Semester research paper

To help you construct your own deeper understanding of IT and society, please research and write a documented paper of at least 1000 words on a topic you chosen within the scope of the course material.

Relate the topic researched to the core material of the course. Refer in your paper to some of the key concepts of the relevant course topics, defining some of those terms. The textbook and other course materials may be used as references. Find some of your own references.

Research will include discussion of information technology factors and social, ethical, legal, economic, or historical aspects of the topic. Explore and acknowledge different points of view about the topic if appropriate.

Use academic or scholarly style. State opinions precisely and back them up with reasoning and specific facts. The tone is expository rather than conversational or didactic. (A scholarly paper does not give advice or use the words “I” or “you,” for example.)

The project will include three submission steps: proposal, preliminary draft, and final paper. Plan to exchange drafts with other students and tell other students about your research process.

Proposal (due in first month)

Include initial versions of:

- **Title** (specific to topic)
- **Abstract**: a paragraph or so about the topic, titled “Abstract,” that includes
  - some factual assertions about the topic
  - a statement of what you hope to learn (research question)
- **Sources**: initial list in bibliographic format

The research question matters. In your drafts of the paper, it can become a thesis that answers the research question.

Share an electronic version of your abstract with another student and ask the partner to use “Track Changes” to give comments and questions.

It’s normal to change the abstract as your research proceeds.

Preliminary draft (due in second month)

Draft, to be submitted mid-semester, is to be at least 500 words and is to follow up on instructor comments on proposal; please resubmit marked-up proposal for this purpose.

**Organization**: Title, author, course, date, abstract, introduction, body (in numbered sections), conclusion, references.

For this version, abstract may contain a tentative research thesis that answers the research question. Support this thesis with factual evidence and reasoning.

Document facts or ideas provided by others by citing the sources embedded in the text of your paper. That is, place in your text at certain places a bracketed number or identifier, or an author and year in parentheses, or a footnote, referring to an item in your list of references.

Students will present preliminary research results briefly in class.

Submit commented and modified abstract, as well as HTML and PDF versions of your paper. In MS Word, “Save As” has options that include “Web page” (HTML) and “PDF.”

Post your draft or share with another student for a peer review (see sheet, “Student peer review”).

Final paper (due in third month)

Submit in hard copy and in MS Word. Follow up on suggestions about preliminary draft, documenting the follow-up using Track Changes. Students will present final results in class.

**Desired features**

The criteria used in evaluating the paper include:

- abstract
- attention to technical factors
- attention to social aspect
- definitions of relevant terms
- support for thesis by factual evidence
- acknowledgement of counter arguments
- quality of writing and organization
- use of sources
- length (possible extra credit if good quality and over 1000 words)
Links

For links to example papers with sample abstracts and sample bibliographic format, see www.framingham.edu/~dkeil.

Other links (courtesy J. Brooks):

- FSC library: http://www.framingham.edu/wlibrary/
- Full text journal finder:
  http://pj8tr3fm5l.search.serialssolutions.com/
- E-journals:
  http://framingham.blackboard.com/webapps/discussionboard/do/finding/ejournals.htm
- Print journals:
  http://framingham.blackboard.com/webapps/discussionboard/do/finding/periodicals_subj.htm
- E-Resources by subject:
  http://framingham.blackboard.com/webapps/discussionboard/do/finding/subject_guides.htm
- To find scholarly articles about your topic.
  http://scholar.google.com/
Introductory exercise

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:

a. an idea that you haven’t considered in the same way before;
b. a concept that is not clear to you.

B. Self-introduction
Please post the following brief (1-paragraph or so, possibly short paragraphs) items at the Discussion Board under the heading, “Introduction”:

1. Some words about yourself: your major, your other academic interests, and optionally your work life, your hobbies and sports, and your family life.

2. Some brief background on your knowledge of computers, technology, or the social sciences. This may range from knowledge of instant messages and word processing to database design and programming.

