GEO 567

Responsible GIS Practice: Ethics for Future Geospatial Professionals

Spring 2010, only via OSU Extended Campus (ECampus)
3 credits
No Prerequisites
Course website: http://dusk.geo.orst.edu/ethics

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I check email VERY frequently and will respond to course-related questions within 24 hours.

Spring Office Hours: Mon/Wed 1:50-2:50, or by appointment, Wilkinson 114

Interested undergrads welcome, as well as full-time GIS professionals.
Students may also be interested in PHL 547, Research Ethics (3 credits) or IST 520X, Responsible Conduct of Research (1 credit).

Learning Resources: The required text is Quinn, M. 2009. Ethics for the Information Age (3rd Edition), New York: Addison-Wesley, ISBN: 0321536851. Other readings will be provided throughout the term.

Course Description

Professionalism in today’s geographic information science field (e.g., GIS, remote sensing, cartography, quantitative spatial analysis), now involves a commitment to ethical practice as informed by a more sophisticated understanding of the ethical implications of geographic technologies. For example, the use of GIS for military and surveillance purposes, the lack of privacy introduced by mobile mapping devices, and the use (misuse?) of GIS for conservation and sustainability continue to be challenging issues and topics of deep concern for many. Students and professionals working with GIS and related technologies should develop a sound grasp of these issues and a thorough comprehension of the concerns impacting their use and development in today’s world. However, while most people agree that ethics matters for GIS, we often have difficulty putting ethical issues into practice.

This course seeks to bridge this gap by providing a sound basis for future ethical consideration of a variety of issues. Students will first review some general ethical theories and processes of moral reasoning. Concurrently, they will briefly investigate the nature of professions in general and the characteristics of a GIS profession in particular. They will hone moral reasoning skills through methodical analyses of case studies in relation to the GIS Code of Ethics and Rules of Conduct. They will also learn to unveil the "moral ecologies" of a profession through actual interviews with real practitioners in the field. Assignments will include readings, class discussions, practitioner interviews, and preparations of original case studies.

The course is part of an ongoing project supported by the National Science Foundation (NSF), and in collaboration with similar courses now in progress at Penn State University and the University of Minnesota. See http://gisprofessionalethics.org if interested in the NSF project.
This course is required for the online version of the graduate certificate in GIScience, and will also be accepted as an elective in the geographic information science (GIScience) concentration within the geography M.S. and Ph.D. degree programs or as an elective for the on-campus offering of GIScience certificates.

Discussion Topics Include...

- Research ethics and methods
- Defining the field of geographic information science & technology (GIS&T)
- What is the "moral ideal" of the GIS&T professions?
- Codes of ethics and rules of conduct in GIS&T professions
- Case studies of ethical problems in GIS&T (data access, lawsuits, privacy, surveillance, activism, emergency response, the "digital divide," and more)
- What would you do if....?

Learning Outcomes

By the end of this course, students should be able to:

- recognize ethical implications of geospatial technologies and applications;
- demonstrate moral reasoning skills through methodical analyses of ethical case studies;
- demonstrate understanding of academic integrity policies and guidelines;
- conduct and report upon practitioner interviews in compliance with IRB regulations;
- understand the "moral ecologies" of the various institutions and organizations that make up the geospatial professions; and
- be inspired to talk about ethics in the classroom and, more importantly, the workplace.

These additional learning outcomes fall under various categories in the UCGIS GIS & T Body of Knowledge:

Unit GS6 - Ethical aspects...

- Describe a variety of philosophical frameworks upon which codes of professional ethics may be based.
- Discuss the ethical implications of a local government's decision to charge fees for its data.
- Describe a scenario in which you would find it necessary to report misconduct by a colleague or friend.
- Describe the individuals or groups to which GIS&T professionals have ethical obligations.
- Propose a resolution to a conflict between an obligation in the GIS Code of Ethics and organizations' proprietary interests.

Unit GS7 - Critical GIS...

- Defend or refute the argument that the "digital divide" that characterizes access to GIS&T perpetuates inequities among developed and developing nations, among socio-economic groups, and between individuals, community organizations, and public agencies and private firms.
- Discuss the ethical implications of the use of GIS&T as a surveillance technology.

Interviews and Case Studies

The central and activities of the course are an interview with a GIS professional in your local area and the development of an original GIS ethical case study. The interview involves preparation of background documentation, documentation of the interview, interview evaluation, and interview presentation, which you will assemble into a short report with corresponding sections. The purpose of the interview is to learn about the "moral ecology" of the organization within which the professional works. The interview may form the basis for the original case study. Or you may prepare a case study about a hypothetical situation.

Case studies will follow the structure of existing case study documents presented in class. Ultimately, the goal of preparing your own case studies is to increase:

- ethical sensitivity with the ability to identify and discriminate among ethical issues:
ethical knowledge via familiarity with codes;
ethical creativity via the ability to see "beyond the dilemma;" and
judgment, given the increased likelihood that students will act appropriately (this cannot be determined solely in a class).

Both the interviews and the case studies will also provide valuable information to the GIS Certification Institute, so that it may improve the overall certification process, and increase the validity and impact of a certification and a Code of Ethics.

**Grading/Assessment**

All graduate students taking this course must register for A/F grades. The term project related to the interview of a GIS professional (preparation of background documentation, documentation of the interview, interview evaluation, and interview presentation), will determine 30% of the course grade. The original case study will be worth 30% and class participation in online discussion boards will be worth 40%.

