CIS150: Fundamentals of Information Systems

Spring Semester 2016

**Test 2 - Potential Questions**

Listed below are 30 questions that are definitely being considered for use as Essay or perhaps Short Answer format on the upcoming *Test 2*. There will be no *Wiki* for *Test 2* in Blackboard. There are three sections noted below (*Intellectual Property*, *Consumer Privacy*, *I.T. Safety and Reliability* and *Workplace Privacy*, the latter of which includes *Impact of IT on Employment* presentation material) will be selected. In addition, several of the remaining questions will be adapted as True/False, Multiple Choice, or Multiple Answer formats for inclusion on *Test 2*. This list should not be misconstrued as all-inclusive, but rather a useful study guide for students.

***Intellectual Property***

**Question 1**

In class, we discussed how recent technological advances have magnified the threat to the owners of Intellectual Property (IP). Identify three of these technological advances and explain how each one of   
them has magnified the threat to IP owners with digital material that is available via the Internet.

1. **World Wide Web –** which makes it easy to find and download content as well as upload
2. **P2P networks –** allows easy transfer of digital files over the Internet by large numbers of strangers.
3. **Scanners –** converts print, text, photos, and art to high quality digitized forms which makes it easier to violate the protection of IP.

**Question 2**

In class, we identified several factors that should be considered when comparing the legal protections for Intellectual Property. Use these factors to identify and explain three critical *differences* between copyright protection and patent protection.

1. Copyright protection only protects particular expressions of ideas whereas patent protection extends to the front of protecting ideas.
2. Copyright law will not prevent the creation of a competing program that utilizes the same ideas as an existing program, but the patent law will prevent a competing program from utilizing the same idea as an existing program.
3. Copyright does not protect algorithms, whereas patents do.

**Question 3**

Define what a trade secret is and identify at least three actions that an entity should take to protect it.

A trade secret would be Coke’s secret recipe, along with the The Colonel’s (KFC) fried chicken recipe. Three actions to prevent their trade secret would be to:

1. UTSA (Uniform Trade Secrets Act) gives the right for companies to keep certain information secret in order to gain a competitive edge. This covers formulas (recipes), patters, programs, devices, methods, and processes.
2. Exercise diligence to limit disclosure to employees and third parties about the trade secret.
3. Requiring nondisclosure agreements when revealing any confidential trade secrets.

A trade secret is information about the market or other companies that gives a competitive edge

**Question 4**

1. Define what a trademark is and explain how trademark laws apply. How does it differ from trade dress?

Trademarks are logos, or brands that a company uses to distinguish itself from other companies. Trade dress differs from trademarks in that they represent the look of a business such as their interior design and color schemes or the same characteristics regarding their packaged products or service.

1. Describe one of the significant court cases involving a trademark violation, including background, claim, defense, and final ruling by the judge.

Hasbro v. Internet Entertainment Group featured Hasbro’s Candyland trademark being infringed through dilution due to the defendant’s usage of a website (candyland.com) that contained sexually explicit content which is vulgar material for children (Hasbro’s market consumer regarding Candyland).

**Question 5**

Course textbooks often include a short quotation from other author’s work at the beginning of many chapters. Such quotes are almost always used without explicit permission. List the four factors of the   
Fair Use Doctrine and indicate whether or not each of them is a fair use of the copyrighted material.

1. The purpose of the use – The purpose of this use is commercial, and it is also educational.
2. The nature of the copyrighted work – The nature of the copyrighted work is academic so from that basis it is alright, however without due credit it may seem that the author is claiming the creativity of another author, as his own which is clearly unfair use.
3. The portion of the copyrighted work used – The copyrighted works are small quotations used in a presumably large textbook so it is rather insignificant to the total value.
4. The effect of use upon the value of the copyrighted work – The copyrighted work is being used in a valuable medium such as a textbook which usually garners a lot of sales.

**Question 6**

Identify and describe two technical means of protecting copyright of digital Intellectual Property on the Web. Provide an example of each of these protections.

1. One technical means of protection of copyrighted digital intellectual property is CSS which is Digital Rights Management.
2. Another technical means of protecting copyrighted digital IP is encryption of information such as sensitive emails or links.

**Question 7**

A search engine company copies thousands of books in a university library, including books in the public domain and books still protected by copyright. It displays segments (e.g., a paragraph), in response to user search requests. List the four factors of the Fair Use Doctrine and use them to explain whether or not this   
is a “fair use” of this copyrighted material.

