

CHRISTIAN SCHOLARSHIP AND THE PHILOSOPHICAL ANALYSIS OF CYBERSPACE TECHNOLOGIES

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I. THE CHALLENGE TO THE CHRISTIAN SCHOLAR

The recent explosion of cyberspace technologies in modern culture raises some salient questions for Christian scholars who endeavor to bring a Christian mind to bear on the analysis of these computer-mediated forms of communication. Responsible Christian scholars should serve both the Church and the culture at large by bringing Biblical tools of cultural analysis to the matters at hand. We should emulate the Hebrew tribe of Issachar “who understood the times and knew what Israel should do” (1 Chr 12:32). As Christians we are commanded to “take every thought captive to obey Christ” (2 Cor 10:5) and to be “transformed through the renewing of our minds” (Rom 12:2) in order to know the will of God in our day. These imperatives are especially cogent for the Christian scholar, whose public role of articulating perspectives to students, peers and the population at large constitutes an important teaching ministry. Although we may not teach in a local church in an official position, Christian scholars face the challenge of sober and careful thinking, writing and public speaking, for “we who teach will be judged more strictly” (Jas 3:1).

Those who hold a Christian worldview need to discern the nature and function of cyberspace interactions in order to appraise rightly their significance, worth, and potential for the Christian cause and the culture at large. Several recent philosophical and cultural analyses of cyberspace and its culture have applied various non-Christian viewpoints from postmodernism to pantheism. One’s philosophical orientation will to a large measure determine which questions to ask and what proposals to make with respect to cyberspace. For instance, Jeff Zaleski repeatedly asks the question of whether cyberspace can transmit *prana*, a Hindu term for spiritual energy.¹ For Christians who do not believe in the existence of *prana* (an impersonal pantheistic force) the question is moot.²

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¹ J. Zaleski, *The Soul of Cyberspace: How New Technology Is Changing Our Spiritual Lives* (San Francisco: Harper, 1997).

² Nevertheless a Christian apologetic against pantheism may be marshaled at several levels; see D. Groothuis, *Confronting the New Age* (Downers Grove: InterVarsity, 1988); D. Clark and N. Geisler, *Apologetics for the New Age* (Grand Rapids: Baker, 1990).

A thoroughly Christian analysis of cyberspace brings to bear the questions and imperatives that flow out of a Biblical understanding of life, such as how the Holy Spirit—not *prana*—may or may not operate in computer-mediated communication. This presents a challenge to the Christian scholar, since Scripture was written to a pretechnological culture. Nevertheless those who take the Bible as God's inspired revelation believe that it continues to be "useful for teaching, for reproof, for correction and for training in righteousness, so that everyone who belongs to God may be proficient, equipped for every good work" (2 Tim 3:16–17).

This project is multifaceted, and I will not touch on important matters such as electronic privacy (surveillance and encryption), copyright policies, on-line pornography, the nature of artificial intelligence, and so forth. I will focus on the definition and nature of cyberspace (metaphysics), how this medium shapes its message in one particular dimension (social epistemology), and how Christians should resist any cyberspace orientation that diminishes the incarnational or embodied reality of the Christian enterprise (theological ethics).

II. WHAT IS CYBERSPACE?

The term "cyberspace" was coined by the fiction writer William Gibson in his novel *Neuromancer* in 1984. It is a compound neologism formed from "cybernetics" ("the study of the communication and manipulation of information in service of the control and guidance of biological, physical, or chemical energy systems"³) and "space." Gibson wrote imaginatively of minds "jacking in" to cyberspace by literally entering the world of computer information through a kind of digital incarnation in which the flesh becomes data, but the term cyberspace more generally refers to the information interface between computers and humans. It is the place or space where human consciousness and computer systems meet or, in Michael Heim's words, "the juncture of digital information and human perception."⁴ This may involve something as relatively pedestrian as typing out a conference paper using a word-processing program or as exotic as exploring virtual worlds through virtual-reality technologies that simulate several sensory modalities for purposes ranging from entertainment to scientific research.

