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ETHICS AND INFORMATION SYSTEMS: THE CORPORATE DOMAIN[1]

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Abstract

IS-related ethical quandaries are receiving an increasing amount of attention. However, linkages to the normative theories of business ethics, which can be used in resolving these quandaries in the corporate domain, have been lacking.

This paper enumerates and explains the three major normative theories. The stockholder theory holds that managers should resolve ethical quandaries by taking actions which increase the long-term profits to the stockholders without violating the law or engaging in fraud or deception. The stakeholder theory claims that managers should resolve ethical quandaries by balancing stakeholder interests without violating the rights of any stakeholder. The social contract theory states that managers should increase social welfare above what it would be in the absence of the existence of corporations without violating the basic canons of justice.

The application of these theories to IS-related ethical quandaries is discussed and a specific quandary dealing with a real-world example—Blockbuster Video's reported plans to market customer lists—is explored in depth. The managerial challenges associated with the theories are then explored.

Keywords: Ethics, corporate social responsibility, ethical quandries, theoretical frameworks

ISRL Categories: AI02, BD0104, IB02

Introduction

> Despite the explosion in information technology...in the last 20 years, scholars, students, and practitioners would be hard-pressed to claim similar progress in ethical thinking about information technology. There is an ethical vacuum in cyberspace (Laudon 1995, p. 33).

Information systems (IS) are enabling an increasing number of corporate initiatives—efforts aimed at improved efficiency, effectiveness, or strategic advantage of the firm (Cash et al. 1992). However, many of these applications are being embraced in an ethical environment that harbors vast areas of ambiguity—spaces in which there are often no explicit or agreed-upon rules with respect to appropriate and inappropriate behaviors (Johnson 1989). Consider, for example, a

[1]Allen Lee was the accepting senior editor for this paper.

quandary faced by one company in the early 1990s.

Blockbuster's Quandary

On December 26, 1990, an article in the *Wall Street Journal,* titled "Coming Soon to Your Local Video Store: Big Brother," castigated the Blockbuster Entertainment Corporation chain for a reported plan to categorize its 30 million customers according to the types of movies they rented and to "sell information from the data base . . . to direct mailers, for planning target-marketing campaigns." The article explained:

> Many businesses commonly sell their customer lists, but Blockbuster is one of a small fraction using sophisticated computers to keep records of each individual's transactions. Its data base promises to raise some especially difficult privacy issues, for the same reason it should be such a gold mine for direct mailers: Video choices are among the most revealing decisions a consumer makes.
>
> A . . . federal law forbids video stores to disclose the names of movies its customers rent. But the law permits stores to tell direct marketers "the subject matter" of movies a customer has rented.
>
> Blockbuster, whose members represent one out of six American households, says its data base will be legal because it will only monitor video categories, not specific titles. The chain currently organizes its shelves by 37 categories, and plans to add as many as 30 to 40 more. . . .
>
> Direct-marketers are ravenous for information about consumers' taste and life styles, because such data help pinpoint targets for expensive mail campaigns. Blockbuster envisions selling lists of mystery movie renters to mystery book clubs, kids movie renters to toy stores, classics renters to senior-citizen marketers, and many such other matches.
>
> "I can turn around and promote all the John Wayne names to the national Republican Party," says Allan Caplan, the Blockbuster vice president overseeing the database project. "We not only will know their tastes in movies—we'll know their frequency and that will give us a little more information about their life style" (Miller 1990, p. 9).

While the technical question of *legality* seemed moot in this case—indeed, the law seemed to allow such a sale of customer data, categorized by movie type—many indicated concerns about the *ethical* issues involved. "The basic principle is that information collected for one purpose shouldn't be used for another purpose without an individual's consent," noted one observer (Miller 1990, p. 10). Confronted with negative publicity about the endeavor, Blockbuster's executives might well have asked: what are our ethical obligations with respect to this database? As will be seen later in this paper, there are three different theoretical answers to this question.

Ethical Ambiguity in the IS Domain

Just as the Blockbuster executives discovered, there is a vast terrain of unexplored ethical territory through which many IS applications must travel. Such ambiguity is often rebounding against well-intentioned, strategic initiatives, and Blockbuster is not the only company to have encountered a negative response (see Culnan and Smith 1995). In addition, IS professionals have been taken to task for their behavior in well-publicized systems development failures. Greyhound's attempt to re-engineer its reservation and tracking systems with a complex software tool, "Trips," ended in abject failure, has driven the company into a financial tailspin, and has resulted in the departure of many senior executives. Perhaps the most troubling aspect of the story is that some IS executives were aware of the problems with the project but, when senior executives dismissed their concerns, the IS executives did not pursue the issue further, even though the system was being touted in support of a major stock offering (Tomsho 1994). Similarly, it was noted that the very visible failure of the CONFIRM project at AMR Information Services (a subsidiary of the American Airlines Corporation)—which ultimately resulted in a 125 million dollar writeoff—was in some measure the result of IS developers' reluctance to raise their concerns about the project to an appropriate level in the corporation:

In a letter to employees, Max Hopper, American Airlines Information Services chief, wrote: "Some people who have been part of CONFIRM management did not disclose the true status of the project in a timely manner. This has created more difficult problems—of both business ethics and finance—than would have existed if those people had come forward with accurate information. Honesty is an imperative in our business—it is an ethical and technical imperative" (Oz 1994b, p. 29).

Ethical Leadership: Previous Perspectives

It is becoming apparent that the ethical dimensions of IS-related business decisions cannot be safely ignored. Against this backdrop, growing attention is being paid to ethics in IS curricula, and major IS journals are devoting an increasing amount of space to deeper analysis of such issues (see, for example, Collins et al. 1994; Culnan 1993; Loch et al. 1992; Loch and Conger 1996; Milberg et al. 1995; Oz 1992, 1994b; Smith 1993; Straub and Collins 1990; Weisband and Reinig 1995). A number of authors have addressed various subsets of the domain of IS ethics by assessing which actions are perceived by various subjects as ethical or unethical in a series of behavioral vignettes (e.g., see Brookshire et al. 1994; Parker 1979; Parker et al. 1990). Others have developed or inferred theoretical frameworks which have guided ethical assessments in either laboratory or field settings (e.g., Culnan 1993; Smith 1993).