3. Questions or comments you have about the syllabus, including the paper, “What we do in my classroom,” or on the experience of the group exercise.

C. Group activity
Form a group of two or three students to prepare notes for a short reply to the question below that corresponds to your group number.

1. What do you need to know about the ways information technology affects you, as a member of society?

2. Can we keep our privacy?

3. How much can we depend on technology?

4. How do social networks like Facebook bring us together, and how do they place us at risk?

5. How could information technology change your life for better or worse in the next twenty years?

What are two instances or results of information technology that you see as

6. a problem for you personally?

7. a benefit for you personally?

8. a problem for you socially?

9. a benefit for you socially?

Research is not required; please consider giving personal stories and other specifics.

Choose one group member (recorder) to write notes from the group discussion and a different member (reporter) to speak to the class, using these notes. A third member (facilitator) can help keep discussion on track.

Turn in one set of the notes with the names of group members who participated, giving their roles in the process. Plan to have reporter speak in a class session.
Exercise for topic 1 (Technical background)

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:
   a. an idea that you haven’t considered in the same way before;
   b. a concept that is not clear to you.

B. IT concepts
See Study Questions, topic 1, Terminology. List one or more terms that you might wish to understand better, giving a short summary of the glossary definition.

C. Hardware and operating systems
Answer one question, corresponding to your classroom-ID, from the section headed 1a of the objectives-related questions for topic 1. Post at Discussion Board or submit on paper. Please restate question and give its number.

D. Office applications
Answer one question, corresponding to your classroom-ID, from the section headed 1b of the objectives-related questions for topic 1. Post at Discussion Board or submit on paper. Please restate question and give its number.

E. Collaborative writing
Answer one question, corresponding to your classroom-ID, from the section headed 1c of the objectives-related questions for topic 1, to answer collaboratively with other students via the wiki at Course Tools / Wikis at the course Blackboard site.

F. Networks
Answer one question, corresponding to your classroom-ID, from the section headed 1d of the objectives-related questions for topic 1. Post at Discussion Board or submit on paper. Please restate question and give its number.

G. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part C-F above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort. Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Exercise for topic 2 (Social and ethical background)

Please submit your work on paper, giving your name, the date, the exercise number, and the letter, restating the question.

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:

a. an idea that you haven’t considered in the same way before;
b. a concept that is not clear to you.

B. Concepts
See Study Questions, topic 2, Terminology. List one or more terms that you might wish to understand better.

C. Inquiry
Choose a question from one of the title slides for subtopics. In a sentence or paragraph, speculate about a possible answer, based on your current knowledge. Post your speculation at the appropriate topic thread at the Discussion Board.

Option: comment on another student’s speculation.

For parts D-G, post at Discussion Board or submit on paper. Please restate question and give its number. In your answers, refer to social and technical aspects; support opinions with evidence and logic; and cite sources.

D. Social and economic factors in IT revolution
Answer the question that corresponds to your classroom-ID, from the section headed 2a of the objectives-related questions for topic 2.

E. Effect of IT
Answer the question that corresponds to your classroom-ID, from the section headed 2b of the objectives-related questions for topic 2.

F. Ethical theories
Answer the question that corresponds to your classroom-ID, from the section headed 2c of the objectives-related questions for topic 2.

G. Text readings and case analysis
See Study Questions, Topic 2, “Readings for case analysis.” Refer to the case (article) that matches your classroom ID.

a. Summarize the facts given, defining the relevant terms.
b. Give the social or legal issues and implications and the technical developments that give rise to the social issues.
c. Relate your case to the material in this topic, and reference relevant theories of ethics, legal principles, and categories of rights.
d. Give an opinion on the issues involved. Support it with specific facts and reasoning.
e. Give counter arguments, if appropriate, and provide facts and logic supporting them.
f. Give the source you used.

