

Part 1

Digital Media and Convergence

The *digital turn*: we have moved from a world in which each type of media was consumed separately and in its own distinct format to a world in which we can experience every form of mass media content—books, music, newspapers, television, video games—on almost any Internet-connected device. The digital turn has made us more fragmented—but also more connected, and mass media are more integrated into our lives than ever before.

Chapter 2

The Internet, Digital Media, and Media Convergence

In this chapter, we examine the many dimensions of the Internet, digital media, and convergence. We will:

- Review the birth of the Internet and the development of the Web
- Provide an overview of the key features of the Internet, including e-mail, instant messaging, search engines, and social media
- Discuss the convergence of the Internet with mobile media, such as smartphones and tablets, and how the Internet has changed our relationship with media
- Examine the economics of the Internet, including the control of Internet content, ownership issues, and the five leading Internet companies
- Investigate the critical issues of the Internet, such as targeted advertising, free speech, security, net neutrality, and access

Preview Story: We are the focus of our social media. We create and share text, images, audio, and videos. Social media are all about our personal identities and personal “brands.” Our immersion in social media has consequences. Others—friends, celebrities, coworkers, families—create and share as much as we do, and we want to know all about them and their posts as much as we want them to know about ours. When we disconnect (even temporarily, such as for a class or meeting), we sometimes fear that we are missing out on something, even though we don’t know what the thing that we’re missing might be. That’s the point of FOMO, or fear of missing out: we have a “feeling” that something might be happening and that we might be the only one who does not know about it. The generalized anxiety fostered by embeddedness of social media in our lives is disconcerting. So, we engage in social media even more, heeding the siren call of our devices—which vibrate and emit beeps, dings, and other tones that tell us that someone has shared something, and we *need* to know what it is—just in case the latest post is something that we shouldn’t miss.

I. The Development of the Internet and the Web

- A. *The Birth of the Internet.*
- B. *The Net Widens.*
- C. *The Commercialization of the Internet.*
 1. *The World Begins to Browse.*
 2. *Users Link in through Telephone and Cable Wires.*
 3. *People Embrace Digital Communication.*
 4. *Search Engines Organize the Web.*

II. The Web Goes Social

- A. *Types of Social Media.*

1. *Blogs.*
 2. *Collaborative Projects.*
 3. *Content Communities.*
 4. *Social Networking Sites.*
 5. *Virtual Game Worlds and Virtual Social Worlds.*
- B. *Social Media and Democracy.*
- III. *Convergence and Mobile Media***
- A. *Media Converge on Our PCs and TVs.*
- B. *Mobile Devices Propel Convergence.*
- C. *The Impact of Media Convergence and Mobile Media.*
1. *Our Changing Relationship with the Media.*
 2. *Our Changing Relationship with the Internet.*
 3. *The Changing Economics of Media and the Internet.*
- D. *The Next Era: The Semantic Web.*
- IV. *The Economics and Issues of the Internet***
- A. *Ownership: Controlling the Internet.*
1. *Microsoft.*
 2. *Google .*
 3. *Apple.*
 4. *Amazon.*
 5. *Facebook.*
- B. *Targeted Advertising and Data Mining.*
- C. *Security: The Challenge to Keep Personal Information Private.*
1. *Government Surveillance.*
 2. *Online Fraud.*
- D. *Appropriateness: What Should Be Online?*
- E. *Access: The Fight to Prevent a Digital Divide.*
- F. *Net Neutrality: Maintaining an Open Internet.*
- G. *Alternative Voices.*
1. *Open-Source Software.*
 2. *Digital Archiving.*

V. *The Internet and Democracy*

Examining Ethics: "Anonymous" Hacks Global Terrorism

Global Village: Designed in California, Assembled in China

Media Literacy and the Critical Process: Tracking and Recording Your Every Move

Digital Job Outlook: Media Professionals Speak about Internet Jobs

LECTURE IDEAS

I. *The Development of the Internet and the Web*

- Describe the developmental, entrepreneurial, and mass medium stages as they relate to the Internet.
- Search engines are a good example of an oligopoly. Googling is the most popular way to search (70 percent of searches). The top four search engines (Google, Microsoft's Bing, Yahoo!, and China's Baidu) account for more than 95 percent of all Webs searches.

Start-ups don't have the advertising budget to get noticed by the general public, so survival is difficult. However, the typical exit strategy is to get acquired by one of the major search companies: Google, Yahoo!, or Bing. MedStory, for example, was purchased by Microsoft in 2007.

