"Intellectual Property" refers to concepts such as trademarks, trade secrets, patents, and copyright. As defined in The Copyright Act of 1976, intellectual property encompasses literary, dramatic, and musical works; pictorial, graphic and sculptural works; audio/visual works; sound recordings and architectural works (“Copyright Act,” §107, 1976). Recent legislation has introduced major changes in U.S. copyright law to address digitally networked environments; The Digital Millennium Copyright Act (“DMCA”), for example, makes amendments to the Copyright Act of 1976, including amendments designed to protect against circumvention of copyright-protection systems.

Many people, however, especially those who use internet resources, argue that such legislation is overly restrictive and that it should also protect the fair-use doctrine on the internet and in other multimedia contexts.

Additional unresolved issues associated with intellectual property—the representation of students as criminals, economic overdetermination, and the effects of globalization on communication—also raise new exigencies that should be of interest to teachers and students in introductory technical-communication courses. Because copyright and fair-use issues affect all students and all educators, this chapter attempts to provide some resources and strategies for faculty who teach such courses.
WHAT BUSINESS, INDUSTRY, AND LEGISLATIVE ACTION TELL US

Historically, business and industry sectors in the United States and many Western countries concerned with intellectual property as a valued commodity have focused on intellectual property issues primarily in terms of narrower, more restrictive copyright laws. The Recording Industry Association of America (RIAA) in particular has developed antipiracy campaigns and has filed suit against hundreds of individual file shers (Webb, 2003, “RIAA vs. the People”). Similarly, the Walt Disney Company has a decades-old tradition of aggressively protecting its intellectual property. Some critics argue that it does so to the detriment of public-domain materials, free-speech activities, and protected parody uses under fair-use guidelines (Bettig, 1996; Lessig, 2000; Levin, 2003; Vaidhyanathan, 2003).

These cases help us recognize a fundamental link between economic interests and intellectual property concerns in the U.S. marketplace—one that is, at some level, self-motivated. As the Creative Incentive Coalition (CIC), notes for example,

Copyright-based industries . . . make a large and growing contribution to America’s economic welfare and global competitiveness. Accounting for nearly 4% of the nation’s Gross Domestic Product, these industries employ more than 3 million U.S. workers, and are creating new jobs at a rate more than triple the employment growth rate in the economy as a whole” (Kay, 1996, “Comments on Hearings”).

In light of this economic context, copyright-based industries have argued for stronger, less flexible copyright laws, based, notably, on global competitiveness.

If, however, many of the major intellectual property cases pursued by business and industry have been characterized by a conservative and protectionist approach to copyright, they have also served to increase the public awareness of the complexity that attends most intellectual property issues. Kembrew McLeod (2001), in Owning Culture: Authorship, Ownership, and Intellectual Property Law, for example, notes that, “the fabric of social life in most Western countries—and, increasingly, the world—is becoming more deeply immersed in the domain of intellectual property law” (p. 1).

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1 This information comes from the CIC, a “broad-based copyright industry coalition that works to improve public understanding of the importance of copyright in the digital age.” The occasion for these remarks was the Federal Trade Commission’s Hearings on Global Competition and Innovation in 1995. It’s interesting to note the CIC’s membership at the time of the FTC remarks: Association of American Publishers; Association of Independent Television Stations; Business Software Alliance; Cox Enterprises; General Instrument Corporation; Information Industry Association; Information Technology Industry Council; Interactive Digital Software Association; International Business Machines Corporation; Magazine Publishers of America; McGraw-Hill, Inc.; Microsoft Corporation; Motion Picture Association of America, Inc.; National Cable Television Association; National Music Publishers’ Association; Newspaper Association of America; Recording Industry Association of America; Software Publishers Association; Time Warner, Inc.; The Times Mirror Company; Turner Broadcasting System, Inc.; West Publishing Company; Viacom, Inc.
Placing intellectual property within these social, cultural, and economic contexts has focused increasing emphasis on some of the emerging and ongoing concerns about intellectual property and its complex economic relationships to technology adoption and use, ethics, and communicators’ roles in a global economy.

As a result of these discussions, public advocacy organizations and groups like the Electronic Frontier Foundation have placed intellectual property issues in a different light and have promoted a different kind of globalism:

Imagine a world where technology can empower us all to share knowledge, ideas, thoughts, humor, music, words and art with friends, strangers and future generations. That world is here and now, made possible with the electronic network—the Internet—with the power to connect us all (Electronic Frontier Foundation, “About”).

