IE 380
The Responsible Engineer
Class Discussion Questions for Chapter 4, Engineering As Social Experimentation

Martin, M.W. & R. Schinzinger. *Ethics in Engineering*, fourth edition. Boston: McGraw Hill, 2005.

Answer all of the following questions.

1. How are engineering projects both similar to and different from scientific experiments?
2. Choose an engineering project, such as the development and commercialization of a product or technology (e.g., the internet or cellular telephones) or the design and implementation of some technological object (e.g., a skyscraper or the US air traffic control system) that might be considered a "social experiment" by the authors' definition.
3. What moral principles does this “experiment” bring up and how do they apply?
4. How was this "experiment" carried out in partial ignorance?
5. In what ways were the outcomes uncertain?
6. How was knowledge of the results obtained?
7. What were the results?
8. What control did engineers and the companies who employed them have over the"experiment"?
9. Explain how the participants in the "experiment" (e.g., the users, customers, etc.) gave or did not give informed consent to participate?
10. What should we, as a society, have learned from the "experiment"?