

CODE OF ETHICS

The GIS Certification Institute

This Code of Ethics is intended to provide guidelines for GIS (geographic information system) professionals. It should help professionals make appropriate and ethical choices. It should provide a basis for evaluating their work from an ethical point of view. By heeding this code, GIS professionals will help to preserve and enhance public trust in the discipline.

This code is based on the ethical principle of always treating others with respect and never merely as means to an end: i.e., *deontology*. It requires us to consider the impact of our actions on other persons and to modify our actions to reflect the respect and concern we have for them. It emphasizes our obligations to other persons, to our colleagues and the profession, to our employers, and to society as a whole. Those obligations provide the organizing structure for these guidelines.

The text of this code draws on the work of many professional societies. It is not surprising that many codes of ethics have a similar structure and provide similar guidelines to their professionals, because they are based upon a similar concept of morality. A few of the guidelines that are unique to the GIS profession include the encouragement to make data and findings widely available, to document data and products, to be actively involved in data retention and security, to show respect for copyright and other intellectual property rights, and to display concern for the sensitive data about individuals discovered through geospatial or database manipulations. Longer statements expand on or provide examples for the GIS profession.

A positive tone is taken throughout the text of this code. GIS professionals commit themselves to ethical behavior rather than merely seeking to avoid specific acts. The problems with listing acts to be avoided are: 1) there are usually reasonable exceptions to any avoidance rule and 2) there is implicit approval of any act not on the list. Instead, this code provides a list of many positive actions. These explicit actions illustrate respect for others and help strengthen both an understanding of this ethos and a commitment to it.

This code is not expected to provide guidelines for all situations. Ambiguities will occur and personal judgment will be required. Sometimes a GIS professional becomes stuck in a dilemma where two right actions are in conflict with each other or any course of action violates some aspect of this code. Help might come from talking with colleagues or reading relevant works such as those listed in the bibliography. Ultimately, a professional must reflect carefully on such situations before making the tough decision. Contemplating the values and goals of alternative ethical paradigms may be useful in reaching a decision:

- View persons who exemplify morality as your own guide (Virtue Ethics)
- Attempt to maximize the happiness of everyone affected (Utilitarianism)
- Only follow maxims of conduct that everyone else could adopt (Kantianism)
- Always treat other persons as ends, never merely as means (Deontology)

I. Obligations to Society

The GIS professional recognizes the impact of his or her work on society as a whole, on subgroups of society including geographic or demographic minorities, on future generations, and inclusive of social, economic, environmental, or technical fields of endeavor. Obligations to society shall be paramount when there is conflict with other obligations. Therefore, the GIS professional will:

1. Do the Best Work Possible

- Be objective, use due care, and make full use of education and skills.
- Practice integrity and not be unduly swayed by the demands of others.
- Provide full, clear, and accurate information.
- Be aware of consequences, good and bad.
- Strive to do what is right, not just what is legal.

2. Contribute to the Community to the Extent Possible, Feasible, and Advisable

- Make data and findings widely available.
- Strive for broad citizen involvement in problem definition, data identification, analysis, and decision-making.
- Donate services to the community.

3. Speak Out About Issues

- Call attention to emerging public issues and identify appropriate responses based on personal expertise.
- Call attention to the unprofessional work of others. First take concerns to those persons; if satisfaction is not gained and the problems warrant, then additional people and organizations should be notified.
- Admit when a mistake has been made and make corrections where possible.

II. Obligations to Employers and Funders

The GIS professional recognizes that he or she has been hired to deliver needed products and services. The employer (or funder) expects quality work and professional conduct. Therefore the GIS professional will:

1. Deliver Quality Work

- Be qualified for the tasks accepted.
- Keep current in the field through readings and professional development.
- Identify risks and the potential means to reduce them.
- Define alternative strategies to reach employer/funder goals, if possible, and the implications of each.
- Document work so that others can use it. This includes metadata and program documentation.

