IS IT TIME FOR AN IT ETHICS PROGRAM?

Once thought of as a value-neutral service function, IT is being recognized as a department that is involved in a variety of ethical questions. These ethical questions can be recognized and dealt with on an explicit basis, but most often the decisions are unrecognized or decided by a small group of people who may lack the training and authority to deal with the issues properly. We suggest that IT units pay attention to ethical issues and create a structure for identifying and dealing with them.

Technologists often think of themselves as involved in activities that have no ethical implications. They do not see their systems as being good or bad, or right or wrong, in and of themselves. Neither, in many instances, do they feel that these issues are part of their responsibility. Let someone else decide whether they want to use the system. Let them decide how the system should be deployed or how the data collected might be reused. But ethical questions intrude themselves into IT operations whether anyone wants them to or not. The recent designation of St. Isidore of Seville by the Pope as the patron saint of the Internet does not eliminate the need for organizational as well as personal ethics in the area of information technology. Consider the ethical issues raised when discussions focus on questions such as:

- Is it permissible for client-related, personally identifiable data to be used, traded, and sold?
- Assuming that a company has the legal right to monitor electronic mail, can this mail be read by specific people (i.e., the immediate supervisor, the IT manager, the corporate lawyer)?
- Can employee data be shared with an insurance company?
- Are systems that store personal data vulnerable to computer hacking?
- Should multiple conversational language programs be introduced simultaneously or as they become ready?
- What responsibility do technicians have to report “suspicious,” perhaps pornographic, files on corporate microcomputers?
- Should tracking software be used to monitor employee movements on the Internet?
- At what point do your e-mails to customers become unwelcome spam?

To be sure, these ethical issues may also have legal and practical implications. Nonetheless, IT personnel should not approach these issues as though their actions are ethically neutral. They are not.

Few IT workers know that professional organizations such as the Association for Computing Machinery and the Institute for Electronics and Electrical Engineers have promulgated codes of ethics. Of those who do, even fewer know how to apply the codes and have entered into serious conversations about the ethical trade-offs they may be required to consider. Most IT workers consider themselves ethical, but ethical decision making requires more than just a believing that you are a good person. It also requires sensitivity to the ethical implications of decisions. Further, ethical discussions rarely receive the depth of analysis they deserve. Many of these questions demand an ability to evaluate issues with complex, ambiguous,
and incomplete facts. What is right is not necessarily what is most profitable or cheapest for the company. Ethical decision making requires ethical commitment, ethical consciousness, and ethical competency.

Currently, the ethical framework of IT is based primarily on the tenets of individual ethics. This is problematical, however, because it suffers from sins of omission (i.e., forgetting to ask relevant questions) and sins of commission (i.e., being asked to undertake unethical actions and not being able to invoke personal ethical standards by a superior). Many governmental IT agencies are implementing formal approaches to raising, discussing, and resolving ethical questions. The time may be ripe to discuss doing the same in business IT departments.

**WHY AN ETHICS PROGRAM?**

If management believes that it and its employees are basically ethical, why is a formal ethics program worth pursuing? Perhaps the strongest among many motivations for this effort is the desire to make ethical behavior standard practice within the organization. Employees under pressure to economize, to reach more clients, and to produce more revenue may begin to feel that unethical practices are implied — if not even encouraged. An ethics program announces management’s commitment to ethical behavior in all aspects of the IT effort. It encourages people to adopt and pursue high ethical standards of practice. Knowledge that ethical issues are being debated motivates them to identify these issues and make them visible. It shapes their behavior so that they act ethically and have confidence that management will back them when they take ethically correct actions whenever possible. By considering positive ethical positions prior to the development of new computer systems, the incorporation of conscious decision making in the system can be managed when change is least costly and before damage from an ethically indefensible system is incurred. The support of professional codes of ethics promotes the image of IT workers as professionals in pursuit of reputable goals. Moreover, it has been often observed that good ethics is good business. The customers of an ethical business soon come to see that the company is committed to providing the best possible service.

Ethical considerations should be openly and thoroughly discussed when systems are being implemented that affect the company’s workforce. They also loom larger when they affect vulnerable populations, the poor, or the under-educated. Although it should not be a special consideration, the prospect that spin-off effects of a system might bring the organization into the public perception encourages special attention to the ethical basis of a system and whether or not it can stand public scrutiny.

