Practical Ethics for Professional Geographers

Francis Harvey

Without ethics, everything happens as if we were all passengers on a big truck without a driver; and the truck is driving faster and faster, without us knowing where.

—Jacques-Yves Cousteau

Ethics matters for geographers. This means considering issues of professional responsibility and the ethical dimensions of work-related activities. More than deciding “rights from wrongs,” professional ethics involves thinking about the impacts, consequences, and moral implications of our work. Cousteau’s analogy is nicely chosen—without ethics, our work and careers can careen out of control. Ethics provides direction and guidance and helps us stay on the road. For professional geographers, ethical issues are paramount. We have a responsibility to ourselves, to our families and colleagues, and to society for our actions. Ethical issues can arise from routine tasks: handling the confidentiality of clients and spatial data; resolving conflicts of interest; managing relationships and accountability with stakeholders on controversial projects; determining harm versus benefit in consulting; and assuring data integrity. As Cousteau implies, geographers must be willing to take the wheel of the truck and get passengers to their destination safely.

In this chapter, you will find out more about the practical aspects of ethics for geographers. Because the role of ethics for professional geographers is pervasive, this chapter will introduce a seven-step approach to ethical decision making that is broadly applicable and can be used to help evaluate ethical issues involving mapping, statistics, project management, and many other aspects of professional geography.

ENGAGEMENT WITH ETHICS

Professional geographers encounter many examples of ethical issues. Sometimes these issues arise from inadequate knowledge, insufficient expertise, or lack of thoroughness. These situations can result in compromised results, wrong conclusions, and bad decisions, all of
which are emphasized in Tom Dwyer’s profile where he reflects on his work as a consultant, have developed statements or codes of professional conduct. The Association of American Surveyors and Geographers (AASG 2009) developed a statement on professional ethics fifteen years ago and geographers, as well as the statements on professional ethics developed by other professional associations. An example is the GIS code of ethics that is included among the requirements for certifying individuals to use Geographic Information Systems (GIS) certified by the Geographic Certification Institute (2011), a program that the Geospatial Technology Body of Knowledge (DBIase et al. 2006). It highlights such ethical and legal issues as accessibility to every geographic dataset and degree program curriculum. Similar statements of professional ethics can be found in neighboring fields such as the American Planning Association (APA 2009).

APPLIED ETHICS AND PROFESSIONAL PEDAGOGY

To dispel misunderstandings, it is worthwhile to begin with a few words about applied ethics and their relationship to professional geography. For purposes of this chapter, the term applied ethics refers to an area of philosophy that has received considerable attention in recent years. It approaches ethics with the idea that philosophy is relevant to the applied ethics considers standards of ethical and moral behavior in commonplace situations already mentioned, is an emphasis on engaging ethical issues and being relevant to a larger public. For example, philosopher Kwame Appiah (2008, 22) writes:

Morality is practical. In the end it is about what to do and what to feel, how to respond to our own and world’s demands. And to apply norms, we must understand the empirical contexts in which we are applying them. No one denies that, in applying norms, you will need to know what, as an empirical matter, the effects of what you do will be on others.

What Appiah is saying is of enormous importance for thinking about professional geography’s ethics. Instead of looking for ethical theories and principles to explain choices, applied geography involves clear connection to examples. A professional geographer working on a mapping project using Census data needs to consider not only the immediate project but also the larger situation. Mapping crime den assumptions should be brought to the surface? Often, professional geographers face funding body, a supervisor, colleagues, or other groups that may potentially be impacted by.

PROFILE 15.1

Tom Dwyer, Principal, Dutch Hill Consulting (Poughkeepsie, New York)

Running any small business takes a lot of work. But managing your own single-person consulting firm can be especially demanding. "Every day has to be efficient," says Tom Dwyer of Dutch Hill Consulting. Inc. "Working for a small company means you must be constantly productive." Tom’s job involves estimating the value of commercial properties and large parcels of land. Because his work is often used to support litigation, many of his clients are attorneys, for whom he generates appraisal reports running anywhere from 40 to over 100 pages in length. Since a multitude of factors can potentially make an enormous difference in the value of a given property, Tom’s research is essential in informing his clients’ decisions. "Even a simple mistake can ruin the credibility of an appraisal and cause the litigation to turn in favor of the opposing party," he says.