John Perry Barlow believes that cyberspace involves the virtual presence of other people, which would not include the solitary task of using a word processor: "Cyberspace is any information space, but it's interactive information space that is created by media that are densely enough shared so that there's the sense of other people being present."⁵ Similarly Charles Ess sees cyberspace as "the peculiar space/time created by literally millions of human

³ F. Adams, "Cybernetics," *The Cambridge Dictionary of Philosophy* (ed. R. Audi; New York: Cambridge University, 1995) 173–174.

⁴ M. Heim, *The Metaphysics of Virtual Reality* (New York: Oxford University, 1993) 180.

⁵ As quoted from an interview in Zaleski, *Soul* 29.

beings around the globe communicating with one another via computer networks.”⁶ Although cyberspace often refers to the interaction between people as mediated through computers, particularly via the Internet, its more basic meaning need not involve the interpersonal dimension. My interaction with a CD-ROM takes place in cyberspace, but this does not involve the presence of or interaction with another person during the digital encounter.

III. METAPHYSICS AND SOCIAL EPISTEMOLOGY

Any epistemological or ethical analysis of cyberspace must come to terms with the metaphysics of cyberspace in its diverse manifestations. Some, including far too many Christians, may simply assume that the only effect of cyberspace communications is to speed up and extend information transfer, making more information more available to more people. Since acquiring knowledge is generally considered a human good, cyberspace technologies are deemed mere tools for more expedient and creative information transfer, to be used for good or evil depending on the motivations of the participants. This approach is what Marshall McLuhan referred to as technological somnambulism, or sleepwalking through technological change, by assuming that radically new technologies do not produce radically new social arrangements or uniquely shape whatever content they contain.⁷ Hence McLuhan’s famous saying “The medium is the message”⁸—or, as he preferred to say at a later time, “Any technology or extension of man creates a new environment”⁹ after the image of that technology.

Interestingly McLuhan’s inspiration for this insight was at least in part drawn from Scripture. “As an extension and expediter of the sense life, any medium at once affects the entire field of the senses, as the Psalmist explained long ago in the 115th Psalm.”¹⁰ McLuhan then quotes vv. 4–8, which speak of deaf and dumb idols of silver and gold made by humans who, in their idolatry, “shall be like unto them. Yea, every one that trusteth in them.” He adds that the “Psalmist insists that the beholding of idols, or the use of technology, conforms men to them. ‘They that make them shall be like unto them.’”¹¹

In this passage McLuhan moves from idolatry to technology quite effortlessly, without any elaboration. But he does not, in Luddite fashion, reject all technology as idolatry. Rather, his point is that technological innovations invariably end up acting back on their creators, often in unforeseen and even

⁶ C. Ess, “Introduction: Thoughts along the I-way: Philosophy and the Emergence of Computer-Mediated Communication,” *Philosophical Perspectives on Computer-Mediated Communication* (ed. Ess; New York: State University of New York, 1996) 1.

⁷ M. McLuhan, *Understanding Media: The Extensions of Man* (Cambridge: MIT, reprint 1994) 11.

⁸ *Ibid.* 7–21.

⁹ *The Letters of Marshall McLuhan* (ed. Matie McLuhan, C. McLuhan and W. Toyes; New York: Oxford University, 1987) 309.

¹⁰ McLuhan, *Understanding Media* 45.

¹¹ *Ibid.*

unforeseeable ways. McLuhan's insight, forged from Biblical materials (at least in part), is "that of the Psalmist, that we become what we behold."¹² Our perceptive and cognitive habits are altered and routinized through the uses of various technologies, whatever their content. Thus McLuhan warns that the "conventional response to all media, namely that it is how they are used that counts, is the numb stance of the technological idiot."¹³ Given that new technologies form new intellectual, perceptive and imaginative environments (whatever their content), they are not epistemologically neutral—mere shells to be filled with truth or falsity, reason or unreason. Each electronic medium establishes certain "conditions of sentience"¹⁴: The radio provides disembodied sounds, the television incandescent, shifting images and sounds, and so on. Our habituation to these technologies establishes in us certain patterns of attention and inattention with respect to every aspect of our experience.

