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TOWARDS ETHICAL INFORMATION SYSTEMS: THE CONTRIBUTION OF DISCOURSE ETHICS

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Abstract

Ethics is important in the IS field, as illustrated for example by the direct effect of the Sarbanes-Oxley Act on the work of IS professionals. There is a substantial literature on ethical issues surrounding computing/IT in the contemporary world, but much of this work is not published nor widely cited in the mainstream IS literature. The purpose of this paper is to offer one contribution to an increased emphasis on ethics in the IS field. The distinctive contribution is a focus on Habermas's discourse ethics. After outlining some traditional theories of ethics and morality, the literature on IS and ethics is reviewed, and then the paper details the development of discourse ethics. Discourse ethics is different from other approaches to ethics as it is grounded in actual debates between those affected by decisions and proposals. Recognizing that the theory could be considered rather abstract, the paper discusses the need to pragmatize discourse ethics for the IS field through, for example, the use of existing techniques such as soft systems methodology. In addition, the practical potential of the theory is illustrated through a discussion of its application to specific IS topic areas including Web 2.0, open source software, the digital divide and the UK biometric identity card scheme. The final section summarises ways in which the paper could be used in IS research, teaching and practice.

Keywords:
Ethics and IS, ethical theories, Habermas, discourse ethics, deliberative democracy, soft systems methodology

INTRODUCTION

Consideration of the ethical aspects of business goes all the way back to Adam Smith (Smith, 2002 (orig. 1759)) who based his work on strong moral foundations (Werhane and Freeman, 1999). However, it can be argued that ethical issues in business have become particularly prominent over the last decade or so with highly publicised breaches of moral legitimacy and trust such as in the Enron and WorldCom scandals. More recently, the turmoil in the world's financial markets caused partly by the sub-prime fiasco brings ethical issues to the forefront, such as executive reward systems encouraging irresponsibly risky behaviour.

But what is the relevance of ethics to practitioners and academics in the field of information systems? A good illustration of the importance of ethical issues in the IS field is provided by the Sarbanes-Oxley Act (SOX) of 2002 in the USA. This Act was brought in to improve corporate governance and ethical business practices through legislation in areas such as increased accountability and strengthened financial control. However, many of the provisions of the Act have a direct effect on the work of IS professionals. Damianides (2005) noted that IS practitioners face great challenges to meet raised expectations to provide accurate, visible and timely information, while ensuring the protection, privacy and security of their organizations' information assets. Hall et al. (2007) discussed the specific issue of IT outsourcing in the context of SOX, and argued that large-scale outsourcing may reduce oversight, weaken financial controls and reduce the accuracy and clarity of financial reports. Chang et al. (2008) described the development of an auditing information system which complies with the requirements of SOX. It is clear that IS professionals need to understand the ethical imperatives of SOX in order to carry out their work.

However, the relevance of ethics to the IS field is not restricted to Sarbanes-Oxley. A wide range of ethical issues are important to the practice of IS and thus to IS academics also. These include codes of ethics for IS practitioners, issues of privacy and security, combating of cybercrime, intellectual property disputes, free and open software, hacking, and the digital divide as a form of social exclusion. Issues such as these are discussed in existing literature (for example, in Tavani (2007), van den Hoven and Weckert (2008) and Himma and Tavani (2008)), but much of this work is not published nor widely cited in the mainstream IS literature. Indeed it can be argued that the core IS field, based on publications in journals such as MIS Quarterly, is under-representative of ethics and IS, bearing in mind the importance of this sub-field.

The purpose of this paper is to offer one contribution to an increased focus on ethics in the mainstream IS literature. However, the paper also aims to make an original contribution to the literature on ethics and IT more generally. This is achieved by focusing on a relatively recent approach, namely that of Jürgen Habermas's discourse ethics (Habermas, 1992b; Habermas, 1993b). This approach stems from Habermas's earlier work on critical theory (Habermas, 1984; Habermas, 1987), but it is an interesting development. It draws on traditional Kantian ethical theory but it brings in other ethical approaches as well as innovations of direct practical relevance. We will argue in the paper that discourse ethics is a

distinctive approach to ethical theory and moral practice which has high relevance to the field of information systems.

The rest of the paper is organised as follows. We start with a relatively brief review of traditional theories of ethics and morality as a common basis for understanding the later parts of the paper, and we then review the existing literature on ethics and IS. The major section which follows then explains the key ideas of discourse ethics and its development into a wider theory of deliberative democracy. The paper then discusses the potential for applying discourse ethics within business and information systems. However, it is recognised that the theory could be considered too abstract and idealized to be directly used in the IS field, and thus the next section focuses on pragmatizing discourse ethics through, for example, the use of existing soft and critical methodologies. In order to further demonstrate the potential of the theoretical approach, this section also discusses some IS application areas including Web 2.0, open source software, the digital divide and the UK identity card scheme. The concluding section summarises the contribution of the paper and discusses how it could be used in IS teaching, research and practice.

ETHICS and MORALITY

In common language ethics and morality tend to have similar meanings but within philosophy a distinction is drawn, although not always strictly followed, in that morals or morality refers to particular beliefs or norms while ethics refers to the science or system of morals, or to a particular ethical code (LaFollette, 2007; Singer, 1994; Ulrich, 2008). Ethics itself is often divided into categories, for example meta-ethics which deals with the most general nature of ethical theories; normative ethics that concerns ways in which moral conclusions should be reached, and applied ethics that considers applications in particular contexts.

Within this context, discourse ethics can be considered as an example of normative ethics in that it proposes procedures for deciding on moral norms. In this section we will introduce three general types of ethical approaches – consequentialism, deontology and virtue ethics and communitarianism - although each has a degree of variety within it (Donaldson and Werhane, 1999; Pojman, 1995). There are other approaches, for example the ethics of care (Gilligan, 1990) but there is general agreement (Baron, et al., 1997; LaFollette, 2007) that these are currently the main approaches and they certainly cover virtually all areas of business ethics.

Consequentialism (Teleology)

One of the fundamental distinctions within ethics is whether an act is judged in terms of intrinsic rightness or in terms of the consequences that it has. Consequentialism holds that correct actions are ones that maximize the overall good or minimize the overall harm. Stemming originally from David Hume and Adam Smith, the position was developed as utilitarianism by Jeremy Bentham (1948 (orig. 1789)) and John Stuart Mill (2002 (orig. 1861)). Bentham particularly was a social reformer who wanted to move away from traditional duties and religious codes towards actions that could genuinely help improve people's lives, not because this was fair or just, but simply because it would improve human happiness. There are thus two aspects to utilitarianism: that it is the consequences of an act that count; and that the act is judged in terms of the degree of goodness that results.

For Bentham, goodness meant the degree of pleasure or pain that resulted from an act and he even developed a complex hedonic calculus to measure this. However, this provides a rather

basic view of the good life and Mill developed a more sophisticated version that distinguished between the lower, sensuous pleasures of the body and the higher ones of intellectuality, creativity and spirituality. Not all utilitarians equate goodness with pleasure. Some consider things such as knowledge, moral maturity and friendship, while in modern economics people's actual, and differing, preferences can be transformed into a measure of utility which is then to be maximized. There is also a distinction between rule utilitarians and act utilitarians. The latter judge the individual actions of a particular person or group while the former analyze the results of adopting particular sets of rules on the general good.

Consequentialism seems a very obvious approach, and in many ways accords with our commonsense (and indeed rational decision making) approach to deciding what to do: evaluate alternative possibilities in terms of which will have the best consequences. However, it has many limitations (Pettit, 1997; Ross, 1930; Vallentyne, 2007). First is simply the difficulty of actually predicting the consequences of an action, particularly far into the future. In our complex modern world outcomes are usually the result of many, unpredictable factors and so is it reasonable to judge an act in terms that the actor could not have foreseen. The small boy kicks a ball into the road, causing a car to swerve, killing a pedestrian. Is the boy guilty of murder? Second, are the problems of agreeing and being able to measure appropriate forms of good or utility. Third, are questions of justice: utilitarianism tries to maximize the greatest good for the greatest number and thereby risks injustice for the minority; and it may lead to condoning actions that by most standards would be considered wrong if they are thought to result in a greater good – the end justifies the means.

In terms of ethics applied in business, this approach licences the instrumentalist view that business is primarily concerned with making money for its stockholders (Friedman, 1962; Jensen, 2002) and the more recent theories of competitive advantage (Porter, 1985; Prahalad and Hammond, 2002). Perhaps Bowen (1953) was the first in recent times to argue systematically that businesses, because of their great power and influence, were obliged to be socially responsible.