G. H. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part D-G above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort. Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Exercise for topic 3 (Security and privacy)

Please submit your work on paper, giving your name, the date, exercise number, letter, and problem number, restating the question.

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:
   a. an idea that you haven’t considered in the same way before;
   b. a concept that is not clear to you.

B. Concepts
See Study Questions, topic 3, Terminology. List one or more terms that you might wish to understand better.

C. Inquiry
Choose a question from one of the title slides for subtopics. In a sentence or paragraph, speculate about a possible answer, based on your current knowledge. Post your speculation at the appropriate topic thread at the Discussion Board. Option: comment on another student’s speculation.

For parts D-F, post at Discussion Board or submit on paper. Please restate question and give its number. In your answers, refer to social and technical aspects; support opinions with evidence and logic; and cite sources.

D. Explain security issues raised by IT
Answer one question, corresponding to your classroom-ID, from the section headed 3a of the objectives-related questions for topic 3.

E. Explain and apply theories of privacy
Answer one question, corresponding to your classroom-ID, from the section headed 3b of the objectives-related questions for topic 3.

F. Text readings and case analysis
Please refer to the case (article), in “Case analysis,” topic 3, that matches your classroom ID. (It’s also OK to find your own article.)
   a. Summarize facts given, defining relevant terms.
   b. Give the social or legal issues and implications and the technical developments that give rise to the social issues.
   c. Relate your case to the material in this topic, and reference relevant theories of ethics, legal principles, and categories of rights.
   d. Give your opinion on the issues involved. Support your opinion with specific facts and reasoning.
   e. Give counter arguments, if appropriate, and provide supporting facts and logic.
   f. Give the source you used, including date and publication info.

G. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part D-F above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort. Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Exercise for topic 4 (Freedom of expression)

Please submit your work on paper, giving your name, the date, the exercise number, and the letter. Restate each question.

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:
   a. an idea that you haven’t considered in the same way before;
   b. a concept that is not clear to you.

B. Concepts
See Study Questions, topic 4, Terminology. List one or more terms that you might wish to understand better.

C. Inquiry
Choose a question from one of the title slides for subtopics. In a sentence or paragraph, speculate about a possible answer, based on your current knowledge. Post your speculation at the appropriate topic thread at the Discussion Board. Option: comment on another student’s speculation.

For parts D-F, post at Discussion Board or submit on paper. Please restate question and give its number. In your answers, refer to social and technical aspects; support opinions with evidence and logic; and cite sources.

D. Trade-offs between concerns about freedom of expression
Answer one question, corresponding to your classroom-ID, from the section headed 4a of the objectives-related questions for topic 4.

E. IT-related opportunities for and risks to free expression
Answer one question, corresponding to your classroom-ID, from the section headed 4b of the objectives-related questions for topic 4.

F. Text readings and case analysis
See Study Questions, topic 4, “Case analysis,” for the question that matches your classroom ID. This is a six-part exercise.

G. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part D-F above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort. Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Exercise for topic 5 (Intellectual property)

Please submit your work on paper, giving your name, the date, the exercise number, and the letter, restating the question.

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:
   a. an idea that you haven’t considered in the same way before;
   b. a concept that is not clear to you.

B. Concepts
See Study Questions, topic 5, Terminology. List one or more terms that you might wish to understand better.

C. Inquiry
Choose a question from one of the title slides for subtopics. In a sentence or paragraph, speculate about a possible answer, based on your current knowledge. Post your speculation at the appropriate topic thread at the Discussion Board. Option: comment on another student’s speculation.

For parts D-F, post at Discussion Board or submit on paper. Please restate question and give its number. In your answers, refer to social and technical aspects; support opinions with evidence and logic; and cite sources.

D. Explain intellectual-property concept
Answer one question, corresponding to your classroom-ID, from the section headed 5a of the objectives-related questions for topic 5.

E. Reasons and ways to support intellectual property rights
Answer one question, corresponding to your classroom-ID, from the section headed 5b of the objectives-related questions for topic 5.