The conditions of sentience are typically in the background of our awareness. As McLuhan notes, they are invisible to our view.¹⁵ They normally serve as the context for how we approach reality, not as the focus of our investigations. Conditions of sentience should be distinguished from propositional content. For instance, the statement "God is absolutely holy" affirms a proposition. It makes a truth claim that is either true or false depending on whether that proposition corresponds to objective facticity (or its referent). The statement "God is absolutely holy," however, may appear in any number of different media: It can be flashed on a television screen for three seconds followed by a Bud Lite commercial; it can be spoken during a religious radio program; it can be uttered by an actor playing a religious fanatic in a Hollywood movie; it can be sung by a Christian musician on a CD. How the proposition is received and understood depends crucially on the conditions of sentience, whatever the truth value of the proposition may be.

These reflections on the nature of media are meant to underscore the close relationship between epistemology and the sociology of knowledge. The sociology of knowledge is concerned with the belief-forming, belief-maintaining and belief-transforming factors operative in human cultures. Or, as Peter Berger and Thomas Luckmann put it,

the sociology of knowledge must concern itself with whatever passes for "knowledge" in a society, regardless of the ultimate validity or invalidity (by whatever criteria) of such "knowledge." And insofar as all human "knowledge" is developed, transmitted and maintained in social situations, the sociology of knowledge must seek to understand the processes by which this is done in such a way that a taken-for-granted "reality" congeals for the man in the street.¹⁶

¹² Ibid. 19.

¹³ Ibid. 18.

¹⁴ This is a variation on the phrase "arena of sentience" used by S. Birkerts, who participated in the discussion "What Are We Doing On-Line?", *Harpers* (August 1995) 39.

¹⁵ This point is made throughout McLuhan, *Understanding Media*.

¹⁶ P. L. Berger and T. Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* (Garden City: Doubleday, 1966) 3.

For these writers the sociology of knowledge is really the sociology of belief, because such a study does not make any epistemologically normative judgment on the veracity of various beliefs (noted by the quotation marks around the word “knowledge” in the Berger and Luckmann citation), as is the duty of epistemology proper. But a combined study of epistemology and the sociology of knowledge—sometimes called social epistemology¹⁷—can address both the social factors that create and perpetuate certain beliefs and the epistemological questions as to the truth and justifiability of those beliefs.

Such scholarly inquiry is particularly pertinent to a cultural analysis of cyberspace, for electronic technologies engender social practices that affect our acquisition of knowledge. McLuhan points out that these involve more than articulated viewpoints. They penetrate to our sensibilities, our ways of comporting our sensoria. “The effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without any resistance.”¹⁸ Christian scholars should resist sleepwalking through cyberspace, since their Biblical model is to be mature with “faculties [that] have been trained by practice to distinguish good from evil” (Heb 5:14).

Since Christians should be concerned to communicate truth rationally and effectively (Isa 1:18; 1 Pet 3:15–16) as well as to interpret culture (including media communication) wisely, we need to give our attention to the ways in which “taken-for-granted ‘reality’ congeals for the man in the street” so we will know how to handle media in ways most conducive to truth-telling and truth-receiving (Eph 4:15). This means that we should scrutinize not only the content of cyberspace communication but also the very nature of cyberspace as a medium of information exchange in all of its diverse forms. We need to discern the strengths and limitations of this medium for various kinds of communication. For example, what sort of information is cyberspace communication likely to truncate or distort, and what sort is it likely to convey without distortion or diminution?

