Ethics and Computers: Implications for Teaching Art

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Information technologies—computers, video, hypermedia, multimedia, laser discs, CD-ROMs, fiber optics, telecommunications, and electronic networks—offer exciting opportunities for advancing instructional goals in all areas of the school curriculum. These new technologies have been proven to be beneficial in helping students to learn more effectively and productively, to develop enthusiasm and motivation for learning, to see connections among different subject areas, and to prepare for careers in the workplace.

The emerging "information superhighway" has already had an enormous impact on education through the creation, reproduction and dissemination of all manner of original content. Teachers and students use the Internet and World Wide Web daily to access cultural resources as well as colleagues, peers and professional experts around the world.

In spite of its rewards, the increasing misuse of the capabilities of new technology points to one of the more troublesome issues facing teachers in the contemporary classroom. Considering all of the positive educational benefits of new technology, it may be easy to rationalize or simply overlook certain unethical behaviors associated with its use. To do so, however, ignores the critical role that teachers play in imparting to students the underlying values upon which our society is based.

For instance, the unauthorized copying of computer software is a problem of alarming proportions in schools. Yet, many teachers see it as a perfectly legitimate activity when it is done for educational purposes. The problem is further compounded when students see their teachers make multiple copies of software for class use or allow others to copy software for use elsewhere. Although seemingly harmless, "computer software piracy" violates federal copyright law and contributes to higher software costs. Both teachers and students need to learn what they can and cannot do under copyright law and under software license agreements.

Commercially available software is owned by PC manufacturers or its distributors and is protected by U.S. copyright laws and international treaty provisions. Most software licenses specify that the original purchaser of a software program may make one archival copy solely for back-up purposes. It is illegal to make extra copies of a program for use by students or other teachers within a school or district, unless specific written permission from the publisher or copyright holder is obtained. A site license is usually required for making multiple copies of software within a given situation and is often less expensive when a particular program is widely used in a school. The only possible exception would be with computer software in the public domain that if often free.

In addition to the illegal copying of software, school administrators and teachers today are being forced to deal with a variety of complex ethical and legal issues surrounding the use of information technologies in education including:

- use of limited school funds to purchase technology
- universal access to computers (and information)
- individual vs institutional rights
- individual privacy and control of personal information
- intellectual property and copyright violations
- unlimited vs restricted access to Internet resources

- protection of children from online stalkers or publicly accessible obscene files
- freedom of expression vs censorship
- gender and cultural biases
- computer control vs human autonomy
- computer theft
- health/safety issues
- technology training for teachers
- unintended use of limited technology resources (e.g., game-playing) curricular balance.

In order to promote ethical use of information technologies, school districts need to develop, promote and enforce clear and strict policies regarding such use. These policies should define appropriate educational uses of technology as well as accepted standards of behavior in accessing and using online resources. They should also cover inappropriate behaviors and illegal practices such as software piracy, unauthorized entry into school computers, accessing other users' personal files, online harassment, destruction of computer files or equipment, and other activities deemed detrimental to the educational use of the technology. Additionally, school board members need to see that sufficient funds are allocated each year to each school in the district for purchasing computer-assisted instructional materials, multiple or network copies of software for classroom use, and electronic security systems to prevent (or at least deter) the unauthorized use of computer equipment and illegal copying of software. Beyond that, all teachers who work with new technology have a moral responsibility to instruct their students in the ethical use of computers and other electronic technologies and to serve as positive role models for such behaviors.

The ethical and moral issues raised by technological change should be of particular concern to art teachers who have a vested interest in human values. As schools race to revolutionize instruction and learning through technological enhancements, art teachers can play an important role in helping to determine appropriate modes of curricular development and applications. Questions such as, "What should be done? How does the new technology alter existing concepts and practices? Is it appropriate to use the computer at all?" need to be asked (Jones, 1986, 1980). Foremost, it is the art teacher's responsibility to ensure that the new electronic learning tools brought to bear on the educational process serve as conduits of human values and experiences. Otherwise, our worst fears about technology may become true.

Art teachers who set out to integrate computers and other electronic technologies into their programs must also confront head on the issue of "intellectual property." The use of new technologies for electronic copying, altering and distributing of all varieties of images, music and text raises serious questions about the moral and legal rights of those who produce original materials (Lovejoy, 1989). The World Wide Web presents a tremendous opportunity to move our culture forward by bringing the fruits of artists, authors, musicians, poets and other great thinkers to our hands. Yet, the full potential of this global network may never be realized if original works are not adequately protected but allowed to be pirated away with the push of a button and appropriated into other works.