Deontology

Deontology (from the Greek meaning duty) shifts the judgment from the consequences of an act to the act in itself. Actions are to be seen as morally right or wrong, just or unjust, in themselves regardless of their consequences. The end never justifies the means. We shall consider two approaches: Kantian ethics based on the individual, and contractarian ethics based on general social procedures (McNaughton and Rawling, 2007).

Kant's (1991 (orig. 1785)) aim is to provide a general and universal justification for moral action that is independent of consequences or human desire. He argues that imperatives, statements that we should or ought to do certain things, are of two types – hypothetical and categorical. Hypothetical imperatives are conditional, dependent on some particular circumstances or requirement - "if you want to earn money get a job". Categorical imperatives are not contingent or qualified but apply in themselves without reservation. They are acts which one knows intuitively to be right over and above one's personal inclinations on the basis of reason and rationality. In fact, Kant suggests that there is only one genuine categorical imperative to which all more specific maxims of action must conform and that is

> "Act only on that maxim through which you can at the same time will that it should become a universal law" (Kant, 1991 (orig. 1785), p. 97).

The categorical imperative (CI) has two fundamental aspects: that maxims for action should be based on a concern for other people rather than purely ourselves; and that they should be universal, that is, apply to everyone. The underlying argument for this is that most actions are

done to achieve a purpose – they are means to an end, and it is the end that is valued. However, people may value different ends or objectives differently so can there be a universal end? Kant's answer was that there could be – human beings in themselves. It is rational human beings who make value judgments and so we need to treat other humans as equal to ourselves, as ends and not means. This leads to a second formulation of the categorical imperative:

> "Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end" (Kant, 1991 (orig. 1785), p. 106)

Taken together, these two formulations can be used as a test of maxims of action: does a maxim treat human beings as ends in themselves? And can it be universalized to all humans?

Kant's approach has been one of the cornerstones of ethical theory and accords well with our ideas of duty and responsibility towards other people. Its foundation lies in reason and rationality rather than tradition or religion. Criticisms of the approach are (Baron, 1997; Hursthouse, 2007): first, what justifies this view of rationality as the ultimate foundation of moral behavior? Could we not equally appeal to religion, community, or feelings such as care and concern? Second, we may well find that there are many situations in which different norms or duties may conflict with each other and the CI gives no guidance as to how we should choose one over the other. More generally, what grounds do we have for thinking that morals can be totally universal especially across widely differing cultures and belief-systems? Thirdly, presaging Habermas which we will discuss later, the approach is fundamentally individualistic or monological, set in terms of the subjective decisions of the individual agent.

The second deontological approach moves away from individual acts towards sets of rules that could govern society. We will examine two – the human or natural rights approach, and Rawlsian theory of justice. John Locke (1980 (orig. 1689)) argued that people were born with certain natural rights and that everyone possessed these equally. Government then consists of a social contract between people which maintains and protects these rights, and individual and organizational actions can be judged in terms of maintaining or abrogating such rights. This approach was very influential in its time as the basis for the American Constitution and more recently in terms of the Universal Declaration of Human Rights.

John Rawls (1971) approached the idea of a social contract from a different and novel direction. He conducted a thought experiment in which he asked what principles of justice rational people would choose if they had no knowledge of their own personal characteristics or the position they would hold in such a society. Thus, if one was behind a "veil of ignorance" as to one's gender, abilities or disabilities, age, position in society and so on, would one not choose a set of rules which were as fair as possible to all? This, according to Rawls, should generate a universal agreement about what would constitute the values of a truly fair society. Rawls' approach can be criticized from a libertarian perspective that justice should not be concerned with the redistribution of resources (Nozick, 1974) and also from a Habermasian perspective that it presumes too much commonality of agreement across communities (Habermas, 1996).

Within business ethics there are theories of corporate agency – that is, conceptualizing corporations as morally responsible agents - that are based on human rights (Matten and Crane, 2005) and Rawlsian social contract (Donaldson and Dunfee, 1995). There are also stakeholder theories which recognize that an organization depends for its successful operations on a range of different groups or stakeholders and therefore owes some duties to them. Theorists have drawn on a range of ethical positions including Kantianism (Bowie,

1999), Rawlsianism (Phillips, 2003), and extreme libertarianism (Freeman and Phillips, 2002).

Virtue Ethics and Communitarianism

The third major approach to ethics has a very long history dating back to Aristotle's (2000) idea of the virtuous life, and a modern renaissance in MacIntyre's (1985) communitarianism (Hursthouse, 2007; Slote, 1997).

Whereas consequentialism sees actions in terms of their calculated outcomes and deontology sees actions in terms of a duty to behave properly, Aristotle was concerned with people developing ways of behaving that would naturally lead to the well-being of both the individual and the community, what he called a state of eudaimonia. This involves the development of the whole person, their emotions, personality and moral habits, so that they "naturally" behave virtuously. Examples of such characteristics are: honesty, courage, temperance, fairness and patience. Aristotle also held to the principle of the Golden Mean, that is that each of the virtues was in the middle between two extremes. Courage is between rashness and cowardice; patience between anger and carelessness; and temperance between licentiousness and insensibility. There is one virtue that underlies the others and that is what Aristotle called phronesis which can be translated as prudence, wisdom or judgment. It is the ability to successfully balance different and perhaps conflicting elements together in a way that one only learns through experience.

These ideas of what constitutes a virtuous and good life have been taken up by MacIntrye (1985) and Taylor (1989) as a reaction against Rawls and the deontological tradition. In particular, they objected to the individualistic and a-historical nature of human nature assumed by Rawls. MacIntyre argues that we only become human beings through our development and socialization within a particular community, and that we therefore gain our ethical codes and judgments from that community. Different communities, whether they be cultural, ethnic or religious, generate their own ethical practices and standards and it is never possible to go beyond all traditions to a universal eternal viewpoint. The "good life" must always be relative to a particular context or community. The Aristotelian view has been utilized within business ethics by Solomon (1992). Whilst it is easy to accept that the communities we grow up in will have particular ethical stances and practices that affect us as individuals, if the communitarian approach is taken strongly then it involves a relativism that is perhaps unhelpful in today's globalized multi-cultural societies.

ETHICS AND INFORMATION SYSTEMS

Despite the massive effects that developments in ICT are having on the world society, there has not been a huge literature on ethics within the mainstream of information systems journals. However, there has been a considerable amount of work in the areas of computer ethics and information ethics which we consider to be of great relevance for IS.

In an overview of ethics and IS in 1999, Smith and Hasnas (1999) reviewed literature during the 1990's in terms of the main business ethics positions mentioned above (stockholder, stakeholder, and social contract) to see what insights they gave to those confronting ethical issues. They concluded that whilst the number of ethical quandaries was growing significantly there was somewhat of a theoretical vacuum as to how to deal with them: "Whether as managers, IS professionals or academic researchers, we ignore these ethical dilemmas and their theoretical assessment at the risk of our own community's credibility" (p. 125). Prior et al (2002) surveyed UK IS professionals and found a high level of ethical awareness but also identified many practical problems that organizations need to address.

Within IS research there has been little written in the literature, as Walsham (2006) notes, although in many ways IS research is little different to other forms of research within the social sciences. The issues mainly concern possible effects on human subjects who are involved in the research. Generally accepted ethical principles (Beauchamp and Childress, 1994) are: non-maleficence (not harmful), beneficence (providing some benefit), autonomy (respecting the individual in terms of gaining informed consent, confidentiality, no deception) and justice (fair to all especially minorities).

One research area where there has been particular interest in ethics is that of critical IS research (Cecez-Kecmanovic, et al., 2008), much of which is Habermasian and therefore of particular interest to this paper. Critical research must inevitably have a strong connection to morality since it is concerned with revealing the effects of IS/IT on people in society and reciprocally the effects of society and its interests on IS research. Its foundation is based on justice and emancipation. Stahl (2008b), in overviewing the area, draws two related distinctions: that between ethics and morality, and that between the German and French critical traditions. The German tradition is strongly based on Kant and is exemplified by Habermas. It assumes that there are rational ways of determining moral practices and that people then have a duty to uphold them. In the French tradition, an example being Foucault, ethics is seen in terms of visions of the good life while morality is rules that constrain individual behavior.