Another group of pioneering works includes appeals to traditional philosophical theories as a framework for ethical decision making in IS environs (for example, see Johnson 1994; Kallman and Grillo 1996; Laudon 1995; Mason et al. 1995; Milberg et al. 1995; Oz 1994a; Smith 1994). These approaches, which often include references to "deontological" and "teleological" theories,[2] utilize perspectives on ethical decision making that have been honed by philosophers through centuries of debate. While there is no consensus with respect to the correctness of these opposing theories, their use by IS ethicists has certainly increased the rigor of analysis and provided a substantive framework for debate.

A thorough reading of the major IS ethical works to date reveals a consistent theme: Most of the IS ethical quandaries are set in *corporate business environs,* in which the decision maker is forced to make an ethical decision not as a free agent but, instead, as an agent of a corporate body. The same boundary is adopted in this paper by focusing on those quandaries and decisions that occur in a corporate domain and that, therefore, can be addressed by the field of business ethics.

Focus of This Paper

This paper has as its goal the examination and critique of the normative theories of business ethics as applied to the IS arena. The paper has as its primary audience those in the business community who are confronting IS-related ethical quandaries. Secondarily, the paper may also provide insights to those in the IS academic community who are conducting research into IS ethical issues. In this light, the specific goals of this paper are threefold: (1) to clearly explain the competing normative theories of business ethics, (2) to link these theories to IS ethical issues and show, by examining the Blockbuster situation in depth, how they can be applied, and (3) to consider the challenges managers and the IS community face in confronting ethical quandaries. Managerial challenges include not only the selection of an existing theory of business ethics or the formulation of a new theory of business ethics, but also the application of theory. The IS community faces the additional challenge of creating systemic mechanisms to increase consistency with theoretical proscriptions. The following sections and subsections correspond to these major goals and the subordinate issues.

[2]The deontological approach holds that the ethical quality of an action is determined, at least in part, by what type of action it is, and not exclusively on the basis of its consequences. The teleological approach holds that the ethical quality of an action is determined solely on the basis of its consequences.

Normative Theories of Business Ethics[3]

Many of the ethical quandaries in the IS domain are complex ones, filled with apparently conflicting responsibilities on the part of a professional, manager, or executive. Traditional philosophical approaches to ethics (e.g., deontology and teleology) can be directly applied to the quandaries, but it is generally argued by business ethicists that this strategy has significant weaknesses for those quandaries that occur within the boundaries of a corporation (see, for example, Stark 1993). To some extent, this is due to the defects in the philosophical theories themselves. However, to a much greater extent, the problem with attempting to apply these theories directly to ethical issues in business is that they are expressed in language not easily accessible to non-philosophers. As has been observed,

> People who have been trained in engineering, computer science, and management information systems, frequently have little training in ethics, philosophy, and moral reasoning. Without a vocabulary with which to think and talk about what constitutes an ethical computing issue, it is difficult to have the necessary discussions to develop social norms (Conger and Loch 1995, p. 36).

Unfortunately, the doctrines of philosophical ethics are highly abstract and are essentially meaningless to one with little or no philosophical training.

[3]These theories are also referred to as "theories of corporate social responsibility" by some authors (e.g., Jones 1980). This paper adopts the clearer moniker "normative theories of business ethics" as embraced by Hasnas (1998), who targets business ethicists and philosophers as his primary audience and who concentrates on the derivations of the theories at an abstract level. The present effort goes beyond Hasnas by focusing on the IS ethical domain, embracing a much more practical perspective toward the theories by targeting IS professionals as its audience (and, in the process, making the theories more accessible to non-philosophers), and addressing the challenges associated with the theories.

These problems with the traditional approach have led business ethicists to develop "normative theories of business ethics" (NTBEs) (Hasnas 1998). These theories attempt to derive what might be called "intermediate level" ethical principles—principles expressed in language accessible to the ordinary business person and which can be applied to the concrete moral quandaries of the business domain. The NTBEs focus exclusively upon interactions that involve *business* relationships. Because they are *normative,* they define obligations that managers "should" or "ought" fulfill, and they can be distinguished from *descriptive* statements, which describe how the world "is."

The three leading NTBEs are the stockholder, stakeholder, and social contract theories. Each specifies a different set of responsibilities for managers, and these accounts of one's ethical obligations are ultimately incompatible. Thus, no more than one of them can be correct. In what follows, each of these theories is briefly described, its supporting rationale is commented upon, and some common objections to the theory are examined. (See Figure 1 and the "Ethical Obligations" section of Table 1.)

Stockholder Theory

The first NTBE is the stockholder theory. According to this theory, the stockholders advance capital to the managers, who act as their agents in realizing specified ends. Under this view, managers are agents of the stockholders. In this role, they are required to spend corporate funds only in ways that have been authorized by the stockholders. Of course, managers may spend their *personal* funds on any socially beneficial project they wish, but *when functioning in their corporate capacity,* managers have a duty to expend funds only as authorized by the stockholders (Friedman 1997; see also Bowie and Freeman 1992, pp. 3–21). Since stockholders normally purchase shares so as to maximize their return on investment, the stockholder theory is often considered simply as a managerial obligation to maximize the financial returns to the stockholders. As Milton Friedman wrote,

