JETS 28/3 (September 1985) 335-342

EVANGELICALS AND THE ETHICS OF INFORMATION TECHNOLOGY

Kenneth W. M. Wozniak*

The set of problems addressed in this paper is that of the moral challenge born of what I term the "society of information." Since the term "society of information" can be a nebulous one, perhaps the best place to begin is with a descriptive definition.

The information society has been characterized by John Naisbitt as a society in which information is the strategic resource. This is seen in contradistinction to the industrial society, where the strategic resource is money. Naisbitt argues that "we now mass-produce information the way we used to mass-produce cars." This focus of effort takes most of the time and energy of most Americans, including attorneys, teachers, technical people, medical workers, newspaper reporters, and even clergy. In short, "the creation, processing, and distribution of information *is* the job."[1]

Naisbitt is not the only one warning of major fundamental social changes. Simon Ramo, co-founder and director of TRW, recently spoke of the changes that the information deluge will bring. Understanding information as the driving force behind human activity, Ramo predicted that "all pursuits of our civilization—production, transportation, finance, research, education, government—will be engaged in reorganizing, since key to all is information flow."[2] As a telecommunications professional in the field of banking I observe on a daily basis the truth of Ramo's prediction. Banking procedures, from the persepctives of both the bank and the customer, are being revolutionized by the reality of rapid information transmission. For example, a cash withdrawal is no longer understood as a process that involves interaction between an account holder and a teller at a bank office but rather as one that necessitates a plastic card, a computer terminal, and the punching of a few keys at any of several thousand ATM locations across the country, not necessarily at bank locations. That change in our everyday experience is a direct outgrowth of society's preoccupation with the importance of information. It also reflects the value we place upon rapidly advancing technology, particularly computer technology.

Douglas Johnson sees that professional success or failure is based on the degree to which one can gain and use information. In short, "the unsuccessful

*Kenneth Wozniak is vice president and telecommunications planning manager at City National Bank in Los Angeles, California.

[1]J. Naisbitt, *Megatrends* (New York: Warner, 1984) 4–7.

[2]S. Ramo, "Righting the Balance: A Graduation Speech for the Year 2000," *USC Trojan Family* 17/9 (Los Angeles, July 1985) 15.

will have little money and not be either able to use or have access to computers."[3]

The computer is becoming so pervasive, particularly in our educational system, that Jeremy Rifkin observed that many educators feel that young people now understand the world as being something of a global computer system, transforming all of nature into information bits. Behavior is nothing more than information processing, and society is often understood in terms of its communications capabilities. Corporations, once viewed as generators of revenue, now are viewed as information systems with information processing at the top of the corporate pyramid. Some, Rifkin remarked, go so far as to see information as life's fundamental category.[4]

Our faith and life are not immune to these changes. The professional efforts of many believers are dedicated to the processing and movement of information. In fact, some of the leading innovators in information-related fields give evidence of being committed believers. Pacific Bell recently sponsored a conference whose theme was fiber optics and high-speed information transfer. One speaker strongly encouraged his hearers to attend church the next Sunday, which was Easter. Another concluded his presentation with these words: "I offer you the blessing of the Lord's resurrection."[5] My point is simply this: As believers we are immersed in the reality of the information society. We cannot escape it or its effects. We must be ready to confront both.

If, as we are being told, modern society is in the throes of a major reorganization based on information-related concepts, then we most certainly will face new moral challenges in the next few years. For example, consider the current efforts to merge the computer and living material into what is becoming known as the "biochip." One researcher in this field states that his aim is to fabricate a computer that can design and assemble itself through the regenerating mechanism common to all living tissue. According to this way of thinking, living beings are nothing more than information programs that perform in a predictable manner.[6] This understanding of the meaning of life certainly is a new challenge to those of us who affirm that somehow we are more than information programs since we are created like God. Yet how are we to answer the challenge?

The information-processing industry, being but four decades old, does not have the luxury of looking to a tradition of ethical reflection as do the medical and legal fields, for example. This paucity of moral argumentation makes even the framework for ethical thought a point of controversy. Some of us are seeking to develop an approach that appeals to the integrity of the individual, stressing the need to develop commitments based on personal reflection on the moral

[3]D. W. Johnson, *Computer Ethics* (Elgin: Brethren Press, 1984) 85.

[4]J. Rifkin, "The Other Half of the Computer Revolution," *Datamation* (May 1983) 262, 273.

[5]Quoted from D. Zatyko, "The Future of Fiber Optics and Integrated Applications for the Office and Factory," April 4, 1985; J. Ryan, "T1 Applications: Maximizing Your Network Opportunities," April 5, 1985, Texpo '85, Anaheim Hilton and Towers.

