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Ethics in Technical Communication

Tamara Powell

Chapter Objectives

Upon completion of this chapter, readers will be able to do the following:

1. Define ethics.
2. Analyze a situation with regard to utility, right, justice, and care.
3. Explain the importance of ethical behavior.
4. Explain copyright law, why it is important, and how to make ethical decisions regarding it.
5. Explain how to ethically analyze data.
6. Explain how biases can lead to unethical decisions/behavior in technical communication.

Introduction to Ethics

Virtue, then, is a state of character concerned with choice, lying in a mean, i.e. the mean relative to us, this being determined by a rational principle, and by that principle by which the man of practical wisdom would determine it. Now it is a mean between two vices, that which depends on excess and that which depends on defect; and again it is a mean because the vices respectively fall short of or exceed what is right in both passions and actions, while virtue both finds and chooses that which is intermediate. Hence in respect of its substance and the definition which states its essence virtue is a mean, with regard to what is best and right an extreme. Aristotle, Nicomachean Ethics, Book II

Ethics is one of the most important topics in technical communication. When you can communicate clearly and effectively, and when it is your task to help others to understand an object, process, or procedure, it is your responsibility to do so in an ethical fashion.

After all, good writing isn't just grammatically correct, or even functional. As Zuidema and Bush state, "If we define *good writing* simply as writing that gets the audience to do or think what the writer wants, we fail to take into consideration the needs or well-being of the audience, and we ignore the ways in which writing may hurt others or cause harm" (Zuidema and Bush 95). But what does it mean to communicate ethically with regard to technical communication? There is a lot of confusion regarding what "ethics" means, and when you drill down to what ethical technical communication means, the answer becomes very complicated.

We might think asking someone if he or she is an ethical person is the same as asking someone if he or she is a good person. Certainly, my Aunt Maudie, who always held herself to be the definitive judge of whether someone was a good person or not, would tell you that a good person does what he or she feels is right in his or her heart. But the human heart can be very complicated. If you find a dollar on the floor, what is the right thing to do?

- run around asking anyone if he or she lost a dollar? What if the person who says "yes" is lying and didn't lose the dollar? Was it right, then, to give the dollar to him or her? What about the person who really lost the dollar? How do you know?
- turn the dollar into lost and found?
- keep the dollar, with the rationalization that you probably lost a dollar in the past, and this is just karma returning that dollar to you?
- give the dollar to charity with the rationalization that by doing so, at least you know it will do some good?

Any of these potential answers might feel right in your heart. Such a criterion really isn't the best to use to judge more complex ethical problems such as you might find in technical communication situations.

Also, note all of these potential answers are legal. Just because something is legal doesn't make it ethical. In the past, in the United States, it was legal for health care insurance companies to deny coverage to persons who had health problems. That is, if a person had a heart attack and did not have insurance, then he or she would not be able to purchase insurance afterward, even though it was clear that he or she would not be able to afford health care without

health insurance. Such a practice was common and legal, but it was not at all ethical to deny sick persons the ability to afford the health care they needed.

Key Concepts: Utility, Rights, Justice, and Caring

According to ethicist Manuel G. Velasquez, there are four basic kinds of moral standards: "utility" (61), "rights, justice, and caring" (59). While each of these categories is complex, at the basic level, these categories can be explained as follows:

- **Utility:** "The inclusive term used to refer to the net benefits of any sort produced by an action" (61). This standard favors the solution that yields "the greatest net benefits to society or impose[s] the lowest net costs" (61).
- **Rights:** This standard "look[s] at individual entitlements to freedom of choice and well-being" (68).
- **Justice:** This standard "look[s] at how the benefits and burdens are distributed among people" (68).
- **Care:** With regard to the "ethic of care,....the moral task is not to follow universal and impartial moral principles, but instead to attend and respond to the good of particular concrete persons with whom we are in a valuable and close relationship. Compassion, concern, love, friendship, and kindness are all sentiments or virtues that normally manifest this dimension of morality" (102).