Moving to IS development, Myers and Miller (1996) considered some fundamental dilemmas in areas such as privacy and information access from an Aristotelian perspective while Walsham (1993) discussed ethical issues from the point of view of the individual analyst as a moral agent, examining the extent to which methodologies, including SSM, can support this. This individualist viewpoint has also been explored in the context of a postmodern approach to ethics (Chaterjee, et al., 2009). Smith and Keil (2003) have developed a model to explains the extent to which developers are reluctant to report bad news on a software project. One of the few genuine attempts to create a design methodology that embodied ethical principles was that of Enid Mumford (Hirschheim and Klein, 1994b; 1995) who actually used the acronym ETHICS for her approach. Introna (2002) argues, rather extremely perhaps, that in fact codes, frameworks and moral arguments are now of little use. He suggests that as individuals we tend to behave morally when we feel obligations to others and that this is stronger when they are concrete others that we name and see face to face. However, ICT is increasingly disembodying our interactions and generating a virtual reality for us to live in which actual names, faces and persons become ever more attenuated. Culnan and Williams (2009) have considered privacy breaches in two recent cases – ChoicePoint and TJX.

There has been much more discussion of ethical issues within computing and IT, especially in the light of IT developments, the information age and globalization. The discussion can usefully be divided into foundational or meta-ethical theories (the level at which discourse ethics would be seen to work) and applications to particular problematic issues (Himma and Tavani, 2008).

Computer and information ethics (which we will generally use as inter-changeable terms) can arguably (Bynum, 2008) be traced to the seminal work of Norbert Weiner, one of the founders of cybernetics (Weiner, 1950). He recognized that the developments within automated control systems and computing would have profound effects on human society and tried to deal practically with the problems that would be thrown up so as to ensure the flourishing of human beings. The next major step was Moor's paper "What is computer ethics" (1985) which established the domain of computer ethics as more than simply another example of applied ethics. He argued that computers were essentially a malleable, universally

applicable tool so that the potential applications, and consequent ethical issues, were both novel and almost limitless. During the 1990s the attention moved to professional ethics (Gotterbarn, 1991; Oz, 1992; Walsham, 1996), trying to define codes of ethics for the developers of computer systems in their everyday practice, a particular example being the ACM Code of Ethics adopted in 1992.

The most profound development though (Tavani, 2001), has been the work of Luciano Floridi in proposing both a philosophical theory of information (Floridi, 2002b; Floridi, 2005b) and a theory of information ethics based on it (Floridi, 1999; Floridi, 2005a; Floridi and Sanders, 2002). Traditionally, as we have seen, it is human subjects that are the targets of ethical theories in that it is humans who both act and are acted on. In recent years there have been moves to widen the scope of ethics to include living creatures (bio-ethics) and the natural environment (land-ethics). These theories argue that it is not just people that have intrinsic rights but also animals and nature. Floridi generalizes this dramatically to suggest that information itself, what he calls the "infosphere", also has an intrinsic worth, and that anything that harms of diminishes information is evil.

His theory is both complex and sophisticated and we can only characterize it briefly in order to contrast it later with discourse ethics. Floridi's fundamental position is one of "informational structural realism" (Floridi, 2008) which is committed to the existence of a mind-independent reality that constrains our knowledge of it. Reality consists of structural objects (not necessarily physical or observable) that are "informational"[1]. Drawing on computer science, and especially object-oriented programming, these informational objects can be conceptualized as a combination of a data structure (relative to the context in which the object operates) and a set of behaviors or processes. In principle, therefore, Floridi's theory is a "theory of everything" in that everything is an informational structure.

Moving to the ethical implications of this position, Floridi (2002a) argues that, at least minimally, information objects can be both "moral agents", i.e., act in ways that may be judged morally, and "moral patients", that is entitled to a degree of moral value or respect. We have responsibilities to informational objects that allow them to survive and flourish by ensuring that we do not increase "entropy". By entropy, Floridi does not mean the traditional physics or even information theory concept, but "any kind of destruction, corruption, pollution and depletion of informational objects." (Floridi, 2005a, p. 26). Thus Floridi generalizes the sphere of morality from human beings to everything that is informational, which for Floridi is everything. It has been applied to issues such as privacy, vandalism and biogenetics (Floridi, 1999). Clearly such an ambitious and original theory has generated much debate, not least how competing moral claims across such a widened target area can be resolved. Some of these will be discussed in the section on discourse ethics but the interested reader is referred to a special issue of *Ethics and Information Technology* 10, 2008 devoted to Floridi's work.

Moving to applications of ethics, the list of issues that have been debated is long (De George, 2003; Langford, 1995; Weckert and Adeny, 1997): privacy and personal information, intellectual property, globalization, challenges of the internet, freedom and censorship, the digital divide and internet research ethics to name but a few. We will illustrate some of these here and then discuss other particular examples (Web 2.0, open source software, the digital divide, privacy and identity cards) in more detail later to illustrate the potential of discourse ethics..

[1] This position is quite similar to that of critical realism (Mingers, 2004)

The first issue concerns globalization, cultural ethical diversity and the impact of the internet (Capurro, 2008). One of the major ethical debates is that of pluralism versus universalism (Ess, 2008a). To what extent are moral issues tied inextricably to particular cultures rather than being able to be agreed on universally? Ess (2006; Hiruta, 2006) advocates what he calls ethical pluralism, rooted in Plato and especially Aristotle, that tries to generate shared ethical norms while at the same time recognizing intrinsically different ethical traditions. Martinsons and Ma (2009) and Davison et al (2009) have carried out interesting surveys into the attitudes to ethics among Chinese managers and IT professionals. An element of this is the importance of dialogue between traditions, which connects to discourse ethics.

Initially, the development of the internet was seen optimistically as offering the possibility of unfettered communication across the world and realizing McLuhan's idea of a "Global Village". However, as it has in fact developed, partly in response to the cultural battles between globalization and fundamentalism, such optimism may be misplaced (Rogerson, 2004). First, it is clear that some cultures do not embrace the values of open communication inherent in the internet leading to clashes over censorship and democracy (witness the current battle between Google and the Chinese state). Second, the internet can foster the development of communities, or indeed individuals, that are increasingly insular and isolated from humanity more generally (Sunstein, 2008; Thelwall, 2009). Third, the digital divide is exacerbating rather than diminishing the dislocation between the developed and developing worlds.

The second issue that we will discuss, and again a fundamental one, is the question of the ethical or moral aspects of the *design* of IS artifacts (van den Hoven, 2008). There are two aspects: the extent to which IT systems inevitably embed particular values which have a moral impact without that being either deliberate or even recognized; and designing systems that will positively embody certain values or help us avoid moral dilemmas. The first can be illustrated by the work of Brey (2000) on "disclosive ethics". Brey argues that complex technologies bring with them new moral problems precisely because of their complexity and opaqueness for non-experts. Because of this, technologies that appear morally neutral may in fact embody significant normative implications and hence there is a need for revealing and disclosing such characteristics. Introna (2005) gives an example concerning facial recognition systems. In such cases one has to begin by taking a particular value, such as privacy, and then using it like a searchlight to identify potential problems, and then, taking a wider view, see how the software could be redesigned to overcome the problems.

The second aspect can be exemplified by what has become known as value sensitive design (VSD) (Friedman, et al., 2008). This is the culmination of several strands within IS design such as social informatics, computer-supported cooperative work, and participatory design where the aim is not simply to design an IT system that performs a task effectively, but to design it in such a way that it explicitly embodies particular important values in the manner in which it operates. Examples of values that have been employed are: privacy, autonomy, universal usability, trust and cooperation. The developed approach employs three strategies – conceptual investigations where different stakeholders debate the relative importance of particular values (an obvious application for discourse ethics); empirical investigations of the actual context of use; and technical investigations of the extent to which available technology could in fact support or hinder particular values.

DISCOURSE ETHICS AND DELIBERATIVE DEMOCRACY

The literature reviewed in the previous section is substantial in its treatment of ethical issues related to computers and information systems. However, discourse ethics does not receive

any significant attention in this literature and we turn now to this topic, which is the main focus of the paper. Before describing discourse ethics in detail, some historical background is necessary to set the approach in context.

