

**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.