You may have noticed that these standards can quite easily contradict each other. Let's think through a rather silly example.

Let's say you have a face to face technical communication class at a local college or university. It meets twice a week, and you attend the scheduled class periods. One of your classmates, let's call him Percival, likes to sleep in class. More than that, he snores loudly while the professor is trying to teach. The first class period this problem manifests itself, the professor first tries calling on Percival to keep his attention, and then the professor nicely suggests he go get a drink of water to wake himself up. Percival, however, is having none of this. He evidently prefers to spend classtime sleeping—and snoring. The snoring is really distracting, and everyone is finding it hard to learn in this environment. The second class period, the drama repeats itself, but the professor has come prepared. At the first loud, earsplitting snore, the professor pulls out a water gun at Percival. She aims, fires, and SPLAT! Percival is awake! The class laughs uproariously, and every time Percival snores, he gets water in the face. It's still kind of hard to concentrate, with the professor watergunning Percival every 15 minutes or so, but it's very entertaining.



This scenario is a little off the wall, but let's evaluate it, anyway. The professor's solution to the problem is effective, at least in this one instance. But how does it stack up to an ethical evaluation?

- **Rights**—people in contemporary societies have a wide variety of rights. For example, students have the right to a conducive learning environment. So on the one hand, students have the right to attend class and not have to fight through Percival's snoring to hear the professor's lecture. On the other hand, students have the right to attend class and not be shot at with a water gun.
- **Justice**—the benefit to the professor's solution to the problem is that it is effective. It stops Percival's plan to snore through class and make learning difficult for the other students. It also seems, at first, to bring the class together against a common distraction and provide some temporary amusement. Everyone is having fun at Percival's expense. But let's think. Students have a right to attend class and not be subjected to abuse. Shooting a student with a water gun is abuse. It's very much outside of the appropriate treatment a student might expect from a professor. And it is humiliating. Kant's categorical imperative has been translated thus: "Act only on that maxim through which you can at the same time will that it should become a universal law," (Kant 24). Granted, all sleeping students will be attacked with a water gun would be a pretty silly maxim. Reasonable people wouldn't even consider such a rule. But if they were to, it would be clear that we wouldn't want to be attacked with a water gun if we accidentally fell asleep and started snoring, and we wouldn't want our loved ones subjected to such treatment, either. Certainly, Percival never consented to be attacked with a water gun. His rights are being

violated in this example. With regard to justice, sure, at first the water gun accomplishes the goal, but it is also distracting. And how long will it take for students to wonder, who else will get watergunned? Suddenly, the professor's blatant disrespect for Percival can easily move to disrespect for anyone. Morale can drop. The students can lose respect for the professor, and then the learning environment is compromised. The entire class suffers, and the learning outcomes also suffer, because the professor made the decision to employ a water gun.

- **Utility:** One of the ways to look at utility is to ask the question, "Is there a better solution that helps everyone achieve the desired outcomes?" Or at least, is there a solution that minimizes the disadvantages to the larger population? In this case, yes. At most institutions, the professor has a variety of ways to deal with a disruptive student. After informing the student of the consequences of repeating his or her disruptive actions, the professor may call campus security to remove the student. The professor may also contact the student's academic advisor to discuss a solution, and at some institutions, the professor can have the student removed from the class roster. While official solutions may not be as dramatic, as fun, and as quickly effective as watergunning as student, they do protect all students' dignity and right to a safe environment conducive to learning.
- **Care:** At the end of the day, a professor is a human being, too. And he or she may be at wit's end trying to deal with students do not want to be in the class are actively working against the professor's efforts to do his or her job. It is frustrating. And it might even be understandable that he or she wants to pull out a water gun and just solve the problem and blow off a little steam. But the professor has a job, and that job brings in income. It's highly likely that the professor has a family to support. Watergunning a student will bring in negative publicity to the professor, the class, the academic department, and the institution that he or she teaches in. With public scrutiny, the professor might earn a reprimand or, at worst, lose his or her job. How will he or she help to support his or her family?