When the results of one work can mean losses or gains of thousands or even millions of dollars to a client, self-confidence and strength of character are essential personal attributes. Appraisers must obtain proprietary and sensitive data from individuals who can be uncooperative and abusive, and they frequently come under intense pressure to meet the deadlines of their reports. Tom has occasionally experienced verbal coercion, withholding of payment, and threats of legal action to attempt to influence his analyses. Despite these pressures, he has learned to "stick to his guns." In addition to considering the long-term gains for his clients (and of course, the cost of possible litigation), Tom also must be mindful of the personal and professional costs of unethical practices, which could result in the loss of his license or even jail time. In addition, referrals are key to maintaining and growing his business, so establishing trust with his clients and a solid reputation within the field are critical to his continued success. "Doing my job properly, I can have confidence in my work," Tom explains, adding that his rigorous approach means that he is able to defend his analysis and the final results when a client disagrees with an appraisal.

Commercial real estate appraisal is a licensed profession that mandates the completion of several core courses and at least two years of work experience under another certified appraiser, along with continuing education requirements. Tom notes that an advantage of working with a supervisor is the opportunity to learn about potential ethical issues early in one’s career and to cultivate the strength needed to address them by observing how an experienced professional deals with such challenges. He also credits his geography education with honing the research, data analysis, and writing skills that are essential in his work; he strongly recommends coursework in economic geography and demography for aspiring appraisers. "I am frequently amazed when I see colleagues struggling over questions that could so easily be answered through spatial analysis," he observes.

Real estate appraisal entails understanding how numerous characteristics of a property such as zoning regulations, wetland and floodplain status, and demographic changes come together to influence its value, therefore it is "very much a problem of geographic analysis." Tom’s bachelor’s and master’s degree in geography have proven invaluable assets, along with his previous professional experience. "The most important thing a consultant can have before going into business is a depth of experience and knowledge about the field," he notes. "This can only come through hands-on experience." Before launching his own business, he was employed by different companies performing retail site selection, shopping center analysis, real estate appraisal, and real estate data analysis. These positions provided him with the expertise, knowledge, and confidence needed to venture out on his own.

—MARK REVELL AND JOY ADAMS
the publication of this analysis and related maps? An ethnic group may consider the results of the work as an example of racial profiling and discredit the analysis and perhaps a larger project it is part of.

Appiah’s statement that morality is practical is also relevant for considering morality in professional geography. Practical morality involves considering the situation in question, which is of course a key issue in applied ethics. Before getting to the specifics in the next section, remember that discovery of ethical issues and the deliberation of these ethical issues connect applied ethics to professional geography. First, we have the connection just mentioned between morality and professional ethics arising in an emphasis on considering the specifics of each situation. Second, applied ethical deliberation also reflects on the perspective and assumptions of different actors and ourselves in analyzing a situation—what feminist scholars have brought to the discussion (Walker 1996). Third, professional ethics focuses on considerations of the empirical situation.

While professional geographers often find ethical issues in hindsight after having made decisions in a short time frame, by engaging ethics in their early career training, geographers can develop a firmer foundation for such decisions. Professional geography pedagogy can benefit or hinder practical examples in the classroom. In 1999 Keefer and Ashley (2001; Quinn 2006). Professional ethicists recommend that a framework guide the work with case analyses. Discovery and deliberation in this section draw heavily on Davis’s (1999) “seven-step guide to ethical decision making” (Table 15.1). Similar ethical analysis models have been suggested by Keefer and Ashley (2001) and others. The connection to scenarios in case study examples used with the seven-step method also allows the approach to be useful for engaging professionals.

### EXAMPLES

The following two examples show how Davis’s seven-step approach can be applied to develop responses to ethical problems. Both cases are available at the gisprofessionalethics.org website. The first case involves wetlands assessment and mapping. A more detailed description of this case and the analysis is available in DiBlasi et al. (2009), from which the description of this case is taken. The second case, outlined in this chapter only, considers the commonplace issue of whether protected data should be shared with others. Other cases involving ethical issues from the introduction follow.

