

Ethics in Information Technology, Sixth Edition

Chapter 2

Ethics for IT Workers and IT Users

Self-Assessment Questions

1. True
2. c. stop the unauthorized copying of software produced by its members
3. Whistle-blowing
4. b. Material breach of contract
5. True
6. professional code of ethics or code of ethics
7. False
8. Principles and Practices
9. body of knowledge
10. b. professional malpractice
11. True
12. Internal control
13. c. exceed 70 percent
14. b. Background and make-up of the infosec organization that enforces the AUP
15. firewall

Discussion Questions

1. **What characteristics would you say are true earmarks of an employee who is unprofessional in his or her approach to work?**

Students' answers will vary depending on their values and on their work and life experiences.

Students might suggest that an employee who exhibits any of the following behaviors is unprofessional: arrives late to work, spends significant time texting or using social media (possibly using company resources) for personal reasons during the work day, gossips about other employees and/or managers, is impaired by drugs or alcohol during the work day, shares confidential company information with those outside the company, commits software piracy, produces work that is filled with errors, or is rude to clients and coworkers.

2. **How do you distinguish between breach of contract and material breach of contract? Provide an example of a breach of contract that would not be a material breach of contract.**

A breach of contract occurs when one party fails to meet the terms of a contract. A material breach of contract occurs when a party fails to perform certain express or implied obligations, which impairs or destroys the essence of the contract. Students' examples of a nonmaterial breach of contract will vary but might include a software development firm failing to meet a noncritical deadline (such as one relating to the completion of a weekly status report) set out in the contract or a IT consulting company that is doing infrastructure work for a company installing a brand of monitors that is different (but equivalent in function and performance) to the type detailed in the contract. Students examples should focus on situations in which the breach does not destroy the essence of the contract.

3. When companies are filling open positions in U.S.-based IT organization, do you think that preference should be shown for qualified candidates from the United States over qualified candidates from foreign countries? Why or why not?

Students' answers will vary. Some of them could say that they would prefer qualified candidates from the United States fill the open positions in a U.S.-based IT organization. They might reason that it would enable easier communication when the IT team is onshore and all members speak English. Others might argue that U.S. companies have a responsibility to the communities in which they are located to hire employees locally because companies often receive local (and state and federal) tax incentives that improve their ability to compete globally. Still others might note that, depending on the current status of work visa programs in the United States, a company could be putting its operations at risk if it hires too many foreign workers whose permission to work in the United States long term could be revoked. Other students might disagree with all of the above—arguing that companies should look to hire the most qualified candidates available, no matter which country they are from.

4. Does your employer or school have an acceptable use policy in place? Are you familiar with it? Were you asked to sign it?

Students' answers will vary based on their experiences.

5. Review the Software Engineering Code of Ethics and Professional Practice presented in Figure 2-3. Identify and briefly describe a ninth principle that you feel should be added to this code.

Students' answers will vary depending on their values and work experiences. Some students might suggest the addition of a principle that specifically states that software engineers should only offer to provide services which they are fully qualified to deliver. Others students might suggest a principle that provides more concrete requirements for how a software engineer should respond in situations in which he or she perceives a threat to public safety. Still others might suggest a new principle that articulates the consequences for a software engineer who does not abide by the original eight principles.

6. Describe a situation in which there could be a conflict of interest between an IT consultant's self-interest and the interests of a client. How should this potential conflict be addressed?

Students' answers will vary. One example of such a situation might be related to project delays. An IT worker or the project manager might be reluctant to share status information with the client that could cause further complications. However, these issues could be eliminated by informing the clients about the project status, concentrating on getting the project back on track by resolving issues in a timely manner, and being transparent with the client. Another example of a potential conflict of interest might be related to an IT consultant who is being pressured by her manager (and offered the prospect of a promotion) to recommend services to a client that the consultant has determined are unnecessary. Students should recognize that an IT consultant's ethical responsibility is to provide an honest assessment to the client that is not clouded by her own self-interest.

7. Should software developers who work on critical applications whose failure could result in loss of human life (for example, software for self-driving cars) be required to be licensed? Why or why not?

Students' answers will vary. Some might say that requiring a license for such individuals would help ensure that the professionals working on safety-critical software have achieved a certain level of education and experience, which would also increase the level of trust given by the general public to the products on which those developers work. Others might say that testable IT knowledge does not translate into quality IT work, and that requiring these software developers to be licensed could compel a company to pass over skilled developers who might have significant relevant experience but who don't have a particular license. Still others might suggest that companies could be required to hire only people with licenses for certain positions, such as managers and team leads.