As we analyze this situation, we quickly see that watergunning the student is unethical. It violates the rights of the student and can impede upon the professor's ability to care for his or her family. Furthermore, it may lower morale in the classroom, which may rob all students in the class of an environment conducive to learning. And finally, there are better, accepted channels to use to deal with this situation.

Such a simple scenario, but so many ways to look at the situation. Analyzing any situation with regard to ethics should take time and care so that the best evaluation can be produced. And here, we have only invoked some of the ethical aspects of Aristotle, Kant, and Velasquez. In this short introduction to ethics, we are only scratching the surface of a much larger and very complicated and fascinating field.

Here are some sample scenarios that you can analyze with regard to rights, justice, utility, and care.

[Click here to access the sample scenarios](#)

Faulty Communication and Real Consequences

Let's move to a real example of an ethical situation in technical communication.

In 1986, the spaceship Challenger exploded. What you may not know is that a failure of communication was partially responsible for that disaster. There was an "O-ring problem," or "the failure of a rubber seal in the solid rocket booster" with regard to the shuttle's construction (Winsor 336). From early 1984 until July 1985, the O-ring problems were noticed but not taken seriously. Or dismissed. On July 22, 1985, MIT engineer Roger Boisjoly sent a memo to R.K. Lund, who was MIT's Vice President of Engineering. In the memo, Boisjoly stated that the O-ring problem was serious, and concluded, "It is my honest and very real fear that if we do not take immediate action . . . to solve the problem . . . then we stand in jeopardy of losing a flight along with all the launch pad facilities" (Winsor 341). MIT engineer Brian Russell wrote an August 9 letter in response to Boisjoly's memo. Russell's letter stated the facts very plainly. For example, he writes, "If the primary seal were to fail from . . . 330-660 milliseconds the chance of the second seal holding is small. This is a direct result of the o-ring's slow response compared to the metal case segments as the joint rotates" (Winsor 343). Russell's memo does not provide any interpretation of the situation, and as such, "did not communicate its intent [as] is shown by the fact that the people who read it were uncertain about what it meant" (343). The important information in the Russell memo, which was quoted above, was buried deep in the letter after such reassurances as "MIT has no reason to suspect that the primary seal would ever fail after pressure equilibrium is reached" (343). While it might seem prudent in the face of bad news to report "just the facts," if lives are at stake, it is important to communicate clearly. Do not hide or bury the information that there is a problem. Make a clear recommendation to solve the problem, if appropriate and possible. Make clear the perceived consequences if the problem is not dealt with. Of course, no one wants to be wrong or to be perceived as overly dramatic. But at the same time, ethical communication is clear and appropriately detailed so as to prevent disasters such as the Challenger explosion. The Challenger launch was delayed because of the O-ring problem, but on January 28, 1986, the shuttle launched. And exploded.

Of course, no one wants to be the bearer of bad news. And no one wants to point the finger. We all are concerned about how we are perceived by others. And we don't want to jeopardize our position within a company or organization. Also, we

might be asked by someone above us to "fudge the data" a little bit in order to keep a grant or contract. Our working relationships or even our jobs might be on the line. Perhaps a grant might not get funded if certain data are not reported. Or perhaps our company won't get a contract if we don't promise that our construction plan can hold the number of cars the client desires. When the pressure is on, the consequences may not seem so dire. But as Kant reminds us, if we don't wish others to lie about the maximum amount of cars that can use the parking deck safely while we are in the parking deck, then we certainly should not do it, either.



Appropriate Language in Technical Communication

Quote from Kueffer and Larsen

Factual Correctness

Every metaphor simplifies by illustrating certain aspects of a scientific object while neglecting others. Scientific metaphors can nonetheless, be interpreted in terms of their factual content, and, in this respect, they can be considered *wrong*. At the start of the genomic era, for instance, Avise (2001) proposed alternative genetic metaphors to replace prior mechanistic ones (e.g., the blueprint metaphor) that he felt misrepresented new insights about the nature of the genome Metaphors should be consistent with the state of knowledge to the degree of scientific accuracy required in a particular context (e.g., research, popular science writing, science-based decision making).