2. Have a Professional Relationship

- Hold information confidential unless authorized to release it.
- Avoid all conflicts of interest with clients and employers if possible, but when they are unavoidable, disclose that conflict.
- Avoid soliciting, accepting, or offering any gratuity or inappropriate benefit connected to a potential or existing business or working relationship.
- Accept work reviews as a means to improve performance.
- Honor contracts and assigned responsibilities.
- Accept decisions of employers and clients, unless they are illegal or unethical.
- Help develop security, backup, retention, recovery, and disposal rules.
- Acknowledge and accept rules about the personal use of employer resources. This includes computers, data, telecommunication equipment, and other resources.
- Strive to resolve differences.

3. Be Honest in Representations

- State professional qualifications truthfully.
- Make honest proposals that allow the work to be completed for the resources requested.
- Deliver an hour's work for an hour's pay.
- Describe products and services fully.
- Be forthcoming about any limitations of data, software, assumptions, models, methods, and analysis.

III. Obligations to Colleagues and the Profession

The GIS professional recognizes the value of being part of a community of other professionals. Together, we support each other and add to the stature of the field. Therefore, the GIS professional will:

1. Respect the Work of Others.

- Cite the work of others whenever possible and appropriate.
- Honor the intellectual property rights of others. This includes their rights in software and data.
- Accept and provide fair critical comments on professional work.
- Recognize the limitations of one's own knowledge and skills and recognize and use the skills of other professionals as needed. This includes both those in other disciplines and GIS professionals with deeper skills in critical sub-areas of the field.
- Work respectfully and capably with others in GIS and other disciplines.
- Respect existing working relationships between others, including employer/employee and contractor/client relationships.
- Deal honestly and fairly with prospective employees, contractors, and vendors.

2. Contribute to the Discipline to the Extent Possible

- Publish results so others can learn about them.
- Volunteer time to professional educational and organizational efforts: local, national, or global.
- Support individual colleagues in their professional development. Special attention should be given to underrepresented groups whose diverse backgrounds will add to the strength of the profession.

IV. Obligations to Individuals in Society

The GIS professional recognizes the impact of his or her work on individual people and will strive to avoid harm to them. Therefore, the GIS professional will:

1. Respect Privacy

- Protect individual privacy, especially about sensitive information.
- Be especially careful with new information discovered about an individual through GIS-based manipulations (such as geocoding) or the combination of two or more databases.

2. Respect Individuals

- Encourage individual autonomy. For example, allow individuals to withhold consent from being added to a database, correct information about themselves in a database, and remove themselves from a database.
- Avoid undue intrusions into the lives of individuals.
- Be truthful when disclosing information about an individual.
- Treat all individuals equally, without regard to race, gender, or other personal characteristic not related to the task at hand.

Bibliography

American Institute of Certified Planners. 1991. *AICP Code of Ethics and Professional Conduct*, <http://www.planning.org/ethics/conduct.html>.

ASPRS. 2001. Code of Ethics of the American Society for Photogrammetry and Remote Sensing, http://www.asprs.org/asprs/membership/certification/appendix_a.html.

Association for Computing Machinery. 1992. ACM Code of Ethics and Professional Conduct, <http://www.acm.org/constitution/code.html>.

Craig, William J. 1993. A GIS Code of Ethics: What Can We Learn from Other Organizations? *Journal of the Urban and Regional Information Systems Association*, 5(2): 13-16. See <http://www.urisa.org/certification/craigeth.pdf>.

Edson, Curtis, Brian Garcia, Jordan Hantman, Nicole Hartz, Hannah Jensen, Jill Leale, Kelley Lewelling, John Marks, Jeff Maxted, Bruce Moore, Brendan Vierk Rivera, Anna Weitzel. 2001. "Code of Ethics for GIS Professionals," paper for IES 400, GIS and Society, Institute for Environmental Studies, University of Wisconsin-Madison. See http://www.ersc.wisc.edu/academics/courses/IES400GISandSociety/Code%20of%20Ethics/ethics_code1.pdf

Kidder, Rushworth M. 1995. *How Good People Make Tough Choices*, New York: William Morrow and Company, Inc.