- Four myths about commercial search engines that the industry has been very good at sustaining:
 1. Search engines are impartial information tools.
 2. Search engines search the entire Web, gleaning the most relevant results.
 3. Search engines vary greatly, thus offering choice and a competitive marketplace.

4. Search engines are the only place to go for relevant information on the Web.

Search engines gradually became commercialized, and because of this commercialization, they are hardly impartial information tools. Instead of “searching the entire Web,” search engines intentionally search through a greater number of “paying” sites. Moreover, since only a few search engines (Google, Yahoo!, and Bing) power almost all others, and since these search engines promote the most popular, “known” sites, there is hardly any difference among search engines. Most discouraging, their results are becoming less and less relevant, marginalizing information generated by nonprofit organizations.

There is a growing movement among digital librarians and computer scientists to sidestep commercial search engines (which favor commercial enterprise) and link hundreds of thousands of subject directories (also called subject gateways) together and then search them in the same way one uses a search engine. This linking would give hard-to-find, marginalized nonprofit sites (such as academic specialty sites) a presence on the Web. For an example, visit OAIster (www.oclc.org).

No other search company has even come remotely close to matching Google’s unabashed dominance on the Internet. Google has even gone abroad, customizing search sites in numerous languages and tailoring its site to dozens of countries (google.de, google.fr, google.ru, google.cn, google.it). Some companies, however, are taking a stab at Google by rethinking how Web searches could be reconfigured. Niche search engines have also gained some ground: Kayak and Mobissimo for travel, ShopItToMe and Ideel (Groupon purchased and renamed Ideeli in 2014) for fashion, and Healthline for health (health is a particularly difficult area for a general search engine like Google to handle because the jargon is so specific).

- Here are a few questions to ask students about Google’s role as an access point for information:
 - What is Google, an advertising firm or a search firm?
 - What does it mean that Google is a publicly traded company, competing with rivals Yahoo! and Microsoft?
 - If certain searchable information becomes threatening to Google, couldn’t Google easily block and/or erase very controversial or “socially threatening” sites from its servers that it doesn’t want the world to see—that is, Web sites that some might deem threatening to the social order (e.g., sites with instructions on how to make weapons, sites with information on notoriously reclusive yet very powerful people or groups)?
 - Even if Google doesn’t block controversial search results, couldn’t the company just as easily bury these pages (e.g., on the ten thousandth page of results that obviously no one will ever reach), thus keeping them extremely low in the results even if they contain highly relevant and useful information?
 - Does Google privilege mainstream information over controversial information? If so, how?
 - Does “Googleization” cause reason for worry?
 - Does Google’s “undisputed” preeminence on the Internet threaten the free flow of information?

II. The Web Goes Social

- User-generated video content (e.g., video clips on YouTube, images on Instagram) is turning the economic commercial media model on its head. The old model was that consumers or marketers paid for content through subscription fees or advertising revenue. The new model is that media outlets pay consumers for their amateur video content. Amateur video has an appealing rawness and realness (consider the popularity of *America’s Funniest Home Videos*). Yahoo! and many other companies have started paying users for content. Some of the content is winding up on television shows such as *Tosh.0* on Comedy Central. Other content, like “fan fiction,” is circulated widely online.
- Social media platforms continue to expand their reach across age groups. A 2015 Pew Research Center study found that 31 percent of online adults, 18 years of age or older, use Pinterest and 28 percent of online adults use Instagram. (The full report is available at <http://www.pewinternet.org/files/2015/08/Social-Media-Update-2015-FINAL2.pdf>.)

III. *Convergence and Mobile Media*

- Explain how the Internet converges with other technologies, and discuss how these new technologies and social media can potentially transform businesses, institutions such as schools or government, neighborhoods and cities, and finally our own homes. Discuss the possibilities and limitations of newer technology like smartphones and tablets. Help students understand the distinctions among various terms, such as Internet, Web, WiFi, Bluetooth, media/medium, platform, and technology.
- Understanding the way in which people interact with the Internet goes beyond the content available on the Internet. Arguably just as important are the tools that people use to go online. Discuss how those options have changed since the mid-1990s and what that has meant for the day-to-day ways in which people use the Internet. Ask students what kinds of Internet-capable devices they have, and if they have multiple devices, ask them how they use each device. How often do they rely on apps instead of Web sites? When did they begin their shift to apps?
- Apple has released new versions/variations of iPhones every year since the first iPhone was sold in 2007. Here is the chronology of iPhones with the dates of their release: iPhone 3G in 2008, iPhone 3GS in 2009, iPhone 4 (new design) in 2010, iPhone 4s in 2011, iPhone 5 (new design) in 2012, iPhone 5s in 2013, iPhone 6 and iPhone 6 Plus (new design) in 2014, and iPhone 6s and iPhone 6s Plus in 2015. The iPhone 7 was released in 2016.