1. The purpose of the use – the purpose of the use is commercial and this would not constitute fair use.
2. The nature of the use – The nature of this use is creative
3. The portion or amount of copyrighted work used –
4. The impact of value of the use in market --

**Question 9**

1. Explain the two key anti-circumvention provisions of the Digital Millennium Copyright Act (DMCA).

1. Descramble a scrambled work

2. To decrypt an encrypted work

* + 1. Explain what the DMCA says about intermediary (e.g., ISPs and Web search engines) liability for contributory copyright infringement.

In recent case law, the DMCA has reaffirmed that intermediaries still do not have to actively police for potentially infringing content, which is particularly important for any site that hosts content for hundreds, if not thousands or millions, of users (YOUTUBE).

**Question 10**

What were the key arguments that Veoh used as a defense in the civil court case that was filed against it by Universal Music Group?

The DMCA’s safe harbor provisions offered immunity from copyright damages to those who implement, a notice-and-takedown system and comply with the other requirements of law (YOUTUBE).

**Question 11**

In the Sony Betamax case [*Sony v. Universal Studios - 1*984] the court addressed two critical issues:

* Is recording a movie for personal use (“time shifting”) a copyright infringement or Fair Use?

According the court, “private, noncommercial time-shifting in the home satisfies this standard of non-infringing uses.” So it is fair use. They ruled this because it was for non commercial use, and that it is a real service to families to be able to record children’s programs and to show them at appropriate times.

* Can manufacturers of technologies that enable copyright infringements be liable for contributory copyright infringement?

No. The court ruling basically held that producers of technology that can be utilized to illegally copy creative works cannot be held liable if the same technology has “substantial” legal uses.

**Question 13**

What is “cybersquatting” and why is it of concern to retailers?

Cybersquatting is when a registered domain name is confusingly identical to that of an existing trademarked brand. This is dangerous for retailers because it infringes on their trademark for not distinguishing itself adequately from the retailer’s TM, and also dilutes their TM.

**Question 14**

Explain what Open Source Software (OSS) is and identify two of its benefits according to OSS supporters.

Open Source Software is simply source code that is available for distribution, copying, and changing for any purpose. Two benefits of OSS are (1) it allows the user to adapt the OSS for their own specific need which eliminates unnecessary tasks that is common with other forms of software and (2) OSS also has fewer bugs because it generates better code from the thousands of talented programmers contributing.

***Consumer Privacy***

**Question 15**

Identify the three key aspects of privacy that U.S. citizens have come to expect in their everyday lives? How are these compromised, if at all, when dealing with online transactions and social media?

1. Freedom from Intrusion

2. Control of Information about oneself

3. Freedom from surveillance(like being tracked and followed)

These are all compromised when dealing with online transactions and social media because users are voluntarily putting their information onto the internet via social media, and also accepting privacy policies in both online transactions and social media that allows companies to track their online movements, as well as geographic location. I think that the control of information about oneself on the surface seems pretty untouched with regard to compromise, but that may not be the case in some unscrupulous acts by parties that we don’t know about. Nothing is safe.

**Question 16**

Briefly describe radio tomographic imaging (RTI) technology. What are some of the recognized uses of it and potential benefits? What are the possible risks associated with RTI?

RTI basically uses radio frequencies in a given space that is surrounded by radio nodes and receivers which, when well programmed, can determine the location of a person in that defined space.

Its uses on the positive side can help firefighters determine the location of possible victims, help police locate intruders and hostages, and also help border control or retailers to monitor movement.

Some downsides to RTI is the unknown effects of radio wave overload on the human body, as well as the inability to determine whether or not the perceived movement is that of a good, or bad guy.

**Question 17**

Some argue that advances in information technology are creating a panopticon in today’s world. That is, we are moving towards the direction where everything we think, say, and do is collected and stored (often times without our knowledge) only to come back and then haunt us at a later time. Identify three privacy-invasive technologies and explain how each technology is helping to create a “panopticon” in today’s world.

1. Cookies – this technology is being stored by companies and compiled into large databases that now being shared with other companies in order to create an individual profile a consumer.
2. Web Beacons (or bugs) – These are invisible graphics often called “clear GIFs” on a web site/email, in order to track those who visit the website or receive the email.
3. Spyware – This is the most intrusive technology and involves a small program installed on a computer that tracks the user’s habits and transmits that information to a third party.