There is a tendency nowadays to see ethics as in some ways antithetical to business and economics, but it has not always been so. As noted briefly in the Introduction, one of the founders of modern economics, Adam Smith, whose work is often invoked in support of the separation of market economics from ethical considerations, was actually not of that view at all (Ulrich, 2008). His first major work "The Theory of Moral Sentiments" (Smith, 2002 (orig. 1759)), was a discourse on the fundamentally moral nature of human action and this work underpinned his more famous treatise on the economic system – "The Wealth of Nations" (Smith, 2008 (orig. 1776)). His theory of moral action, which was essentially psychological, was very relevant to discourse ethics as we shall see. He argued that we behave in moral ways that may not always be purely in our own self-interest because of the way we want to be seen by others. In doing that we try to take on the perspective or role of the other to see how our actions would appear from their perspective. Smith termed this the "impartial spectator" and suggested that we act in ways we feel would gain praise from the impartial spectator even though no actual praise would occur. "To disturb {another's} happiness merely because it stands in the way of our own … is what no impartial spectator can go along with" (quoted in (Ulrich, 2008, p. 51)).

In the latter book, Smith mapped out the workings of an economic *system* through individuals acting on their own and in their own manner but this was seen as an essentially moral system, indeed it was seen from a Christian viewpoint as the acting out of the plans of God. "{Human subjects} ought to let themselves be guided by these ends {of God}. In this way the *market* – and not the weak moral power of man – is interpreted as the *site of morality*" (Ulrich, 2008, p. 152).

After Smith, driven by the positivism of the 19th and early 20th century, economic theory became stripped of any ethical or moral dimension in the name of value-freedom. To the extent that economic ethics has resurfaced it is generally in two forms – what may be termed applied ethics or normative ethics. The former treats economics and business as an area for ethics to be "applied to" as a corrective to the effects of unmitigated market forces. The latter regards self-interested economic activity as necessary for the continuation of the economic system and therefore intrinsically moral.

There has developed a "third way" between the two, known as integrative economics (Ulrich, 2008), that is actually based on taking discourse ethics, as developed by both Apel (1980) and Habermas, as fundamental to an ethical economic system. This in turn is part of an active debate within Germany (and therefore largely in German) about the nature of business ethics, strands of which are also driven by a fundamentally discursive approach (Preuss, 1999). This provides a background against which to consider the potential contribution of discourse ethics (DE) to information systems. DE itself is intertwined with Habermas's more general social theory - the theory of communicative action – so we will begin with that.

Theory of Communicative Action

This will be a brief overview as it is already well described elsewhere (Klein and Huynh, 2004; Mingers, 1992). The theory of communicative action (TCA) (Habermas, 1984; Habermas, 1987), which develops out of the earlier theory of knowledge-constitutive interests (Habermas, 1978), argues that the most fundamental characteristic of human beings as a species is our ability to jointly coordinate our actions through language and communication; and further that the ability to communicate is grounded on the capacity to

understand each other. Thus the primary function of communication is the construction of understanding and then agreement about shared activities. Humans do, of course, engage in other activity: for example purposive instrumental action in solving a problem or reaching a goal; or strategic action where communication is used to achieve personal ends through some form of deception or control. But even in this latter case, understanding is a necessary prior condition.

Habermas therefore sees communication oriented towards reaching agreement as the primary, and most common, form of communication, and proposes that the principal means of reaching agreement is through rational discussion and debate - the "force of the better argument" – as opposed to the application of power, or the dogmas of tradition or religion. Habermas elucidates the nature of a "rational" argument or discourse in terms of two concepts: i) that contentions or utterances rest on particular validity claims that may be challenged and defended; and ii) that the process of debate should aspire to being an "ideal speech situation."

Whenever we actually say something, make an utterance, we are at least implicitly making claims that may be contentious. These validity claims are of three types, and each one points to or refers to an aspect of the world, or rather analytically different worlds. These three are:

- **Truth**: concerning facts or possible states of affairs about *the* material world
- **Rightness**: concerning valid norms of behavior in *our* social world
- **Sincerity** (truthfulness): concerning *my* personal world of feelings and intentions.

In our everyday discussions and debates, disagreements and misunderstandings develop and these lead to one or more of the validity claims to be challenged. It is then up to the speaker to defend the claim(s) and possibly challenge the opponents. The discussion is now at a meta level to the original conversation. In order to achieve a valid, i.e., rational, outcome the discussion should occur in such a way that it is the arguments themselves that win the day rather than distorting aspects of the people involved or the social/political situation. Such an ideal speech situation (which can only ever be a regulative idea to aim at) should ensure (Habermas, 1990, p. 86):

- All potential speakers are allowed equal participation in a discourse
- Everyone is allowed to:
    - Question any claims or assertions made by anyone
    - Introduce any assertion or claim into the discourse
    - Express their own attitudes, desires or needs
- No one should be prevented by internal or external, overt or covert coercion from exercising the above rights.

Habermas argues that these are not merely conventions, but inescapable presuppositions of rational argument itself. Thus someone engaging in an argument without accepting the above is either behaving strategically (deception) or is committing a performative contradiction (hypocrisy).

Habermasian critical social theory (CST) has a long, if somewhat marginalized, history within IS although his work on discourse ethics has not yet been taken up. Perhaps the first to draw attention to the potential of critical theory was Mingers (1980) who contrasted it with soft systems methodology (SSM). The case for CST being a foundational philosophy for IS research, in distinction to positivism or interpretivism, was made by Lyytinen and Klein

(1985), Klein and Lyytinen (1985) and Hirschheim and Klein (1989). This led on to the development of CST-based research methodologies (Cecez-Kecmanovic, 2001; Hirschheim and Klein, 1994a; Laughlin, 1987; Lyytinen, 1992).

There have also been a range of empirical studies carried out from a CST perspective focusing either on the design of IS systems or their effects. For example, in terms of IS design and planning, Cordoba (2007; 2006) developed a critically-based methodology for participative IS planning in a Columbian university; Sheffield (2004) designed a system for GSS-enabled meetings based on the ideal speech situation; and Ngwenyama and Lyytinen (1997) made the case for CST as a basis for computer supported group working, a position criticized by Sharrock (1997).

In terms of the usage and effects of IS, Ngwenyama and Lee (1997) studied the use of email as a form of communication; Pozzebon *et al* (2006) explained the prevalence of IT fads and fashions as a result of the continual pressure for rhetorical closure in IT negotiations; and Cecez-Kecmanovic *et al* (1999) studied web-based teaching and learning systems.

Discourse Ethics

Discourse ethics (DE), which is somewhat badly named as we will see, stems almost directly from TCA through considering actions in general rather than just communications. It is clearly Kantian in thrust, although with a very significant reorientation, but also sweeps in to some extent utilitarian and communitarian concerns.

Beginning with the traditional ethical question "how should we act?", Habermas (1993b) recognizes that such questions occur in different contexts. We may begin with basic pragmatic or purposive questions about the best ways to achieve particular ends. How to earn some money? How to fix the car? These often concern problems in the material world and they may be quite complex. Their resolution may well require information, expertise and resources. Many of the problems that occur within a business context are often seen like this and in that domain they would be classed as "hard" rather than "soft". In terms of ethical theory this relates to the consequentialist approach in which actions are judged in terms of their effects and consequences but only in the self-interests of the actor(s) concerned.

The question might, however, be rather deeper. What if the goals or ends to be achieved are themselves in question, or if the means to be used raise ethical or moral issues? Here we are concerned with the core values and the self-understanding of a person or a community. What kind of person am I, or what kind of group are we, that we should have these particular values and behaviors? These questions concern what Taylor (1989) called strong preferences, to do with our being and way of life, rather than simply weak preferences such as tastes in food and clothes. Habermas calls these types of questions ethical questions in contrast to pragmatic questions discussed above and moral questions discussed below.

Within the pragmatic domain, efficacy is the test – does the action work? Does it have the desired effect? But within the ethical domain goodness or virtue is at issue. Does the action accord with and develop the actor's own existential identity and self-understanding? This clearly picks up on the Aristotelian and communitarian positions that emphasize the importance of developing the good life within one's community. Although the pragmatic and the ethical have very different concerns – the efficacious and the good – they are similar in that they are both oriented towards the self-interests of particular individuals or groups – the question is, what is effective or good for *us*? It is when one goes beyond that perspective to

consider what might be good for *all* that one moves into the domain of moral questions. And this is really the focus of discourse ethics[2].