Socially acceptable language

The same rules that apply to everyday life concerning socially acceptable language also apply to science. Metaphors that are racist, sexist, or in other ways offensive should be avoided. Herbers (2007) for example, condemns references to *slavemaking* and *negro* ants and reference to rape in animal behavior studies.

Neutrality

It is often difficult to assess the neutrality of a metaphor. Scientists should, nonetheless, seek in their communication to avoid language that is generally recognized to be loaded with emotion, such as apocalyptic warnings and dramatic hyperbole. This language can distract from the perceived neutrality of a scientist, who is expected to present research results that invite open and critical discussion. One rhetorical function of such metaphors is to convince when evidence is missing or ambiguous; however, this is inadvisable, insofar as it leads to scientific statements' being supported with rhetoric instead of facts.

Transparency

When a metaphor is used, it should be introduced as such and its connection with specific aspects of scientific concepts should be illustrated. At least in longer texts, authors should explicitly reflect on the connotations and performativity of their

chosen metaphors. When metaphors are replaced by similes (i.e., using an *X is like Y* statement), there is a lower risk that they will be taken literally (Carolan 2006). (Kueffer and Larson 722)

To get started, let's watch a video on using appropriate language in technical writing. Appropriate language becomes an ethical concern if inappropriate language is imprecise or disrespectful.

Access the video in a new window

To continue to address some specific aspects of ethics in technical communication, Kueffer and Larson remind us that sometimes writers use inappropriate metaphors in technical communication that reduce the credibility of the scientific writing or research that they are trying to communicate to the public. We live in a time when, especially in advertising and popular culture, dramatic language is pervasive. It may be tempting to overstate or dramatize a scientific finding to garner public attention to something very important such as climate change. For example, a letter with the title, " 'Alien species: Monster fern makes [International Union for Conservation of Nature] invader list' " really grabs the attention. But Kueffer and Larson explain, "We consider this choice of words to be undesirable, because it merely expresses a value judgment of the authors (i.e., that the species is like a monster because it is bad) rather than illustrating the science. The metaphor devalues this plant species in its entirety (like a monster that is always bad) rather than specifying which aspects of its behavior are problematic" (721). Kueffer and Larson continue, "It is better to communicate precisely, and to use appropriate metaphors so that if, for example, later contradictory information becomes available, the public does not dismiss scientific findings. Responsible technical communicators understand that scientific research involves a level of uncertainty which must be made clear to readers" (721).

Ethics and Copyright Law

Another important aspect of ethics involves awareness of and respect for copyright law.

The information found here is based on materials developed by Jean T. Kreamer and Georgia Harper for the LaCADE (Louisiana Consortium for the Advancement of Distance Education) program.

Copyright has become a widely discussed topic with the advent of the Internet. Images and designs are everywhere. It is so easy to click and save a background, a photograph, even a cartoon from a web site. Many ask "what are the rules?" Here are the answers to some frequently asked questions about copyright laws.

Why Do We Have Copyright Laws?

The purpose behind copyright law is the protection of the creator's creation. If you come up with a fantastic new design for Kennesaw State University, for example, you would want credit and compensation for your genius. You would copyright the design and offer it to KSU. KSU might then decide to use it. You might grant KSU exclusive rights for free, or you might require a one time fee for KSU to buy the rights of the design, or you might request a sum of money every time the design is used. All of these negotiations would require you to waive, protect or sell your copyright. However, think about a situation where you sold your design to KSU for a fee each time the design was used or for a percentage of the sales. Then, a large discount chain began marketing shirts with your logo, but without your permission? What if buyers could get your great new design at half the price because you were no longer getting your cut? It's great for the consumer and the discount chain, but you and KSU have been cheated. To prevent such theft and unethical use, there are copyright laws.