Google's Android smartphones are now more popular than iPhones in the United States. Android phone apps are available from Google Play and the Amazon Appstore.

- Mobile phones are multipurpose devices at the center of digital convergence. For example, they are now used as money exchange devices. Retailers can turn a mobile phone or tablet into a point of sale (a digital cash register) with Square, a credit card reader that plugs into a mobile device. Enabling consumers to use their mobile phones to exchange money without involving credit card companies and their high fees is the next goal in digital transactions. Cash remains the most secure medium for information security, though, because it contains no personal information at all.
- Discuss how the Internet is different from other mass media: To what extent are we "users" rather than "consumers"? Explore how the "free" nature of the Internet comes into conflict with corporate interests and what business models have worked for companies seeking profits on the Internet.

IV. *The Economics and Issues of the Internet*

- Discuss the Federal Communications Commission's decision to approve net neutrality rules (under Title II). Note the different perspectives among Internet companies, consumers, and media activists regarding the FCC's February 2015 net neutrality decision.
- Some more facts about Google:

Although you could find it on Google Maps, Google doesn't advertise its global network of computers. In one location—a barren stretch of desert along the Oregon–Washington border—a single computer complex stretches over two football fields. The multibillion-dollar "factory" of computer power handles such an enormous number of search queries that two four-story-high cooling plants work twenty-four hours a day to keep the heat down.

In October 2006, Google acquired YouTube, paying \$1.65 billion (and causing people to jokingly refer to the acquisition as "GooTube"). This acquisition was no joke, though; it sent shockwaves through media industries. "The YouTube team has built an exciting and powerful media platform that complements Google's mission to organize the world's information and make it universally accessible and useful," said Eric Schmidt, chief executive officer of Google. "Our companies share similar values; we both always put our users first and are committed to innovating to improve their experience. Together, we are natural partners to offer a compelling media entertainment service to users, content owners and advertisers." The deal, however, marked the real beginning of an online video entertainment and copyright war between the ten-year-old media kid, Google, and the old and entrenched media establishment, including Viacom, Sony, News Corp., Disney, and Time Warner.

- The problem media companies have with YouTube is unique: They disdain losing revenue when their content is posted on YouTube. However, YouTube’s massive reach can lead to increased exposure to their content, particularly with younger consumers. *Saturday Night Live*, for example, has received a major boost from users sharing various skits across the YouTube platform.

To compete with YouTube, big media companies are scrambling to invest in their own online video sites. NBC, Fox, and ABC partnered to create Hulu, one of the most popular video sites on the Web. In their effort to reclaim viewers who watch clips of their shows on YouTube, media competitors also formed unlikely video distribution alliances in 2007: NBC+News Corp.+Microsoft; Yahoo!+AOL; and Yahoo!+Viacom, for example.

As the *Seattle Times* reported in 2007 (March 23, p. D1), “The willingness of media rivals to forge a partnership underscores the pressure they feel to rein in the widening use of their shows across the Web.”

- Online harassment is a major concern. A 2014 study by the Pew Research Center (<http://www.pewinternet.org/2014/10/22/online-harassment/>) found that harassment “is a common part of online life that colors the experiences of many web users. Fully 73% of adult internet users have seen someone be harassed in some way online and 40% have personally experienced it.” According to the study, “60% of internet users said they had witnessed someone being called offensive names,” and “25% had seen someone being physically threatened.” Some of the key findings of the study were that “young adults, those 18–29, are more likely than any other demographic group to experience online harassment” (65 percent of young Internet users reported being targets of harassment), and more than one-fourth of eighteen- to twenty-four-year-old women experienced severe types of harassment (e.g., being stalked or sexually harassed online). Two-thirds of online harassment occurs on social networking sites or apps. Interestingly, more than half of victims ignored their most recent incident.
- Explore the impact of the Internet on the concept of democracy and open discussion of ideas worldwide. Discuss the consequences of the digital divide both within the United States and between rich and poor nations. Explain the strategies of some Third World countries for getting ahead in the digital age as well as the wider infrastructural challenges they face. Examine the impact the Internet has had on freedom of expression in the world.