> "We should not expect a generally valid answer when we ask what is good for me, or good for us, or good for them; we must rather ask: what is equally good for all? This 'moral point of view' constitutes a sharp but narrow spotlight , which selects from the mass of evaluative questions those action-related conflicts which can be resolved with reference to a generalizable interest; these are questions of justice" (Habermas, 1992a, p. 248)

So, while discourse itself applies to all three domains, the main thrust of discourse ethics is actually moral questions, that is, those that concern justice for all; those that transcend the interests of any particular individual, group, nation, or culture but that should apply equally for all people. His approach is clearly Kantian in that he is interested in that which is universalizable but he effects a major transition away from the subjective thoughts or will of the individual agent (a monological focus) towards a process of argumentation and debate between actually existing people (a dialogical focus). This marks DE out from other approaches as Habermas does not see this as just an analytical procedure or thought experiment, he intends that such debates, especially within society as a whole, should actually occur. We can see now how discourse ethics is intimately related to TCA: the three domains, the pragmatic, the ethical and the moral correspond with the three worlds; and the whole approach is embedded within the processes of communicative action.

How should we judge whether an action-norm is universalizable? Kant's categorical imperative is an exercise conducted from a particular person's viewpoint: what do they think would be suitable for all? We need to go beyond that and test whether such a maxim or norm can also be accepted by all of those affected. This leads to a reformulation of the CI in what Habermas calls the discourse principle (D):

> "Only those norms can claim to be valid that meet (or could meet) with the approval of all affected in their capacity *as participants in a practical discourse*." (Habermas, 1992b, p. 66 original emphasis)

This is a general statement about what would constitute a valid norm and has two essential parts: that the norm must be agreed or approved by all those affected, and that this must occur through an actual process of discourse. This is analogous to the truth of descriptive statements (Habermas, 1999a). A statement is true if what it claims about the world is in fact the case. This is a definition but it does not tell us how to find true statements. Equally, a moral is right if all affected have participated in a fair discussion and agreed to it[3]. But D does not specify what such norms might be, nor what might be the process of discourse. The latter point is developed through a further universalization principle (U) which outlines how such norms might be arrived at:

> "A norm is valid when the foreseeable consequences and side-effects of its general observance for the interests and value-orientations of *each individual* could be *jointly* accepted by *all* concerned without coercion." (Habermas, 1999a, p. 42, original emphasis)

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[2] Indeed, Habermas accepts that it should really have been called "a discourse theory of morality" rather than ethics (Habermas, 1993a)

[3] For Habermas, both truth and rightness are discursively vindicated but there is a significant difference. For truth, discourse merely recognizes or signifies that a statement is (believed to be) true in respect of an objective world. For morality, discourse actually justifies or creates the norm as a norm within the social world (Habermas, 1999a)

The point of this process is to try to generate a common will and not just an accommodation of interests. That is, the participants should become convinced that it is genuinely the best way for all of them to resolve their common differences. To this end, i) the mention of "interests" and "value-orientations" refers to the participants concerns within the pragmatic and ethical domains respectively; ii) participants should try and genuinely take on the perspectives and roles of the other, and be prepare to modify their own; and iii) agreement should be based, as always, on force of argument rather than force of power.

Towards Deliberative Democracy

Habermas has always had as one of his primary concerns politics and the nature of the state. In the 1960s he argued against increasing instrumentality and technocracy in *Towards a Rational Society* (Habermas, 1971) and in the 1970s analysed the developing crisis in Western societies in *Legitimation Crisis* (Habermas, 1976). During the 1990s he developed his communicative and moral theories into a powerful model of the nature of democratic society within the post-national and multi-cultural age (Habermas, 1996; Habermas, 1999b; Habermas, 2001). This has generated considerable debate within politics and legal circles (Dryzek, 2002; O'Flynn, 2006; Parkinson, 2006).

Societies are governed by laws and laws embody, in part, norms of expected behavior. There is, therefore, an intimate connection between morality with its concern for rightness and justice for all, and the law and its need for legitimacy. The law also ultimately rests on the discourse principle (D) which defines valid norms, but there are significant differences between morality and law. Morality, as we have seen, is a domain drawn narrowly to include only those norms that can gain universal acceptance and it thereby excludes the ethical domain of individual or community values and conceptions of the good, and the pragmatic domain of goals and self-interest. The law cannot do that, however. It must operate in the real world and be able to regulate all three domains together. Moreover, and perhaps partly because of this, the law is positive as well as normative: it can take action and apply coercion and sanctions as well as claiming validity, whereas the moral domain rests on individuals and their consciences for its enactment.

>>>>>>>>>**Figure 1 Relationships between Principles of Discourse about here**>>>>>>>>>

These relations are illustrated in Figure 1 (Habermas, 1996). At the top is the discourse principle which then splits into two – the moral principle and the democracy principle although as can be seen these are at different levels. The democracy principle governs those norms that can be legally embodied and gain the assent of all citizens through a legally constituted legislative process. Such laws have to deal with questions that arise in all three domains – the pragmatic, the ethical, and the moral. Each domain involves different reference groups and different discursive procedures. Moral questions are governed by considerations of fairness for all and ultimately relate to the world community. Moral norms can be justified through the universalization principle (U) but there also needs to be discourse about their application to particular situations, the application principle. Ethical questions concern issues of self-understanding of particular communities or forms of life and are highly relevant to the multicultural societies that exist nowadays. Pragmatic questions involve bargaining and negotiating fair compromises between competing interests.

Morality and the law are thus distinct but complementary. Morality is a domain where people agree to take on duties and particular forms of behavior because they reach consensus through debate that the norms are universally applicable. The law should enshrine these norms but will also have to include many more specific norms to deal with ethical conflicts between different communities and pragmatic conflicts between different interests. Habermas envisages stages through which such debates may occur (Habermas, 1996, p. 164). Initially, proposals or programmes for action are brought forward and these are evaluated in generally technical terms, based on information, knowledge and technical expertise, an example of the classic decisionistic approach of evaluating different means for accepted ends. Often, however, the ends, that is the values and interests themselves, are seen to compete and discourse now needs to change to another level. There are now three possibilities: first, the issues may involve moral questions, that is questions that need to be solved in the interests of all, for example social policies such as tax, health provision or education; second, they could involve ethical questions that may differ between different communities and may not be generalizable such as immigration policies, abortion, or the treatment of the environment and animals.

Or, third, the problem may not be resolved either through general assent or the strength of a particular value because of the range of different communities and interests involved. In these cases one has to turn to bargaining rather than discourse. The parties involved need to come to a negotiated agreement or accommodation rather than attain a consensus. This is not a rational discourse (in Habermas' terms) since the parties involved will be acting strategically and may well employ power, and because the parties may agree for different reasons, whereas with a moral consensus the parties will agree for the same reasons. Nevertheless, rationality and the discourse principle can be applied to the process of negotiation if not its actual content.

Deliberative democracy can be seen to weave together a whole variety of different forms of discourse and communication involving rational choice and the balancing of interests; ethical debates about forms of community; moral discussion of a just society; and political and legal argumentation. This complexity occurs not just in the traditional institutions of politics and the law, but increasingly in what Habermas refers to as the voluntary associations of civil society (Habermas, 1996 ch. 8). The whole third sector of community and voluntary groups, pressure groups, NGOs, trade associations and lobbyists, underpinned by the explosion of communication technologies, now occupy the space between the everyday communicative lifeworld, the economy and the state. They sense and respond to issues and concerns that arise within the public sphere and channel them into the sluice gates of the politico-legal centre. Bohman (2008) discusses the extent to which this transformation of the public sphere (Habermas, 1989) can be facilitated by the internet.

APPLYING DISCOURSE ETHICS IN BUSINESS AND IS

In terms of business generally, discourse ethics (DE) has been advocated in two main ways: concerning the role of corporations as a whole within society, drawing on the later theory of deliberative democracy; and also at the level of communications within organizations.

Reed (1999a; 1999b) has used DE as the basis of a normative stakeholder theory of the firm, arguing that the distinctions between legitimacy, morality and ethicality provide a more sophisticated and comprehensive approach to dealing with the normative bases of stakeholder claims; and that the underlying communicative theory goes beyond the abstract notions of a Rawlsian veil of ignorance towards actual debate and discourse, and a recognition of the realities of compromise and bargaining. Smith (2004), in part developing from Reed's work,

argues that increasingly companies will not be able to achieve their long-term strategic aims by acting in a purely instrumental, pragmatic manner – but need to become engaged within the moral and communicative spheres of society as a whole. In a similar vein, Palazzo and Scherer (Palazzo and Scherer, 2006; Scherer and Palazzo, 2007) argue that corporations need to become politicized in the sense that they need to become genuinely political agents within an increasing globalized, "postnational" (Habermas, 2001), world: "These phenomena need to be embedded in a new concept of the business firm as an economic and a political actor in market societies" (Scherer and Palazzo, 2007, p. 1115 original emphasis).