IV. ELECTRONIC VERSUS INCARNATIONAL COMMUNICATION

Given the importance of understanding how the medium of cyberspace shapes the message, the sender, the receiver, and the entire culture, I want to address several aspects of cyberspace experience with respect to the Biblical ideal of incarnational communication.

Cyberspace is often referred to as a disembodied medium because information is produced and exchanged through computers via telephone lines without the physical bulk of paper or the face-to-face element of conversation. Although much of cyberspace content is textual (like books and magazines), the space in which it is presented is the screen, not a discrete physical object such as paper. While inscribed documents contain only one message per page, screen text is not inscribed. It is put on an electronic display where

¹⁷ See A. I. Goldman, “Social Epistemology,” *Cambridge Dictionary of Philosophy* 746.

¹⁸ McLuhan, *Understanding Media* 18.

it can easily be deleted and replaced with other text. In cyberspace this electronic intangibility is combined with increased velocity. Through e-mail, for instance, messages can be sent at speeds far greater than letters. The less physically embodied or dense the messages become, the more easily they are distributed from one location to another.¹⁹ This is part of the cultural transition from a reliance on atoms (nonelectronic chunks of matter) to bits (units of electronic data), as Nicholas Negroponte²⁰ puts it: "The information superhighway is about the global movement of weightless bits at the speed of light."²¹ Of course bits are still physical entities (as opposed to being immaterial or spiritual), yet their physicality is more elusive and insubstantial than the world of tangible objects. Hence cyberspace interaction is perceived as weightless and disembodied.

Some who become immersed in cyberspace technologies lose a sense of their own bodies in the process. In a fascinating article Meghan Daum reflects on an intense romantic relationship she had with an amorous cyber-suitor. The textual exchanges began in a pedestrian fashion but eventually escalated into a virtual obsession for both Daum and "PFSlider" (the man's screen name). Daum spent hours composing and reading e-mail messages as well as engaging in real-time textual interactions. Later these interchanges were augmented by phone calls. The affair reached a level of passionate proportions without benefit of any physical interaction. Daum's comments on the nature of this relationship highlight the often disembodied character of cyberspace interactions:

And so PFSlider became my everyday life. All the tangible stuff fell away. My body did not exist. I had no skin, no hair, no bones. All desire had converted itself into a cerebral current that reached nothing but my frontal lobe. There was no outdoors, no social life, no weather. There was only the computer screen and the phone, my chair, and maybe a glass of water.²²

Daum reports that her later embodied encounters with PFSlider (or Pete in the real world) were less than torrid. The digital romance did not translate into the world of atoms, even though both participants had refrained from deception in their bit-by-bit exchanges. Daum says, "Unlike most cyberromances, which seem to come fully equipped with the inevitable set of misrepresentations and false expectations, PFSlider and I had played it fairly straight. Neither of us had lied. We'd done the best we could. Our affair died from natural causes rather than virtual ones."²³ The discrepancy between the natural and the virtual proved too much for their digitally-initiated romance to bear. "The world had proved to be too cluttered and too fast for us, too polluted to allow the thing we'd attempted through technology ever to grow in the earth."²⁴

¹⁹ See P. Virilio, *Open Sky* (New York: Verso, 1997) 141.

²⁰ N. Negroponte, *Being Digital* (New York: Knopf, 1995) 11–17.

²¹ *Ibid.* 12.

²² M. Daum, "Virtual Love," *The New Yorker* (August 25 and September 1, 1997) 82.

²³ *Ibid.* 88.

²⁴ *Ibid.* 89.

Daum claims the relationship died from “natural causes,” but her sad story is more likely a consequence of the disembodied and often distorted world of cyberspace. She claims that her textual exchanges with PFSlider had “an epistolary quality that put our communication closer to the eighteenth century than to the impending millennium,”²⁵ and yet she fails to note the titanic differences between correspondence by mail (now called “snail mail” by cyber-enthusiasts) and cyberspace interaction. Both media are textual and interactive. But the physicality of the personal letter (I am not considering form letters) slows down the pace of communication, giving the words a deeper sense of reality and providing more opportunity for reflection and deliberation. Moreover if letters are handwritten, something distinctively physical about the writer—that is, his graphic style—comes through. The electronic velocities of e-mail exchanges may carry along participants at a frenetic pace, only to deceive them in the end.