As it has done with other technology, Apple helped popularize the use of wireless networking, or Wi-Fi. In 1999, Apple began putting Wi-Fi interface cards in its iBook computers, enabling them to wirelessly communicate up to a few hundred feet from a base station, which was connected to the user’s Internet service. Soon, wireless advocates expanded Wi-Fi service beyond just homes to more public locations, creating Wi-Fi “hotspots” in coffeehouses, hotels, and parks.

In Illinois, Champaign–Urbana’s wireless network, called CUWiN, is an initiative committed to a low-cost municipal network owned *by* citizens and created *for* citizens. It is also trying to support sustainable community networks throughout the world by developing and disseminating open-source Wi-Fi software.

Media Literacy and the Critical Process: Tracking and Recording Your Every Move

- Discuss the trade-off between privacy and personalization. Services like My Yahoo! and iGoogle offer personalization to their users—that is, they allow users to organize Internet information according to their specific preferences. Users visiting their personalized My Yahoo! or iGoogle page, for example, can retrieve specific types of news, weather reports, sports scores, horoscopes, television schedules, and state lottery results as well as access their favorite Web sites, chat rooms, and message boards. They also can view daily health tips and online reminders of a friend’s birthday or anniversary. The service is convenient for people who don’t know how to create their own home pages (which can be just as personalized) and want their preferred sites only a click away. The downside of personalization, however, is that it requires users to fill out a detailed questionnaire that can take up to a half hour to complete. The questionnaires, users are told, serve to fine-tune their personal pages, but they also work as market surveys for companies like Yahoo!

and Google to decide what kind of content is working and what should be removed. More important, the information helps companies target their advertising more efficiently (enabling them to charge more to advertisers) and stylize sales pitches as users enter Internet “stores.” There are also growing concerns that companies with such detailed information will sell it to other companies and information services, raising important issues about Internet privacy.

By 2007, there was mounting public, congressional, and regulatory concern over online privacy and the extreme data-collection practices of the four major search companies: Google, Yahoo! Microsoft, and Ask.com. Google acquired DoubleClick, one of the first successful online advertising companies and a major data collector, for \$3.1 billion. Amid FCC and consumer concerns, the four largest search engine companies responded with a gesture of self-regulation, announcing they would tighten their privacy policies as follows:

- *Microsoft*: Make all data on search queries anonymous after eighteen months.
- *Yahoo!*: Make all data on search queries anonymous after thirteen months.
- *Ask.com*: Users can “opt out” of data collection by asking the firm not to retain their Web searches.
- *Google*: Make search-query data anonymous after eighteen to twenty-four months and shorten the life span of cookies—small files attached to a user’s browser.

Almost all companies promise not to sell their consumer data, but what they do not mention is that they sometimes rent such information. The list owner doesn’t sell the data to an outside marketer, but it will send messages to people on its list on behalf of a third party.

Robert Ellis Smith, who publishes the *Privacy Journal*, says users should consider e-mail as a postcard rather than a letter because it can be intercepted and read by virtually anyone along its path over the Internet.

MEDIA LITERACY DISCUSSIONS AND EXERCISES

INFORMATION TECHNOLOGIES THEN AND NOW

Describe the information technologies that your parents or their peers use at work. Describe the information technologies that your grandparents used at work. Describe the information technologies that your great-grandparents used at work. Contrast the pros and cons of these eras in terms of the devices used and the quantity and quality of information received.

—Developed by Kim Lauffer, Towson University

ELECTRONIC MEDIA “FAST”

We cannot completely understand our relationship with media unless we also understand what the absence of media means to us.

