

Technology in Action, 13th Edition

Answer Key Chapter 1

Team Time

A Culture of Sharing

	Needs improvement	Done Adequately	Done Well
Student teams research how crowdsourcing has affected finance, travel and consumerism			
Student teams present group findings for debate and discussion			
Student teams submit strategy paper that summarizes their position, outlines predictions for the future.			

Ethics Project

Can Big Data Predict Your Grade?

	Needs improvement	Done Adequately	Done Well
Student teams think of a situation where a person would benefit from the type of results data mining of Big Data can bring to campus and a situation where it might be undesirable.			
Team members develop a summary conclusion			
Team members present findings.			

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Chapter 1

making the transition to...next semester

1. Drive

Researchers are finding that the critical quality that predicts whether a student will complete a course or an entire program is “grit”—his or her determination to continue toward a very long-term goal despite adversity. How does your determination change as you are given more autonomy in a course? As you feel your skills are growing? If you have a sense that the work you do matters to more people than just yourself?

Students will respond with personal discussion of their own observations of their habits and feelings. Drive by Daniel Pink discusses in more detail the relationship between autonomy, mastery, and purpose as key components to maximizing motivation. His TED talk and RSA Animate video are short summaries of current research.

2. The Mind of the Mob

Crowdsourcing is the gathering of data in real time, as it happens, from a growing crowd of people. Because of the large number of students who now own phones with Internet access, crowdsourcing on campus could start to be useful. In what settings would making decisions based on information from a gathering crowd on campus be valuable? How would you react to your professor using a form of crowdsourcing to determine your grade on an essay?

Students should consider what types of questions or issues are best to settle by group consensus and which are best to settle by having a trained professional making a judgment. There might be a middle ground as in a trial where professionals see that information (evidence) is fairly presented, but individuals from the general population make the judgment. The time element (instant judgment) may be a critical element students focus on, and students may question if a crowd can be manipulated to reach the decision a small group wants.

3. Recycle, Repair, Redistribute

The Microsoft authorized refurbisher program and TechSoup both help provide resources to people in need to reduce the barrier of the digital divide. These organizations recycle hardware and supply software inexpensively to needy families. How could a program be set up at your school to make people aware of these options? Could students donate materials or retrofit systems as part of their coursework? As part of a club activity? How could you make these programs work for your community?

Responses should include ways to make students aware of a program to recycle technology components to those who are less fortunate. Making a donation might be considered as an example of buying a grade. However, another viewpoint is that a donation to this type of cause could be seen as building social responsibility, which can be a goal of education. Student answers to this question should include reasons for the statements. Asking students to come up with ways to make such a program successful gives an opportunity to point out potential challenges and how to overcome them.

making the transition to...the workplace

1. Patients and Medical Computing

As more hospitals and doctor's offices begin to use electronic medical records (EMRs), the flow of information among the different doctors and care facilities a patient uses could become much more reliable. In their training and work, doctors and nurses rely on computers. What about patients? Examine Microsoft Health Vault at www.microsoft.com/en-us/healthvault for an example of an electronic medical history. How does this migration from a traditional paper records system impact the skills required for medical office workers? New ethical questions also often arise when technology changes. How would a medical facility now protect and verify its data records? What risks are there with a product like Microsoft Health Vault?

You can transfer your health data to another personal health record provider such as Microsoft HealthVault. What privacy issues are involved? Students can express their views on using this type of system, including potential benefits and risks.

Use the Internet students should look into the new technologies that are being used in doctor/dentist offices, hospitals, medical centers or other health care providers. What concerns do you have regarding the accuracy of the records? What happens if someone accidentally enters the wrong information or if your information is accessed for malicious reasons?

2. Social Media Careers

With the explosion of users on social media sites, businesses need to establish their presence on social media sites. Just search for “Vans” or “Starbucks” on Facebook for examples of company sites. To manage their interaction with customers (and fans), companies need to hire social media managers. Using a job site such as **Monster.com**, search on “social media manager” and review the job postings. What are the educational requirements for social media managers? What technical skills do these jobs require? Given your major, what companies would you do well for as a social media manager? What steps should you take while in school to prepare yourself for a career as a social media manager?

Students can search on CareerBuilder.com and other job sites for social media positions. Define what a social media manager does and provide a job description to the class. Is this something you could do? How can you use your technical skills to develop a career as a social media manager in your area? Is this career something that has long-term potential or might you move into a different role? Are there any specific skills that you need to be ready for this role? What educational requirements exist? Are there any organizations you need to join? What kind of technical experience will you have to have to do this well?

3. Edges of Literacy

Employers always seek to hire computer-literate workers. Is the boundary of what is computer literate changing? Is it enough to just know how to use the most popular computer programs, or is writing programs important? Is it enough to know how to use Google, or are there other techniques of finding information employers expect? Is it enough to be able to install a mobile app, or do employers want you to be able to create one? How could you document for your employer your ability to learn, adapt quickly to changes in technology, and acquire new skills?

In the realm of writing code, there are many indications employers want programming skills at some level from every employee. The essay published in the Wall Street Journal “Sorry College Grads – I Probably Won’t Hire You” speaks to this. The App Inventor site documents many stories of how a visual programming environment led non-majors to produce very valuable mobile applications. The use of visual programming languages to create a mobile app quickly would show an employer initiative, mastery and creativity.