Olson, Andrew. 1998. Authoring a Code: Observations on Process and Organization,
http://www.iit.edu/departments/csep/PublicWWW/codes/coe/Writing_A_Code.html, Center for Study of Ethics in the Professions, Illinois Institute of Technology.

Pennsylvania Society of Land Surveyors, 1998. Manual of Practice for Professional Land Surveyors in the Commonwealth of Pennsylvania.
<http://www.psls.org/info/manualpractice.htm>

Rachels, James. 1999. *The Elements of Moral Philosophy*, Boston: McGraw-Hill College.

RULES OF CONDUCT

The GIS Certification Institute

Rules of Conduct for Certified GIS Professionals (GISPs)

Introduction

The Code of Ethics presents a set of objectives toward which we, as professionals, must continually strive. The Rules of Conduct is a set of implementing laws of professional practice that seek to express the primary examples of ethical behavior consistent with the Code of Ethics. Both the Code and the Rules govern ethical professional practice standards, and violations of each may be brought before the GISCI as an ethics issue.

The GIS professional should not interpret the lack of a specific context or act from the Rules of Conduct as permission to behave in any particular manner. For example, part of the Code of Ethics is the need to deliver an hour's work for an hour's pay. This is not simply a mandate for the office. It also means that you cannot ethically go to a conference and claim education points for the period of time when you were not actually participating in conference activities.

The Code and Rules represent a way of living a professional life, not simply how you are to behave at work. Achieving the GISP certification is an initial hurdle to jump in order to be recognized as a professional. Living the ethical life of a professional is a never ending test that will present numerous challenges for which the Code and Rules offer a guide to decision making.

The Rules of Conduct have been arranged under the headings used in the Code of Ethics as a means of indicating a primary association. The intent is to aid the user in identifying those rules that may be most applicable in a given context. Many rules, however, may be applicable in a variety of settings and situations beyond those with which they have a primary association. Any rule may ultimately be useful in resolving a specific question of ethical conduct.

Rules

Section I. Obligations to Society

1. GIS products and services should benefit society, and enhance the well-being of individuals and groups, within the constraints of existing law. Some applications of GIS products and services may harm individuals (directly or indirectly) while advancing government policies that some citizens regard as morally questionable. GIS professionals' participation in such applications is a matter of individual conscience.
2. We shall not intentionally alter data or outputs where the practice does not conform to standard analysis procedures.
3. We shall not engage in conduct involving fraud or wanton disregard of the rights of others.
4. We shall hold paramount the safety, health, and welfare of the public.
5. We shall not knowingly perpetuate bad or outdated data. We shall include all disclaimers (where applicable) about the current condition of the data at the time of creation and/or the original intent of the data.
6. We shall not accept an assignment from a client or employer when the services to be performed involve conduct that is known to be illegal or in violation of GISCI Rules of Conduct.
7. When it is evident to a GIS professional that another GIS professional or practitioner is operating in violation of this Code, the GIS professional shall discuss ethical GIS work practices with the other person.
8. Having substantial information which leads to a reasonable belief that a GIS professional has committed a violation of this Code which raises a serious question as to that professional's honesty, trustworthiness, or fitness as a GIS professional, and having exhausted all efforts to counsel or mentor that GIS professional, we shall file a formal complaint with the GISCI Ethics Committee following established procedures.
9. We shall not use the threat of filing an ethics charge in order to gain, or attempt to gain, an advantage in dealings with another GIS professional.
10. We shall not knowingly violate the law in the conduct of our professional duties. Furthermore, we shall take into account applicable laws and regulations, and may rely on the advice of other qualified persons as to the intent and meaning of such regulations.
11. We shall acknowledge our errors and shall not distort or alter the facts.
12. We, speaking in our professional capacity, shall not knowingly make false statements of material fact, nor shall we omit material facts.

13. We shall not knowingly withhold cooperation or information from the Ethics Officer or the Ethics Committee if a charge of ethical misconduct has been filed, reserving the right to avoid self-incrimination.

Section II. Obligations to Employers and Funders

1. All data shall have appropriate metadata documentation sufficient to meet the minimum standard as stated here. All data to be published for general public consumption shall note: 1) source(s) of data or at least from whom you obtained the data, 2) date(s) collection/aggregation of data or at least the date you obtained the data, 3) projection, and 4) author/compiler's contact information or other contact information.