Moving to communicative action as such, Meisenbach (2006) has attempted to operationalize Habermas's universalization principle (U) to guide those conversations within an organization that have a moral dimension, i.e., that potentially affect all those within the community. DE has also been suggested as a basis for theorizing moral principles in decision making in organizations (Beschorner, 2006; de Graaf, 2006) and as a basis for ethical auditing (Garcia-Marza, 2005).

If we stand back and ask ourselves what is it exactly that discourse ethics has to offer for both business in general and information systems in particular, then we would suggest there are three major contributions:

Practical discourse. DE is unlike all other ethical theories in that it requires actual discussion and debate among those who may be affected by a norm or proposal and accepts the outcome as that which is morally correct, assuming of course that the debate was sound. DE is therefore entirely procedural – it does not specify moral behaviors but only methods for agreeing them. In this, it would seem to have the potential for bringing about ongoing, practical resolutions of moral and ethical concerns. It also links directly into the shift that has occurred within IS and management science more generally towards soft approaches such as soft systems methodology (SSM) (Checkland and Holwell, 1998; Mingers, 1980) and cognitive mapping (Bryson, et al., 2004; Eden, 1995) whose purpose is structuring complex problems through exploration and debate (Rosenhead and Mingers, 2001).

Universalization. DE distinguishes moral issues that concern everyone involved in a particular situation from ethical and pragmatic ones which are relative to particular individuals or groups. It therefore pushes us to consider, and involve, as wide a range of stakeholders as possible in decisions and system designs. This too links into several management science approaches that stress the importance of boundary decisions such as Churchman's ethics of systems design (Churchman, 1979), Ulrich's critical systems heuristics (Ulrich, 2000), Midgley's boundary critique (Midgley, 2000) and Mingers' critical pluralism (Mingers, 1997; Mingers, 2006).

The just, the good and the practical. DE is both more comprehensive, and in a particular sense more practical, than other ethical theories in recognizing that in the real world there are different types of issues, and different perspectives from which to approach them. As well as questions of justice, DE incorporates, to some extent, the concerns of utilitarians and consequentialists in accepting pragmatic questions that need to be settled through bargaining and even the exercise of strategic action (the practical). It also recognizes the concerns of communitarians in accepting that some (ethical) questions may well not generate universal, but only local, agreement and yet can still be the subject of rational discourse (the good). It proposes that law is a practice, characterized in terms of legitimacy, which has to deal with issues in all three of these domains, and we would argue that business (and the public sector) is similar in that ultimately long term effectiveness also requires an acknowledgement of the good and the just as well as the practical.

If these are the strengths of discourse ethics, it has to be accepted that, as it stands, it can appear too abstract and idealized to be directly or practically utilized within business. So we need to consider if it can be pragmatized without becoming entirely emasculated.

PRAGMATIZING DISCOURSE ETHICS FOR THE IS FIELD

In talking of pragmatizing DE we mean it in the everyday sense of making DE more useful, but we also allude philosophically to the American Pragmatists such as Peirce (Peirce, 1878) who originally developed the idea of a discourse theory of truth – the community of inquirers – which underpinned Habermas's (1978) epistemology. In this section, we consider how the three potential strengths of discourse ethics discussed above can be turned into pragmatic approaches drawing in some cases on existing techniques and methodologies. We also provide a number of examples of IS application areas to illustrate the potential of discourse ethics. These are not full case examples, which would each require a further paper in themselves, but rather show the potentially wide scope and relevance of the theory of discourse ethics to the IS field. A summary of the key points in this section is provided in Table 1.

>>>>>>>>>>>>>>>>>**Insert Table 1 about here**>>>>>>>>>>>>>>>>>>>

The Discourse Process

As we have seen, DE presumes that real debates will happen within an ideal speech situation (ISS). This is never fully realized although it can stand as a regulative ideal towards which actual debates can aspire. What it leads into, though, are methods and techniques to help realize an ISS to the greatest extent. This is very much the domain of soft systems methodology (SSM), other soft methods such as cognitive mapping, and indeed GSS. All these methods share some general characteristics: recognition that participants will have different views and stances on a particular issue; an aim of resolving the issue by exploring these viewpoints through discussion and debate; using a variety of devices or transitional objects to surface and help participants understand each others' views; and trying to involve a range of stakeholders and to ensure equal participation either through human or computer facilitation. We can also point to more IS specific approach called "joint application development" (JAD) which is a facilitated group technique for determining systems requirements (Duggan and Thachenkary, 2004; Liou and Chen, 1993).

The methods just discussed tend to be used with relatively small groups, generally within an organizational setting, but there are also a variety of methods that have been developed to work with large groups (perhaps up to 2000) of ordinary citizens or representatives (Bryson and Anderson, 2000; White, 2002). Examples are Nominal Group Technique, Team Syntegrity (Beer, 1994), Open Space Technology (Owen, 1992), Search Conferencing (Emery and Purser, 1996) and decision support systems (Mathieson, 2007).

All these methods represent a pragmatization of DE in that they cannot *guarantee* the requirements of an ISS, but they do in large measure have a commonality of purpose with it. Although they have not been developed with moral questions in mind, they are generally used for resolving specific organizational problems or for developing common visions, but they certainly could be used for moral issues and, in at least one case (SSM), ethicality is already one of the criteria that can be called upon. They also do not guarantee consensus, i.e., agreement for the same reasons, as would be required for pure DE but they do encourage

participants to genuinely see the world from another's perspective and come to an understanding rather than merely a bargain.

In terms of direct relevance of these ideas to the IS field, some literature has already examined the potential for the internet to facilitate improved discourse and debate. Heng and de Moor (2003) described an internet-based tool for collaborative authoring which was used by an environmental group as a new way in which to create a more equal exchange of ideas among various stakeholders in the debate on genetically modified food. The authors referred to Habermasian theory of communicative action, but noted barriers to communication in the form of entrenched power structures and limitations to human rationality and responsibility. Unerman and Bennett (2004) examined a 'web forum' initiated by Shell as a means to facilitate dialogue between stakeholders inside and outside the organization on issues such as social and environmental responsibility. The article referred specifically to Habermasian discourse ethics as a theoretical basis, but concluded empirically that the web forum was not used by many of the stakeholders as part of an honest attempt at reaching mutual understanding regarding Shell's ethical responsibilities. Van Es et al (2004) compared the merits of face-to-face versus internet-based negotiations and concluded that, although internet negotiation has serious restrictions, it can enhance reflection and play down emotion, which the authors argue are important qualities when handling complex and delicate ethical issues. Yetim (2006) uses discourse ethical concepts to construct a framework for evaluating genres, that is specific communicational artifacts such as an application form, and their role within communication. He also uses Habermas's more general discourse theory to develop tools for supporting team and group discussions (Yetim, 2009).

This earlier literature focused on technologies such as web forums and collaborative authoring tools, but what about the potential for newer technologies, sometimes captured under the Web 2.0 label, such as wikis, blogs and social networking tools (McAfee, 2006; McKinsey Quarterly, 2007)? These newer bottom-up collaborative applications emphasize continuous intersubjective exchange aimed at generating understanding of the position of others and, in the case of Wikipedia for example, some achieved consensus. So they can be thought to be prime candidates for an exploration through the theoretical basis of discourse ethics as to what extent their characteristics provide better opportunities for dialogue which seeks to arrive at genuine consensus through engaged debate of a wide range of stakeholders.

A further IS topic area where one could argue a prima facie case for the application of discourse ethics is the open source software movement which can be considered to be a relatively bottom-up and consensus approach to the development of software. For example, Lee and Cole (2003) described the case of the Linux kernel development project that involved thousands of talented volunteers, dispersed across organisational and geographical boundaries, in collaborating via the internet to produce an innovative product of high quality. It could be argued that the 'ideal' discourse conditions do not apply since contributors are not equal parties to the debate, with an inner core of developers having strong rights of control on implemented changes in the Linux kernel. Nevertheless, the discourse process between the stakeholders is clearly more open and inclusive than that in closed proprietary applications, and it would be interesting to use the formal concepts of discourse ethics to investigate the degree to which the discourse surrounding the Linux kernel development conforms to an ideal type.