> There is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its

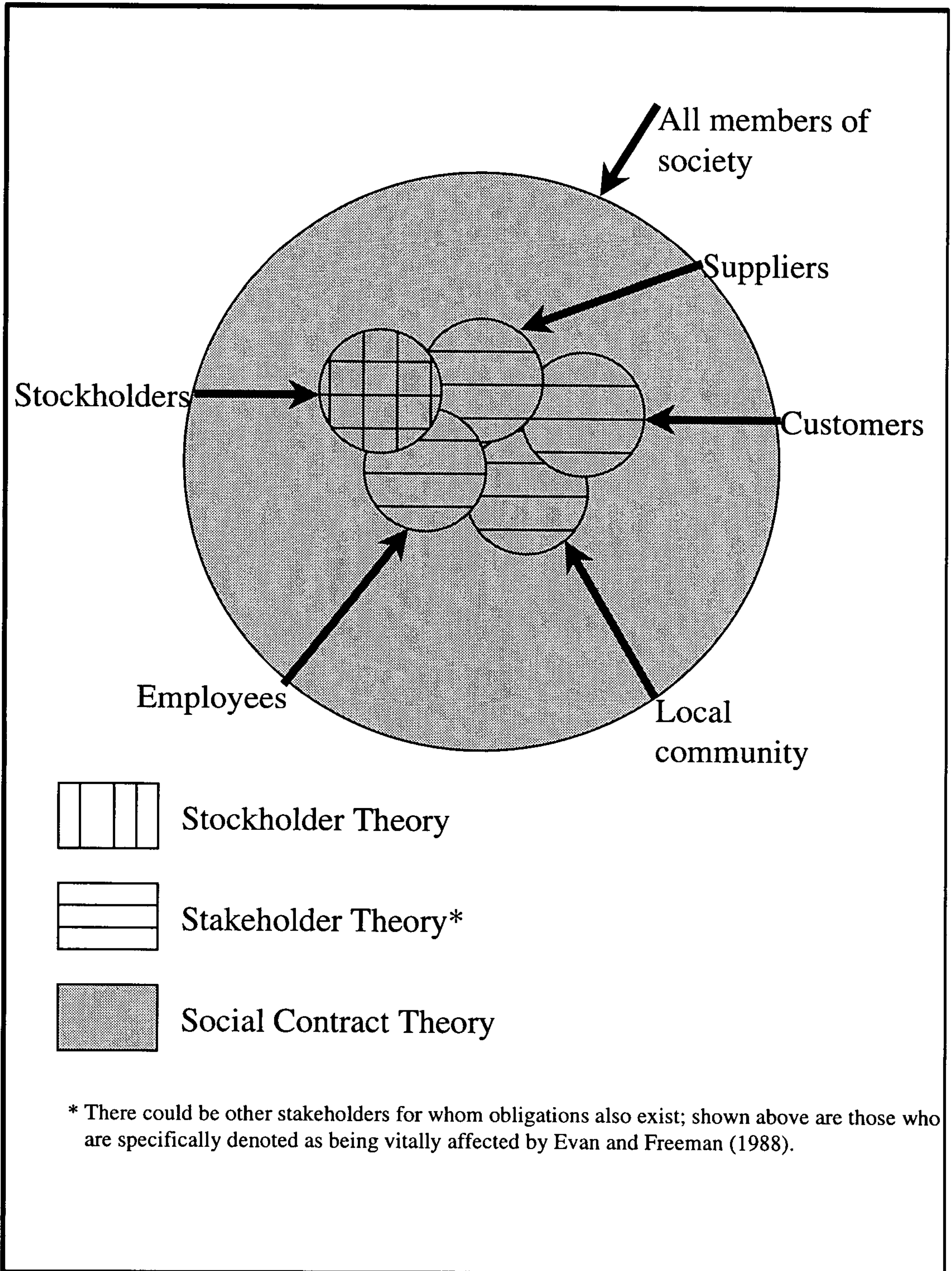

Figure 1. Scope of Obligation

Table 1. Summary of Theories

	Stockholder Theory	Stakeholder Theory	Social Contract Theory
Ethical Obligations:			
	* Conform to laws and regulations * Avoid fraud and deception * Maximize profits	* Determine who are relevant stakeholders * Determine rights of each; reject options that violate these * Accept remaining option that best balances interests of stakeholders	* Reject actions that are fraudulent/deceptive, dehumanize employees, or involve invidious discrimination * Eliminate options that reduce welfare of society's members * Choose remaining option that maximizes probability of financial success
Challenges to Managers:			
	* Keep up with legal landscape in light of shifting technological trends * Determine mechanisms for avoiding fraud and deception * Predict outcomes of alternatives	* Determine who "stakeholders" are in internetworked, distributed environment * Determine legal and moral rights for each stakeholder * Create mechanisms for defining and respecting stakeholders' interests * Determine algorithm for balancing stakeholder interests	* Determine mechanisms for avoiding fraud and deception * Determine which options might dehumanize employees (a subjective concept) * Determine which options are truly discriminatory * Assess both tangible and intangible concepts of well-being * Create projects that meet other criteria but are still profitable

profits so long as it stays within the rules of the game, which is to say, engages in open and free competition, without deception or fraud" (Friedman 1962, p. 133).

There are two points that are important to keep in mind when considering the stockholder theory. First, the stockholder theory obligates managers to increase corporate profitability only through *legal, non-deceptive means* (Friedman 1997, pp. 56, 61). Second, although not specifically codified by Friedman, the stockholder theory is generally viewed as having a *long-term* orientation. It directs managers not to seek short-term gains at the expense of the firm's long-term financial health but to maximize corporate profits in the long run.

There are two different moral arguments associated with the stockholder theory. First, there is a teleological argument that is often used by free market economists. If individuals pursue profits, according to Adam Smith's theory, they will also be promoting the interests of society (see Evan and Freeman 1988; Quinn and Jones 1995). However, critics argue that because the market tends to produce coercive monopolies and damaging externalities and is beset by instances of market failure, the private pursuit of profit simply cannot be relied upon to secure the common good (Evan and Freeman 1988).

Second, there is another moral argument, which is deontological in nature, that we believe to be more compelling. If managers accept the stockholders' money and then proceed to spend it to accomplish goals not authorized by the stockholders, they would be spending other people's money without their consent, which is wrong (Friedman 1962, p. 135). Such an action would violate Kant's (1804/1981, p. 35) principle that persons have "absolute worth," which holds that one who breaches an agreement that induced another to deal with him or her is treating the other merely as a means to his or her own ends rather than as an end in himself or herself (Kant 1804/1981, p. 37). The most common objection to this moral argument is that it can be morally appropriate to spend other people's money without their consent as long as it is done to promote the public interest (Donaldson 1982, 1989). However, it appears that the supporters of the stockholder theory could reasonably claim that this objection misses the point of their argument.

Stakeholder Theory

The second main NTBE is the stakeholder theory. This theory asserts that managers have a fiduciary duty not merely to the corporation's stockholders, but to the corporation's stakeholders—anyone who has "a stake in or claim on the firm" (Evan and Freeman 1988, p. 97). Although the term "stakeholder" has been defined in the past to include any group or individual who can affect or is affected by the corporation, it is currently understood in a narrower sense as referring only to those groups that are either *vital* to the survival and success of the corporation or whose interests are *vitally* affected by the corporation. Such groups typically include stockholders, customers, employees, suppliers, and the local community,[4] although in many instances it may include others who are vitally concerned as well. According to the stakeholder theory, managers have a fiduciary duty to give equal consideration to the legitimate interests of all such stakeholders and to adopt corporate policies which produce the optimal balance among them without violating the rights of any stakeholder (Evan and Freeman 1988).