2. We shall not discriminate in our professional activities on the basis of race, religion, gender, national origin, age, disability, or sexual orientation.

3. We shall not sell nor offer to sell services by stating or implying an ability to influence decisions by improper means.

4. We shall disclose all known conflicts of interest that could influence or appear to influence our judgment or the quality of our services.

5. We shall not solicit nor accept financial or other valuable consideration, directly or indirectly, when to do so creates, or appears to create, a conflict of interest with the original work for which we are responsible.

6. We shall not counsel nor assist a client or employer in conduct that we know, or reasonably should know, is fraudulent, illegal, or unethical. If a client or employer does suggest or disclose such conduct, we shall advise the client or employer of the aspects of the proposal that are fraudulent, illegal, or unethical.

7. We shall not use equipment, supplies, laboratory, or office facilities of an employer to carry on outside private practice without explicit employer consent.

8. We shall describe our products and services fully, accurately, and truthfully; we shall honestly describe the capabilities of products, systems, or services with which we are concerned and shall not take advantage of the lack of knowledge or inexperience of potential clients or employers.

9. When notified of an error in the database, the professional will take action to correct it.

10. We shall undertake to perform professional services only when we are qualified by education, training, or experience in the specific technical areas involved. Collaboration with other qualified professionals shall be undertaken if deficiencies are identified.

11. We shall not misstate, verbally or in writing, our educational experience, training, or any other facts which are relevant to our professional qualifications.

12. We shall adequately document all programs written and/or edited as part of our work product for the benefit of subsequent users or editors such that our work may be followed and replicated.

13. Where documented limitations exist, we shall not accept gifts, loans, services, or hospitality from any current or potential suppliers of services above and/or outside of those documented limits. Furthermore, where documented limitations do not exist, we shall use our professional judgment to decline gifts, loans, services, or hospitality that may appear excessive.

Section III. Obligations to Colleagues and the Profession

1. We shall not direct nor coerce other professionals to make analyses or reach findings not supported by available evidence.

2. We shall recognize and respect the professional contributions of our employees, employers, professional colleagues, and business associates; and, we shall not use the product of others' efforts to seek the professional recognition or acclaim intended for the producers of the original work.

3. We shall not deliberately nor with reckless indifference misrepresent the qualifications, views, and findings of other professionals; and we shall not engage in slander against our peers.

4. We shall not file a frivolous charge of ethical misconduct against another GIS professional.

5. We shall not retaliate nor threaten retaliation against a person who has filed a charge of ethical misconduct against us or another GIS professional, or who is cooperating in a GISCI Ethics Committee investigation of an ethics complaint.

6. We shall not deliberately or with reckless indifference commit any wrongful act that reflects adversely on our professional fitness whether or not it is specified in the Rules of Conduct.

7. We shall honor the intellectual property rights of others, including the rights to software, data, and other relevant information and analysis associated with the work of others. Furthermore, we shall adhere to software and data licensing requirements and the specifics contained in associated licensing agreements.

8. We shall not promote our own interest at the expense of the dignity and integrity of the profession.

Section IV. Obligations to Individuals in Society

1. We shall respect the privacy of individuals and not share information learned in the workplace with friends or others outside that environment.
2. We shall protect individual privacy with secure systems. If those systems are breached, we shall endeavor to notify all those affected.
3. We shall allow people to know whether they are included in a database and to see the information listed about themselves. We shall encourage them to correct any inaccurate information about themselves. We shall allow them to remove their inclusion unless prevented by law or a greater societal good.
4. We shall listen thoughtfully to individual comments and complaints about our work and advocate for changes when appropriate.
5. We shall not use confidential or personal information for personal gain nor to benefit a third party, except with prior written permission of the individual(s) or as permissible by law.
6. We shall strive to ensure the accuracy of information about individuals developed or maintained in our databases. If there is a potential for harm to the individual, spurious and questionable data about him or her will be validated, removed, or denoted.