- Assign students to “disconnect” from all electronic media for twenty-four consecutive hours: no computers, televisions, tablets, e-readers, iPods, radios, digital clocks or watches, smartphones or landline phones, and so forth. (Any print media are fine.)
- Make sure that students inform their family, friends, professors, administrators, coaches, and others about the assignment. They should choose a twenty-four-hour period that will not undermine other courses, work, or activities. Let them know that they will need to avoid any places where electronic media are present (possibly including areas of the cafeteria, common lounges, gym, etc.). They will also probably need to negotiate with others to turn off electronic media when they are around (e.g., during meals). Tell students that it is OK, and even common, to make a second—or third—attempt at the assignment before successfully “fasting” from electronic media for a full day.
- Students should take notes (using paper and pencil) on what happens when they are “disconnected” (e.g., reactions, emotions, encounters, and incidents that occur during the fast).
- After completing twenty-four hours free of electronic media, students should write reflections (handwritten, typed, or even posted in a course blog or discussion forum) about their experiences and

about their online and offline social lives. See if they can identify themes that emerge from their own experiences and their classmates' reflections.

This exercise can also be adapted to follow the critical process: describe the media fast, analyze patterns in one's experience, interpret what these patterns mean (personally as well as for our society and culture), evaluate our relationship with media, and finally engage, and decide whether to change any personal behaviors (and if so, which behaviors and how to change them).

HACKTIVISM

Review the *Examining Ethics: "Anonymous" Hacks Global Terrorism* feature. Describe the role of hacktivism in our society. Should we think of hacktivism as new form of peaceful protest? What are the pros and cons of the strategy of Anonymous to combat global terrorism? Is the group's work ethical? Do you support these efforts? Why or why not?

GOOGLE-SOFT?!

Microsoft tried to buy Google in 2003, but Google rejected the offer. (Microsoft quickly hired top engineers and began to build its own search engine, "Longhorn," which never lived up to its potential. On June 3, 2009, Microsoft decided to try again with a new "decision" engine, Bing. This site managed to capture its own market share within a few months of release thanks to a large advertising effort by its parent company.)

Have students speculate on what such an acquisition would have meant for Microsoft, for Google, and, most importantly, for users. Which products would we have, and which would we not have? How might such an arrangement have been of even greater benefit to consumers? In what ways would the imagined consolidation have undermined progress in digital media?

ONLINE PRIVACY

The following Critical Process exercise focuses on the issues of online privacy.

1. *Description.* Interview a sample of people about their online privacy. In what ways has their privacy been violated through their Internet use? Do they regularly have to divulge personal information to gain access to certain Web sites? Do they enter contests, play games, download files, or register on sites that require them to enter their e-mail address or disclose specific interests? What types of Web sites try to gather the most personal information from them? Have they noticed Internet advertising that targets their personal tastes? Do they contend with increasing amounts of spam e-mail? What is their biggest complaint about being online? Does it have anything to do with privacy?
2. *Analysis.* What sorts of patterns emerge from your interviews? Is online privacy consistently violated in particular ways? Are there certain strategies for maintaining privacy on the Internet? Do these work pretty well? Do the interviewees generally seem to be concerned or unconcerned about their online privacy? Have your questions made them consider their online privacy for the first time?
3. *Interpretation.* What do these patterns mean? Are current marketing practices merely inconvenient, or is there something more insidious going on? Do Internet privacy invasions undercut the usefulness of the medium?
4. *Evaluation.* Are data mining, spam, and other invasions of privacy tolerable "costs" for the benefits of the Internet? What should be the standards of privacy for the Internet? How should they be enforced?
5. *Engagement.* Learn about and take action against privacy infringements. Visit the Center for Democracy and Technology (www.cdt.org/privacy) and GetNetWise (www.getnetwise.org) to learn how to prevent and/or delete unwanted cookies, spyware, spam, and online fraud as well as how to report violations to the FTC. Share your knowledge with your peers.

THE INTERNET AND NEW TECHNOLOGIES

In general, the textbook focuses on technology in this chapter but doesn't really flesh out many of the larger social questions that are raised by the Internet. It is easy to get students talking about the Internet; it is a site of heavy use and lots of opinions.

Generating discussion: Here are discussion generators to supplement those listed under "Questioning the Media" in the textbook):

- Have students consider the issues of social class and accessibility in regard to the Internet. Is society too often assuming that "everyone" has easy access to the Internet? Have them read through "Access: The Fight to Prevent a Digital Divide."
- If the Internet didn't exist, what would you miss the most about it: information, opportunity for interaction, services?
- Discuss e-mail as a medium. When do you use it? Do you have problems with spamming? Has e-mail changed your phone or interpersonal communication habits? When do you feel obligated to respond to someone? When is it a burden? When is it a convenience? What can you say over e-mail that you wouldn't say in person? Where's the dividing line? What sort of e-mail etiquette are you aware of, especially when addressing your instructors?