**Question 18**

Imagine that you have been hired by a company to develop a privacy policy for a new e-commerce Web site. In lecture material, we identified several elements of Fair Information Practices that a retailer should include in their Web privacy policy. List three key elements of Fair Information Practices and briefly describe each.

1. Notice (Awareness) – describes what info is being collected and how it is used

2. Choice (informed consent) – gives the user a choice to opt-in or out

3. Integrity (Security) – provides proper protection from data theft or any other malicious act on data.

**Question 19**

Consider various examples (students, nurses, factory workers) of Smart ID cards and the associated digital records that monitor access to specific locations. Select just one such example and discuss the potential benefit(s) as well as the possible misuse of such information.

For students, a benefit of having a Smart ID card is it’s efficient ease of use that allows instant access to the student’s university funds, as well name and student information. A possible misuse of such information would be for someone to collect the data from these Smart ID cards, compile them into a database, and/or track the usage of the Smart ID cards on campus, and then sell the collected information to companies for analysis/use.

**Question 20**

Briefly describe the intended purpose for each of the following reactive and “piecemeal” U.S. legislative acts:

* *Fair Credit Reporting Act – 1970* - promotes accuracy, fairness and privacy for data used by consumer **reporting** agencies
* *Family Educational Rights and Privacy Act (FERPA) - 1974 -* protects the privacy of student education records
* *Right to Financial Privacy Act – 1978 -*
* *Cable Communications Policy Act - 1984*
* *Video Privacy Protection Act - 1988*
* *Driver Privacy Protection Act - 1994*
* *Health Insurance Portability and Accountability Act (HIPAA) - 1996*
* *Gramm-Leach-Bliley Act - 1999*
* *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (PATRIOT) Act - 2001*
* *Sarbanes-Oxley (SOX) Act - 2002*
* *Federal Information Security Management Act - 2002*
* *Genetic Information Nondiscrimination Act (GINA) - 2008*

**Question 21**

Compare the approach used to protect consumer and workplace privacy in the United States with that of the European Union (EU). Which system do you believe works better? Why or not?

**Question 22**

One critical element of the Data Protection Directive (Directive 95/46/EC) is the concept known as onward transfer - that is, the requirement that European firms cannot give customer information to any firm in any country that does not have the same level of protection as set under the directive. Related to this concept, explain the purpose and requirements of the Directive’s “Safe Harbor” Program.

***I.T. Safety and Reliability***

**Question 23**

What are the two Federal legislative acts that were enacted to address health care equipment malfunctions including the radiation overdoses and tragic deaths of several people who were subjected to the Therac-25?

**Question 24**

Assume that you are an engineer and have been asked to design a new computer-controlled pizza machine for use in the restaurant industry. The design specs call for the operator to simply type in a code number for the particular pizza ordered, and the machine does the rest. It will have recipes for making many kinds of pizzas, including ingredients, cooking times, and temperatures. Robotic arms will scoop required ingredients from bins and place them on the pizza dough. The machine controls insertion into the oven and then removes each pizza when it is done and places it up on the counter. Answer each of the following using the letter (a., b., c.) designated.

a. Describe two potential safety hazards related to the use of the pizza machine.   
b. Discuss what should be included in the design of the computer-controlled pizza

machine to reduce the likelihood of a serious safety problem.   
c. Once installed in the pizza parlor, what measures should be taken to ensure the

safe operation of this machine?

**Question 25**

What are some of the key roles and responsibilities of a software provider (technology vendor or supplier), product purchaser (persona paying for the product), and end user (individual actually using the product)?

***Workplace Privacy***

**Question 26**

Provide two examples of how Information Technology (I.T.) has had a significant impact on various jobs in the past.

**Question 27**

Provide two examples of technological advances that significantly reduced (or perhaps eliminated) certain types of jobs in the United States. Then provide two examples of job categories where the number of job opportunities in the U.S. increased substantially as a direct result of technological advances. Explain why.

**Question 28**

Identify whether or not an employer has the right to read an employee’s email. Explain your answer based on the *Electronic Communications Privacy Act (ECPA) of 1986* and identify at least one relevant court case   
as well as an important *exclusion* in this legislation.

**Question 29**

Identify and explain three different arguments that favor electronic monitoring of employees by their respective employers. Accordingly, identify and explain three of the various criticisms of corporations who have elected to implement some electronic means to monitor their employees in the workplace.

**Question 30**

Identify and explain three guidelines that management should follow when establishing a new electronic monitoring policy within their workplace to help address criticisms associated with electronic monitoring.