I 453 CLSDs 27296, 30969, 30970
Spring, 2014
Computer and Information Ethics
School of Informatics and Computing
Indiana University Bloomington
Dr. David Hakken
02:30P-03:20 PM  MW  I2 130;
Sections F 01:25P-02:15P, 02:30P-03:20P, both in I2 130
Hakken Office Hours: M 1:30-2:30, T 1:30-2:30, or by appointment
AIs:  Matt Jennex Office Hours, Location:  Shunying An Blevis, Office Hours, Location:

I453 Computer and Information Ethics
Course Syllabus

Effective Course Description:
[Examines the ethical and professionalization issues that arise in the context of designing and using networked information technologies and information resources. Examines frameworks for making ethical decisions, emergent technologies and their ethical implications, [and] information/computer professionalism. Includes topics like privacy, intellectual property, cybercrime, games, social justice, and codes of professional ethics.

Student Learning Objectives:
The aim of the course is not to tell you what to think ethically, what the proper views in computing ethics are. Rather, the aims are to increase measurably your ability to:
1. Access useful rhetorical and empirical information relevant to ethical issues regarding computers and Information;
2. Develop mature understandings of some of these issues; and
3. Learn how to present such understandings in a manner that is persuasive to your peers, the most important audience for the articulation of your ethical views.

Student Responsibilities:
1. Master the basic elements of the approach to computing ethics presented in this class, to be demonstrated on the first exam (25%), which will involve short answer identifications;
2. Read all assigned materials, join in class discussions, and participate fully in the collaborative research and debate efforts of the group to which you are assigned (this “participation” grade, 12½ %, will involve peer evaluation);
3. Submit a position paper on an issue in computing and information ethics, using the approach to ethical issues presented in the class as the outline for the paper. You may chose one of the issues listed above, one of those debated in class, or one of your own choosing. If this last option is chosen, you must first gain the permission of the instructor (37½ %); and
4. Demonstrate on a final exam your ability to articulate cogently and clearly, and argue convincingly, for positions on several of the issues addressed in class (25%).
Some Examples of Ethical Issues Facing Computer Professionals

Ethical issues involve questions of how we should live. The bulk of the class time in this course will be given over to preparation for, participation in, and evaluation of 8 group debates on particular ethical issues relevant to professional computing. Students will be assigned to a group by the faculty, and each group will argue either for or against a proposition related to one of the following four issues in computing ethics.

1. As raised particularly sharply in the current controversy over the activities of the US National Security Agency, the current design of online communications technologies and the current patterns of their use pose substantial challenges to civic notions about privacy. What standard of privacy should citizens be able to expect in digitally mediated societies, and what kinds of technical changes in Digital Technologies are needed to support that standard sufficiently?

2. Despite considerable effort, computing professions like Informatics and Computer Science have failed to attract female and minority students in proportion to their part of the general population. Why is this so? What should the computing professions be doing to address this problem?

3. We are currently in another period of enthusiasm about digital technologies in the form of robotics, especially about the developmental prospects for social or co-robots. Until recently, robots have been used primarily in industrial settings where they are more or less segregated from humans. What limitations should be placed on use of robots, to lessen the chances that they will destroy human jobs, obviate human skills, or in other ways disrupt human social processes?

4. Because of problems like the finite limits of raw materials like rare earths or global climate change, the sustainability of or the long-term prospects for current computing practices have been called into question. As CPs have started to think about computing sustainability, they have learned that, while in some ways computing can help make better use of existing resources, such practices have to become socially as well as materially sustainable. Incorporation of what standards into computing practices should be sufficient to achieving computational sustainability?

Additionally, students will collectively choose 4 additional computing ethics issues for debate. On these additional issues, those previously arguing “against” a proposition will now argue “for” one, while those who argued “against” previously will now argue “for.” Possibly “second round” issues include:

1. The apparent technical “success” of drone aircraft (those without a human pilot on board and controlled by computer) in counter-terrorism actions has raised several controversies regarding issues like the nature of international human rights, the rules of warfare (especially with regard to non-combatants), and how inter-nation policy should be developed. What limits if any should be placed on military use of drones? On drones being used for other purposes (e.g. delivery of purchases)?

2. To what extent should Computing Professionals (CPs) be held responsible for the propriety of the content of the information contained in/communicated by systems that use the artifacts they design and/or build?

3. How much of an obligation should CPs have to point out the limitations/possibilities for abuse of the use of these artifacts (e.g., simulation)?
4. To what extent should the programs CPs write generating responses to “search” queries should reflect and be ordered in relation to the users previous choices or by some “universal” notion of relevance?
5. Should CPs strive as much as possible to implement systems that informate rather than replace human activities?
6. Should CPs only download files over which they have unchallenged right of access?
7. Should CPs promote use of Free/Libre and/or Open Source, as opposed to proprietary, software?
8. Should CPs do research/take money for research from military and/or secret government resources?
9. Should CPs support efforts to make information maximally available (e.g., those of wikileaks or anonymous)?
10. How much of a collective capacity should CPs have to sanction a computing professional who engages in unethical practice?
11. Should study of ethics be a required part of education for CPs?
12. How much should CPs be held ethically responsible for the social crisis that developed in the finance?
13. How much should CPs be expected to be able to handle the “live” ethical issues in the application arenas in which they are working?

This is obviously only a partial list; you will have an opportunity to formulate a different issue for debate if you wish.