Group activities: The Internet has such a broad impact that it may be useful to narrow the focus by splitting students into groups and assigning each group a category of issues to discuss. Ask them to think about the ways in which the Internet has affected these areas and its potential for generating new developments in the future. Then have each group report back to the class and generate discussion from there.

Political: Internet voting in the future: What are the drawbacks and/or benefits? Campaigning: Who would be the audiences here (attention to social class)? Discuss the Internet as a space for alternative political groups. Ask about hate groups campaigning: Is it fair or not? How to regulate campaigning: Should the government step in? If so, when or where? Also consider the Internet on a global level.

Economic: Ask students to pay attention to page 62 on e-commerce, considering the Internet's effect on buying and selling online and the eBay phenomenon. What does the Internet do for consumers (information provider)? What industries can students think of that have been impacted (retail, services, travel) and how? Discuss the ability to work from home.

Education: How does the Internet help or hurt academia in terms of research capabilities and plagiarism? What is the place of the Internet in the classroom (e.g., Blackboard)? What do students like or dislike about it? Also discuss anticheating initiatives such as Turnitin and iThenticate.

Medical: Consider the idea of self-care and self-diagnosis over the Internet. What about medical consulting online with doctors or ordering prescription drugs? What role does the Internet play in self-research on alternative treatments, medical conditions (particularly useful for anything with a social stigma, e.g., HIV/AIDS), and support groups? Where or how can the Internet be dangerous for people's health? How do we know what's a valid site or advice, and so on? Investigate WebMD: Who sponsors this company's information?

Interpersonal (this subject dovetails with the e-mail question above): Are virtual relationships or communities somehow less real or legitimate in our society? Why or why not? Internet dating and personal ads: How have they changed social interaction? How is "tweeting" at friends different than chatting on the phone or in person? Get students thinking about the physical qualities of communication, such as voice and nonverbal communication (or body language). Has the Internet made us all homebodies? This question should probably be saved for last, as people often like to talk about this element the most.

TRACKING RECENT DEVELOPMENTS ABOUT THE INTERNET: A SEMESTER-LONG CRITICAL

PROCESS EXERCISE AND PAPER

In this exercise students discover the most recent developments in the industry, and they become familiar with industry trade sources. The paper they produce is due in sections, which correspond with the steps in the Critical Process.

1. *Description.* Read industry trade sources to get a sense of the main issues affecting the cable industry. Look at the Web sites of industry trade associations and professional societies. (Links to Web sites of some industry trade sources are given in the Classroom Media Sources below.) Take notes on topics that have multiple stories or mentions in the current year. What recent issues or developments in the industry have received a lot of recent attention, discussion, or commentary in industry sources? (Only focus on information from the current year—and only from trade sources.) Write a one-page synopsis of the information you found about current topics in the industry. Cite your sources properly.
2. *Analysis.* Look for one development or pattern that has received significant attention on trade sites and from trade journalists in the current year. Choose one specific trend, and write one or two pages with details about the information you found about that trend. Continue to track news about your topic as the semester progresses. Cite sources properly.
3. *Interpretation.* What does the trend mean for the state of the industry? Is it evolving? How? What does it tell you about media in general at the current time? What might it say about our culture or our society? Can your information help us interpret the role of the industry in our lives? Write up your interpretation in a five-page paper. (The first page should be a synopsis of the trend, with proper citations.) You might not have to provide information from your sources for the next four pages because this section is *your* interpretation of the trend. (Save any ideas you have about whether the trend is "good" or "bad" for the Evaluation step of the Critical Process.)
4. *Evaluation.* Is the trend "good" or "bad?" For the industry? society? culture? democracy? us? What do you think might happen in the future?
5. *Engagement.* Are there any actions you can take (related to your trend and the industry)? Possibilities include posting your views on social media, creating a petition, contacting people in the industry to see what they think of your interpretation and evaluation, or going to an industry event if any are held nearby. (This step need not be required if students are not motivated to take action.)

Note: This exercise works well if each step of the Critical Process is due two weeks after the prior step is due. Limiting students to only trade sources and only information from the current year helps keep them on track. Your institution's librarians should be able to provide students with information on how to access industry trade sources.

CLASSROOM MEDIA RESOURCES

LAUNCHPAD FOR MEDIA & CULTURE: <http://www.macmillanlearning.com/mediaculture11e>

The Internet in 1995: The Net (1995, 1:13 minutes) In this 1995 thriller, Sandra Bullock plays a computer expert whose interpersonal interactions are mostly online.