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<tr>
<th>Table 15.1. Davis’s (1999) seven-step guide to ethical decision making</th>
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<tr>
<td><strong>Step 1. State problem.</strong> For example, “there’s something about this decision that makes me uncomfortable,” or “do I have a conflict of interest?”</td>
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<td><strong>Step 2. Check facts.</strong> Many problems disappear upon closer examination of the situation, while others change radically.</td>
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<td><strong>Step 3. Identify relevant factors.</strong> For example, persons involved, laws, professional code, other practical constraints.</td>
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<td><strong>Step 4. Develop list of options.</strong> Be imaginative, try to avoid “dilemma”; not “yes” or “no” but whom to go to, what to say.</td>
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<td><strong>Step 5. Test options.</strong> Use such tests as the following: Harm test: Does this option do less harm than alternatives? Publicity test: Would I want my choice of this option published in the newspaper? Defensibility test: Could I defend my choice of an option before a congressional committee or committee of peers? Reversibility test: Would I still think the choice of this option good if I were adversely affected by it? Colleague test: What do my colleagues say when I describe my problem and suggest this option as my solution? Professional test: What might my profession’s governing body or ethics committee say about this option? Organization test: What does the company’s ethics officer or legal counsel say about this?</td>
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<td><strong>Step 6. Make a choice based on steps 1–5.</strong></td>
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<td><strong>Step 7. Review steps 1–6.</strong> What could you do to make it less likely that you would have to make such a decision again? Are there any precautions you can take as an individual (for example, announce your policy on question, change job, etc.)? Is there any way to have more support next time? Is there any way to change the organization (for example, suggest policy change at the next departmental meeting)?</td>
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### Case Study: To Map Wetlands or Not To Map Wetlands?

Kelly is a geographic information systems (GIS) analyst and owner of a small environmental consulting firm that specializes in wetlands assessment and mapping. She has recently begun work on a project commissioned by the state of Oregon to identify estuarine areas on the Pacific Coast and to prioritize them for conservation and restoration. The contract represents a great opportunity and could lead to similar and even more lucrative contracts in Oregon and elsewhere.

The contract requires Kelly and her team to follow the client agency’s established protocol for mapping tidal wetlands. The protocol involves several existing data sources. One is a digital map of probable tidal wetlands in the area (Scranton 2004). The protocol allows removal of polygons from this dataset if aerial photography interpretation, field visits, and other ancillary data suggest these do not represent actual tidal wetlands. In addition, areas may be added to the tidal wetlands dataset after field inspection if these areas are already identified and mapped in the National Wetlands Inventory (NWI) database. However, because the protocol is designed to be repeatable and usable by many people who may not have a background in wetland delineation, it does not include methods for adding new wetlands to the database that aren’t already mapped in the NWI.

During Kelly’s visits to sites of previously identified tidal wetlands, she finds evidence of additional wetlands that aren’t mapped in either data source. The client agency’s protocol doesn’t accommodate the soil sampling needed to confirm Kelly’s hypothesis. Neither does her project budget and schedule of deliverables provide the money or time needed to perform the
extra work. She knows she cannot devote unbillable hours to the tasks either, since the project budget is barely adequate for the scope of work. There seems to be no way to verify with certainty whether these areas are wetlands. Leaving the sites out of her wetland mapping projects could result in excluding important estuarine resources from conservation and restoration plans and, moreover, could reduce the overall efficacy of the agency’s wetland conservation program.

These mapping-related issues are one side of the coin. Deciding to collect data that enhances conservation and restoration plans could violate the methodology of the protocol and endanger the perceived integrity of her work. This could, in turn, cause her firm to lose money, which a small company cannot afford to do.

Kelly is in a difficult position for several reasons. The seven-step approach helps get a firmer grasp of the issues and possible approaches to resolving the situation.

Analysis Following the Seven-Step Approach

The following presents the discovery and deliberation involved in using the seven-step approach to analyze these ethical issues (Table 15.1).

Step 1: State problem. Analysis begins with a discovery of the ethical issues. This case involves a number of potential ethical issues related to the conflict of Kelly, an independent consultant with much experience, between her sense of environmental responsibility and her professional ambition, among them: Can field checking data adequately protect coastal wetlands? Would completing the contract following the scope of work reflect professional standards? Will bringing up this issue now cause Kelly to lose the contract? Can she afford to take any risks for her small company?

Step 2: Check facts. Discovery continues with detailed considerations of facts.

Fact: Kelly owns a small firm that is working on a project to update the wetland inventory for the state of Oregon.

Fact: Kelly believes that wetlands exist that are not documented in the inventory. However, the established protocol constrains how Kelly is allowed to add them. This job is financially important for her small business, and Kelly does not want to let it go, as she sees it as a gateway for future project work with the state government.

Fact: The state of Oregon has commissioned Kelly’s environmental firm, and she already has begun work.

Fact: A strict protocol exists for establishing wetlands; wetlands can be removed from the database; wetlands can only be added if they already have been mapped.