Ironically, the stakeholder theory claims to be based on the same Kantian principle of respect for persons as was the stockholder theory—that every human being is entitled to be treated as an end in himself or herself rather than merely as a means to some other end. To respect someone as an end is to recognize that he or she is an autonomous moral agent, with desires of his or her own and the free will to act upon those desires. Thus, the principle of respect for persons requires respect for the autonomy of others. Stakeholder theory applies this principle by claiming that corporate managers are bound to respect it as much as anyone else. This means that managers may not treat their corporation's stakeholders merely as means to corporate ends but must recognize that all stakeholders are entitled to "agree to and hence participate (or choose not to participate) in the decisions to be used as such" (Evan and Freeman 1988, p. 100). Stakeholder theorists argue that this implies that all stakeholders are entitled to "participate in determining the future direction of the

[4]Obviously, there could be some overlap among these stakeholder groups, although the theory does not explore this point or offer any algorithm for addressing it.

firm in which they have a stake" (Evan and Freeman 1988, p. 97). However, because all of the firm's stakeholders cannot be consulted for every decision, the firm's management has an obligation to "act in the interests of the stakeholders as their agent" (Evan and Freeman 1988, p. 103) by giving equal consideration to the interests of all stakeholder groups in corporate decision making and to choose a course of action that will achieve an optimal balance among the conflicting claims of these groups.

Although the stakeholder theory currently enjoys a great deal of popularity, the adequacy of its supporting argument has been questioned (Donaldson and Preston 1995), and we must agree that there is a gap in the reasoning. Even if one concedes that corporations are ethically bound to treat all stakeholders as ends in themselves and, hence, that all stakeholders are entitled to "agree to and hence participate (or choose not to participate) in the decisions to be used" (Evan and Freeman 1988, p. 100) by the corporation, this claim appears to imply only that no stakeholder may be forced to deal with the corporation without his or her consent. It seems incorrect to assert that respect for another's autonomy requires that he or she have a say in any decision that affects his or her interests. For example, a student's interests may be crucially affected by what grade he or she receives in a course, but the student's autonomy is not violated when he or she is denied a say in that decision. Until contemporary stakeholder theorists can close this gap in their supporting argument, we believe the adequacy of the stakeholder theory will remain an open question.

Social Contract Theory

The third NTBE is the social contract theory,[5] which derives the social responsibilities of corporate managers from what people would agree to in a society with no corporations or other complex business arrangements (i.e., a state of "individual production;" Donaldson 1982, p. 44). Social contract theorists ask what conditions would have to be met for the members of such a society to agree to allow corporations to be formed. The ethical obligations toward the individual members of society are then derived from the terms of this agreement.

In granting corporations the right to exist, the members of society give them legal recognition as a single agent and authorize them to own and use land and natural resources and to hire the members of society as employees. Social contract theorists argue that the minimum the members of society would demand in return is "that the benefits from authorizing the existence of productive organizations outweigh the detriments of doing so" (Donaldson 1982, p. 44). In general, this would mean that corporations would be required to "enhance the welfare of society through the satisfaction of consumer and worker interests, in a way which relies on exploiting corporations' special advantages and minimizing disadvantages" (Donaldson 1982, p. 54) while remaining "within the bounds of the general canons of justice" (Donaldson 1982, p. 57).

This hypothetical agreement may be thought of as giving rise to a social contract with two terms: the social welfare term and the justice term. The social welfare term recognizes that the members of society will be willing to authorize corporate existence only if they gain by doing so. Thus, managers are obligated to pursue corporate profit only in ways likely to enhance the material well-being of society as a whole, specifically, in ways likely to enhance the material well-being of the members of society in their capacity as consumers and employees.

The justice term recognizes that the members of society will be willing to authorize corporate existence only if corporations agree to remain within the bounds of the general canons of justice. Although what these canons are is far from

[5]The social contract theory is really a family of closely related theories and, in some ways, is still in process of formation. A complex and highly sophisticated version of the theory called Integrative Social Contracts Theory (Donaldson and Dunfee 1994) has recently been introduced, and those authors are presently in the process of developing a book-length exposition of the theory. Because any attempt to address this recent work would be well beyond the scope of the present enterprise, consideration is being restricted to the more basic and widely accepted version of social contract theory.

settled, social contract theorists assert that there is general agreement that the least they require is that corporate managers "avoid fraud and deception . . . show respect for their workers as human beings, and . . . avoid any practice that systematically worsens the situation of a given group in society," i.e., refrain from invidious discrimination (Donaldson 1982, p. 53).

The social contract theory is criticized on the ground that the "social contract" is not a contract at all (Kultgen 1985). There has been no true meeting of the minds between those who decide to incorporate and the other members of the society, and most people who form corporations would be surprised to learn that they had contractually agreed to serve society's interests in ways that can reduce the profitability of their firm. Since to enter into a contractual arrangement one must at least be aware one is doing so, the critics of the theory maintain that the social contract is a fiction rather than a true contract.

Social contract theorists freely admit that the social contract is a fictional or hypothetical contract, but they claim that this is precisely what is required: "If the contract were something other than a 'fiction,' it would be inadequate for the purpose at hand: namely revealing the moral foundations of productive organizations" (Donaldson 1989, p. 56). They argue that the moral force of the social contract is not derived from the consent of the parties but from its underlying moral theory (Donaldson 1989, p. 61). The problem with this response is that it merely pushes the inquiry back one level. The acceptability of the social contract theory now turns on the acceptability of the underlying moral theot to be clearly articulated and defended. Therefore, until this defense is provided, we believe that the adequacy of the social contract theory remains an open question.

Looking Across the Theories

The three NTBEs—stockholder, stakeholder, and social contract—have distinct and, for the most part, incompatible perspectives on issues of normative business ethics. Even so, the theories are consistent on two important dimensions.