Indeed, strong participation in weekly discussion boards will significantly enhance your learning. Each week you can receive up to 30 points for participation in the weekly discussion board for that week. At a minimum, participation involves completing a specific weekly assignment by posting an original contribution by 11:55 pm on Wednesday AND making substantive responses to other students' postings by 11:55 pm on Friday. (Please note that all deadlines in the course are 11:55 pm Pacific time--i.e., local time in Corvallis, OR.)

If you fail to make any of the required weekly postings by the deadlines, you will lose much of the possible credit for that week's discussion. I encourage you to participate much more than simply making the required weekly postings. Students who are working toward a high grade in the course will make at least 4 or 5 postings weekly.

**The quality of your writing in the weekly discussion is important.** Spelling, punctuation, and grammar count! Please keep in mind that a discussion board is a form of academic discourse that is in many ways comparable to a lively classroom discussion. See the course schedule for discussion board writing tips.

You are invited to freely express ideas and information in weekly discussions, while observing the same standards of mutual respect as in a classroom or professional office environment. If any individual shows disrespect for other class members or posts inappropriate material, I will give that individual a single warning. If there is a second offense, I will immediately shut that person out of the discussions for the rest of the term. That individual will lose the entire discussion participation portion of the course grade. See below for additional information about discussion board etiquette.

**Discussion Board Grading Schema:**
30 pts. – Exceptional participation (excellent work that clearly exceeds the requirements of the discussion assignment)
20-29 pts. – Very good participation
15-19 pts. – Average participation
14 or fewer pts. – Below average participation
10 or fewer pts. – Did not make one of the required postings
0 – Did not participate

All students will also participate in a "pre-survey" at the beginning of the course, to assess what they know, believe, and feel about potential ethical problems confronting GIS&T professionals. A "post-survey" will be administered at the end of the course, where both student and professor may assess together how effective the course has been in raising student awareness of ethical issues and strengthening student moral reasoning abilities.

**Discussion Board Communication Guidelines**

- The discussion board is your space to interact with your colleagues on course-related topics or to respond to your colleague's statements. It is expected that each student will participate in a mature and respectful fashion.
- Participate actively in the discussions, having completed the readings and thought about the issues.
- Pay close attention to what your classmates write in their online comments. Ask clarifying questions,
when appropriate. These questions are meant to probe and shed new light, not to minimize or devalue comments.

- Think through and reread your comments before you post them.
- Assume the best of others in the class and expect the best from them.
- Value the diversity of the class. Recognize and value the experiences, abilities, and knowledge each person brings to class.
- Disagree with ideas, but do not make personal attacks. Do not demean or embarrass others. Do not make sexist, racist, homophobic, or victim-blaming comments at all.
- Be open to be challenged or confronted on your ideas or prejudices.
- Online threaded discussions are public messages, and all writings in this area will be viewable by the entire class or assigned group members. If you prefer that only the instructor sees your communication, send it to me by email, and be sure to identify yourself and the class.
- Posting of personal contact information is discouraged (e.g., telephone numbers, home address).

**Library Info.**

Library services for **distance education** students are at [osulibrary.orst.edu/offcampus/bridge.html](osulibrary.orst.edu/offcampus/bridge.html).

We have a wonderful library on campus and **Andrea Wirth** is our subject specialist for geosciences/GIS (541-737-9903). See also "Ask a Librarian" at [osulibrary.orst.edu/reference](osulibrary.orst.edu/reference).

You can access most of the **library's databases** at [osulibrary.oregonstate.edu/research.html](osulibrary.oregonstate.edu/research.html) from outside of the library or off campus.

**Map resources** are at [osulibrary.orst.edu/research/guides/maps/maproom.htm](osulibrary.orst.edu/research/guides/maps/maproom.htm).

To obtain materials not in our collection, **Interlibrary Loan** forms for books and journal articles can be found at [osulibrary.orst.edu/ill/](osulibrary.orst.edu/ill/).

**Special Note to Distance Ed. Students about INCOMPLETES**

**Please take this course only if you plan to finish it in a timely manner (i.e., during this term)!** I assign an "I" or incomplete only when there is a strong and compelling case for doing so (e.g., health reasons, military commitment), and will request that the work be made up before the end of the following quarter. Further, I will not consider assigning an incomplete unless the individual has completed over 50% of the course tasks. Please note also that students receiving incompletes are subject to assignment weight reduction (and consequently may not be eligible for A or A- grades) because some of their work will be submitted late. If you have completed at least 50% of the work in the course and still need more than one year to make up the "I" grade, you must petition within that first year to be granted more time. You may request a petition form from either the Registrar's Office or Ecampus (contact the Student Services Specialist). You must then gather the appropriate signatures. If all required signatures can be obtained on campus, Ecampus can help you to gather them.

**Academic Dishonesty**

Students are expected to be honest and ethical in their academic work. Academic dishonesty is defined as an intentional act of deception in one of the following areas:

- **cheating** - use or attempted use of unauthorized materials, information or study aids
- **fabrication** - falsification or invention of any information
- **assisting** - helping another commit an act of academic dishonesty
- **tampering** - altering or interfering with evaluation instruments and documents
- **plagiarism** - representing the words or ideas of another person as one's own

For more information about academic integrity and the University's policies and procedures in this area, please visit the Student Conduct web site at: [oregonstate.edu/studentconduct/](oregonstate.edu/studentconduct/).
Accommodations for Students with Disabilities

Students with documented disabilities who may need accommodations, who have any emergency medical information the instructors should know of, or who need special arrangements in the event of evacuation, should make an appointment with either instructor as early as possible, no later than the first week of the term. For further information regarding accommodations for students with disabilities in this class, please see the SSD web site at: ssd.oregonstate.edu.