Corporate and business perspectives offer numerous important sources on the importance of intellectual property. For example, a technical report on peer-to-peer technologies from IBM notes that “Individuals have new power to reshape the boundaries of control over intellectual property, applications use and knowledge distribution” (Andrews, 2002, p. 1). This particular perspective is notable for its emphasis on reshaping technological and knowledge boundaries; whereas most business-oriented literature on intellectual property emphasizes control and ownership.

The World Intellectual Property Organization (WIPO) is another important resource in economic and business contexts. In WIPO’s case, the literature, materials, and legal contexts are global in reach, and the complexities of intellectual property reveal themselves in high relief in WIPO’s language, which is designed to promote IP rights and responsibilities:

From the classrooms of today will come the entrepreneurs, the scientists, the designers, the artists of tomorrow. WIPO is committed to promoting a culture in which young people can realize this potential. Through well-balanced IP systems and structures, WIPO seeks to help creators across the globe generate economic value from their creations, and so to contribute to the social, cultural and economic advancement of their own societies and of the wider world (WIPO, 2005, “World Intellectual Property Day”).

The linking of creativity and innovation with “economic value” underlies almost all of the contemporary debates about intellectual property, and technical-communication teachers have an important role in helping to shape students’ awareness and understanding of those debates.

WHAT ACADEMIC RESEARCH TELLS US

If students in introductory technical-communication courses are aware of intellectual-property issues, chances are that they have heard about them as a
result of online file-sharing (video, music, text) controversies or as an issue raised within the context of courses in which they are asked to use quoted materials and images in projects and assignments. As Anthony Bates (1999) notes in Managing Technological Change: Strategies for College and University Leaders, “nowhere is there more confusion, misinformation, and paranoia than in discussions of intellectual property and copyright surrounding the development and use of digital materials” (p. 107) than on college campuses.

**Fair Use**

Many students and teachers in technical-communication courses have also had to confront the doctrine of Fair Use, Section 107 of Copyright Law—a provision which allows for some limited uses of copyrighted materials within academic contexts depending on four factors (Section 107. “Limitations”).

With the emergence of digital contexts and materials, however, differing interpretations of fair use have been circulated in online resources, arguments, and materials that appear both in print and online (Benedict.com; CNI; Copyright.com; Harper “Crash Course”). Such sources are authored by a wide range of people and institutions and promote distinctly different readings of Section 107 of Copyright Law in general.

Within educational contexts, these interpretations of fair use are supplemented with U.S. Copyright Office guidelines for “Reproductions of Copyrighted Works by Educators and Librarians” (Circular 21, 1998). Recent legislative attempts to update or modernize both copyright law and educational guidelines have resulted in the Digital Millenium Copyright Act (DMCA, 1998), the related Copyright Office Study on Distance Education (Distance Ed, 1999), and the “Technology, Education and Copyright Harmonization Act” (TEACH Act, 2002).

The guidelines and legislation associated with copyright law remain extremely complex. As a result, an attorney representing the Recording Industry Association of America (RIAA), a teacher of first-year rhetoric and composition exploring the social construction of legal discourse, a technical communication scholar, and a professor of computer science researching the reverse engineering of software may well have dramatically different understandings of copyright and fair use, their possibilities, their constraints, and their meanings.

**The TEACH Act**

The TEACH Act, in particular, provides the most recent curricular and legal guidance about copyright, and it has implications for both face-to-face and online classroom activities. For example, Kenneth Crews, in his “New Copyright Law for Distance Education: The Meaning and Importance of the TEACH Act” (2002) summarizes fair-use history and legislation, noting that “In the context of traditional, face-to-face teaching, educators long have debated the application of ‘fair use’ to making copies, and the Copyright Act since 1976 has included a
relatively simple and broad provision allowing ‘performances’ and ‘displays’ in the face-to-face classroom setting” (p. 2).

Crews continues,

_The rules for distance education, however, are significantly different_. Both the meaning of fair use and the details of the specific statute become much more rigorous when the materials are uploaded to websites, transmitted anywhere in the world, and are easily downloaded, altered, or further transmitted by students and other users—all posing possible threats to the interests of copyright owners (p. 2; emphasis added).