Consider the first such dimension: their domain of application. These theories were specifically designed to provide ethical guidance to individuals working for profit-seeking businesses in a market environment. They can be relied upon to provide the proper resolution to ethical quandaries *only in this context.* These theories cannot be properly applied to corporate entities such as government agencies, non-profit companies, or other organizations such as universities or hospitals whose primary function is not to earn a profit. They certainly cannot be applied to any organization functioning in a non-market, communal, or socialistic environment. One might think of the theories as ethical "lenses" designed to focus the principles of philosophical ethics exclusively on for-profit businesses in capitalist societies.

The three NTBEs are also consistent on a second dimension: the essential purpose of the theories. These theories are designed to provide ethical guidance to *individuals* functioning in the business environment. This means that their purpose is to give business people an *independent* standard by which they may not only decide how to act themselves, but also to assess the ethical quality of the orders of their business superiors as well as the firm's policies, culture, and code of conduct.

By thus functioning as a guide to individual conscience, the theories are external to any value system the company intentionally or unintentionally attempts to instill in its employees. In fact, each theory may be viewed as an attempt to supply the ethical standard by which any such value system should itself be judged. Of course, in many cases, a particular manager's ethical conclusions may not match those of an organization's senior managers or its cultural norms. In such situations, the manager must resolve the inconsistency by prodding the organization and its executives to modify the norms by exercising "voice" procedures (see Bies and Shapiro 1988) or, in more extreme situations, by "blowing the whistle" (see Miceli and Near 1992) or exiting the organization (see Farrell 1983).

With these points in mind, the paper now examines how these theories would be applied to IS-related ethical quandaries.

Applying the Theories: Blockbuster Revisited

The Blockbuster scenario is now considered as an illustration of the theories' applicability. Each NTBE prescribes a different ethical response and presents a different set of challenges for the Blockbuster executives.

Stockholder Theory

Under the stockholder theory, Blockbuster should probably *market personal data about its customers.* As long as the sale (1) is legal, (2) involves no deceptive practices, and (3) is likely to increase Blockbuster's profits, Blockbuster's management would not only be ethically permitted to sell the information, but under an ethical obligation to do so. Since the proposed sale does not violate the federal statute prohibiting the disclosure of the names of the movies rented by Blockbusters' customers (and because very few state or local ordinances apply to this case), it does not appear to run afoul of the stockholder theory's constraint against illegal activity. Furthermore, as long as Blockbuster employs no deceptive or misleading practices in acquiring the information, it will not violate the theory's constraint against fraud and deception. Finally, if the stockholders have neither explicitly nor implicitly instructed the management not to engage in such behavior and if the sale is, in fact, likely to increase the corporation's long term financial health, it would appear to be precisely the type of action that would help realize the goal of the stockholder theory. Hence, Blockbuster's management would have an ethical obligation to market the information.

Stakeholder Theory

If the stakeholder theory is applied, the answer regarding ethical obligations is *it depends on the particular facts of the situation.* Functioning once again under the assumption that Blockbuster structures the sale so that it is neither deceptive nor misleading, it would not seem to violate the constraint of the stakeholder theory, which prohibits violating the rights of any stakeholder.[6] The question then becomes whether pursuing the sale would produce the optimal balance among the legitimate interests of all of Blockbuster's stakeholders. This, however, will turn on certain empirical considerations that cannot be determined in the abstract.

To make this determination, Blockbuster's management must begin by identifying the stakeholders whose interests would be affected by the proposed sale. In this case, neither Blockbuster's suppliers, employees, nor the local communities served by its stores appear to have anything significant at stake.[7] Thus, the only stakeholders whose interests must be considered are Blockbuster's stockholders, who stand to benefit financially from the sale, its ordinary customers, whose preferences comprise the information to be sold, and its potential new customers, who are interested in purchasing this information. Giving each of these groups equal consideration, Blockbuster's management must now attempt to choose the course of action that produces the optimal balance among their legitimate interests. This, of course, will depend on the particular benefits and costs the sale will impose upon each.

For example, assume the proposed sale will (1) marginally increase Blockbuster's profits, slightly enhancing returns to the stockholders, (2) provide a small benefit to the purchasers of the information, but (3) seriously inconvenience or even offend Blockbuster's ordinary customers while providing them little control over their personal information. Under such circumstances, it is extremely likely that the sale would not be ethically justified. However, assume that the sale (1) will significantly increase the company's profitability, greatly

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[6]While it could be argued that individuals have a general right to control what others know about them, such a right does not have wide support among ethicists (see Schoeman 1984).

[7]Obviously, the local community does include the Blockbuster customers. However, per our reading of Evan and Freeman (1988), the local community should be considered as a *whole* rather than as a collection of disparate units. In that light, it is unlikely that the overall community would suffer in any substantive way—certainly, it would not be harmed in the context often associated with a plant closing, for example.

enhancing returns to the stockholders, (2) represents a major business innovation of great value to the purchasers of the information, and (3) is structured to produce only minor inconveniences to Blockbuster's ordinary customers while allowing them to retain what they themselves would deem to be sufficient control over how the information is used. Under these circumstances, it is extremely likely that the sale would be ethically acceptable. Thus, under the stakeholder theory, the ethical quality of the sale will depend upon an empirical evaluation of the nature and intensity of the costs it imposes on Blockbuster's ordinary customers relative to the nature and intensity of the benefits it provides to Blockbuster's stockholders and potential customers for the information.

Social Contract Theory

In contrast, if the social contract theory is applied, Blockbuster would almost certainly have to *refrain from marketing the information.* This is because even if the transaction were structured so as to satisfy the justice term of the social contract, it still could not meet the social welfare term. If, as described above, care was taken to ensure that Blockbuster's actions were neither deceptive nor misleading to their customers, it would not violate the justice term since it would not involve fraudulent or deceptive behavior, the dehumanization of Blockbuster's employees, or invidious discrimination against a particular social group. However, it is difficult to see how the sale could be construed as meeting the social welfare term, which instructs managers to pursue corporate profits solely in ways that tend to enhance the material welfare of the members of society in their capacity as consumers and employees. The sale seems to provide no material benefit to Blockbuster's customers,[8] many of whom may greatly prefer that information about their preferences remain secret, and is unlikely to affect the material well-being of Blockbuster's employees in any significant way. Unless there was good reason to believe that the information would be used only in ways that would produce material benefits to Blockbuster's customers or that the sale would have such a profound impact on the company's profitability that its employees would directly benefit, the social contract theory would hold that the sale is unethical.