Some may suggest that appropriation is quite common among artists today and thus acceptable in these "post modern" times (Lovejoy, 1989). Others may argue that new technology simply makes it easier to do what artists have long done--adapt compositions or pictorial ideas from each other's creations (Schwartz, 1996). As teachers, some may feel justified in copying any and all materials in order to facilitate student learning. Or, they may rationalize such activities on the grounds that the "fair use" provision of the Copyright Act allows for unauthorized reproduction of copyrighted materials in educational situations. Whatever reason is offered, teachers run the risk of litigation for copyright

infringement if they don't respect the rights of content owners to protect their intellectual properties from abuse.

It is imperative that teachers take immediate responsibility for educating their students (and themselves) in copyright issues in order to ensure a future generation capable of making ethical decisions regarding intellectual property matters. Unfortunately, attempting to decipher the legalese in the Copyright Act is no easy matter. It's little wonder that there is an enormous amount of confusion in the educational community regarding copyright issues. While many teachers are familiar with the notion of "fair use," they aren't sure how it applies to electronic material and publishing. Most teachers recognize the work of a famous artist as "intellectual property" and know that a museum or collector somewhere probably owns the work. But, uncertainty often arises with copying and distributing a digitized picture of the same work over the Internet or in using sound clips, clip art and laser disc images in a multimedia production. To assist educators and others in resolving these doubts, a number of online resources have been placed on the World Wide Web that offer information and guidelines for fair use of copyright material.

Another basic right that is being challenged by the increased use of telecommunications technologies in schools is freedom of expression. "If electronic networks are to function as communication vehicles in the educational community, then faculty and students must be able to engage in the free exchange of ideas" (Stager, 1993, p. 42). Yet, an individual's right of freedom of expression may sometimes come in conflict with the school's responsibility to maintain a non threatening environment and keep its own networks free of law-breaking activities or offensive, racist or discriminating content. Thus, in setting district policies regarding computer network use a balance must be struck between such rights and responsibilities. As advocates of free expression, art teachers can (and should) play an active role in formulating these policies and in helping students understand how these rules (and the underlying values) apply to a information technology-dependent world.

A school art program that would hope to enhance the value systems of students could hardly be complete without exposing them to the implications of new technology for human communication and personal expression. Open classroom discussions of the ethical, moral and legal issues associated with information technology may help students in establishing their own value systems regarding its role in society, in the arts, in education, and in their daily lives. Of course, the best time to discuss these issues is when they arise naturally in the context of a class. Another approach, that has proven been to be effective, involves the use of scenarios and case studies that present certain ethical and moral dilemmas associated with technology use (Bowman, 1992; Gilliland & Pollard, 1984; Hannah & Matus, 1984; Wilson, 1991). Before initiating such dialogue, it is recommended that teachers become knowledgeable of computer ethics issues and the skills needed to lead discussions.

When introducing computer-based scenarios at the elementary or middle school level it is important to relate the situation at hand to familiar circumstances to which traditional values can be applied (Bowman, 1992). For example, the following scenario is intended to raise the issue of copying others' work without their permission:

The Mickey Mouse Caper

Sally, a fourth grade student, recently went on a trip with her family to Disney world. After returning from her vacation, Sally decides to share her experience with others through her home page. In order to illustrate her adventure, Sally uses a scanner to copy several stickers and postcards she purchased of Mickey Mouse, Donald Duck and other Disney characters. She then puts these graphics on her home page along with her written story.

1. Is it okay for Sally to put the Disney characters on her home page? Why or why not?
2. How would you feel if someone copied your artwork without your permission?

At the high school level, students are able to deal with more complex issues and the ethical quandaries emerging from increased technology use. It is still important, however, for these students to see how existing values and laws apply to members of the electronic community. The scenario "Adi Boy's Home Page" is intended for use at the high school level:

Adi Boy's Home Page

Adi Boy, a tenth grade student, is anxious to create a home page for himself on the Web. He wants to create a really cool page to impress all his friends. But, being "artistically challenged," Adi doesn't feel capable of doing the kind of graphics he'd like to include on his page.

So, Adi goes surfing on the web and finds an image he likes of a "heavy metal" band, Fictional Tensions, on their home page. He downloads the image into his computer. Using a digital-imaging program, Adi pastes an image of his face on to the band's picture to make it appear as though he is a member of the group. He then adds a title to the image "Adi and the Boys in the Band" along with some colorful scribbles and marks. Proud of his work, Adi includes the "doctored" image on his home page:

1. Would you say that Adi did anything wrong? Why or why not?
2. Does Adi's use of the band's picture for personal expression justify it's use?
3. Is Adi's use of the band's picture on his home page acceptable since the original image has been physically altered? Should Adi cite the source of the original band picture on his home page?
4. If you were a member of the Fictional Tensions, how would you feel about what Adi Boy has done?

Other possible situations that would seem particularly applicable to art classes include those involving censorship, gender bias, cultural issues, and citing sources of electronic material. Teachers can use actual case studies focusing on these and other topics or develop their own scenarios that address the particular needs and developmental level of their students. In either case, it is important to convey to students that computers are just machines. It is up to people to decide what is right and what is wrong in their use.

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