[6]Rifkin, "Other" 262, 273.

issues involved. Codes, while helpful at times, are insufficient to address the complexity of information processing ethics that we all are or soon will be encountering. Others—perhaps the vast majority—are attempting to structure computer-related ethics on the model of external rewards and punishments—even monetary ones—in an effort to encircle the new moral issues with a corral of standards of conduct. Individuals are not to struggle with ethical dilemmas but rather are to live according to the standards irrespective of the extent of their applicability.

In spite of the controversy over methodology, one viewpoint is emerging as dominant among ethicists and futurists dealing with ethics in the information society—that is, that the Judeo-Christian ethical tradition is irrelevant as a guide for decision-making in a complex, technological culture. One futurist from the University of Minnesota, when discussing a future in which people will have the option of marrying robotic creatures that are indistinguishable from humans, remarked that "the theologians are basically unwilling to deal with any of this." He went on to point out that theologians are so used to understanding God in anthropomorphic terms that "when you talk about machines that think, which are not in the shape of humans, they just don't know how to deal with it."[7] Douglas Johnson's observation is that most religious leaders' concerns, when it comes to computers, focus on the usefulness of the machine to the congregation, the need to find someone who can use the computer, the money needed to purchase the thing, and the inability to determine the particular components necessary.[8] My own experience, having recently served on my church's computer study committee, is that Johnson's opinion is substantively true.

The Fourth National Conference on Business Ethics, held at Bently College a few years ago, focused upon ethics and computer technology. One of the contributors summed up his opinion this way: "We have reached the limits of the personal ethics of the Judeo-Christian tradition. It is just an absolute bust in providing any kind of moral guidance to any serious person in a complex community, in an institution, in a school, or in a corporation. . . . The standard ethical values echoed in the business community are the milksop banalities of a semisecularized ideology, Christianity. . . . The consequence of this is that in an increasingly complex world the individual cannot ethically cope. . . . Corporate ethics is an intellectual wasteland and a spiritual desert."[9]

This, then, is the challenge before us: that we as evangelicals offer moral leadership in the exploding field of information processing, a field that is increasingly transforming the fabric of the society that clothes all of us. I propose that we begin by examining more closely some of the new ethical perplexities that confront us.

[7]M. Zientara, "Marry a Robot? Futurist Says Yes by Year 2000," *Computerworld* (May 17, 1982) 19.

[8]Johnson, *Computer* 109.

[9]J. F. Coates, "Computers and Business: A Case of Ethical Overload," in *Ethics and the Management of Computer Technology* (ed. W. M. Hoffman and J. M. Moore; Cambridge: Oelgeschlager, Gunn and Hain, 1982) 3.

If we are to get a handle on some of the moral problems associated with the information society, it is important that we form some kind of structure for analysis. We have already noted some of the perplexities, such as the efforts to produce the biochip or the reorganization of society around its new strategic resource: information. Yet these issues as well as others fall within the limits of a few categories, three of which appear to me to encompass most of the issues. Some ethical challenges question our understanding of the value of persons, others foster increasing dependence on the information business, and still others focus on the theme of control.

One way in which we show the high value we place on persons is through our view of human life itself as something sacred. In light of that view our moral faculties are offended when, for example, Arthur Hopkins, the University of Minnesota futurist mentioned previously, predicts that humans will be replaced by "living" robots, based upon the biochip, as early as the year 2000.[10] Should we not be morally outraged when he embellishes his prediction with the suggestion that human spouses will be displaced by humanoids and gives support by citing Japanese experimentation with robotic sex organs?[11]

Johnson warns us that making computers into substitute persons actually can be attractive, since a computer "doesn't nag, whine, criticize, or belittle. It doesn't change moods or get tired."[12]

Our view of the nature of humanity reflects, from a slightly different angle, the value we place upon persons. As believers we hold in highest regard the value of the individual, for each person is created by and like God. That value is compromised, however, when for the sake of increasing efficiency and profits many job requirements now increasingly involve heavy use of video display terminals. Those terminals have been linked to higher incidence of eyestrain, metabolic illness, angina and miscarriages. We need to remember that our secretaries in churches and Christian colleges are not immune. Perhaps along with our concern over the abortion issue we should give more attention to statements such as the one quoted recently from Charles Wallach: "From 100 to 150 infants out of every 1000 born to VDT operators may fail to survive or be seriously handicapped."[13]

A third way we express our convictions regarding the value of persons is through our social relationships. As believers most of us would assert that our relationships should be of the highest quality and deepest commitment, patterned after the relationships among the persons of the Godhead. Recent and upcoming technologies, however, challenge that view. I have already mentioned the suggestion that the marriage relationship would be improved if humanoids

[10]M. Zientara, "Human Race Predicted to Die In Favor of 'Living' Robots," *Computerworld* (May 17, 1982) 18.