Blockbuster in Context

As can be seen in the Blockbuster case, the three NTBEs will often prescribe very different ethical responses to a given set of facts. In the Blockbuster scenario, the stockholder theory would demand that the data be marketed, while the social contract theory would prohibit such marketing efforts. The stakeholder theory would require a much deeper assessment that included the calculation of costs and benefits.

The Blockbuster case provides an illustrative example of some of the ethical complexities facing managers who deal with the collection, use, and sharing of information. The next section moves to a more general exploration of managers' challenging ethical domain in the information age.

Challenges to Managers

Managers who grapple with IS-related ethical quandaries face a number of challenges, explored in this section. First to be discussed is the overarching challenge that extends across the entire domain of IS ethics: choosing the right theory—a non-trivial endeavor for which there exist three different options. The challenges to managers in applying the specific theories that have been described are then considered. Finally, some special challenges for the IS community as

[8]Some might argue that, since customers could receive information about other goods and services because their names are sold on the Blockbuster list, such improved information would constitute a "material benefit." The counter-argument, however, is that a customer might just as easily be excluded as included in new information flows based on the list's categorizations; that the customer might likely receive the same information eventually through some other channel; and that the receipt of such information, from whatever channel, would be unlikely to yield a *significant* improvement in the customer's well-being. In any event, no monetary advantage would accrue to the customer due to the sale of their information, since a system such as that described by Laudon (1996) and Hagel and Rayport (1997) does not yet exist.

it grapples with codes of ethical behavior are examined.

Choosing a Normative Theory of Business Ethics

The stockholder, stakeholder, and social contract theories each purport to provide an absolute standard of ethical behavior in the business environment. This paper has described all three because there is as yet no consensus as to which, if any, of the three is correct in a philosophical sense. Further, in a more descriptive sense, societal norms have not yet coalesced around a single vision of corporate social responsibility. Thus, individual managers must evaluate these arguments for themselves in order to determine which theory, if any, they will adopt as their *own* NTBE.

A common question from managers is: "Can my NTBE allow me the flexibility to embrace different perspectives (stockholder, stakeholder, or social contract) at different times, depending on the immediate issues under consideration?" Unfortunately for managers asking this question, the stockholder, stakeholder, and social contract theories' authors all adopt an absolutist perspective, in that they expect their theory to be viewed as a manager's NTBE for *all* the ethical quandaries faced in the business environment. The scope and specifics of obligation (Figure 1 and Table 1) apply to all ethical quandaries; a manager who embraces one of these theories as his or her NTBE is "locked in" to applying it without exception. To do anything else would be to violate the most valued philosophical principle of all: logical consistency (see Kant 1804/1981, pp. 30–33).

For example, were a manager to claim the stockholder theory as his or her NTBE, this would preclude the manager from making *any* decision that held no reasonable long-term expectation of benefits to the stockholders. As an illustration, this would preclude a manager from making a plant location decision that was grounded in "community interests" rather than in returns to stockholders. Similarly, were a manager to claim the social contract theory as his or her NTBE, this would preclude the manager from sidestepping the obligation to avoid actions that dehumanize employees—even if this led to a significant reduction in profits.

Thus, managers cannot logically view the stockholder, stakeholder, and social contract theories as entries on a menu, from which they simply choose one as their NTBE on certain occasions and a different one as their NTBE on others. Similarly, managers cannot logically embrace certain clauses of the theories while ignoring others, *unless they can proffer a logical argument that defends their choices in a theoretically consistent fashion.*

But, in light of this italicized condition, there are three legitimate options managers can consider as they formulate their own NTBEs: embracing an existing theory; modifying an existing theory; or creating an original NTBE.

Embracing an Existing Theory

Obviously, a manager may be quite convinced that the stockholder, stakeholder, or social contract theory is correct as presented and may adopt that theory as his or her own NTBE. If so, the manager's obligations are clear: to consistently apply that theory when resolving ethical quandaries in the business world.

Modifying an Existing Theory

A manager may be convinced that the fundamental arguments underlying either the stockholder, stakeholder, or social contract theory are correct, but certain components of the theory may not be consistent with the manager's philosophical perspective. If so, a manager can credibly modify the theory before adopting it as his or her NTBE *as long as* the manager can provide a logical defense of the modification.

For example, many managers find the stakeholder theory to be compelling, but they nevertheless disagree with the assertion that all stakeholder groups should have equal standing when interests are balanced. A manager might credibly argue that interests should be weighted according to some predetermined and defended criteria: as an illustration, one might claim that interests should be weighted according to the proportion of business risk that is borne by each stakeholder group. In such a case, stockholders would probably be seen as bearing the greatest risk, perhaps employees might be second, and so on. Similarly, a man-

ager might argue that the present boundaries on the definition of a "stakeholder" are either too wide or too narrow: in the former case, one or more of the five stakeholder units in the current definition might lose their standing; in the latter case, additional stakeholder units (e.g., debtholders) might be added. In our view, all of these modifications to the stakeholder theory can be logically defended almost as easily as the original theory, and a manager who embraced and articulated such defenses would be on sound philosophical footing in adopting a modified stakeholder theory as his or her NTBE.

Creating an Original NTBE

Finally, managers can move beyond the current domain of business ethics by crafting their own, original NTBEs, which may be unrelated to the stockholder, stakeholder, and social contract theories. There is no reason to believe that philosophers or business ethicists have a monopoly on the articulation or defense of normative theories.

For example, a manager might posit that normative obligations emanate from neither Kantian assertions regarding humanity nor from a contract between corporations and society. Rather, obligations might be grounded solely in what philosophers refer to as "virtue ethics"—that we should take those actions that make us more virtuous as individuals.[9] To date, none of the theories of normative business ethics has relied on this philosophical stream, but there is nothing to prohibit this approach. From this premise, a manager might develop a set of guiding principles that would lead to decisions, in a business context, that would in turn lead to a more virtuous life. Admittedly, this approach is much more abstract in its current form than are the previously articulated theories. However, a manager would be on a solid philosophical path in pursuing it—and this path is only one of many that could be followed.