**HOW TO ORGANIZE ETHICS AS A PROGRAM**

IT management is complex, driven by many forces, and subject to issues with a growing number of ethical implications. When conducting daily business activities as a manager, maintaining high personal ethics is extremely important, but maintaining high organizational ethics must be every employee’s responsibility as well. To that end, we suggest that IT organizations adopt an ethics program to help their staff become aware of and deal with these issues. Building and adopting an organizational ethics program cannot make people ethical, but it does help them make better decisions. The benefits accrue to employees who are treated ethically as much as it does to customers and clients. One ethicist suggests that an ethics program includes the need to:

- Establish organizational roles to manage ethical issues.
- Schedule ongoing assessment of ethics requirements.
- Establish required operating values and behaviors.
- Align organizational behaviors with operating values.
- Develop awareness and sensitivity to ethical issues.
- Integrate ethical guidelines to decision making.
- Structure mechanisms to resolve ethical dilemmas.
- Facilitate ongoing evaluation and updates to the program.
- Help convince employees that attention to ethics is not just a knee-jerk reaction done to get out of trouble or to improve one’s corporate public image.

The number and magnitude of challenges facing IT organizations are unprecedented. Ethical issues that contribute to the anxiety of IT executives, managers, and staff are dealt with everyday. Included in the sources of this angst are pressure to reduce costs, mergers and acquisitions, financial and other resource constraints,
and rapid advances in IT technologies that complicate and often hide the need for ethical decision making during system design, development, and implementation.

However, people cannot and should not make such decisions alone or without a decision-making framework. IT organizations should have vehicles, such as a code of ethics and an ethics program, to assist with the decision-making process.

Perhaps the precise steps presented here are not as important as the initiation of some well-demarcated means by which to inaugurate a conscious, ethical decision-making process. What is important is not so much the need for an academically defined methodology as the need for IT to adopt a disciplined methodology with which to deal with ethical decision making. Individuals in the organization need to reflect on the mission and values of IT and use that as a guide, either by itself or in concert with a defined methodology.

PRINCIPLES OF ETHICS

Before identifying a few core ethical principles that should be taken into account in evaluating a given issue, it is necessary to distinguish between ethical and moral assessments (questions of right and wrong) and ostensibly related principles. Legal principles, for example, impose sanctions for improper actions. One may find that what makes an action right and what makes it legal are different, perhaps even in conflict. It is also important to note that what is politically or technically desirable and what is ethical may not be the same. Guiding ethical principles set standards for the organization that go beyond the law in such areas as professional ethics, personal ethics, and general guiding principles. These principles will not always dictate a single, ethically acceptable course of action, but they help provide a structure for evaluating and resolving competing ethical claims.

There are many tools and models for financial and logistic decision making, but few guides to indicate when situations might have an ethical implication. Yet this awareness is a crucial first step before decisions are made. Recognizing the moral context of a situation must precede any attempt to resolve it. Exhibit 1 displays the most commonly asserted ethical principles — generic indicators to be used as compelling guides for an active sense of right and wrong. For each principle, an example is given of an ethical issue that might be raised by people using this principle.

STRATEGIES FOR FOSTERING AN ETHICAL ORGANIZATION

Establish the Goal of Implementing an Ethics Program

To implement a successful ethics program at any level, executive leadership is desirable on the part of the president of the organization. Within IT, an ethics program will need the equally public support of the IT director. Both executives must be committed to offering leadership in this area. Public and unequivocal statements supporting the attainment of ethical goals should be promoted as a general goal of the company and of IT.

Establish an Ethics Committee and Assign Operational Responsibility to an Ethics Officer

An ethics infrastructure links the processes and practices within an organization to the organization's core mission and values. An ethics infrastructure promotes a means by which to invite employees to raise ethical concerns without fear of retribution and to demonstrate that the company is interested in fostering ethical conduct. It is a mechanism that reflects a desire to infuse ethics into decision making. First, establish an IT Ethics Committee, the purpose of which is to provide a forum for the improvement of IT and organizational ethics practices. This group, which may not be limited to the IT staff, should include people who possess knowledge and skills in applied ethics. The members should have appropriate knowledge of systems development to assist developers as they create systems that are ethically valid. The members themselves, and especially the chief ethics officer, should be seen as having personal characteristics that are consistent with the functions of the committee. That is, they should be respected, personally honest, of high integrity and courage, ethical, and motivated and committed to creating an ethical organization. The basic functions of the committee include:

- The education of IT staff as to the nature and presence of ethical issues and to alert them to methods of dealing with these issues
- The recommendation of and the oversight of policies guiding the development of new computer systems and the re-engineering of old computer systems
## EXHIBIT 1 Selected Ethical Bases for IT Decision Making