The ambience of cyberspace also tends to encourage an artificial intensity of pure information, largely divorced from the conditions of everyday life. Daum says that her cyber-relationship was “far removed from the randomness of real-life relationships. We had an intimacy that seemed custom-made for our strange, lonely times.”²⁶ The “intimacy” was that of controlled textual exchange, not a closeness borne of maneuvering through the vicissitudes of physical locations and the full range of sensory accompaniments.

Daum’s claim that her relationship died of natural, not virtual, causes seems wrong for another reason. It may well have been the artificiality of the cyberspace relationship—its hypertrophied velocities and one-dimensionality—that ruined her real-life encounter with Pete. The sensibilities engendered through cyberspace may have made the physical world seem too clunky, cluttered and random to sustain the fevered pitch and imaginative combustion of their digital interactions.

Daum’s account of the gap between bits and atoms, or between digital personae and embodied persons, illustrates a concern that applies to more than just romantic encounters. Given the proliferation of cyberspace contact, these sorts of problems may only increase.

At this point the Christian scholar can draw on the rich resources of the incarnation and its ethical entailments. Although God is essentially an incorporeal being, he created the physical world as good (Gen 1:31; 1 Tim 4:3–4). Despite the fall of human moral agents into sin through their disobedience, the second person of the Trinity deigned to enter the world by taking on himself a human nature. “The Word became flesh and made his dwelling among us” (John 1:14). In speaking of his relationship with Christ, John also reports: “That which was from the beginning, which we have heard, which we have seen with our eyes, which we have looked at and our hands have touched—this we proclaim concerning the Word of life. This life appeared; we have seen it and testify to it” (1 John 1:1–2).

²⁵ *Ibid.* 82.

²⁶ *Ibid.*

Christ's incarnation is God's manner of redeeming erring mortals, but it also spells out a pattern of relationships and communication for Christian discipleship. Christian life and ministry should be incarnational in that the body of Christ should relish embodied fellowship and personal involvement with other believers and the nonbelieving world as well. In this way the reality of Christ can, in a sense, be "made flesh" through our physical presence. In Jesus' high-priestly prayer to the Father he expounds this dynamic: "As you sent me into the world, I have sent them into the world" (John 18:18). Just as Christ "made the Father known" (1:18) by his life among the living, so we should make God known by our personal presence in God's world for the sake of his creatures.

An incarnational model of communication considers personal, face-to-face engagement to be incommensurate with other communicative modalities but does not reject other modalities entirely. Paul's letters are foundational to Biblical theology, but he nevertheless confesses his desire for personal contact with his Christian friends: "I pray that now at last by God's will the way may be opened for me to come to you. I long to see you so that I may impart to you some spiritual gift to make you strong—that is, that you and I may be mutually encouraged by each other's faith" (Rom 1:10–11). Paul's letter to the Romans has been an unparalleled spiritual gift to the world for two thousand years, but Paul still yearned to have an incarnational presence in the life of the Roman believers. Put another way, embodied fellowship is an irreducible and incommensurate quality that cannot be adequately translated into any other form of communication.

This irreducible quality of fellowship is also evident in John's comment: "I have much to write to you, but I do not want to use paper and ink. Instead, I hope to visit you and talk with you face to face, so that our joy may be complete" (2 John 12; see also 3 John 13–14). For John the fullness of joy was reserved for incarnational encounters despite the fact that he was an instrument of the Holy Spirit in the writing of Scripture.