Fact: Kelly has evidence of additional wetlands, but project resources and protocol prohibit systematic identification.

Fact: Even if the wetlands are verified, there is no established way of mapping them for the project.

Step 3: Identify relevant factors. This step moves into deliberations, as the analysis of situations begins in depth. Do the tasks for the project conflict with the resources and goals for the wetland inventory? The base dataset is a map of probable wetlands (Scranton 2004) that may be limited by the methods used to identify wetlands. The protocol is quite narrow in requiring that added areas already be included in National Wetland Inventory mapping. A conflict between the goals of this data and the probable wetland mapping data can exist. How much additional area is Kelly potentially considering? If the areas are small fringe areas within the accuracy thresholds of existing wetland maps and other data sources for the project, then adding them may be less crucial. However, changing technologies and more accurate data may be grounds for revisiting the protocol. Who can offer guidance on considering revisions to the protocol? Perhaps a revision can be tested while Kelly works on the project.

Step 4: Develop list of options. After deliberating contextual issues, this step creates possible actions.

Option 1: Withdraw from the project.

Option 2: Contact involved agencies.

Option 3: Request a modification to the existing protocol and support to complete the accurate and systematic addition of wetland areas identified during field visits.

Step 5: Test options. This step continues to explore actions by following the systematic use of tests.

Option 1: Withdraw from the project. Harm test: Loss of the contract could threaten the firm’s financial solvency and reduce its chances for future state work. Publicity test: Withdrawal could raise touchy questions about the protocol and resulting wetland inventory. Defensibility test: Kelly can face financial difficulties and may lose contacts with the state agency. Reversibility test: Kelly might face challenges legitimating the wetlands inventory if she was working in state government. Colleague test: Colleagues would likely challenge the wisdom of turning down work and losing opportunities to influence future data collection. Professional test: There are numerous potential conflicts with the GSC’s Rules of Conduct. Organization test: Kelly has to keep the business interests of her firm in mind and balance those interests with professional and environmental concerns.

Option 2: Contact involved agencies. Harm test: Agency staff might be thankful for a suggestion, but worried about impacts on the completion time of this project. Publicity test: Delays in completion could have negative consequences for the public. Defensibility test: The additional time in contacting the agencies may add complexities to the project. Reversibility test: If Kelly worked for the state, there may be other channels and possibilities to bring this to the attention of contractors. Colleague test: Colleagues might be thankful in the long run, but worried in the short run about potentially unfunded tasks coming to the project. Professional test: There are numerous potential conflicts with the GSC’s Rules of Conduct. Organization test: Kelly has to keep the business interests of her firm in mind and balance them with professional and environmental concerns.

Option 3: Request a modification to the existing protocol and support to complete the accurate and systematic addition of wetland areas identified during field visits. Harm test: The proposal might be rejected because of the clear scope of work agreed to in the contract, leading to the possible withdrawal of the contract. However, Kelly’s expertise could lead to an invitation to future work and revision of the protocol. Publicity test: Finishing the project on time and starting a new project to revise the protocol may be acceptable to
Step 6: Select choice based on steps 1–5. After the tests, the analysis leads to the selection of Option 3: Request a modification to the existing protocol and support to complete the accurate and systematic addition of wetland areas identified during field visits.

Step 7: Review steps 1–6. It is possible that discovery and deliberation lead to more than one option left in the running. Reviewing the steps can help fine-tune the analysis and develop a presentation of issues that is sound. Variations of the options can be improvements and may replace the option originally chosen in step 6. An approach may also be specified for pursuing an option. For example, first informally contact staff at the state before sending a formal note about issues and ideas about changes to the protocol.

**Case Study: Release of Data**

This is another case involving discovery and deliberation of issues connected to mapping. The Federal Highway Administration (FHWA) of the U.S. Department of Transportation maintains a national inventory of over 600,000 bridges. States are responsible for conducting periodic inspections of bridges and for reporting their condition to the FHWA. In response to requests from "nongovernmental sources," the FHWA will disclose records from the bridge inventory, but not the locations of individual bridges (which are recorded as latitude and longitude coordinates). Following the collapse of a bridge that caused several fatalities and dozens of injuries, the consultant working with these data for a FHWA project receives a telephone inquiry from a reporter who wishes to map structurally deficient bridges in his state.

**Analysis Following the Seven-Step Approach**

**Step 1: State problem.** Stating the problem starts the process of discovery. FHWA data can be provided without locational information about individual bridges. A journalist is requesting the data with locational information.