Crews’s analysis points to how new intellectual-property guidelines might affect online learning spaces in the coming years. According to Crews, the TEACH Act is . . . built around a vision that distance education should occur in discrete installments, each within a confined span of time, and with all elements integrated into a cohesive lecture-like package. In other words, much of the law is built around permitting uses of copyrighted works in the context of “mediated instructional activities” that are akin in many respects to the conduct of traditional classroom sessions (p. 3).

These legislative efforts serve, implicitly or explicitly, to prescribe the overall design of online learning environments. Teachers, within such a system, for example, are assigned much of the responsibility for protecting intellectual property within academic institutions—a tendency which, in turn, contributes to an increasing centralization of power. The potency of the trend is magnified, moreover, by the many distance-education initiatives that have been undertaken on campuses. As a result of these efforts, librarians and campus information-technology officers have also become increasingly responsible for intellectual-property protection under the TEACH Act, contributing to additional centralization of power in connection to intellectual property.

How are students’ classroom and learning activities constrained within these same legislative contexts and discourses? Crews notes that under the TEACH Act, “the law anticipates that students will access each ‘session’ within a prescribed time period and will not necessarily be able to store the materials or review them later in the academic term” (p. 3). _It is difficult to imagine how students will deal with such constraints, when they are enrolled in composition classes that encourage, promote, and require iterative reading and design, the exchange of annotated files and papers, collaborative writing, peer editing, or the collective authoring of multimedia_.

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2 This is not to suggest that the TEACH Act is without merit or that it does not address many copyright issues that teachers currently face. To the contrary, in her 2001 remarks to the Senate Committee on the Judiciary, Marybeth Peters, head of the U.S. Copyright Office, noted that, “technological change had made it possible for educators to reach a vastly broader student population with a richer variety of course materials than was ever possible before the advent of the Internet,” and that teachers often use technology in the service of a “rich pedagogical experience” (Peters, 2001, “Statement”).
Perspectives on Ethics and Ownership

The contested landscape of intellectual-property issues has extended into the academic realm in other areas as well, especially in discussions of ownership. For example, in *Intellectual Property Law for Engineers and Scientists*, Howard Rockman (2004) discusses in great detail the history, ethics, and contemporary contexts for professionals in engineering, science, and technology-related fields, but ultimately concludes that the most important aspect is to learn to protect one’s intellectual property (“Top Ten List of Intellectual Protection”). Protecting one’s property is certainly an increasingly important function in a culture—and in an ethics—based primarily on ownership. However, scholars like Paul Butler have identified alternative views. In his 2004 *Stanford Law Review* article, “Much Respect: Toward a Hip-Hop Theory of Punishment,” Butler offers an alternative theory of intellectual property similar to those innovative alternatives acknowledged by Copyleft scholars in multiple disciplines.

For some time the debate about why people should be punished has been old school: Each one of the four theories of punishment—retribution, deterrence, incapacitation, and rehabilitation—has acceded to prominence, and then lost its luster. Hip-hop offers a fresh approach. It first seems to embrace retribution. ‘The unwritten law in rap,’ according to Jay-Z, is that ‘if you shoot my dog, I’m a kill yo’ cat . . . know dat/for every action there’s a reaction’ . . . Hip Hop takes punishment personally” (2004, p. 984).

Discourses of Criminalization and Piracy

John Gantz and Jack Rochester (2005), authors of *Digital Millennium: How the Intellectual Property Wars Damage Our Personal Freedoms, Our Jobs, and the World Economy*, address one of the more unfortunate outcomes of increased use of peer-to-peer technologies and other file-sharing programs: that young people and students who use such technologies are increasingly represented as thieves and as “pirates.”

This preemptive criminalization of young people often focuses narrowly on legal, procedural, technical, and academic grounds, ignoring social and rhetorical context, audience, and the social construction of information. For example, Jack Valenti (2003) argues that

Students operating off their university’s broadband, high-speed, state-of-the-art computer networks have a merry old time uploading and bringing down movies, all without paying for them and all with fine fidelity to sight, sound and color [. . .] just a few months ago we learned that one of America’s most prestigious and preeminent universities, vexed by the burden of heavy persistent student use of its computer system, actually set up a special server for Gnutella, a well known mightily used site for file-sharing (a discreet description of taking films which don’t belong to you) (“A Clear and Present Danger”).
Andrew Feenberg’s work, for instance, would call attention to the fact that this description defines intellectual-property issues “strictly in technical terms,” that it centers around a series of “technical codes” (1999, p. 88). An alternative unpacking of the above description might focus on both its technological and its social and discursively defined interests. As Representative Maxine Waters pointed out in a recent congressional hearing on file sharing, for instance, different communities have other interests: “universities aren’t going to criminalize America’s middle class children. If this were taking place in the inner city, we’d see some movement” (“Educators, Entertainment Industry Team Up”).

