years, it had stimulated people to write 10 million articles across 200 languages for free. How was this made possible? Read the book!

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## KEEPING UP-TO-DATE

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Wikipedia—[http://en.wikipedia.org/wiki/Main\\_Page](http://en.wikipedia.org/wiki/Main_Page)

This is the Wikipedia Web site’s main page. Articles are constantly being added to this Web-based encyclopedia. If you have not already done so, check out this amazing resource. Also, you can use this to get more up-to-date information on almost all concepts presented in this book.

Yahoo videogames—<http://videogames.yahoo.com/>

This Web site allows you to try demonstrations of many of the most popular video games.