F. Text readings and case analysis
See Study Questions, topic 5, “Case analysis,” for the question that matches your classroom ID. This is a six-part exercise.

G. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part D-F above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort. Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Exercise for topic 6 (Work, education, culture)

Please submit your work on paper, giving your name, the date, the exercise number, and the letter, restating the question.

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:
   a. an idea that you haven’t considered in the same way before;
   b. a concept that is not clear to you.

B. Concepts
See Study Questions, topic 6, Terminology. List one or more terms that you might wish to understand better.

C. Inquiry
Choose a question from one of the title slides for subtopics. In a sentence or paragraph, speculate about a possible answer, based on your current knowledge. Post your speculation at the appropriate topic thread at the Discussion Board. Option: comment on another student’s speculation.

For parts D-G, post at Discussion Board or submit on paper. Please restate question and give its number. In your answers, refer to social and technical aspects; support opinions with evidence and logic; and cite sources.

D. Work
Answer one question, corresponding to your classroom-ID, from the section headed 6a of the objectives-related questions for topic 6.

E. Education
Answer one question, corresponding to your classroom-ID, from the section headed 6b of the objectives-related questions for topic 6.

F. Culture
Answer one question, corresponding to your classroom-ID, from the section headed 6c of the objectives-related questions for topic 6.

G. Text readings and case analysis
See Study Questions, topic 6, “Readings for case analysis.” Answer the question that matches your classroom ID. This is a six-part exercise.

H. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part D-G above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort. Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Exercise for topic 7 (Risks)

Please submit your work on paper, giving your name, the date, the exercise number, and the letter, restating the question.

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:

a. an idea that you haven’t considered in the same way before;
b. a concept that is not clear to you.

B. Concepts
See Study Questions, topic 7, Terminology. List one or more terms that you might wish to understand better.

C. Inquiry
Choose a question from one of the title slides for subtopics. In a sentence or paragraph, speculate about a possible answer, based on your current knowledge. Post your speculation at the appropriate topic thread at the Discussion Board. Option: comment on another student’s speculation.

For parts D-H, post at Discussion Board or submit on paper. Please restate question and give its number. In your answers, refer to social and technical aspects; support opinions with evidence and logic; and cite sources.

D. Risks related to IT
Answer one question, corresponding to your classroom-ID, from the section headed 7a of the objectives-related questions for topic 7.

E. Ethical responsibilities of IT professionals
Answer one question, corresponding to your classroom-ID, from the section headed 7b of the objectives-related questions for topic 7.

F. Future prospects for information technology
Answer one question, corresponding to your classroom-ID, from the section headed 7c of the objectives-related questions for topic 7.

G. Therapy by computers?
Google ELIZA and visit this program for a pretend “therapy” session. Eliza was hailed by some as giving promise for future mental-health treatment when it was released in the 1970s. Comment on the claim that a computer could provide good therapy or other coaching.

H. Text readings and case analysis
See Study Questions, topic 7, “Readings for case analysis.” Answer the question that matches your classroom ID. This is a six-part exercise.

I. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part D-H above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort. Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Exercise for topic 8 (network structures)

Please submit your work on paper, giving your name, the date, the exercise number, and the letter, restating the question.

A. Response to classroom discussion
In sentences, please describe the following, based on your reading, the slides, or the class discussion about this topic:

a. an idea that you haven’t considered in the same way before;

b. a concept that is not clear to you.

B. Concepts
See Study Questions, topic 8, Terminology. List one or more terms that you might wish to understand better.

C. Inquiry
Choose a question from one of the title slides for subtopics. In a sentence or paragraph, speculate about a possible answer, based on your current knowledge. Post your speculation at the appropriate topic thread at the Discussion Board. Option: comment on another student’s speculation.

For parts D-F, post at Discussion Board or submit on paper. Please restate question and give its number. In your answers, refer to social and technical aspects; support opinions with evidence and logic; and cite sources.