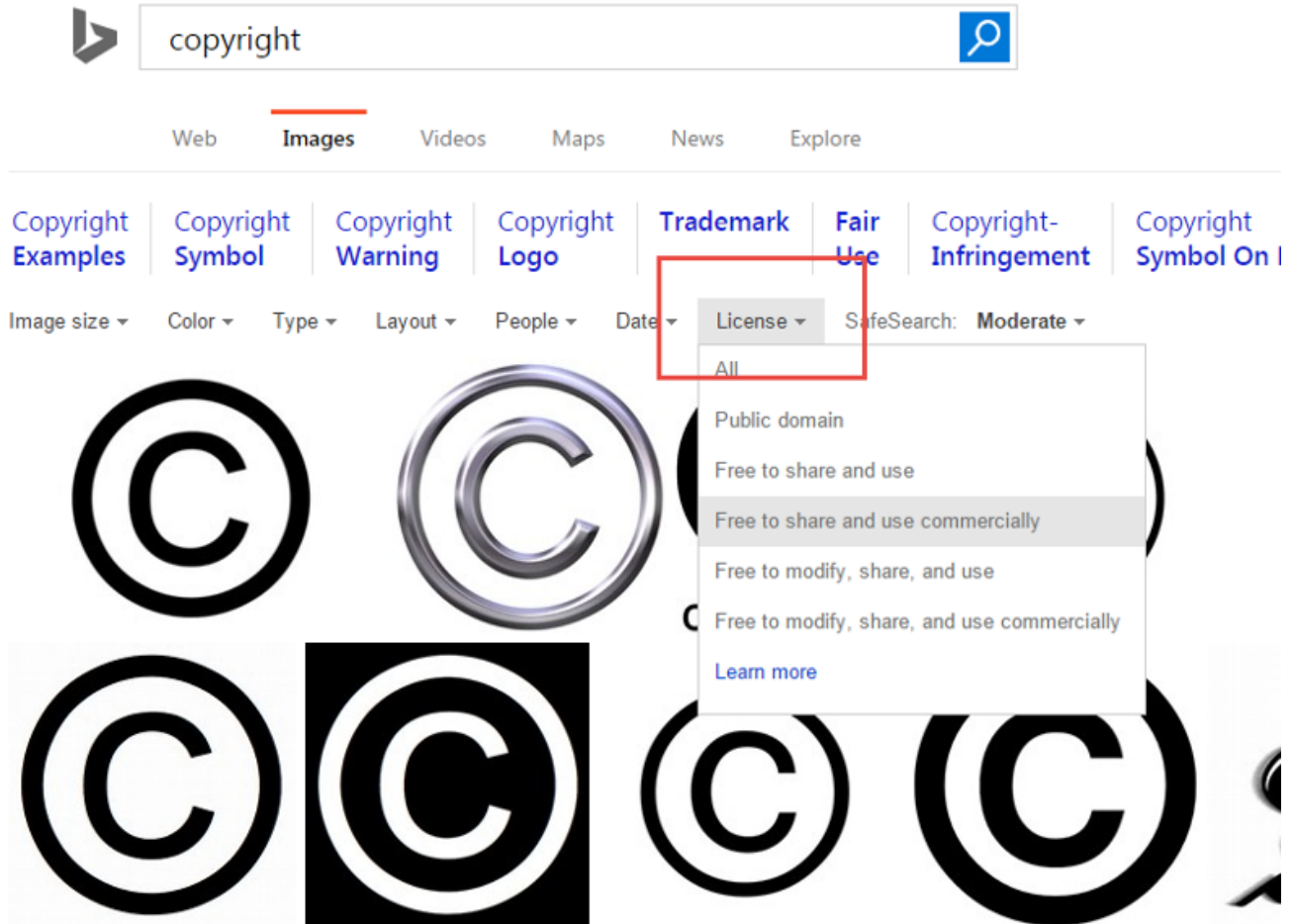
What Does Copyright Protect?