[11]Zientara, "Marry" 17.

[12]Johnson, *Computer* 60.

[13]R. T. Fertig, "VDT/Miscarriage Link?", *Management Information Systems Week* (June 5, 1985) 8. See also C. McMorrow, "What are the Potential Biological Hazards of Radio-Frequency and Microwave Radiation?", *Communications News* (September 1985) 29–34.

were substituted for human spouses. The book editor of the *Los Angeles Times* broadened the challenge. He envisioned a time when the quality of our social lives will become so unpleasant that we will opt for the alternative that the information society offers: We will retreat into our electronic cottages, "each at his or her terminal, transacting the business of life with electronic blips."[14]

Although these moral challenges are not unique in human history, they do add a new twist to the struggle to know who we are and how we should relate to others. At minimum we should be aware of the fact that not all is innocuous when it comes to advancing computer technology.

The question of dependence is often raised when we reflect on ethics and information or computer technology. Microelectronics certainly has its positive aspects, such as the ability to provide us with desired information quickly. However, when we reorient our lifestyles to the advantages of computers we also surrender some of our independence. Taken to an extreme, computer dependence turns into a life orientation. When found in the home this orientation has serious effects on family relationships. On a national and international level we have only to think of the current technique for making decisions regarding nuclear attacks. Computers now determine when incoming missiles are approaching the United States. Our decisions regarding response are based on the determinations made by those computers. We are dependent upon them. We recall with horror the number of times malfunctioning computer parts, each costing but a few pennies, have nearly led us into nuclear war. My simple observation is that in an information society we increasingly become dependent on computers and hence surrender more and more of our ability to make independent judgments. Just as it is a reversal of creation for God to be subject to persons, so we find ourselves in a moral dilemma when we become dependent upon our creations, the computer and its attendant information society.

Perhaps more crucial than the category of dependence is that of control and power. There seems to be little challenge now to the contention that access to information "is one of the preconditions of social, economic and political power."[15] Certainly governments function under this conviction. David Noble argues that the notion of total control has become the conscious focus of attention of science and technology and has become contagious.[16] Apparently information is seen as the hub around which revolve the issues of societal value, power, security, comfort and affluence, and is the primary commodity that separates the "haves" from the "have nots."[17] Is it any wonder, then, that the information professions are commanding so much attention from corporate boards?

The need, I feel, is to be able to use Scripture as the authority for addressing the moral environment surrounding the information society. Since there is no tradition of ethical reflection on computer-related moral problems, we should

[14]"Art Seidenbaum, Book Editor, L. A. Times, Entertains MAP," *CNB News* 21/2 (February 1983) 6.

[15]J. Williamson, "Social, Economic Inequities Fuel Arguments for Data Flow Strictures," *CommunicationAGE* (June 1985) 39.

[16]D. F. Noble, "Is Progress What it Seems to Be?", *Datamation* (November 15, 1984) 142.

[17]Johnson, *Computer* 9.

not be surprised when we realize that it is difficult to bring Scriptural teaching to bear upon these issues. Nowhere, for example, do we find a passage where David or Paul reflects upon the impact of the IBM PC upon social institutions such as the family, the workplace, or the local gathering of believers. We look in vain for a passage where Jesus discusses the psychological and physical effects of video-display terminals. It is no wonder, then, that many of the technologically sophisticated conclude that the Judeo-Christian ethical tradition is outmoded and look for another source of moral guidance.

I suggest that the critical conclusion we are hearing is premature, reflecting an attitude that understands the Bible to be nothing more than a code of ethics, replete with lists of "dos" and "don'ts" similar to other codes with which we are all familiar. Scripture, however, is not a moral code but a moral authority. To understand the difference is to realize how Scripture can provide ethical guidance, even in areas with which it does not directly deal. We can begin to understand that difference if we review the nature of moral authority.

It is helpful to recognize three types of moral authority: executive, epistemic, and exemplary.[18] Executive authority is enforced through the use of power. Government functions primarily in an executive fashion, using force when necessary to ensure that its will is carried out. Epistemic moral authority is based on superior or more extensive moral knowledge. Such authority may reside in an individual, an institution or community, or a book. Paul's argument regarding meat offered to idols is a good example of a moral case built upon superior knowledge—namely, that idols do not really exist and that eating meat offered to them does not in reality defile us. This kind of authority serves to help us address specific moral perplexities.