The 'purity' of the open source model can be considered to be comprised by the way in which it is now involves many commercial and governmental actors as well as individual software developers (Fitzgerald, 2006). Von Hippel and von Krogh (2003) talk of a 'private-collective' model that contains elements of both the private investment and collective action

models and can thus offer society 'the best of both worlds'. This would certainly be challenged by proponents of the 'free software movement' (Elliott and Scacchi, 2008) who embrace an ideology and set of work practices which maintain a clear distinction between collective work based around free discourse and software work based around commercial interests. This is not the place to examine such ideological differences further, but rather we wish to argue that such differences could indeed be critically examined under the lens of discourse ethics, for example in differentiating between accommodations and genuine consensus as discussed earlier in the paper.

Universalization

A second area to be considered is the DE requirement that for a norm to be moral it must be acceptable to all those affected. This clearly raises major practical issues for this would never be possible in theory let alone in practice (Haas and Deetz, 2000), although "universal" does not mean all human beings, only those affected by a particular issue and so could even in principle be quite restricted. It can be seen as involving a tension between ethical contextualism and moral universalism (Ulrich, 2006). The more that discourse aims for moral universalism the less it will be able to justify; the more that it accepts a narrow context the less justified the results will be. This could be read as a disabling contradiction within DE, but we would prefer to see it as a creative tension which can lead to better, and more just, decisions.

It is also useful here to contrast DE with Floridi's information ethics described above (Stahl, 2008a). There are certainly some similarities: both are generally within the Enlightenment tradition which values rationality and reason as ways of determining moral action; both share, at least in part, a deontological approach of duties and responsibilities towards moral patients or subjects; both recognize the importance of information, language and communication at least within the human world; and both are concerned with the universality of their propositions. However, we would highlight two major differences. The first is the extent of the universalization and the second is DE's unique emphasis on discourse.

We might already regard Habermas as being ambitious in aiming for moral norms that apply to all those affected, but Floridi wants to enlarge it to all informational entities both as agents and patients. This clearly raises significant difficulties (Ess, 2008b): to what extent is is acceptable to treat non-human entities (including especially artificial agents) as either worthy of moral treatment, or capable of it? How does one distinguish between the potential moral status of different informational objects? Should we not recognize that it would be the designers of artificial agents that have the moral responsibility, not the agents themselves? In what way can non-human objects articulate moral claims? If we humans are to do it for them, are we not then in fact doing it from an anthropocentric viewpoint?

The second difference is that Floridi's approach has within it no ways of arbitrating between different claims even between humans let alone between humans and non-human objects. This, as we have seen, is where DE scores over rival ethical approaches. It is procedural not substantive and once people can be drawn into a process of discourse, at whatever level, then they have already begun to commit themselves to the game of rational argumentation with some hope that it may lead to a way forward.

Again, this can be assisted by already existing methodologies. In essence, the problem is twofold: boundaries - i.e., which stakeholders (interpreted as anyone who could be affected) must be included; and representation – i.e., who can stand as representatives for the many?

Churchman (1968) was one of the first to say that in order to properly evaluate our designs we have to consider the whole system of which they are a part. This meant drawing the boundaries expansively or "sweeping in" as many aspects of the situation as possible, but the problem is always where do you stop? If we assume that the organization(s) concerned is basically benevolent, i.e., it wishes to generate a just result, then we can follow Reed (1999a) in suggesting that we need to include stakeholders who will be affected economically, politically in terms of equality, and ethically in terms of their self-identity.

However, it seems more likely that organizations will often not wish to include all stakeholders, and there may indeed be situations of outright conflict as for example between companies and pressure groups, or between planners and citizens (Palazzo and Scherer, 2006). Here we can turn to critical systems heuristics and boundary critique. Critical systems heuristics (Ulrich, 1994) developed from a combination of Churchman and Habermas's work and helps to challenge the boundary judgments that are often made by experts or those in power against the interests of those who are affected but powerless. It consists of twelve critical questions, first asked in the "is" mode and then asked in the "ought to be" mode, that aim to reveal the partiality of the judgments that have been made over which facts and values are relevant to the design. This forces those in power to justify their boundary judgments and ultimately perhaps to change them. Midgley (Cordoba and Midgely, 2006; 2000) and Mingers (2006) have also developed methods for challenging and questioning boundary judgments.

With respect to the second aspect, representation, this is clearly necessary in many cases, although the internet does offer the potential for mass participation, but is a complex area. Representatives can be chosen in many ways – elections, random sampling, ad hoc, convenience etc and each has its own benefits and problems. Parkinson (2006) provides a comprehensive review within the context of practical real-world attempts at deliberative democracy.

The concern with universalization in discourse ethics can be related directly to debates in the IS field, and a good illustration of this concerns the so-called 'digital divide' (Warschauer, 2003). This involves lack of access to digital technologies but also the social, cultural, educational and linguistic contexts that affect whether people are able to utilize technologies effectively even if they have access. Thompson (2004) provides an interesting case study of the World Bank's 'Global Development Gateway' that aims to provide a global forum for debate about development issues. However, Thompson argues that the forum excludes the views of many bottom-up and local development groups and can be seen as a form of land-grab by the Bank in defining the meaning of 'development' and thus, ironically, a form of digital divide in itself. The focus on universalization in discourse ethics relates directly to Thompson's concerns about who participates on the Development Gateway, who are the silent voices and how could they be better represented.

One response to concerns such as these is to undertake 'digital inclusion' projects, designed to provide access to particular targeted groups, but also to provide various types of support for learning and capacity building. For example, Madon et al (2009) describe three such projects, namely the Akshaya telecentre project in the state of Kerala in India (Madon, 2005), a community-based ICT project in a town in a rural area of South Africa (Phahlamohlaka, et al., 2008) and the efforts of various agencies on telecentre projects in the mega-city of São Paulo in Brazil (Macadar and Reinhard, 2006). The cases demonstrated a wide variety of experience in the three cases and a complex mix of success and failure of the digital inclusion projects, for example in whether they were sustainable over time or whether they could be scaled to include larger numbers of people and more communities.

What is the potential contribution of discourse ethics to this important topic area? Madon et al (2009) derived four processes of institutionalization which they argued to be of key relevance to digital inclusion projects in developing countries, and it is interesting to note that two of these are strongly related to the discourse processes between stakeholder groups. One of these was 'getting symbolic acceptance by the community', a process involving extensive participation, debate and eventual consensus within the community who were targets for the digital inclusion project. A second involved 'enrolling government support', concerned with linking of the community and local government through discourse in order to try to arrive at a community/government consensus on action. Whilst discourse ethics is not the only theoretical schema of relevance to digital inclusion debates, we are suggesting that it offers a potential new way to look at the discourse processes that were argued to be of key importance in the above literature.

Legitimacy and Effectiveness

A major strength of DE is its recognition of a plurality of types of issues. Consequentialism tends to focus on economic aspects; communitarianism and virtue ethics is valuable but has no standpoint outside of different cultures or religions to attempt to deal with the major divergences that exist in today's world; and Rawls also finds it difficult to deal with this problem, simply assuming that different traditions will have enough in common to generate agreement. DE accepts that all three types of issue exist and can be resolved in different ways. In principle the distinctions are clear – pragmatic issues assume agreement among those involved about goals and values; ethical issues accept that there are genuine differences between individuals and groups but that these can be tolerated; while moral issues are those that genuinely require the agreement of all affected.

However, in practice things are not so straightforward. Habermas tends to assume that an issue or question will be either pragmatic, or ethical, or moral. Or, he sees a process in which issues that begin as pragmatic then become problematized as ethical or moral. However, we think it more likely that complex issues may well involve aspects of all three, or that the three offer different perspectives or lenses on a complex issue, possibly held by different stakeholders. For instance, let us take the environment as an issue. We can see that this must in part be a moral issue since the health of the planet concerns all human beings. But we can also see that peoples' reaction to it in terms of becoming vegetarian or going carbon neutral could be ethical issues on which individuals or groups could differ. Finally, some aspects such as making plane engines more efficient or improving alternative energy sources could be seen as purely pragmatic. But, there could be debate over even this with some groups, e.g., President Bush's government, trying to maintain that the whole question is a pragmatic one that will ultimately be solved by technology.

This means that the distinctions which seem clear in theory are not in practice and may well require considerable practical debate to sort them out. Habermas (1993a) and Apel (2001) do recognize that, even when norms have been agreed, there may be a practical problem in deciding whether or not a particular norm applies in a given situation and they accept the need for further debate in what they call discourses of application (rather than justification).