Copyright does not protect facts, ideas, or descriptions. To use another's facts, ideas, or descriptions in your work you will need to cite properly using an acceptable form of documentation (APA or MLA, for example). Copyright protects creative expression. Creative expression is found in designs (such as Web page designs or layouts, portfolio designs, etc), logos, pictures, icons, and other creative ways to express information. A religious group recently used a cartoon character to deliver their message in a religious tract. Using a well-recognized cartoon character made the tract very popular, and the religious organization was very pleased with the results. However, the religious organization had not contacted the artist and negotiated any agreement for use of the image. The religious organization was stunned when they were sued for copyright infringement. To use an image, photograph, icon, logo, graph, chart, or layout that was not created by the user and for which the user has no agreement or authorization is an infringement of copyright. It does not matter how benign you believe the use is or how beneficial you feel the use might be to the creator. It is an

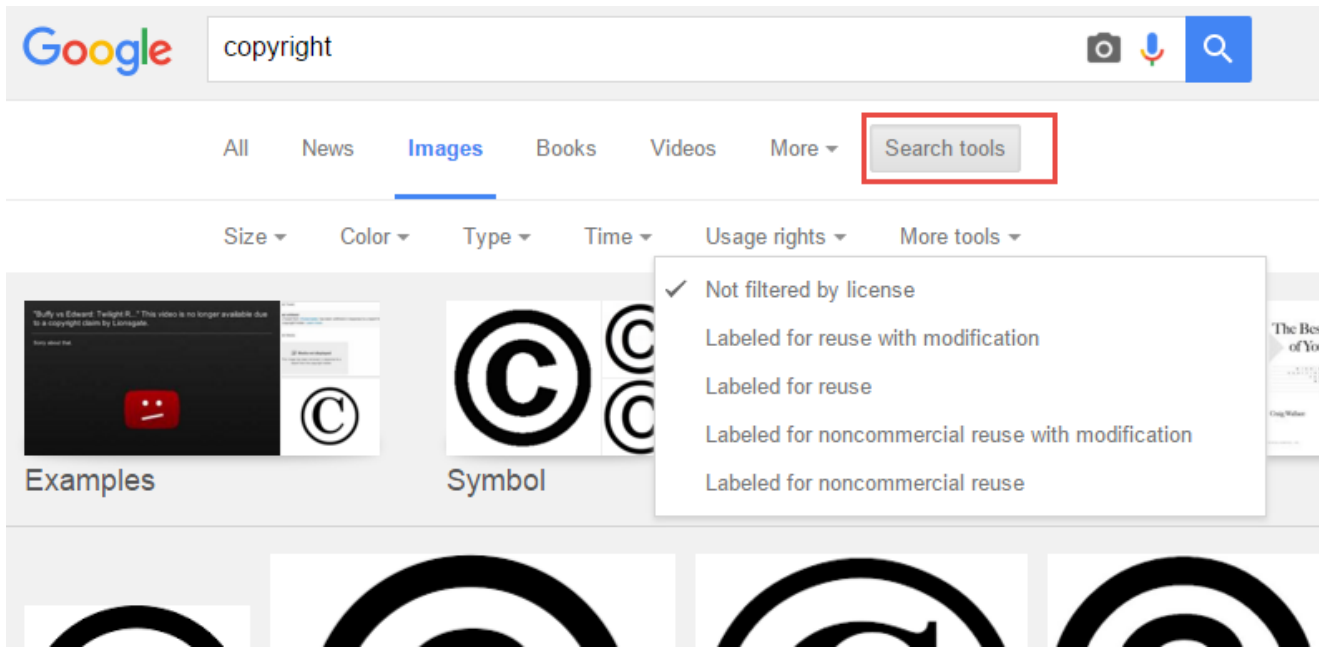
infringement of copyright to use creations that are not your own if you do not have permission from the creator or his or her agent.