8. Review the acceptable use policy prepared by the SANS Institute (<https://www.sans.org/security-resources/policies/general/pdf/acceptable-use-policy>). Is this code clear and concise? Does it provide a strong justification for following the AUP? Does it specify sanctions that will be enacted for violation of the AUP? What necessary changes do you feel should be made?

Students' answers will vary. Students can use the manager's checklist in Table 2-5 to help them evaluate the SANS Institute's AUP. Students should note that section 5.3 of the sample AUP details the following consequences for noncompliance: "An employee found to have violated this policy may be subject to disciplinary action, up to and including termination of employment." Students might offer suggestions for updates to the AUP so that it provides a more detailed list of sanctions tied to specific types of noncompliance.

9. What do you think are the benefits you can derive from joining a professional organization for people in your chosen career field? If you were to join one professional organization, which one would it be?

Students' answers will vary, in part, depending on their chosen career field. Students might identify benefits such as the following: the availability of training and mentoring programs, opportunities to network with others in their chosen field, the existence of a code of ethics that could aid them in decision making, and the chance to take part in conferences that will allow them to improve their skills, keep up with changes in technology, and contribute to the development of new ideas in their field.

10. The Foreign Corrupt Practices Act (FCPA) allows a bribe to be made under what conditions? Explain, and provide an example.

The Foreign Corrupt Practices Act (FCPA) makes it a crime to bribe a foreign official, a foreign political party official, or a candidate for foreign political office. However, a bribe is not a crime if the payment was lawful under the laws of the foreign country in which it was paid. Students' examples will vary.

11. What certifications are available for someone in your chosen career field? Which of these are considered most valuable?

Students' answers will vary depending on their chosen career field and on their own values and work experience.

12. What is the difference between a breach of duty of care and professional malpractice?

Duty of care refers to the obligation, as determined by a regulation, law, or court decision, to protect people against any unreasonable harm or risk. A breach of the duty of care is the failure to act as a reasonable person would act. Professional malpractice is the liability that occurs when a professional breaches a duty of care, causing injuries (physical or otherwise) as a result of his or her negligence.

What Would You Do?

1. Students' answers will vary. Students should be aware that CPAs are licensed by the state in which they practice, and such licenses typically include a requirement to follow all laws and applicable standards in their work. Students might note that even work done in a volunteer capacity may not be shielded from state and federal laws—thereby, compelling the CPA in such a situation to report the unauthorized “loan.” In addition, students should note that the CPA's ethical responsibility is to the organization rather than to the CFO (who also might not be telling the truth about the circumstances surrounding the issuance of the checks).
2. Students' answers will vary. Concerns about résumé inflation and whether the certifications are being overvalued are legitimate. Certifications are a great way to demonstrate knowledge, but cannot always take the place of experience. Although experience can be “inflated,” it is difficult to fake a certification if asked to provide proof.

In this situation, students could consider asking their boss if they might include two or three of the top candidates who have over five years of experience but who do not list certifications on their résumé. The students could then contact all of the top candidates, asking them to list the Cisco certifications they possess and asking them to provide proof of each certification. This way, they could balance the list of candidates with experience and certifications (and they will know that the candidates have not inflated their résumés with certifications they do not really have). Students might also consider asking to meet with some of the IT managers within the organization in order to get a better understanding of why they might think the certifications are important.

3. Students' answers will vary. They might note that the ethical thing to do would be to record the sales for the current quarter. The student could reason that even though a slump in the market might be predicted in the next quarter, it is not a sufficient reason to wait to record a sale within the quarter in which it happened.
4. Students' answers will vary. Some of them might say that they would be inclined to testify in support of their coworker who was being harassed. This would be the ethical thing to do, regardless of the threats from the boss. Repercussions for testifying against the boss could come in a variety of forms, including the boss assigning heavier workloads or giving a negative review to the employee who testifies. However, students should also note that if the boss is being unfair and engaging in retaliatory behavior, the employee could approach someone superior to the boss to address the problem.
5. Students' answers will vary. Students might feel it is their obligation to let their friend know that his résumé seems inflated. Students might also bring up the responsibility they have to their employer not to take part in their friend's misrepresentation of his qualifications. Students might suggest explaining to the friend that if he does not have documentation to prove his certification claims, he should leave the information off the résumé. They could even offer to help him rewrite the résumé so that he is reflected in the most positive way, without exaggerating his accomplishments.
6. Students' answers will vary. Most students will consider this as an attempt at a bribe. Students might suggest expressing their appreciation to the contractor while also explaining why they cannot take them up on their offer. Students should also note that the best course of action would be to immediately inform their manager of the offer and to explain that they did not solicit it.