IN THE TECHNICAL-COMMUNICATION CLASSROOM

For teachers of technical communication, what may be useful in these differing perspectives is the possibility of grounding intellectual-property debates in students’ contemporary musical interests and their sophisticated understanding mixing, remixing, sampling, and personal, contextual, moments. Importantly, the perspectives also offer an opportunity to rethink the ethical dimensions of intellectual property in terms of technical-communication pedagogy and helping students understand that intellectual-property issues may have as much to do with economics, power, competitive-versus-collective forms of information sharing, and corporate control, as with ethics.

Pragmatically, these competing perspectives characterize the contested environments and some of the complex and politically loaded intellectual-property issues that students will encounter in industry and public spheres after graduation. In such landscapes, they will need informed frameworks for understanding the implications and consequences of their communication practices. Because politics and pragmatism are not mutually exclusive in this world, it makes sense for teachers of the introductory technical-communication classroom to develop activities and assignments that keep these issues at the forefront of students’ attention and give them real meaning.

Other similar and related assignments have been suggested by academic scholars who teach communication courses. Among them, TyAnna Herrington’s A Legal Primer for the Digital Age (2003) provides excellent legal reading and case studies for students and for teachers, and web sites such as Kairosnews (2005) and the Conference on Composition and Communication IP Caucus (CCCC-IP) (2005) regularly provide news, background, as well as activist and research possibilities.

ASSIGNMENT SEQUENCE

The sample assignments included in Appendix B aspire to engage students from a range of majors in their own learning, social, cultural, and professional environments. Many provide opportunities for writing for audiences other than teachers, and they all contain a mix of legal, educational, and professional reading and discussion activities. A course in technical communication for nonmajors is a particularly compelling opportunity for both students and teachers to work in intellectual-property contexts, because other than the legislative actions and
centralized administrative procedures that I address above, there remain only emerging disciplinary approaches to understanding how to follow the law and how to probe it for developing productive alternatives.

In addition to the activities suggested at the end of this chapter, teachers may want to focus some of their instruction on intellectual property issues around students’ majors.

- Students in bioengineering, bioethics, and the social sciences should explore tensions and emerging understandings between intellectual property, traditional, indigenous knowledges, and cultural heritages (WIPO; Alford, 1995; Brush & Stabinsky, 1995; Posey & Dutfield, 1996).
- Students in business and marketing can develop an understanding of work-for-hire contracts (Herrington, 2003), organizational strategies for copyright compliance, and “anti-piracy technologies promoted by media companies” (Burgelman & Meza, 2003).
- Students in education can ground their classroom research and develop an understanding of K–12, community college, and university approaches to qualitative research and copyright issues (McSherry, 2001).
- Students in nursing will benefit from understanding how the scientific research in their field is becoming more expensive to produce, access, and share based on publishers’ increasingly centralized control of copyright permissions and agreements (Brown, 2004).
- Students in graphic design, in new media, and in the arts can explore connections between production, ownership, and licensing (Crawford, 1999), and the legal relationship between images and fair use (Aufderheide, 2003; Harper, “Copyright and Image Management,” 2005; Thill, 2004).
- Students in music and sound design can create projects based on the historical and contemporary connections between music and copyright (Baran, 2002; McLeod, 2001; Negativland, 2005; Campbell v. Acuff-Rose Music, 1994; Sapherstein, 1998).
- Students in literature might be interested to know that John Milton is most likely the first English author to contract a copyright for published work (Lindenbaum, 1994, 1995; Loewenstein, 2002), and they can apply more recent work in copyright and creativity in research or inquiry projects (Lessig, 2004; Negativland, 2005).
- Students in computer science, computer engineering, and the management of information systems can analyze the rhetorical, legislative, and technological implications of peer-to-peer file sharing platforms (DMCA, 1998; Lessig, 2004; Logie, 2003; Oram, 2001; Rheingold, 2003) and reverse engineering (Huang, 2003; Wark, 2004).