Is it okay to take an image if I can save it to my desktop?

No. It is a mistake to think that an image is only copyright protected if the web page designer has made it so that the image cannot be copied onto the computer. Just because an image can be taken doesn't mean it is not copyright protected. If you need copyright free images, Bing is a great searchable database. You can enter a term into the search box, and then you can narrow your search by license, depending upon what you plan to do with the image.



Google images has a similar feature. After you have searched for an image, click on "Search tools" to see more tools. One will be "Usage rights." Use that tool to filter by license.



Isn't using images, such as a popular fast food chain logo, actually free advertising?

It may be free advertising, but it is also a violation of copyright. It is a popular myth that linking the image back to the original bypasses copyright laws. The designer can still sue you. Always get written permission to use a design. Some designers announce that designs may be used if the designer is credited and/or if a link is provided back to the home page. In this case, you are given permission to use the graphic as long as you abide by the designer's stipulations.

What about fair use laws? Can't I use a graphic if I follow the fair use laws?

Unfortunately, graphics are not covered under fair use laws that apply to students. The limits of copyright exist mainly for libraries and government use. For example, a designer's copyright protection does not prohibit libraries from making copies for interlibrary loan purposes or archiving; does not prohibit book owners from throwing away or reselling books; does not prohibit educational uses in face-to-face teaching and in distance learning; and does not prohibit making copies of a work or altering it to make it available to disabled persons.

Fair use does allow people other than the copyright holder to use part of a copyrighted work in certain circumstances even without permission. To learn more, read about it here.

If I am a student, does that mean I can use another's design in my own papers and presentations?

Because your papers and presentations are an educational use for a restricted audience, you are allowed to use copyrighted designs, under certain conditions. If a chart or graph or logo conveys the message that you want to convey in your paper or presentation, you may use it provided you cite it just as you would any other information that you used. Consult your documentation guide for proper documentation of graphs, charts, graphics, drawings, photographs, icons, symbols, or logos. In addition, if you take the information from a chart but create the chart yourself, you do not need to cite the chart in your paper, but you will still need to cite the information and document it properly in your paper. If you take information from a source and create a graphic explaining that information, you still need to document your use properly. The Conference on Fair Use (CONFU) Educational Fair Use Guidelines for Digital Images decided that "[s]tudents may download, transmit and print out images for personal study and for use in the preparation of academic course assignments and other requirements for degrees" (9). If you are creating work that will be put on the open web—such as in a publicly accessible blog for a class assignment—you will need to search for images that are copyright free or labeled for reuse.

What if there's no trademark or copyright symbol on the design?

Stealing another's design is unethical. It is also important to note that an absence of trademark does not mean the design is not copyrighted. Designs that are in the process of copyright approval can win damage awards if an infringement occurs while the design is awaiting an official copyright. And today, copyrighted works are no longer obligated to carry notice of copyright. For works created after March 1, 1989, absence of copyright is no indication of copyright status.

Will an international company such as Sony really catch me putting a few of their song lyrics up on my personal web page?

Large companies employ lawyers to surf the web searching for infringements of their copyrights. Many humble college students have been surprised by letters from big-name firms threatening lawsuits if lyrics or logos aren't removed from a personal web page. There are additional penalties if materials in question are not removed quickly enough to suit the offended party.

Some of this seems very silly. So what if I use a fast food logo on my web page or in my research paper and don't get permission or proper credit. What does it really matter?

First, if you were the artist, wouldn't you want proper credit for your creative expression? It's just good manners. And it is not difficult to request permission to use designs. Second, copyright laws are in flux right now. There is a lot of debate about what is or is not fair use regarding the Internet (how can you write a movie review on the Internet without making a few movie clips available, for example? Is that fair use? Is that copyright infringement? These issues are being debated).

There is debate regarding whether a university can be sued along with a student if a student misuses a corporate logo on a university website. Obviously, everyone is very interested in who is liable. To keep yourself as safe as possible, err on the side of caution and respect copyrights.

