

WHILE YOU READ:

identify major points

ask questions about what you are reading

make comments on what you are reading

Chapter 1

Explain the following Koans - Argue if you agree that it is a "truth" and if it will always be a "truth."
How does this koan intersect with your life as a student?

Koan 1: It's All Just Bits

Koan 2: Perfection Is Normal

Koan 3: There Is Want in the Midst of Plenty

Koan 6: Nothing Goes Away

Koan 7: Bits Move Faster Than Thought

Argue if you agree that it is a "truth" and if it will always be a "truth."

How does this koan intersect with your life as a student?

Describe, in your own words, Moore's Law.

Give an example of how the digital explosion is "neither good nor bad" but has both positive and negative implications.

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What is an RFID tag and what does it do?

What is an EDR and what does it do?

Is it possible to identify someone, perhaps a patient, knowing just his or her gender, birth date, and zip code? Explain.

What is the difference between "big brotherism" and "little brotherism"?

How do you feel about "Big Brother" watching you? Do you think having security cameras everywhere is good or bad?

Is the Privacy Act effective? Explain.

Are you worried about your privacy? Why or Why not?

How has the social evolution affected privacy? Consider social networking.

Is there any info out there about you on the web that embarrasses you?

How much info do you give out about yourself on sites like Facebook? Do you turn on privacy settings, or do you like to give out lots of information?

Is it really possible to browse the web anonymously?

What other behaviors of ours are "watched," such as credit cards, grocery loyalty cards, public security cameras, locators in cell phones, etc.?

For what purpose will the large amount of data being gathered about us be used? Will it mostly be commercial, such as Amazon.com recommending products? Legal, such as speeding tickets and catching wanted criminals?

How does this relate to recent laws such as the PATRIOT Act and wiretapping?

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Give an example of your own when just knowing what a computer did wasn't sufficient - you really needed to know how and why it was doing what it was doing as well.

Talk about file metadata and how it "fingerprints" a file. Include a discussion of file metadata benefits and challenges.

How does highlighting in a PDF doc work? What are the computational ideas utilized?

What do you think the Internet would be like today if different companies' network protocols were still competing for adoption for the Internet, instead of TCP being the de facto standard?

What is Steganography and why do they use it?

Explain Digital watermarking and if it is an effective security measure.

When a hard drive is erased, are its contents really gone? What happens when a file is "deleted"? Have you ever sold a computer or hard drive, and what was on the disk at the time?

Can you be sure a digital image has not been "Photoshopped"? How would one detect this? Could a digital photo be used as evidence in court?

How long does data last on various storage media? What media will still be around in 1000 years, and will we be able to read the data?

Is it important what format is used to store data? Do some formats (such as "open" formats) have a better chance of surviving into the future?

What format/extension are the various files on your computer? For example, music files: MP3, AAC, WMA, OGG, FLAC, etc.?

What are some reasons (both good and bad) for images that look like text? Examples: CAPTCHAs, spam messages, etc.

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Chapter 4

How does a search engine really work? How does Google crawl, index, cache, analyze, understand, and rank web pages?

How do search engines (and the choice of sites that they offer to us) influence what we do / don't see, and how we perceive the world around us? Are search engines biased? Should a person be able to contact a search engine and demand that an embarrassing or inappropriate page about them be removed from the search results?

How does a search engine decide which content is relevant and which content should appear higher in the search results?

How ethical is the practice of search engine optimization (SEO)? How does this relate to the practice of Google-bombing?

Should search engines allow companies to pay them for preferred placement in the search rankings?

Should Google be in China? Is it okay that they filter the results, such as this result for the Tiananmen Square protests? Is Google right to say that they'll pull out of China now due to attacks by the Chinese government?

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Chapter 5

What are some classic encryption algorithms? Explain at least 3 to the best of your ability.

What is the RSA encryption algorithm and public-key cryptography?

How is it possible to crack encryption algorithms?

What is social engineering? Explain and give examples.

Should it be illegal to encrypt data so tightly that no one else can read it?

What if the government or law enforcement needs to seize your data, but you've made it so they can't read it?

Should every encryption algorithm be built with a back-door for the government or law enforcement to be able to read it if necessary?

Research Alan Turing and how he is related to the subject of this chapter?

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Chapter 6

Why should all Internet users be aware of copyrighted material?

Is it wrong to illegally download music using P2P software such as BitTorrent and Kazaa?

The RIAA goes after illegal downloaders. Should they do this to protect their artists?

What is the NET Act and what is its significance in the history of copyright?

The claim is that it costs \$750 per song infringed in an illegal downloading case. Why is it so high? Is this a fair and reasonable amount?

Is it right that a person should have secondary liability when their computer or internet connection is party to illegal file sharing without their knowledge?

Many media files now come with Digital Rights Management (DRM) restrictions placed upon them. How do you feel about DRM? Should it be used? Is it a necessary evil?

What is a peer-to-peer architecture? Provide an example of at least one well-known peer-to-peer network.

Does the 1998 Digital Millennium Copyright Act (DMCA) law encourage or limit innovation? What is its impact on file sharing and piracy?

What are Open Access and Creative Commons? How have they impacted the sharing of digital information?

Before reading this chapter, were you aware of copyright infringement?

Why did the RIAA file lawsuits against "John Doe" instead of a real person's legal name?

Explain where files were stored in the MIT Bulletin Board system in contrast to where the files named in Napster's directory were stored.

Explain how the Peer-to-Peer technology used by Grokster differed from the Peer-to-Peer technology used by Napster. Why does music sold from the iTunes store no longer contain DRM?

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As a teen, did you face monitoring or censorship by your parents? Did they let you watch R-rated movies? Listen to music with explicit lyrics? Did they let you have a cell phone? A car? Did you have your own computer, or use a shared family computer? Did they monitor your internet usage, and/or run a site blocker to stop you or siblings from viewing inappropriate materials online?

Should sites like MySpace, Facebook, etc. be totally uncensored, or should they allow any content whatsoever to be posted and transmitted?

What content (if any) should be forbidden?

What, if anything, should sites like MySpace, Facebook, Twitter, etc. do about the problem of sexual predators and other crime that may be facilitated by their services?

Are they at all liable for such events if they occur? (Are they more like a distributor/truck, a newspaper/publisher, or a library?)

What is the difference between the online filtration policies employed by CompuServe (uncensored, legally safe) and Prodigy (censored, possibly legally liable).

What is the "Miller Test" ?

Good Samaritan laws and clauses applied to online content providers in the past. Were these good laws?

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Ch 8

How is the history of the FCC of regulations related to the regulation of the internet and technology?

How does the 1st Amendment free speech rights factor into regulations?

Give some examples of pivotal or notable events that influenced the regulations.

What position do the authors of the book seem to take on regulations? Do you agree? Argue for or against and support your position.

Give at least one specific example of an aspect or experience in your personal life that is related to the reading.