Finally, the best justifications for working with copyright and fair-use materials and contexts in a technical-communication course are in the historical, contemporary, and rhetorical links between communication, law, and
technology: the first copyright laws emerged as a result of the printing press in late fifteenth-century England; the first major revision to U.S. copyright law, in 1909, was largely a result of contested music-distribution innovations and corporate efforts “to retain their advantages” (Litman, 2001, p. 37), and was amended in 1912 to provide copyright protection for motion pictures (Paterson & Lindberg, 1991, p. 90); the most recent revision of U.S. copyright law, in 1976, was the direct result of photocopiers, computers, and the increasingly decentralized distribution of information and knowledge.

The history of copyright law in the United States is contemporaneous with the history of technology, with communication, rhetoric, and with our efforts to understand the effects and implications of a technological society.

APPENDIX A
Background and Materials for Teachers

This appendix contains assignment sequencing ideas, background, and preparation materials for technical communication teachers. The assignment descriptions here correspond directly to the suggested activities and projects in Appendix B.

BACKGROUND ASSIGNMENT #1:
The Copyright Clearance Center (CCC)  
http://www.copyright.com/

The Copyright Clearance Center (CCC) is a good site for analysis and discussion: it began as a publishers’ industry group, designed to help collect copyright permission fees from various users. It has since taken on an advocacy and “educational” role, as you’ll see within the site. The questions and prompts in Appendix B are intended to guide students through a rhetorical analysis of the site.

Suggested Reading:

§ 107. Limitations on exclusive rights: fair use.  
http://www.copyright.gov/title17/92chap1.html#107

http://supct.law.cornell.edu/supct/html/92-1292.ZS.html

Selections from Herrington’s A Legal Primer for the Digital Age (2003), especially pages 93–97 and 106, 107 on copyright and fair use.

Suggested Activities:

It will be helpful to introduce students to Section 107 of the Copyright Law, “Limitations on exclusive rights: fair use.” Students should be able to summarize and paraphrase the four factors and give examples of potential noninfringing uses.
Ask students to read and study the CCC site with these questions in mind:

- What kinds of companies and organizations seem to be the intended audience? Corporate? Nonprofit? Educational? How can you tell?
- How and where is the concept of fair use introduced and explained?
- How are the principal rights of copyright holders balanced with the rights of other potential legally protected users?
- Visual analysis: what values are expressed on the site’s choice of icons, links, and overall design?

**BACKGROUND ASSIGNMENT #2:**
The Institute of Electrical and Electronics Engineers (IEEE) [http://www.ieee.org/](http://www.ieee.org/)

The Institute of Electrical and Electronics Engineers (IEEE) “promotes the engineering process of creating, developing, integrating, sharing, and applying knowledge about electro- and information technologies and sciences for the benefit of humanity and the profession” (“About the IEEE”:[http://www.ieeeusa.org/COMMITTEES/IPC/](http://www.ieeeusa.org/COMMITTEES/IPC/)).

The organization’s legislative body, IEEE-USA, maintains a detailed and regularly updated site on intellectual property to promote its lobbying efforts and to update members on legislation and current issues, such as Reverse Engineering. Students should be encouraged to learn about the intellectual-property issues in their field; the IEEE site offers a wealth of materials toward that end and for classroom analyses, reports, and further research.

**Suggested Reading (selections from):**


**BACKGROUND ASSIGNMENT #3:**
*Fair Use in Composition and in Technical Communication*

This series of short assignments can be used to structure a unit based on copyright and fair-use materials, or to develop increasingly complex group-based projects and presentations.

**Suggested Reading:**

U.S. Supreme Court Decision, *Campbell v. Acuff-Rose Music* (pp. 92–1292), 510 U.S. 569 (1994), for an example of how the fair-use four factors are adjudicated in legal contexts.
BACKGROUND ASSIGNMENT #4:
Peer-to-Peer Technologies, Technical Communication, and Intellectual Property

For this intellectual-property unit, students can be asked to identify and analyze contexts, design, and uses for peer-to-peer file-sharing technologies. Class discussions might include both rhetorical and communication-based approaches to understanding the diffusion of technological innovations (including the pro-innovation bias in most diffusion studies) and students’ own experiences with the interfaces.

Students can also read and discuss excerpts from legal documents related to the A&M Records vs. Napster case from the 9th Circuit Court of Appeals and other jurisdictions; these materials include technological and rhetorical descriptions of peer-to-peer interfaces, “time shifting” arguments, and the social, cultural, and economic impacts of file-sharing innovations.