Here again, SSM can be of use, not least because it contains within it concepts that are clearly relevant to DE, namely CATWOE[4] and the 3(5)E's[5]. CATWOE is used as a checklist and

[4] **C**ustomers, **A**ctors, **T**ransformation, **W**eltanschauung, **O**wner, **E**nvironment

[5] Efficacy, Efficiency, Effectiveness, sometimes augmented by Ethicality and Aesthetics. We have added in "Equity".

contains reference to three groups of stakeholders – Customers, who may be beneficiaries *or victims* of the system; Actors who carry out the system's activities; and the Owners of a system. The 5E's are used to monitor and control the system's activities and can easily be aligned with DE:

- E1 **Efficacy**: does the system work and do what it is supposed to? (**Pragmatic**)
- E4 **Ethicality**: is the system compatible with the values of stakeholders? (**Ethical**)
- E6 **Equity**: is the system fair and just for all affected? (**Moral**)
- E3 **Effectiveness**: does the system meet the owners' aspirations in the long term? This has to take into account all the other criteria in the same way that legitimacy does for law.

There is an implied ordering between these: the overall goal is effectiveness, the long-term success and sustainability of the system's owner and this obviously requires that the designed systems actually work. However, this is not enough for efficacy must be subordinate to ethicality – the system must not contravene the authentic values of those who use and are affected by the system. And ethicality in turn is subordinate to morality – individual or group visions of the good life cannot override what is fair and just for all (Habermas, 1992b).

In any real-world situation there will be a complex interplay of pragmatic, ethical and moral issues, and probably differing viewpoints about them. It is tempting for managers to stick with the efficacy question and concentrate on developing systems that at least work, for that is often difficult enough witness the many, public IS failures. But, we would argue, long term effectiveness and sustainability require that responsible managers engage with the moral and ethical issues as well. Discourse ethics provides a rigorously justified procedural framework for this task, although one that needs to be adopted in a pragmatic fashion, aided by well-tested methodologies for shaping and facilitating discourse.

A specific IS example involving issues of efficacy, ethicality and equity is the proposed introduction of biometric identity cards in the UK (Whitley, et al., 2007). There are major pragmatic concerns as to whether these will 'work' in technical terms. Whitley and Hosein (2008) note that, by choosing a high-tech solution, drawing on the state of the art in biometric technologies, the scheme is also high-risk. However, there are also important ethical concerns as to whether the identity cards are acceptable to a wide range of individuals and stakeholder groups, for example by increasing the possibilities for identity theft. The scheme is targeted to reduce identity theft, by providing a unique individual identifier but, ironically, this could have the effect of increasing it, because the identity thief could obtain all the necessary information in one central place.

In addition, from the perspective of discourse ethics, a third question is whether the identity card project will be fair and just for all those affected? There are major concerns that the system involves a centralized register that could be used to analyze and target specific individuals or groups in a discriminatory way. More generally, is the project a step too far in central government surveillance and the invasion of personal privacy (Whitley, 2009)? We are not trying to answer these questions here, but merely to argue that discourse ethics offers a potentially valuable theoretical framework in investigating complex socio-technical systems such as the UK identity card project from the interlinked perspectives of efficacy, ethicality and equity.

The identity card project can also be used to illustrate a further theme of relevance to the IS community and to discourse ethics, namely the role of academic IS departments in policy

debates about such projects. Extensive work, including that referenced above, has been carried out by staff at the London School of Economics, and they have clashed with the UK government on a number of occasions over the issue (Whitley, et al., 2007). If we adopt the principles of the need for discourse between stakeholder groups, the importance of universalization and the pursuit of the just, the good and the practical, then the participation of the LSE in the debate should surely be welcomed. Yet Whitley et al (2007) argue that a moral of their story is that universities should only contemplate undertaking such policy research if their governing body is willing to stand full-square behind its academics, and to resist all forms of political pressure.

CONCLUSIONS

We have argued in this paper that ethics is important for the practice of IS in the contemporary world, and thus is also highly relevant for IS research and teaching. The distinctive contribution of this paper is the first analysis of the potential of discourse ethics for IS in the mainstream IS literature. We have discussed how the theory could be applied, or pragmatized, to a range of IS topic areas including Web 2.0 applications, open source software, the digital divide and the UK biometric identity card scheme. A detailed analysis of each of these areas through the lens of discourse ethics would require at least a full paper for each area, and this is beyond the scope of the current paper. However, we believe that we have provided a good starting point for such analyses in the future through our description of the key elements of discourse ethics and some indicative material on the distinctive contribution which it has to offer to such topic areas.

If ethical issues are important for the IS field as a whole, then they are also important in terms of IS teaching. We have noted earlier in the paper that much of the literature on ethical issues with respect to IT/IS is located outside the mainstream IS journals. We have reviewed some of this literature in the current paper and we hope therefore that this can provide a valuable starting point for IS teaching on ethical issues. In addition, we have articulated the particular contribution of discourse ethics, and we have argued that it has high potential as a way of exploring contemporary IS issues. Our paper could be used as a way into the literature on discourse ethics which would be readily accessible to IS students, since the paper is oriented specifically to the IS field

Finally, what about IS practice? We started the paper with a reference to the Sarbanes-Oxley Act as an example of the contemporary relevance of ethics for IS practitioners. Although discourse ethics could be considered somewhat abstract and idealized, we have discussed in the paper how it could be pragmatized for practical application. For example, we have shown how existing techniques and methodologies such as soft systems methodology, critical system heuristics and the three dimensions of efficacy, ethicality and equity can be used to support practical analyses of particular ethical topic areas. We believe that our paper provides one way forward for the investigation of ethical issues in IS practice and, more generally, provides a contribution to raising the profile of ethics in the IS field as a whole.

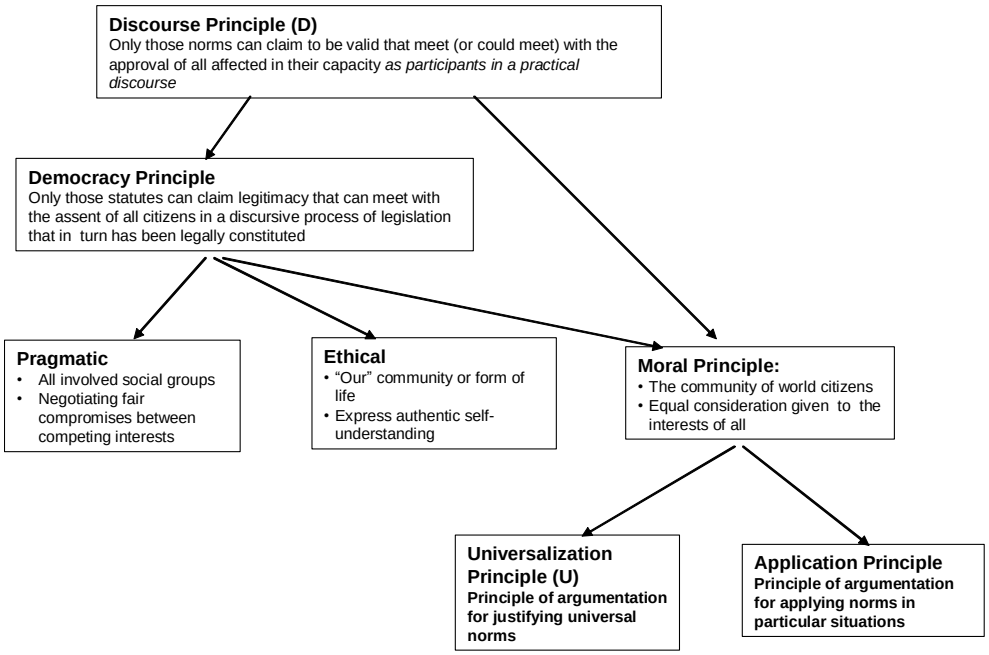

Figure 1 Relationships between Principles of Discourse

Approach of discourse ethics	**Existing techniques and methodologies to support this approach**	**Example IS application areas**
The discourse process	• Small groups – SSM/GSS/JAD • Larger groups – nominal group technique, team integrity etc	• Internet to facilitate improved discourse and debate • Web 2.0 applications: wikis, blogs, social networking • Open source software movement: accommodations or genuine consensus?
Universalization	• Critical systems heuristics • Questioning of boundary judgements	• Digital divide: who participates? • Digital inclusion projects: need for discourse process between stakeholder groups
Legitimacy and effectiveness	• SSM CATWOE • Efficacy, ethicality and equity	• Biometric identity cards: will they work; are they acceptable to particular groups; are they fair and just? • Role of academic IS departments in discourse process

Table 1. Pragmatizing Discourse Ethics for the IS Field

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