Geoslavery

The degree which you’ll receive as an electrical or computer engineering student is accredited by the Accreditation Board for Engineering and Technology (ABET). ABET wants engineering students to graduate with “an understanding of professional and ethical responsibility” and “the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context”.

You already receive some of what ABET wants in your Moral Reasoning for Naval Leaders course (NE203) and various leadership courses and training exercises. However, you may not have thought about ethics and the impact of your activities from an engineering viewpoint.

To meet ABET’s requirements, the Department of Electrical and Computer Engineering has developed a multi-semester plan to both educate you and assess your understanding of engineering ethics and the impact of engineering. In the past three semesters you completed the Engineering and Science Issues Test (ESIT) and looked at case studies about the possible collapse of the Citicorp building in New York City, faked test results of an aircraft brake, and the antiquated packaging of the Zappo drain cleaner.

This semester you’ll examine the potential benefits and abuses of emerging GPS-based technology. Unlike the other case studies you’ve read, this one looks into the future rather than reviewing events of the past.

Your work on the homework portion of the assignment will be evaluated for such things as depth of thinking, creativity, attention to detail, stands on issues, etc. (things that reflect how you think about ethics and engineering issues).

The Department cordially asks that you take your time when reading the attached material and providing responses to the questions. Your time and effort on this is just as important to us, and it could be argued, to you, as anything you learn at the Academy.

Name:

Semester and Year:

Major: EEE / ECE
Instructions

• Write your name and semester and year on the front page. The front page is used by your instructor to track completion and will be removed prior to storage and evaluation (thus preserving your anonymity).
• Examine the IEEE Code of Ethics on the next page.
• Read the case study which starts on the second page following.
• Provide answers to the questions below. A few sentences for each question are fine.

Questions

1. Which items from the IEEE Code of Ethics apply to the issues raised by the Geoslavery article?

2. Should engineers worry about the possible implications of their products, or should that be left to businessmen, lawyers or other social activists? Why or why not?

3. Is it acceptable to infringe on the freedoms of some in order to increase the overall safety of society?

4. In the introduction to the article the authors “describe the technologies and cite current products to demonstrate that the dangers are real, not imaginary as some ‘Big Brother’ bugaboos have been in the past.” Is this borne out in the article or not?

5. The authors write …

Developers, marketers, and sellers of LBS technology have a professional responsibility to familiarize themselves with likely outcomes and with the laws and norms that may apply. They have a social responsibility to recuse themselves from any development or application that overtly and directly aims to enslave individuals who have committed no crime and pose no threat to the safety and security of others.

This invites two follow up questions.

a. Under what condition(s) would a person who develops or deals in weapons, like gunsmiths or gun dealers, commit an immoral act?

b. Is the person who develops a new metal alloy for use in a manned mission to Mars culpable if the alloy is used in a weapon?
WE, THE MEMBERS OF THE IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

1. to accept responsibility in making decisions consistent with the safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;

2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;

3. to be honest and realistic in stating claims or estimates based on available data;

4. to reject bribery in all its forms;

5. to improve the understanding of technology, its appropriate application, and potential consequences;

6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;

7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;

8. to treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin;

9. to avoid injuring others, their property, reputation, or employment by false or malicious action;

10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.