The third kind of moral authority, the exemplary kind, is displayed through model behavior or attitude. In it we find overarching values, a particular kind of moral approach to situations, and a lifestyle. Typically it is best conveyed through the telling of a story. As evangelicals we recognize one life as supremely exemplary: the life of Jesus Christ. When we retell the story of his life we are employing exemplary moral authority.

I propose that it is through the collective exemplary moral authority found in Scripture that we can address the difficult ethical situations found in the society of information. It is through the telling of the Christian story—that is, the Biblical story of the history of our faith—that we draw from Scripture the moral approach applicable to the ethical perplexities of the information society. We also draw from the story the moral empowerment necessary to be able to act in a morally upright manner. Jesus illustrated this concept in his own approach to moral situations. Consider, for example, the situation in which the Lord broached the topic of "neighbor." Recall that he did not appeal to a theological or moral system, nor did he give ethical principles. Rather, he told the Good Samaritan story. Having done so, his only prescriptive comment was to go and act as the Samaritan in the story acted. From that story we not only learn how we should approach others but we are empowered so to act. Notice

[18]For a more complete explanation of moral authority see R. T. DeGeorge, "Authority and Morality," in *Authority* (ed. F. J. Adelmann; The Hague: Martinus Nijhoff, 1974).

also that without the actual telling of the story we are not so empowered. The telling of the principles drawn from the story is not like telling the story itself. Furthermore, it is through the customizing of the story in a manner particularly applicable to the moral situation at hand that the moral authority of Scripture is contextualized. In our case, it needs to be contextualized for the culture of the information society.

When it comes to the three moral challenges posed by the information society we need to look for the elements of the overall Christian story that give both moral guidance and moral power. When approaching the suggestion that a super-humanoid, based upon artificial intelligence and the biochip, is an improvement upon and will do a better job than that which God formed from the dust of the earth, we need to go back to the story of creation. Through that story we learn what it means to be human, and we realize that dominion over everything else is both our right and our privilege. No human creation may usurp that uniquely human position. The concern of Jesus for the health of persons, even in the face of the structure and rules of the Sabbath, should guide our policies regarding the use of VDTs on the job and the way companies view their employees—a resource more valuable than information. When it comes to the proper attitude toward relationships among persons and the proposal to replace spouses with robotic mates, what element of the Christian story could be more appropriate than the *kenosis* passage? Through his own life Jesus offered us a model for attitude and action that shows that a sophisticated integration of microelectronics, artificial intelligence and biochips falls far short of the divine design for intimate human dynamics. What a waste of life it would be if we succeeded in following Jesus in self-sacrifice, only to have as the object of our self-sacrifice a computer rather than a person!

When I reflect upon our increasing dependence upon computers, I am immediately thrown back to the story of the rich ruler. Jesus accurately realized that the ruler's problem was that his life was oriented around money. In a similar manner, our society's increasing dependence on computers is producing individuals whose entire lives (work, play, rest, personal business) are oriented around information processing. Computers, just like money, are not inherently wrong, but our dependence on them must be controlled if we are to be dependent ultimately on God. Similar to the rich ruler, when we get to the point that our fascination with information interferes with our fascination with God we must give it up.

The issue of control and power brings to mind any number of stories from the history of God's people. We could reflect upon the exodus, or the ambition of James and John to sit on the right and left of Jesus, or perhaps the efforts on the part of Jesus' followers to make him a political force and thus secure power for themselves. In my own thinking the most striking incident comes from the temptation experience of Jesus. He was offered power and control if only he would compromise his fundamental commitment and his relationship to God. That compromise, it seems to me, characterizes much of what we see in the information society. Individuals and corporations are controlling the computer industry as a means to societal power, irrespective of the resultant increasing gap between themselves and the powerless of society. That certainly is a far cry from God's design for how we should exercise dominion over the

creation. Our reaction to such a temptation should emulate that of Jesus: We should reject it.

The moral dilemmas presented by the information society are difficult, and my use of certain elements of the Christian story to address them is but an initial attempt. The difficulties will become more complex in the next few years as information theories are transformed into physical realities. The challenges certainly will be there for anyone who wishes to accept them. If we understand Scripture as presenting a unified, morally authoritative Christian story, we can develop an ethical hermeneutic through which we can address those challenges, and we can demonstrate that our Biblically-based ethical approach is still viable, even in the face of the society of information.