What about copyright-free images, such as clip art?

If you go to a site that has copyright-free clip art, then that clip art is yours to use as you please. There are no restrictions or royalties involved regarding copyright-free images. But the site must say copyright free clipart. Wikipedia is not copyright free, unless you look at the image and see that it is in the Creative Commons. See the tips in #3 for how to obtain copyright-free clip art.

How well do you understand basic copyright law?

Ethical Analysis of Data

As you analyze data, avoid cooking, trimming, and cherry picking data.



Cooking data is the practice of falsifying data. It can also be the practice of deleting data that does not prove a hypothesis in order to present a stronger argument that proves the hypothesis. For example, what if you were ordering pizza for an event, and you really wanted every pizza to have bacon on it. You LOVE bacon. If you surveyed 100 people about whether or not they liked bacon, and 50 people said yes, and 50 people said no, but 25 of the "no's" were vegetarians, then you could report the data truthfully, that half of the people surveyed like bacon. Perhaps half of the pizzas should have bacon on them. Or, you could "cook" the data by excluding the vegetarians from the survey because, as you reason, it's not that they don't like bacon but that they don't EAT bacon, which is completely different from liking it. You could then say that 2/3 of the people surveyed like bacon, or 67%, and therefore you have a rationale to order bacon on all the pizzas.

Trimming data is a method used to lessen the effect of statistical outliers on the results of a study. If you trim data, then you must tell your reader that you trimmed the data, and to what percent you trimmed it. For example, if you were ordering pizza for an event, and you really wanted every pizza to have bacon on it, then you could survey 100 people about whether or not they liked bacon. Your survey also includes a question about what planet people are from (this is a

ridiculous example, but I just wanted it to be simple). When you look at the results, you see that 55 people really like bacon. You notice that 45 people say they don't like bacon, but that there are irregularities in that data. For example, 10 of those respondents say that they are from the planet Mercury, so they can't eat any human food at all. So, you will trim the data to omit these irregularities. That means 55 people really like bacon and 35 don't. And you would tell your readers that 10% of the responses were culled for irregularities. You can also state what the irregularities were. It's fine to trim data that is outside the realm of possibility--as long as you tell your readers. It is not okay to trim data simply because it makes it easier for you or supports your argument better.



Cherry picking data is the practice of only using data that supports your hypothesis. A good example, with graphs and humor, of cherry picking is here.

We see these methods used so often in the presentation of data in the media, that we might come to believe it's okay to cook, trim, and cherry pick data for analysis. It is not.

How well do you understand ethics in data analysis?

Biases and Technical Communication (An Activity)

As a final discussion of ethics and technical communication, let's look at ways one can "translate" a document to a different audience. The sample document linked below is *The First Citizens' Report*, a document created in India by India's Centre for Science and Environment. Click on the cover of the journal to see a sample item from that document. The sample item, "The Killer Still at Large," explains the impact that baby formula is having on the health of India's children.

The question for you is, how does one "translate" an informative piece written to a certain audience (in this case, Indian) with a certain perspective (concern for the environment and public health) and a certain bias (that commercial formula is inferior to breast milk) into a human interest piece for readers of a small newspaper in the Southern United States? Four writers, below, take on the task.

After reading the original article, linked to the cover, above, read through the four revisions, linked below. Each one was revised to serve as a human interest newspaper story for a small town newspaper the American South.

Article revised by Fenton Harcourt

Article revised by Chandra Mistry

Article revised by Lisa Reed

Article revised by Jerry Rouche

Which writer did the best job of revising the original article to serve the needs of the new audience? Why do you think so? Register your vote here:

Access the poll

If you were the editor of this newspaper, what feedback would you provide to the writers? Using your best, professional technical communication skills, provide feedback to the writers in the appropriate boxes on the Padlet. Keep in mind that what you post is publicly available. Adhere to these netiquette guidelines.

Access the Padlet

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