V. OTHERNESS IN JEOPARDY

The centrality of embodied fellowship is sometimes threatened by cyberspace technologies that obscure the reality of otherness. Gregory Rawlins raises this pertinent issue: "Perhaps our deepest distinction is that between our own bodies and our environment—the self and other—and that distinction crumbles when we can jack ourselves into any device in our environment. In such a world, the environment becomes us and we become the environment."²⁷ Rawlins fails to coax this epigram into an ethical analysis, but a Christian scholar should not rest so content. The incarnational model

²⁷ G. J. E. Rawlins, *Moths to the Flame: The Seductions of Computer Technology* (Cambridge: MIT, 1996) 40. McLuhan flirted with such ideas (*Understanding Media* 61, 80, 130), but he seems to have abandoned this at a later point as evidenced in his correspondence with J. Maritain; see *Letters* (ed. McLuhan) 370.

of ministry presupposes the sanctity of the human person as an individual soul, a unique bearer of transcendent value conferred by God. Such beings must be addressed as truly other in their essential personhood. They should not be dissolved into impersonal digital environments. When the flesh becomes data it fails to dwell among us.²⁸

Although other human beings are involved in cyberspace at multiple levels, it is easy to forget this as we busy ourselves with manipulating data in a cyber-world where otherness does not intrude. A kind of technological autism or silicic solipsism may result, in which the human origin of information recedes beyond the digital horizon. To use Martin Buber's terms, the I-Thou relationship, which is "characterized by openness, reciprocity, and a deep sense of personal involvement,"²⁹ may be eclipsed by the I-it relationship that lacks the personal and interactive dimensions. The more often social interactions occur in cyberspace instead of real space, the greater this threat becomes. For example, a Christian professor may write his e-mail address on a class syllabus and then, instead of meeting with students in his office, simply trade e-mail messages with them. Information is exchanged, and much of it may be helpful. Yet there is no authentic meeting of eyes, minds, hearts and souls. There is no person-to-person discipleship. Iron fails to sharpen iron because silicon has absorbed the interpersonal impact of a face-to-face encounter.

Although C.S. Lewis wrote before the age of cyberspace, his eschatological reflections on the dimension of otherness serve as a tonic for us today.

It is a serious thing to live in a society of possible gods and goddesses, to remember that the dulllest and most uninteresting person you can talk to may one day be a creature which, if you saw it now, you would be strongly tempted to worship, or else a horror and a corruption such as you now meet, if at all, only in a nightmare. All day long we are, in some degree, helping each other to one or other of these destinations. It is in the light of these overwhelming possibilities, it is with the awe and the circumspection proper to them, that we should conduct all our dealings with one another, all friendships, all loves, all law, all politics.³⁰

The incarnational ideal for communication does not eliminate cyberspace or other media of communication. Technological innovation is involved in God's command for his image-bearers to "have dominion over the earth" (Gen 1:26–28). With respect to evangelism, the apostle Paul said that he had become all things to all people so that he might win as many as possible to Christ (1 Cor 9:22). Analogously we should use whatever media are appropriate in particular contexts. Nevertheless, unless we subject all means

²⁸ This turn of phrase is not original with me, but I can only remember that I read it in an e-mail message of unknown origin.

²⁹ K. Seeskin, "Martin Buber," *Cambridge Dictionary of Philosophy* 90; see M. Buber, *I and Thou* (New York: Scribners, 1970).

³⁰ C. S. Lewis, *The Weight of Glory and Other Addresses* (ed. W. Hooper; rev. ed.; New York: Macmillan, 1980) 18–19. Lewis is speaking hyperbolically. He did not believe in literal deification after death.

of communication to metaphysical and epistemological analysis (inquiring as to their nature, strengths and weaknesses) in accordance with the dicta of our Christian perspective we may mismatch the message with the medium and fail to glorify God in our stewardship of the resources at our disposal (10:31).³¹

³¹ A few parts of this paper overlap with themes raised in D. Groothuis, *The Soul in Cyberspace* (Grand Rapids: Baker, 1997). My heartfelt thanks go to Rebecca Merrill Groothuis for her invaluable contributions to this paper.