Suggested Reading:
A&M Records vs. Napster
http://www.law.cornell.edu/copyright/cases/239_F3d_1004.htm
http://www.dml.indiana.edu/pdf/AnalysisOfNapsterDecision.pdf
http://www.eff.org/IP/P2P/Napster/


APPENDIX B
Assignments and Resources

ASSIGNMENT #1:
The Copyright Clearance Center (CCC)
http://www.copyright.com/

Analyzing “A Guide to Copyright Compliance for Business Professionals”

According to its web site, the “Copyright Clearance Center, Inc., the largest licensor of photocopy reproduction rights in the world, was formed in 1978 to
facilitate compliance with U.S. copyright law.” Among the Center’s resources is “A Guide to Copyright Compliance for Business Professionals.”

As a business professional, you rely on third-party information to support the work you do. This information is critical to many of the functions—such as sales, market research, communications, strategic planning, new product development, R&D and information services—required to stay competitive and achieve the goals of your organization. Yet, in re-using or distributing content without the permission of the copyright holder, you may be violating copyright law.

Under copyright law you have a personal responsibility to the copyright holder and to your employer to be compliant. Ignoring this responsibility while you go about your job can put you and your organization at risk. In addition to the legal responsibilities, there are also ethical responsibilities in using content created by other parties.

For analysis and discussion purposes, it is useful to do close readings of the CCC language including, in the passages above, how “business professional,” “personal responsibility,” and “ethical responsibilities” are combined to establish and inform workplace practices.

ASSIGNMENT #2:
The Institute of Electrical and Electronics Engineers (IEEE)
http://www.ieee.org/

- Research your university’s intellectual property policies or guidelines: Where are they published? What is your university’s policy for the copyright of student-produced materials? Who owns the rights to collaboratively produced group projects?
- Analyze the 9th Circuit Court of Appeals task of deciding, in Sega Enterprises vs. Accolade, “...whether the Copyright Act permits persons who are neither copyright holders nor licensees to disassemble a copyrighted computer program in order to gain an understanding of the unprotected functional elements of the program.”
- The court’s finding—that reverse engineering is a fair use of copyrighted software—is supported by the IEEE. Research and report on other stakeholders’ reactions to the court’s decision. Sega Enterprises vs. Accolade, 977 F.2d 1510 (9th Cir. 1992).
- Service-learning opportunity: create an Intellectual Property manual for a local, nonprofit agency that explains fair-use principles and guidelines, how the agency can take advantage of those guidelines and principles, and how to protect against possibly unlawful infringement. A good background source is the Benton Foundation’s KickStart Initiative; especially see their Intellectual Property resources, designed to assist teachers, librarians, and community center personnel: http://www.benton.org/publibrary/
ASSIGNMENT #3:
Fair Use in Composition and Technical Communication

Intellectual Property:
Copyright and Fair Use Research Reports

• Contact a newspaper, journal, or book publisher in your field of study and find out its policies and procedures for using their copyrighted materials in various formats: distance-education courses, multimedia production, and educational environments. Can you use images from their site in a hypertext essay or multimedia presentation?

• Form groups of two or three students each, and take opposing sides in an intellectual-property problem. You might have someone represent a digital artist who displays her work on the Web and other parties who claim fair use under varying circumstances; invent the circumstances. Or you might have an online-journal editor argue that students in a writing or communication course cannot use the journal’s trademarked logos in their print or online analytic reports.

• Research your school’s intellectual-property rules and guidelines, especially as they relate to student-created work. Who owns that work? Do the guidelines account for work created with substantial use of university resources?

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Pedagogical frameworks like the ones I suggest, assignments that I propose, and collective-learning environments needed to enact them would never be feasible or possible without the active and sustaining support of people who maintain computer- and technology-rich learning environments. For example, I would never have been able to attempt activities related to the analysis and design discussions of peer-to-peer file-sharing platforms without the help of Chris Johnson of the College of Humanities Collaborative Computer Classroom (COHlab) at the University of Arizona; Gavin Brown, Webmaster at Villa Julie College; and Keith West, Dickie Selfe, and their staff of astonishingly supportive consultants in the Center for Computer-Assisted Language Instruction (CCLI) in the Department of Humanities at Michigan Technological University. Because they were willing to try new ideas and approaches to writing-and-media classroom activities, I was too.

REFERENCES