1. **Golden rule:** Treat others as you wish to be treated.
   - Do not implement systems that you would not wish to be subjected to yourself.
2. **Kant’s categorical imperative:** If an action is not right for everyone, it is not right for anyone.
   - Does management monitor call center employees’ seat time, but not its own?
3. **Descartes’ rule of change (also called, the slippery slope):** If an action is not repeatable at all times, it is not right at any time.
   - Should your Web site link to another site, “framing” the page, so users think it was created and belongs to you?
4. **Utilitarian principle (also called universalism):** Take the action that achieves the most good. Put a value on outcomes and strive to achieve the best results. This principle seeks to analyze and maximize the IT of the covered population within acknowledged resource constraints.
   - Should customers using your Web site be asked to opt in or opt out of the possible sale of their personal data to other companies?
5. **Risk aversion principle:** Incur least harm or cost. Given alternatives that have varying degrees of harm and gain, choose the one that causes the least damage.
   - If a manager reports that a subordinate criticized him in an e-mail to other employees, who would do the search and see the results of the search?
6. **Avoid harm:** Avoid malfeasance or “do no harm.” This basis implies a proactive obligation of companies to protect their customers and clients from systems with known harm.
   - Does your company have a privacy policy that protects, rather than exploits customers?
7. **No free lunch rule:** Assume that all property and information belongs to someone. This principle is primarily applicable to intellectual property that should not be taken without just compensation.
   - Has your company used unlicensed software?
8. **Legalism:** Is it against the law? Moral actions may not be legal, and vice versa.
   - Might your Web advertising exaggerate the features and benefits of your products?
9. **Professionalism:** Is an action contrary to codes of ethics? Do the professional codes cover a case and do they suggest the path to follow?
   - When you present technological alternatives to managers who do not know the right questions to ask, do you tell them all they need to know to make informed choices?
10. **Evidentiary guidance:** Is there hard data to support or deny the value of taking an action? This is not a traditional “ethics” value but one that is a significant factor related to IT’s policy decisions about the impact of systems on individuals and groups. This value involves probabilistic reasoning where outcomes can be predicted based on hard evidence based on research.
   - Do you assume that you know PC users are satisfied with IT’s service or has data been collected to determine what they really think?
11. **Client/customer/patient choice:** Let the people affected decide. In some circumstances, employees and customers have a right to self-determination through the informed consent process. This principle acknowledges a right to self-determination in deciding what is “harmful” or “beneficial” for their personal circumstances.
   - Are your workers subjected to monitoring in places where they assume that they have privacy?
12. **Equity:** Will the costs and benefits be equitably distributed? Adherence to this principle obligates a company to provide similarly situated persons with the same access to data and systems. This can imply a proactive duty to inform and make services, data, and systems available to all those who share a similar circumstance.
   - Has IT made intentionally inaccurate projections as to project costs?
The increase of staff, client, and customer satisfaction due to the deployment of ethically defensible systems
- The identification of key system features that avoid institutional and individual liability
- The encouragement and support of ethical standards of practice, including the creation of practices that remove ethical uncertainty and conflicts

Given that most ethical questions in IT are related to systems development and maintenance practices and data privacy, adequate time to consider the issues at stake is not as significant an issue as it might be in other organizations. At a hospital, for example, ethical issues may take new forms everyday. The committee must have the prestige and authority to effect changes in system development and to keep the affected employees free of reprisals from managers whose priorities and (un)ethical principles might otherwise hold sway. Means should be found to reward rather than punish people who identify ethical problems. This may enable them to focus on broader organizational issues as well as IT conflicts specifically. The committee needs to be proactive in the identification of emerging ethical issues that not all IT personnel have come to anticipate. Initial tasks of the committee and the Chief Policy Officer (CPO) are generally not difficult to determine. They should seek to clearly define the organization’s privacy policy, its security policy, and its workplace monitoring policy.

**EXHIBIT 1 Selected Ethical Bases for IT Decision Making (Continued)**

*Competition:* This principle derives from the marketplace where consumers and institutions can select among competing companies, based on all considerations such as degree of privacy, cost, and quality. It recognizes that to be financially viable in the market, one must have data about what competitors are doing and understand and acknowledge the competitive implications of IT decisions.

- When you present a build or buy proposition to management, is it fully aware of the risk involved?

*Compassion/last chance:* Religious and philosophical traditions promote the need to find ways to assist the most vulnerable parties. Refusing to take unfair advantage of users or others who do not have technical knowledge is recognized in several professional codes of ethics.

- Do all workers have an equal opportunity to benefit from the organization’s investment in IT?

*Impartiality/objectivity:* Are decisions biased in favor of one group or another? Is there an even playing field? IT personnel should avoid potential or apparent conflicts of interest.

- Do you or any of your IT employees have a vested interest in the companies that you deal with?

*Openness/full disclosure:* Are persons affected by this system aware of its existence, aware of what data are being collected, and knowledgeable about how it will be used? Do they have access to the same information?

- Is it possible for a Web site visitor to determine what cookies are used and what is done with any information they might collect?

