CS 300T Written Project (Research paper) Requirements

The written research project required for this course must evaluate a topic relevant to the course material.

- The evaluation should include a thesis statement that describes the selected topic.
- The content of the paper should address the characteristics of the computer technology addressed, to include a description of the pertinent hardware and software components.
- The background of this topic should be reviewed to include historical context, and applicable literature.
- The main substance of the project should evaluate both the benefits and the ethical issues. Future projections should be made.
- Use supporting arguments, conclusions, and references.

The length of the paper should be five (5) pages, double-spaced (Page count does not include cover page, table of contents and bibliography/references). The paper should have at least 6 (six) referenced documents. Reference format and consistency will be graded elements. Either MLA or APA formats may be used, with parenthetical References and a Works Cited Page.

The paper will be graded based on specific requirements that are summarized below. In addition, the student must demonstrate adequate knowledge of the topic in the content of the paper. Plagiarism is forbidden. Any information acquired from another source must be adequately referenced, and the referencing format must be used consistently. Correct grammar and spelling will be considered, as well as good use of topic sentences.

The organization of the paper must consist of the following items:

Basic title page - Title, name, date, course, instructor; graphic image is optional

Table of Contents

Section headings in the body of the paper

Reference information in an approved format – i.e., traditional footnotes, MLA, APA

Bibliography/Works Cited consistent with the format chosen for referencing of information

The following paper format requirements must be strictly adhered to:

Length - 5 pages, double spaced minimum

Margin sizes - 1" maximum

Font size - 12 point maximum

Page numbers - do not number the Title page and Bibliography

Header/Footer - including student name, course, and date

Font Faces allowed - Times New Roman, Arial, and Courier New

Here are some useful links:

http://www.indiana.edu/~wts/pamphlets/thesis_statement.shtml

http://owl.english.purdue.edu/owl/resource/679/01/

The list below is a subset of the topics available. You may choose one of these, or use your Group Project topic, or come up with one of your own.

Sample Topics for Project

Automation of the workplace

From a management point of view, robots make excellent workers. They don't take coffee breaks, demand sick leave, become involved in office politics or affairs, embezzle or make personal long distance calls on company phones, strike or unionize, etc.... What advantages are there to having human employees, i.e. what functions is it worth tolerating human employees to perform?

Smart Cards

Uses, benefits, privacy implications and protections in a particular application or industry

Computers in law enforcement

Issues include benefits to crime fighting, invasion of privacy, problems caused for innocent people because of errors in databases. Describe cases

where the computer system has been very helpful in catching a criminal, and describe cases where it has caused serious problems.

Digital cash

Implications for the economy, for privacy, etc.....

Computerized medical record systems

Many large HMOs are currently developing are have implemented a computerized patient record system. How is it expected to improve patient care, privacy risks and protections, etc...?

Use of computers in schools

How are they used? Are they really helping to teach or to babysit?

Censorship of the Internet

Some aspect not covered in the text, or study some issue in more detail. One possibility is to focus on academic freedom issues, censorship of newsgroups on college campuses.

Computers and conservation

How do nature researchers and organizations use computers? What do environmentalists think of computers? Are there ideological conflicts?

Policies of employers concerning monitoring employees and/or reading their E-mail

Perhaps study a few local large businesses. A useful part of a project on e-mail privacy would be writing a policy for your university that would cover students, faculty, and staff.

Military applications (automated wars)

A study of the controversy about Strategic Defense Initiative (Star Wars)

Safety critical applications

One possibility is the Air traffic control system, which uses antiquated computers that break down often.

Computing and network access in other countries

CACM has articles about the state of computing in several other countries, India, South Africa...

Privacy issues

Given a random piece of information, such as a car license number, how much can be learned about the owner of the car in 24 hours, spending no more than $25? How do we handle the issues involved?

Democratic polls and elections

How are the people selected? Are their answers predicted? Can computers incorrectly determine a winner? Is electronic voting a viable option?

Transportation

Advances, automation, etc.

Finance

Computers in banking, stock markets, e-cash

Advertising

Advertisements are certainly a lot more exciting than ever before. Discuss merits and problems

Centralized evaluation of professionals for consumers

For buying a car, we have information from consumer watchdog agencies. For engaging professional service, e.g., lawyer, stockbroker, surgeon, architect, pilot consumers generally have no such databases to consult. Discuss the pros and cons to consumers and to professionals of the operation of centralized data bases that monitor cases won, dollars eared, patients lost, customers satisfied, safety violations, etc. and compare pricing.

Ethics for a society of humans and automatons

The growing presence of nonhuman agents interacting with humans is bound to lead to claims of personal or financial industry from humans and from automaton owners in cases involving both. What are the foundations for ethics in such a society? Are Asimov's laws of robotics sufficient? Can all such cases be reduced through tracing of responsibilities to contests between humans only? Are owners responsible for unforeseeable consequences of the way they have programmed their automatons?

The haves and the have-nots of the information revolution

Since access to information has become more important than access to an automobile for success in 21st century America, many people have become alarmed at the lack of opportunities for children from financially disadvantaged homes to compete. This wipes out the cherished American belief that anyone willing to work hard can get ahead. How far should the taxpayer go to subsidize the necessities?