This course is not primarily a lecture course. It will rely heavily on a discussion of the issues presented in the textbook *Computer Ethics: A Global Perspective* by Giannis Stamatellos. These slides present ideas and quotes from the textbook primarily to inspire and promote discussions in class. A focus will be placed on 1) the local and global impact of computing on organizations and society as well as on 2) how ethical principles and leadership quality impact individuals, organizations and society.
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“The Internet is an elite organization; most of the population of the world has never even made a phone call.” - Noam Chomsky

Some estimates (Stamatello):

- 4% of the world’s population have access to the Internet.
- 7% of the world’s population have access to a computer.
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Internet democracy:

“... online services that are fundamental to the democratic process, such as electronic government and electronic voting.”
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Deborah G. Johnson arguments that the Internet is democratic in nature.

1. Lack of mediation. Anyone can communicate with anyone else, worldwide without mediation.

2. Information is power. Democracy provides the “many” with power. The Internet provides information to the many.

3. The Internet does away with geographical, racial, political, and cultural barriers. It empowers those without power and reduces the power of those with power.
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Some issues that challenge the idea that the Internet is democratic.

1. Is “Anyone can communicate with anyone else.” democratic or does it promote anarchy?

2. On the first slide we saw that most people world-wide don’t have access to the Internet.
   a. Even in countries that do have access, many can’t afford the hardware, software, and connection fees.
   b. What about the elderly and people with special needs that have trouble accessing the Internet?
3. What about incomplete information and misinformation found on the Internet? Information is power, but what about inaccurate information?

4. Dehumanization – Doesn’t the Internet promote isolation more than the active interaction and participation required in a democracy?

5. Does the Internet produce cultural homogeneity? For example, English is the main Internet language.
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Electronic government (e-government) – the communication and information technologies in

1. Legislation – policy application and analysis.
2. Political processes – elections, voting, etc.)
3. Government information – tax collections, criminal records, missing persons, data administration, etc.).

A concern: use of information technologies for surveillance: identity cards, CCTV, biometric identifications, etc.
Electronic voting (e-voting) systems where the verification of voter identity is determined by a variety of means.

- Digital signatures.
- Biometrics.
- ID-password systems.
- Optical scan ballots.
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E-voting advantages.

• Fast collection of votes.

• Ability to vote at one’s convenience.

• Ability of remotely located persons to vote easily.

• Less cost to government – fewer staff to hirer and less paper to buy.
Ethical and social issues raised by e-voting.

• Is voter anonymity (voter privacy) guaranteed?

• Is an accurate, honest vote count guaranteed?

• Is access guaranteed? What about persons with special needs, the elderly, etc?

• What is the cost of e-voting systems for government?

• Dehumanization – Is the democratic principle of interaction and discussion impeded?
Environmental problems caused by computers.

1. Energy consumption.
   a. Energy is needed for manufacturing and subsequent pollution or air, soil, and water.
   b. Energy is needed for disposal and recycling of components.
   c. Energy is needed for operation.
      - EPA estimates 2 billion dollars waste in energy and \( \text{CO}_2 \) production of 2 million cars annually.
      - Desktops not being used a majority of time they are running.
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Environmental problems caused by computers.

2. Disposal of computer components like monitors, printed circuit boards, batteries, wires, microchips can cause

   • Groundwater pollution.

   • Toxic gases and compounds (e.g., dioxide, platinum, mercury, heavy metals, etc.)
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Suggested solution to disposal problems.

• Recycling hazardous components.

• Upgrading not replacing old computers.

• Donating old computers to non-profit organizations, schools, third-world countries, etc.

• Creation of new laws related to disposal and recycling of hazardous materials.

• Designing hardware components with less hazardous materials.
Green computing.

• Turn off computers when they are not being used.
• Don’t turn on printer until it is to be used.
• Buy energy efficient products.
• Recycle hazardous materials (e.g. batteries, cartridges).
• Buy non-petroleum-based inks.
• Reduce paper consumption, recycle paper waste, email instead of fax, buy recycled paper, etc.
Chapter 11 – Study Guide

Remember our focus in this second half of the class:

Does a student demonstrate an understanding of the social issues and responsibilities in society that involve computing and information technology?

When you study these remaining chapters focus on the phrase “issues and responsibilities”. In Chapter 11 ask yourself, “What are the social issues and responsibilities associated with the use of computers and telecommunications in politics?” In this context, what are the advantages and disadvantages of information systems and technologies. What are the responsibilities involved?