Welcome to AP CSP – Your Summer Exploration Begins!

Dear Students,

Welcome to **AP Computer Science Principles**! I am thrilled to have you in class this year. This course is much more than just learning how to code; it's about understanding how technology reshapes our world, our privacy, and our future.

To hit the ground running, your summer assignment involves reading the first four chapters of ***Blown to Bits: Your Life, Liberty, and Happiness After the Digital Explosion***. This book will be our guide for understanding the "hidden" side of the internet.

What you need to do:

- **Read & Respond:** As you read Chapters 1 through 4, complete the guided questions and definitions in the attached document.
- **Be Specific: I**n Chapter 2, please ensure your answers are in **bold print** or **highlighted** as requested.
- **Think Critically:** Pay close attention to the "Koans" in Chapter 1 and the concept of "Digital Gatekeepers" in Chapter 4 —these are core concepts we will debate during our first two weeks.

Important Dates:

- **First Two Weeks:** We will review these chapters in depth through class discussions and activities. **Please bring a printed out copy of your work.**
- **Assessment:** There will be a test covering Chapters 1–4 at the end of our second week of school.

Computers are everywhere, but few people truly understand the "digital explosion" we are living through. This summer, you'll start to see the world behind the screen.

I look forward to hearing your thoughts in August!

Best,

Ms. Kornberger and Mr. Walz

AP Computer Science Principles Instructors

Name _____ Date _____
Class Period _____

AP Computer Science Principles: Summer Assignment

Welcome to AP CSP! This assignment is based on the book "Blown to Bits: Your Life, Liberty, and Happiness After the Digital Explosion" (2nd Edition).

Access the book for free online here: https://bitsbook.com/excerpts/

Connection to AP CSP Big Ideas

This book serves as a foundation for several **AP CSP Big Ideas**:

- **Big Idea 1: Creative Development:** Understanding how digital innovations are designed and their unintended consequences.
- **Big Idea 2: Data:** Exploring how bits represent information and how data is collected, aggregated, and stored.
- **Big Idea 4: Computer Systems and Networks:** Investigating how the internet works, its decentralized nature, and the role of gatekeepers.
- **Big Idea 5: Impact of Computing:** Analyzing the legal, ethical, and social implications of the digital explosion, including privacy and the 4th Amendment.

General Instructions for ALL Chapters:
1. Read the chapter in its entirety.
2. Define the key terms in your own words.
3. Answer the analysis questions using complete sentences.
4. Please put your answers in **BOLD print** or highlight them to make your work easy to read.

Part 1: Current Events Connection (Day 1 Activity)

In addition to the reading, find ONE news article **dated between June and August 2026** that relates to a topic in the book (e.g., a data breach, a new AI development, a privacy law, or a debate over net neutrality). Be prepared to share a 30-second summary and explain which 'Koan' or chapter it connects to on the first day of class.

Article Title: _____

Source/URL:

_____

Chapter 1: The Digital Explosion

Key Terms

- • Algorithmic transparency:
- • Bit:
- • Proprietary algorithm:
- • Digital explosion:
- • Data:
- • Search engine:
- • Moore's Law:
- • Processor:
- • Database:
- • Encryption technology:
- • Blacklist:

Analysis Questions

In Chapter 1, how is AI being used? Are there any situations discussed when you would not trust the computer's decisions? Why or why not?

What does the author mean when he refers to "a bits story"?

What are "Koans"? List and describe each of the seven Koans in 1-2 sentences each.

What was the Internet called when it was first invented, and what year was that?

Explain Moore's Law. Why is it significant to the 'Digital Explosion'?

Chapter 2: Naked in the Sunlight

Key Terms

- • Triangulation:
- • USA Patriot Act:
- • Metadata:
- • Clustering Algorithms:
- • Cryptographers:

- • Cryptanalysts:
- • Encryption:
- • End-to-end encryption:
- • GPS:
- • Biometric data:
- • Data mining:
- • Data aggregation:

Analysis Questions

What are examples of data sources? What kind of data is produced that is often retained and analyzed?

What is a digital footprint? Think through a typical day: where do you leave your digital footprint?

Explain this quote: “We accept our loss of privacy in exchange for efficiency, convenience, and small price discounts.” (p. 22)

Summarize the USA Patriot Act and its impact on digital privacy.

Summarize the court case Olmstead v. United States and its relationship to the 4th Amendment.

4th Amendment Focus: How does the 'Third-Party Doctrine' affect the legal protections of your data when it is stored by companies like Google or Verizon?

4th Amendment Focus: In the context of the 4th Amendment, what is the difference between 'content' (like a phone call) and 'metadata' (like a call log)? Which one currently has more legal protection?

What is an RFID device? Do you own any items (like wallets or passports) that protect against RFID scanning?

Which states opposed the REAL ID Act of 2005 and why? Specifically, how has Tennessee handled REAL ID implementation?

Summarize the Privacy Act of 1974. Do you believe this Act is outdated? How would you update it for the age of social media?

Discuss TIA (Total Information Awareness) and the IoT (Internet of Things). What are the primary security drawbacks of smart buildings and cities?

After reading this chapter, will you change your online habits, or will you continue to trade privacy for convenience?

Chapter 3: Who Owns Your Privacy

Key Terms

- • Contextual integrity:
- • Contextual collapse:
- • Doxxing:
- • PII (Personally Identifiable Information):
- • Informed consent:
- • Fair Information Practice Principles (FIPP):
- • HIPAA:
- • Video Privacy Protection Act:

Analysis Questions

Scenario: A social media company collects users' locations and search history. Explain how this data creates a unique digital footprint.

Describe one privacy concern that results from this type of data collection.

Describe one benefit and one drawback of this data collection for the user.

Explain what it means when information is used outside of its original context.

4th Amendment Focus: Chapter 3 discusses the 'Right to be Let Alone.' How does the 4th Amendment attempt to balance individual privacy against the government's need for public safety?

Identify one law or principle from this chapter that helps protect personal data and briefly explain what it does.

Chapter 4: Gatekeepers

Key Terms

- • Gatekeeper:
- • Algorithm:
- • Net Neutrality:
- • Search Engine:
- • Decentralization:

Analysis Questions

Why was the internet originally designed to be decentralized?

How can Internet Service Providers (ISPs) influence your access to information?

Why do search engine algorithms hold so much power over public perception?

How do social media platforms influence the 'viral' spread of information?

Explain one positive and one negative impact of digital gatekeepers on society.

Synthesis: In 2–3 sentences, explain why understanding digital gatekeepers is vital for every internet user today.