Net Neutrality (2009, 2:35 minutes). In this video, experts discuss net neutrality and privatization of the Internet. This video features Jonathan Adelstein, Amy Goodman, and Robin Sloan.

User-Generated Content (2009, 3:34 minutes). Editors, producers, and advertisers—David Gale, Jeff Goodby, Robin Sloan, and Matt York—discuss the variety of user-generated content and how it can contribute to the democratization of media.

VIDEOS/DVDS/CDS

The Internet: Behind the Web (2000, 50 minutes). This documentary from the History Channel ventures back to 1969 when ARPAnet, the precursor to today's World Wide Web, first went online. Includes Ray Tomlinson, the man who wrote the software for the first e-mail program, as well as Vint Cerf and Robert Kahn, who developed the TCP/IP protocols that make the modern Internet possible.

Distributed by the A&E store, 800-933-6249; also on YouTube:

<https://www.youtube.com/watch?v=SDucuVi5FrI>.

The Roots of 'Anonymous,' the Infamous Hacking Community (September 3, 2014, 6:57 minutes). A PBS *NewsHour* segment on the origins of “Anonymous.” Available at <http://www.pbs.org/video/2365318419>.

WEB SITES

Common Sense Media: <http://www.common sense media.org>

Computerworld: <http://www.computerworld.com>

Information Week: <http://www.informationweek.com>

The Internet Archive: <http://www.archive.org>

The Internet Association (trade association): <https://internetassociation.org>

Internet World Stats: <http://www.internetworldstats.com>

Nielsen: <http://www.nielsen.com/us/en/insights/reports.html>

Pew Research Internet Project: <http://www.pewinternet.com>

The Scout Report, the Internet's longest-running weekly publication: <https://scout.wisc.edu>

Slashdot: <https://slashdot.org>

FURTHER READING

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Chapter 3

Digital Gaming and the Media Playground

In this chapter, we will take a look at the evolving mass medium of digital gaming and:

- Examine the early history of electronic gaming, including its roots in penny arcades
- Trace the evolution of electronic gaming, from arcades and bars into living rooms and our hands
- Discuss gaming as a social medium that forms communities of play
- Analyze the economics of gaming, including the industry's major players and various revenue streams
- Raise questions about the role of digital gaming in our democratic society

Preview Story: The major digital media companies—Apple, Google, Amazon, and Facebook—are now all invested in digital games, especially those used on mobile phone, tablet, and social media platforms, giving rise to tens of thousands of gaming apps. In 2014, Facebook purchased Oculus VR, a small company that invented the Oculus Rift, a virtual reality headset. Such headsets can also be combined with VR vests and gloves that offer haptic feedback, which offers that sensation of touch. In September, 2016, the *New York Times* ran a banner headline: “Promise of Virtual Reality Remains Potent for Developers” (September 29, 2016, p. B5).

I. The Development of Digital Gaming

- A. *Mechanical Gaming.*
- B. *The First Video Games.*
- C. *Arcades and Classic Games.*
- D. *Consoles and Advancing Graphics.*
- E. *Gaming on PCs.*

II. The Internet Transforms Gaming

- A. *MMORPGs, Virtual Worlds, and Social Gaming.*
- B. *Convergence: From Consoles to Mobile Gaming.*
 1. *Consoles Become Entertainment Centers.*
 2. *Portable Players and Mobile Gaming.*

III. The Media Playground

- A. *Video Game Genres.*
 1. *Action and Shooter Games.*
 2. *Adventure Games.*
 3. *Role-Playing Games.*
 4. *Strategy and Simulation Games.*
 5. *Casual Games.*
 6. *Sports, Music, and Dance Games.*
- B. *Communities of Play: Inside the Game.*
- C. *Communities of Play: Outside the Game.*
 1. *Collective Intelligence.*
 2. *Game Sites.*
 3. *Conventions.*

IV. Trends and Issues in Digital Gaming

- A. *Electronic Gaming and Media Culture.*
- B. *Electronic Gaming and Advertising.*
- C. *Addiction and Other Concerns.*
 1. *Addiction.*
 2. *Violence and Misogyny.*
- D. *Regulating Gaming.*
- E. *The Future of Gaming and Interactive Environments.*

V. The Business of Digital Gaming