How to “Do” Ethics: A Strategy for Handling Professional Ethical Issues in Computing

Ethics would be easy if there were a complete list of ethical stances and of the appropriate stance to take in regard to all possible ethical issues. Given that the existence of such a list is highly unlikely—that is, that there is likely no general rule for resolving all issues in computing and information ethics—a different approach is necessary:

1. Given an issue, begin by identifying the existing range of views of computing professionals relevant to it; That is, the views one and one’s colleagues typically take to issues of this kind, including diverse views on how to express the issue, which values are relevant to it, and the values’ ethical implications, positions on the issue that these views tend to incline toward; then

2. Figure out how to state the issue not only as a proposition, one both clear and also as equally respectful to the range of legitimate views on the issue as possible. That is, the propositions should avoid one sided phrasings, as well as rhetorical questions of the “Do you still beat your spouse?” variety. Next,

3. Access relevant scholarship and other research-based information and then use it to differentiate the views that have a good empirical basis from those that don’t, so you can identify which of the predispositions seem likely to be borne out and which seem not so likely; and then finally

4. Develop ethical arguments compatible with the empirical data and your own more general value inclinations, and test them for their persuasiveness in a civil “adversarial” context—like a trial or a debate. The goal here is not to develop personal moral convictions but rather, by finding out which arguments have the most
collective ethical appeal, to present your argumentation in a manner likely to help build a more cohesive ethical/professional community.

**The Approach of This Course Toward Developing Professional Skills Relevant to Computing Ethics**

This strategy presumes that “learning by doing” is the proper way to learn ethics; that is, that having several experiences trying to follow these steps, in regard to a range of different specific issues, is the best way to develop both individual and collective competence in ethical reasoning. So, this is what we will do. Still, stated in the form, the approach to be taken in the class is quite abstract. To make it more concrete, the bulk of class activity will be ethical discussion, including student debate, on a range of ethical issues in computing and information. The class will be divided arbitrarily into 8 six-seven person groups. Each group will be responsible for debating two issues in class, one “for” and one “against.” Discussion Section time will largely be devoted to preparing for and organizing these debates, but students will spend most of their out-of-class time identifying additional materials to use in making their case.

Before “learn by doing,” however, we need to spend a couple weeks on basic approaches to computing ethics, aided by some assigned readings. After that, we will debate the specific issues assigned and chosen and also reflect on how the debates went.

**Class Text:**

No text is to be assigned; assigned readings will be available on the class Oncourse site.

**Class Schedule**

(Appropriate additional readings from Johnson, will be assigned as we proceed. Those not from the text will be available on the Oncourse site.)

<table>
<thead>
<tr>
<th>DATE</th>
<th>Topic</th>
<th>ASSIGNED READING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1/13</td>
<td>Course Introduction; Computing and Information</td>
<td></td>
</tr>
<tr>
<td>2. 1/15</td>
<td>What makes something an ethical issue and/or a professional one</td>
<td></td>
</tr>
<tr>
<td>3. 1/17</td>
<td>Discussion Section: Organize Groups</td>
<td></td>
</tr>
<tr>
<td>1/20</td>
<td>MLK Day (no class)</td>
<td></td>
</tr>
<tr>
<td>4. 1/22</td>
<td>Discussion of the issues on which we will focus in class</td>
<td></td>
</tr>
<tr>
<td>5. 1/24</td>
<td>Discussion Section:</td>
<td></td>
</tr>
<tr>
<td>6. 1/27</td>
<td>Workshop on “The Computing Professional’s Approach to Handling Ethical Issues”</td>
<td></td>
</tr>
<tr>
<td>7. 1/29</td>
<td>Early and Modern Ethics and Ethical Discourses</td>
<td></td>
</tr>
<tr>
<td>8. 1/31</td>
<td>Discussion Section</td>
<td></td>
</tr>
</tbody>
</table>
9. 2/3 Post Modern Thought and its Implications for Ethics

10. 2/5 Styles of ethical argument

11. 2/7 Discussion Section


13. 2/12 A demonstration of the “Approach” outlined above in relation to the issue of what kinds of electronic files CPs should download.

14. 2/14 Discussion Section:

15. 2/17 Review for Exam

16. 2/19 Exam

17. 2/21 Discussion Section:

18. 2/24 Debate on issue #1

19. 2/26 Follow up Discussion of Issue #1

20. 2/28 Discussion Sections

21. 3/3 Debate on #2:

22. 3/5 Follow up #2

23. 3/7 Discussion Section

24. 3/10 Debate on issue #3:

25. 3/12 Follow up #3

26. 3/14 Discussion Section

27. 3/17, 19, & 21 Spring Break

28. 3/24 Debate on Issue #4

29. 3/26 Follow up #4

30. 3/31 Debate on Issue #5:
31. 4/2  Follow up #5
32. 4/4  Discussion Section
33. 4/7  Debate on Issue #6
34. 4/9  Follow up #6
35. 4/11 Discussion Section
36. 4/14 Debate on Issue #7
37. 4/16 Follow up on Issue #7
38. 4/18 Discussion Section
39. 4/21 Debate on Issue #8
40. 4/23 Follow up on Issue #8
41. 4/25 Discussion Section
42. 4/28 Course Summary
43. 4/30 Discussion of final exam
44. 5/2 Discussion Section: Final Exam Review   Individual Papers Due
45. 5/5 Exam due, 7 pm