A Broad Domain

The above examples of a modification and an original NTBE are intended as just that: examples. Obviously, to exhaustively list or defend all the possible options would be well beyond the scope of this paper and, indeed, would extend well beyond the existing boundaries of business ethics literature. Much work remains to be done by philosophers and business ethicists, and managers are well within their rights to challenge the ethicists' theories and to bring their own perspectives to the debates.

Applying the Specific Theories

As the previous section showed, managers have numerous options in choosing their own NTBE. However, at present, only the stockholder, stakeholder, and social contract theories have been clearly articulated in the business ethics literature. Thus, for the moment, the discussion returns to those three theories and considers the challenges associated with their application to IS-related quandaries. (See "Challenges to Managers" section of Table 1.)

Stockholder Theory

The challenges associated with the stockholder theory are threefold. First, with respect to the legal requirement, a manager will likely find it necessary to enlist corporate or outside counsel to review all federal, state, and local legislation and administrative mandates that may bear upon the proposed business activity. Such a challenge is particularly problematic for many IS activities, since the law is changing quickly—albeit in a reactive fashion—as the technological landscape shifts (Smith 1996), and new legislative mandates, particularly at the state level, seem to emerge almost daily.

Second, managers face a challenge in determining exactly *how* they will avoid deception and fraud in IS-related activities. In some cases, it might be argued that simply giving notice of intent to affected parties (e.g., telling customers that data would be used in a certain way after collection) might be enough. But how should such messages be communicated? This remains an area of ambiguity. To the extent that contractual negotiations surround a transaction, the terms could be spelled out clearly in the contract. However, in situations where no true negotiations take place, managers must decide between options such as placing notices on an application form, posting notices in a place of

[9]This philosophical stream is most often associated with Aristotle (384 b.c./1985).

business, printing qualifications on the back of software packages, etc. Note, however, that managers have no ethical obligation, under the stockholder theory, to give affected parties any *control* over the terms of the relationship.

Third, managers face a tremendous challenge in many situations in predicting the outcomes that will ensue from the alternatives they are facing. Since the ultimate objective is to maximize long-term returns to shareholders, the manager must predict which actions will lead to the greatest revenue gains and/or smallest losses. This often requires stochastic predictions regarding the probability of negative media attention, competitor reactions, customer backlashes, or legislative responses. While some amount of research can be undertaken to improve the estimation process, the cost of such research would, of course, also be a factor in the manager's decision making.

Stakeholder Theory

When the challenges associated with the stakeholder theory are considered, it becomes apparent why it often proves particularly problematic when applied to IS quandaries. First, it is often unclear just who constitute the "stakeholders" for an IS initiative. Certainly, the five traditional stakeholder groups often apply, but the stakeholder theory also provides for consideration of the interests of other parties who are "vital to the survival and success of the corporation" (Evan and Freeman 1988, p. 100). Trends in two technological areas—telecommunications and distributed databases—are enabling many new IS applications that cross organizational boundaries in complex patterns. As these interorganizational systems proliferate, data flow in new and unpredictable paths, which can often lead to the identification of new stakeholders who previously had not been considered as such. Managers confront many new challenges in identifying all the stakeholders in such complicated webs.

Second, it is often a challenge to establish just which rights exist for each stakeholder in an IS-related context. At issue are not just *legal* rights, which can be determined as under the stockholder theory, but also *moral* rights, which can in many cases be quite distinct. For example, consider the rights that accrue to the author of a copyrighted work. That author has a legal right to the document's contents, which should not be copied and resold. But another writer could paraphrase the author's ideas without violating this legal right. Still, the second writer has a moral (though not a legal) duty to give the first author credit for the ideas. Particularly when managers work in organizations that deal with ownership of ideas and written codifications thereof (e.g., in maintaining pages on the World Wide Web), they must be very aware not only of legal rulings but also the rights that accrue to each stakeholder under the ethical rubric.

Third, the stakeholder theory requires managers to consider stakeholders' interests, which can often be ill-defined and subject to interpretation. In many ways, the requirements for satisfactorily addressing stakeholders' concerns are considerably more stringent than under the stockholder theory. For example, with respect to use of customer data, a reasonable interpretation of the stakeholder theory would require that customers not only be informed of potential data uses (the stockholder theory requirement) but also be given the opportunity to "opt out" (or, arguably, to "opt in") of the uses (Smith 1994, pp. 241–243).

Fourth, the stakeholder theory holds a particularly problematic challenge for managers in that it does not specify *how* the optimal balancing of stakeholder interests should be achieved. This challenge is not unique to the IS domain, of course, but it is a significant weakness of the stakeholder theory in its general form. Managers must contemplate a myriad of possibilities, calculate a number of cost-benefit analyses (with attention to each stakeholder's gain or loss), and balance these in some rational fashion.

Social Contract Theory

The social contract theory holds five important challenges for managers grappling with IS quandaries. First, as under the stockholder theory, a mechanism for avoiding fraud and deception must be implemented. Second, managers must carefully consider whether an action dehumanizes employees—a real constraint for many IS applications, which are often argued to reduce the necessary skills for certain jobs. Concomitant with this challenge, managers must confront the fact that dehumanization is a

somewhat subjective concept: some employees might view a system as freeing them to perform more challenging tasks, while others might view the same system with disdain.

Third, the extent to which a technological application causes invidious discrimination must be considered. This is a real societal concern for many IS projects, as it has been argued that many newer technologies enable "information redlining" (Cespedes and Smith 1993, p. 14) that bypasses certain socio-economic strata and ethnic communities. But how can a manager distinguish between inappropriate discrimination and a rational business decision to target information flows to those most likely to make use of, and respond to, the information? This analysis continues to stand as a major challenge for many IS projects.

Fourth, and related, managers must determine how particular IS initiatives will impact the material well-being of society's members as employees or consumers. From the perspective of employee well-being, it would appear that projects which have a reasonable potential of raising employees' eventual remuneration would be preferred. However, a manager still might have to confront complex situations in which overall headcount would be reduced due to a new system's effects, but the remaining employees would earn more afterward. Such situations are still open to evaluation and judgment. As for consumers' material well-being, managers must often consider both tangible and intangible benefits; for example, automated teller machines (ATMs) provide more intangible than tangible benefits to consumers (primarily convenience), but few would deny that they have improved consumers' well-being. In many cases, identification of such benefits will be a challenging task, however.