**Step 2: Check facts.** Considering facts is part of deliberation.

- Fact: The FHWA prohibits the release of locational data from the bridge inventory.
- Fact: A bridge in the area collapsed, causing deaths and injuries.
- Fact: The consultant has access to the data to complete the FHWA project. No other use is permitted.
- Fact: The reporter wishes to make a map of structurally deficient bridges.

**Step 3: Identify relevant factors.** This step moves into deliberations, as the analysis of situations begins in depth. The key factor appears to be that the consultant has access to the bridge inventory data to complete a project alone. That is, the data cannot be released, based on the terms of the project agreement.

Step 4: Develop list of options. In this step, deliberation moves to develop a list of possible actions.

- Option 1: Provide the data to the reporter.
- Option 2: Provide a map of bridges with structural problems to the reporter.
- Option 3: Retain the data and refer the reporter to the FHWA.

Step 5: Test options. After deliberating contextual issues, this step defines possible actions.

- Option 1: Provide the data to the reporter. Harm test: Leads to FHWA canceling the consultant's contract and possible legal action. Publicity test: Public would only get a map. How would the map show the data? Defensibility test: Not defensible under the terms of the contract. Reversibility test: Not good if the consultant is responsible for any of the bridges. Colleague test: Colleagues may support principle but question benefits. Professional test: May lead to conflicts with professional organization. Organization test: This choice would not receive organizational support.

- Option 2: Provide a map of bridges with structural problems to the reporter. Harm test: Possible aggravation of the FHWA, even if permitted (which needs to be verified). Publicity test: Public may disregard the map. Defensibility test: Possibly acceptable, needs to be verified. Reversibility test: Any concerns may be eliminated, if FHWA supports the publication of the map. Colleague test: Colleagues may support approach, yet question the effort. Professional test: Involves blurring boundaries between professional and newspaper organization. Publication test: This choice may receive organizational support, if contract allows for publication of results.

- Option 3: Retain the data and refer the reporter to the FHWA. Harm test: Assumes that FHWA contract and relationship to consultant are protected. Publicity test: Not possible. Defensibility test: Completely defensible under the terms of the contract. Reversibility test: Reflects value of legal contracts. Colleague test: Colleagues may support principle but question lack of support for this issue. Professional test: May lead to conflicts with professional organization. Organization test: This choice would certainly receive organizational support.

Step 6: Select choice based on steps 1–5. After the tests, the analysis leads to the selection of Option 3: Retain the data and refer the reporter to the FHWA.

Step 7: Review steps 1–6. The review revisits discovery and deliberation activities. The consultant should review the contract and contact the FHWA to determine if the provision of a map would be permitted. Also, the reporter should be referred to FHWA to clarify use of the map and possible acquisition of the data in the future.

**Reflections and Outlook**

These examples are only a starting place for considering the ethical dimensions of professional work. Although it is impossible to anticipate all of the possible situations in which such issues may arise, there are ways we can be better prepared for the times when ethical challenges occur. As Israel and Hay (2009, 167) have pointed out, the greatest barriers to ethical conduct stem from the facts that most of us do not have (1) the philosophical training to help negotiate difficult ethical issues; (2) the ability to recognize ethical challenges as they first appear (rather than after
they have escalated into difficult problems; (3) the time to thoroughly consider all issues and options before making decisions; and (4) the talent to anticipate problems before they arise. However, many organizations and geography programs are trying to remedy this situation, at least in part, by addressing ethics in undergraduate and graduate programs. In the world of GIScience, for instance, ethical training materials have been developed through the GISProfessionalEthics.org (2011) project, and are also addressed in the certification procedure of the GIS Certification Institute (2011). Geographers in other fields may find it useful to augment their training with online or traditional courses focusing on applied and professional ethics. Beyond training, discussions of ethics can be an important element of any work environment. So, for example, as new projects are considered, time is set aside to consider explicitly the possible ethical dimensions of the work being planned.

But such reflection is just as important at the individual level—reflecting on ethical issues can be a helpful way to review activities and chart directions for further professional growth and improvement. The seven-step approach presented in this chapter can help bring the ethical dimensions of our work to the fore and open up possibilities for discussions about individual goals and work-related objectives and priorities. Applied ethics can frequently help build a better basis for dealing with the changes we encounter in our careers and workplaces. Or, as Jacques Courteau might observe, such reflection can make us better drivers and help us keep our work and careers on track.

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REFERENCES