*Confidentiality:* IT is obligated to determine whether data it collects on individuals can be adequately protected to avoid disclosure to parties whose need to know is not proven.

- Have you reduced security features to hold expenses to a minimum?

*Trustworthiness and honesty:* Does IT stand behind ethical principles to the point where it is accountable for the actions it takes?

- Has IT management ever posted or circulated a professional code of ethics with an expression of support for seeing that its employees act professionally?

**Adopt a Code of Ethics**
Examine the codes of ethics from the Institute for Electronics and Electrical Engineers and the Association for Computing Machinery. Other codes are also available. Adopt one of the codes as the standard for your IT group as a means of promoting the need for individuals to develop their concern for ethical behavior.

**Make The Ethics Program Visible**
Post the code of ethics prominently and refer to it as decisions are being made so that people can see that its precepts have value. Similarly, let IT workers know of decisions made and of issues being discussed so that they gain experience with the processes in place and so that they understand that ethics are of compelling interest.
An ethical organization is essential for quality IT and for successful organizations.

to the company. Let them know how ethical errors might have been made in the past, but have been removed or eliminated. Show gratitude to people who raise issues, rather than treating them as troublemakers. Provide occasional workshops on ethical questions as a part of an ongoing in-service training effort to better inform people about how they should proceed if a question arises and also to advertise your efforts more effectively.

Establish a Reporting Mechanism
For people to raise ethical concerns requires that they feel comfortable doing so. This should be possible even if a supervisor does not wish to see the question raised. Let people know how they can raise an issue without fear of dismissal or retaliation.

Conducting Ethical Analysis
How does one analyze ethical questions and issues? There are both quantitative and qualitative approaches to this task. The ethics committee must first develop a clear set of mission statements and value statements. Nash, writing for the Harvard Business Review, suggests that participants in a policy discussion of this nature consider the following questions:

- Have you defined the problem accurately?
- How would you define the problem if you stood on the other side of the fence?
- How did this situation occur in the first place?
- To whom and to what do you give your loyalty as a person and as a member of the corporation?
- What is your intention in making this decision?
- How does this intention compare with the probable result?
- Whom could your decision or action injure?
- Can you discuss the problem with the affected parties before you make your decision?
- Are you confident that your position will be as valid over a long period of time as it seems now?
- Could you disclose without qualm your decision or action to your boss, your CEO, the board of directors, your family, society as a whole?
- What is the symbolic potential of your action if understood? Misunderstood?
- Under what conditions would you allow exceptions to your stand?

Such questions are likely to generate many useful discussions, both formal and informal, as questions such as those noted earlier are being reviewed or reevaluated.

Consider a Board Committee on Ethics
A large company might consider creating a sub-committee on ethics from within the board of directors. This committee would view ethical questions that affect other functional areas such as marketing and financial reporting.

Review and Evaluate
Periodically determine whether the structures and process in place make sense. Are other safeguards needed? Were recommendations for ethical behavior carried out? Have structural changes elsewhere in the company caused a need to reassess how the program is working and how it can be improved?

CONCLUSION
Current business literature emphasizes that organizational ethics is not a passing fad or movement. Organizational ethics is a management discipline with a programmatic approach that includes several practical tools. As stated, it is not imperative that this discipline has a defined methodology. However, organizational ethics do need to consist of knowledge of ethical decision making, process skills that focus on resolving value uncertainty or conflict as it emerges in the organization; the ability to reflect, both professionally and personally, on the mission, vision, and values of IT units; and an ethical commitment from the board of trustees and executive leaders. An ethical organization is essential for quality IT and for successful organizations.

Based on an exhaustive literature review and comparison of industry standards, we believe it is important that IT develop an organizational ethics discipline that is communicated throughout the organization, from the top down, and as an integral part of daily business operations. It is invaluable to have a process and a structure that guide decisions on questions such as the extent to which it is the company’s responsibility to guard against identity theft, to prevent software piracy in all of its offices — no matter how widely distributed — to protect whistleblowers should the need arise, or to limit the causes of repetitive stress injuries.
An ethics program seeks to encourage all personnel to become attentive to the ethical implications of the work in which they are engaged. Once they are conscious of the potentially serious ethical implications of their systems, they begin to consider what they can do to attain ethically responsible goals using equally responsible means to achieve those ends. They incorporate into their thinking the implications other professionals bring to the profession’s attention. Most importantly, ethical perspectives become infused into the operations of the IT unit and the corporation generally.

It is clear that ethical organizations do not emerge without the presence of leadership, institutional commitment, and a well-developed program. Further, ethical organizations that have clearly presented mission and values statements are capable of nurturing ethically grounded policies and procedures, competent ethics resources, and broader corporate support for ethical action. It is time for an ethics program in IT.

References and Further Information