Cases

Case 1: Bridgestone versus IBM

1. Students' answers may vary. Suggestions for things that Bridgestone could have done differently might include: prioritizing the project internally in terms of financial and human resource

allocation; ensuring that its internal staffing for the project included developers who were familiar with the company's legacy system as well as employees who had the expertise to assess the ongoing work of IBM's consultants; keeping staffing (including staffing at the executive management level) consistent over the course of the project; establishing contractual requirements regarding the experience and expertise of IBM staff who would be working on the project; and including more verifiable project milestones—along with penalties for not meeting those milestones—in its contract with IBM.

Suggestions for things that IBM could have done differently might include: ensuring that its consultants had sufficient expertise and experience to provide the services detailed in its contract with Bridgestone; communicating clearly and proactively with Bridgestone project leaders and executive management when difficulties began to occur on the project; insisting that changes to the agreed-upon deliverables and/or schedule to which Bridgestone agreed during the course of the project be detailed in writing and signed off on by both parties; and insisting the Bridgestone heed its advice to delay the system launch and/or roll it out gradually across the tire company's North American operations.

2. Students' answers may vary depending on their point of view and any online research they may have done. Some students might point out that because IBM's business success is based on its reputation for providing a high-level of information technology consulting services and products, any damage to its reputation as a result of this dispute would likely cause lasting harm. However, other students might note that investors expect a company such as Bridgestone to be able to successfully implement technology upgrades designed to keep it competitive, and the damage done to Bridgestone's reputation due to its public dispute with IBM might result in a loss of investor confidence—which could have a negative impact on its share price.
3. Students' answers may vary depending on the results of their research and the current status of the case.

Case 2: SAP Found in Violation of FCPA

1. Students' answers may vary. Some students might suggest that too few companies (and individuals) are convicted of violations under the FCPA for it to be an effective deterrent. Others might point out that while the potential penalties might be sufficient to encourage companies to implement systems capable of detecting bribes, individual employees might still be willing to take significant risks, including violating their own company's internal control procedures, in the hopes of obtaining substantial financial benefits in the form of bribes and kickbacks.

Students might agree that some organizations are willing to turn a blind eye to the lax implementation of internal control procedures in their quest for increased profits. Others might believe that organizations operating in certain markets around the globe have resigned themselves to the practice of paying bribes and kickbacks in order to remain competitive in those markets.

Suggestions for improvements to the FCPA might include increased reporting requirements by companies in terms of their internal control structures and processes, harsher penalties for

FCPA violations, higher profile prosecutions, and an increase in SEC staffing to allow for an increase in the number of FCPA investigations. Others might argue that the FCPA could be improved by decreasing the amount of penalties that companies incur so that they take into account only the actual financial benefit that a company accrues due to the bribe. Still others might suggest the FCPA should be scrapped entirely—or at least significantly modified—because they believe it puts U.S. companies that operate globally at a disadvantage to companies who do not do business or trade stock in the United States.

2. Students' answers may vary depending on their work experience. Some students might suggest that a company that discovers its software is lacking in good internal control features should seriously consider immediately replacing the software with one that provides more control features. Others might suggest that such a company work with an outside consultant to see if control features could be added to the existing software through a customized add-on. Still other students might suggest that in the interest of finding a more cost-effective resolution, the company should instead develop new internal processes and procedures to compensate for any deficiencies in the software.
3. Students might suggest that IT workers could prepare themselves for the responsibility that comes along with this type of work by pursuing and completing certifications that would help them increase their knowledge and develop relevant skills. Students might also suggest that IT workers who develop and maintain such systems could improve their skills by taking additional training in accounting principles and procedures. When evaluating or designed the automated internal controls of a computer-based information system, IT workers could collaborate with coworkers or others in their industry who have relevant experience. The IT workers should also closely collaborate with accounting professionals within their organization to ensure that the necessary rules and regulations are accounted for in the software's features.