D. Network enterprise
Answer one question, corresponding to your classroom-ID, from the section headed 8a of the objectives-related questions for topic 8.

E. Decentralized structures
Answer one question, corresponding to your classroom-ID, from the section headed 8b of the objectives-related questions for topic 8.

F. Case analysis
Please refer to the case (article below) that matches your classroom ID.

a. Summarize the facts given, defining the relevant terms.

b. Give the social or legal issues and implications and giving the technical developments that give rise to the social issues.

c. Relate your case to the material in this topic, and reference relevant theories of ethics, legal principles, and categories of rights.

d. Give your opinion on the issues involved.

Support your opinion with specific facts and reasoning.

e. Give actual or possible counter arguments, if appropriate, and provide facts and logic supporting them.

f. Give the source you used.

Readings

2. T. Friedman, “The World Is Flat”


4. M. Hardt and A. Negri, “Arabs are democracy’s new pioneers”

5. An article you find on decentralization

6. J. Markoff, “A fight to win the future: computers vs. humans”

G. Group presentation (objectives 0b, 0c)
With your group, prepare a presentation of a solution to one of the problems in part D-F above, as in part D of the Introductory exercise. This presentation may describe an effort to solve the problem and may request help in this effort.

Choose one member of your group to present the solution in class. Submit the notes with the names of group members, giving their roles in the process.
Summary exercise
Optional, extra credit

Answer any questions of your choice.

1. How have your perspectives on the course material changed as a result of
   (a) group work,
   (b) comments on your work from other students,
   (c) comments from the instructor?
2. What ideas or passages in the textbook most engaged you or most changed the way you thought?
3. If you were to present a workshop on IT and Society for a high-school class, what would be your
   outline and main points?
4. What surprised you in the process of
   (a) doing the research paper?
   (b) preparing and making presentations?
   (c) preparing for class discussion?
5. How do you expect future changes in information technology to affect you and how will you ready
   yourself for them?
6. What issues have been raised by changes in IT, with respect to the Fourth Amendment?
7. Discuss issues of security, privacy, intellectual property, and ethics related to changes in cell phone
   availability and use.
8. Do hosts of social networking sites have an ethical obligation to prevent posting of malicious and false
   stories about people on members’ sites? What recourse should there be and is now available? Should
   material at the sites be considered valid evidence in legal cases over defamation?
9. Discuss the impact of IT in higher education and in the work workplace, in the areas of privacy,
   intellectual property, free expression, and risks with IT. You are invited here to say what you think
   may be some future developments with use of technology at FSC, starting with current uses and
   discussing possible problems or issues that may arise from changes.
Preparation and participation exercise

This course requires that students prepare for sessions and participate, both in class and on the Discussion Board. This counts more than attendance.

Students are asked to keep a journal of notes on readings, with thoughts, comments on sources, on the process of doing exercises, and on classroom discussion.

Journal may be posted at Discussion Board or submitted on paper or by email, in parts or as a whole.

Fulfillment of four course objectives

The following objectives will be assessed by observing student performance of them and (9b and 9c) by assessing student reflection on these experiences:

9b. Work in a group, collectively producing written results
9c. Make a presentation on part of the course material
9d. Support opinions by evidence
9e. Acknowledge alternative points of view

As the objectives are attained, a column at the Grade Center on Blackboard will reflect the progress.

Assessment of essays in this course

Grading each question or criterion on quizzes and exercises is on a scale of 0 (0%) to 1.0 (100%). To compute grade for an exercise or quiz, the scores on that scale are each multiplied by the relative weights of the criteria or questions, yielding a total score of 0 to 100.

Some criteria used in grading essay questions in exercises and quizzes are:

- reference to technical factors
- reference to social aspect
- definition of terms
- support for opinions by evidence
- reference to other points of view
- quality of writing
- use of sources
- length
- organization