Fifth, in light of the significant constraints on alternatives imposed by the social contract theory's provisions, managers face the difficulty of identifying profitable projects that, in fact, are consistent with their other ethical obligations under the theory—to reject actions that are fraudulent/deceptive or that dehumanize employees and to eliminate options that reduce the welfare of society's members. This is particularly problematic within the IS domain, since some applications might appear to meet the terms of the social contract in their original formulation, but eventual usage of the systems might well diverge from the intended purpose. While profitable projects that meet the requirements of the social contract theory—both in their original design and in their eventual usage—do exist, the rather stringent demands of the social contract theory will no doubt scuttle many projects that would be deemed "ethical" under one of the other theories.

Challenges of Application

It is obvious that the stockholder, stakeholder, and social contract theories are far from "cookbook" theories with respect to applicability. All require substantial and non-trivial evaluation from a managerial perspective; in addition, managers may have to do some amount of fact-gathering before entering the cognitive phase of theory application. While these theories—or other NTBEs that managers might articulate and defend—have great worth in enabling more consistent ethical decisions, the challenges that accompany their application must be acknowledged. And, while we would not argue that the issues faced by the IS community are inherently more complex than those faced by the business community as a whole, we would nevertheless note some specific focus items for those who are associated with IS investments and applications.

Special Considerations for the IS Community

So far, the discussion has been targeted to managers in *all* corporate roles as they confront ethical quandaries, but there are also some special considerations for members of the corporate IS community—mechanisms that may increase the probability that decisions made during the development and implementation of information systems will be consistent with those of the respective theories.

At the outset, it should be noted that, because "ethics is essentially an individual matter" (Mason et al. 1995, p. 149), the normative theories of business ethics are stated in their pristine form at the individual (micro) level as obligations for human beings who are employed in corporations. But the inference to collective (macro)

level[10] obligations are rather direct and can be reasonably extrapolated to the corporation as a whole. "Hovering between the individual and collective levels of ethics is the institution of professions" (Mason et al. 1995, p. 149).

Unfortunately, the professional codes being proffered by various IS organizations (e.g., ACM, BCS, CIPS, DPMA, ICCP; see Oz 1992, 1994a) remain somewhat of a patchwork quilt, with many areas of ambiguity remaining unaddressed. Even in situations where the codes do address similar issues, they are often in conflict with respect to the duties and responsibilities assigned to IS professionals by a corporation (Mason et al. 1995; Oz 1992). Further, it is becoming increasingly common for corporations to define their own codes for corporate IS ethics, and there is no guarantee that such codes will coincide with those proffered by the professional organizations. Thus, simple reliance on professional or corporate codes to ensure ethical behavior in corporate environs, as defined by the normative theories of business ethics, will be foolhardy. Instead, IS professionals should focus on a systematic approach that will raise ethical issues at the appropriate times. Three specific steps can be taken.

First, *before ethical quandaries occur,* professionals can engage others in their own corporation in dialogue regarding which theoretical perspective will be embraced by the corporate body as a whole. Admittedly, this dialogue is more easily effected by senior management than by those lower in the corporate hierarchy, but even those at the programmer or systems analyst level can prod others to consider the different perspectives.

Second, assuming that a collective (macro) level theory has been derived from the individual (micro) level theory and has been agreed upon, an additional period of scrutiny for each prospective IS project before it is implemented will be helpful in identifying misalignments between that theory's perspective on ethical obligations and how those obligations are being met as systems are rolled out. If the social contract theory is believed to be correct, for example, all IS proposals should be evaluated to ensure that they are consistent with the demands of that theory (see Donaldson 1982). If a proposed system were likely to dehumanize workers, for example, this would violate one of the terms of the theoretical "contract," and the system should therefore be modified. Such scrutiny can be considered a regular part of the systems development process by, for example, adding an ethics checkpoint during certain phases of the systems development life cycle. Some organizations may even appoint an audit professional to evaluate the projects' consistency with the collective (macro) level theory. We believe that such systematic scrutiny of projects will lead to appropriate timing of ethical analysis.

Third, it may be helpful for organizations to appoint an ombudsperson (sometimes called an "ethics officer") to which IS professionals can bring their concerns about ethically questionable activities. With respect to the two items above, we acknowledge that it may sometimes be difficult for IS professionals to convince others to change direction in light of ethical concerns during the systems development life cycle will likely address only those issues that surface during the process of software development. Thus, to the extent that ethical quandaries are still evident even in light of these mechanisms, the option of bringing issues to an ombudsperson—reporting outside the normal management channels—could enhance the ability of IS professionals to raise ethical concerns at a senior management level.

Conclusion

While the IS field has paid great attention to strategic uses of technology over the past two decades, the growing number of ethical quandaries with which corporate managers must grapple, which also grew during this same time frame, have received much less attention. It is encouraging that many practitioners and researchers are beginning to pay more attention to information ethics; however, many of the discussions are occurring in a theoretical vacuum. While this paper represents some amount of forward movement in adding rigor to the debate, much work remains to be done. In particular, the

[10]See Laudon (1995) and Mason et al. (1995) for a discussion of these terms.

NTBEs are clearly bounded by their applicability to the *corporate* domain, and individuals in non-profit or public sector organizations may also encounter quandaries. Obviously, future research efforts should clarify obligations for individuals in these other domains. In addition, as became obvious in the previous sections, the application of these theories is often a non-trivial endeavor. Indeed, much work remains on the parts of both researchers and practitioners to clarify the specific obligations of each theory at a granular level. Even so, we believe that—for IS-related quandaries that occur in corporate contexts—NTBEs offer helpful guidance that surpasses even that of the traditional philosophical theories.

In the end, of course, ethics relates to an individual's expression of his or her free will. Any ethical theory is only as helpful as human beings and their organizational and societal contexts will allow it to be. As perceptions of ethical lapses—such as those that were allegedly encountered in the Blockbuster, Greyhound, and AMR cases—continue, ethical issues will become more prominent in IS discourse. As expressed in earlier research,

> Everyone who develops applications, designs equipment, performs any kind of testing, uses methodologies, analyzes jobs, designs human interfaces, writes documentation, or prescribes the use of computers, will have ethical dilemmas on every project; they just might not recognize them (Conger and Loch 1995, p. 32).

Whether as managers, IS professionals, or academic researchers, we ignore these ethical dilemmas and their theoretical assessment at the risk of our community's own credibility.

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