Introduction

Everyone will readily agree that it is of the highest impor-
tance to know whether we are not duped by morality.[1]
—Emmanuel Levinas

Ethical evaluations of computer-generated virtual environments, of which com-
puter games remain one of the more accessible and popular examples, inevi-
tably take one of two forms, which Philip Brey terms the pro-censorship and
anti-censorship positions. The former argues that the virtual worlds that are
created and sustained by this technology not only permit but often induce us-
ers to behave unethically toward other human beings in the real world. "In the
standard pro-censorship position," he writes, "it is claimed that such games are
immoral, that they hinder moral development, that they cause immoral or an-
tisocial behavior in the real world, and that under these circumstances the state
has the right to impose censorship."[2] This argument operates on the assumption
that there is some kind of causal relationship between user activity in the virtual
environment and his/her actual behavior in the "real world." As explicated by
Blay Whitby, one of the first theorists to address the ethical aspects of virtual
reality (VR) technology, such an argument "suggests that people who regularly
perform morally reprehensible acts such as rape and murder within VR are as a
consequence more likely to perform such acts in reality."[3] This position is often
justified by and follows in the wake of decades of media effects research, which
has argued, through numerous empirical investigations done on television in
particular, that exposure to media violence contributes to a general desensitiza-
tion to real-life violence, as well as to an increased likelihood of actual aggres-
sion.[4] In fact, the United States military is counting on this. The U.S. Marines,
for example, have employed commercially available first-person shooter games,
like specially modified versions of *Doom II*, to condition their personnel to con-
duct actual combat operations more effectively.[5]

       The anti-censorship position advances, as is indicated by its name, an op-

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posing claim. "In the standard anti-censorship position," Brey writes, "the lib-
ertarian viewpoint is defended that since immoral acts in a virtual environment
do not cause harm to others, the decision to engage in such behavior is private,
and the morality of these games or the right of individuals to use them should
be decided by private citizens individually and not by the state or other acting
body. It is often added that there is no evidence that such games would cause
individuals to act immorally in the real world, and it is sometimes claimed that
such games may even be beneficial by allowing individuals to release pent-up
frustrations and act out fantasies or desires that they might otherwise act out in
the real world."[6] According to this line of argument, violent or aggressive behav-
ior in a computer-generated virtual world causes no actual harm to any other
person and is therefore either a benign form of entertainment or a mechanism
that could effectively defuse and redirect potentially violent tendencies. The lat-
ter claim derives from what Seymour Feshbach called the catharsis hypothesis,
which, according to Barrie Gunter, "posits that violent media content can be used
as a safe outlet for aggressive thoughts and feelings."[7] In other words, simulated
experiences might provide an artificial environment in which to both exercise
and exorcise violent behavior and, as such, could have a positive effect on its us-
ers and the real social world they inhabit. Or as Whitby explains it, "performing
morally reprehensible acts within VR would tend to reduce the need for the user
to perform such acts in reality."[8] And evidence for this position does not just rest
on Aristotelian aesthetics. It too has been tested and demonstrated in empirical
studies with computer games and gamers.[9]

Binary Logic

As long as inquiry remains defined by the terms and conditions of this debate,
very little will change. Investigators will continue to deploy and entertain what
are by now easily recognizable arguments, somewhat predictable evidence, and,
in the final analysis, unresolved controversies. For this reason, the debate be-
tween the pro- and anti-censorship positions appears to be not only persistent
but ultimately irreducible. According to Whitby, for example, "the question as
to which of these two arguments is correct is a purely empirical one. Unfortu-
nately, it is not clear what sort of experiment could ever resolve the issue. A high
correlation, for example, between those who perform rape and murder in VR
and those who do it in reality does not establish a causal link. It may be that
there is a level of motivation to perform morally reprehensible acts in some in-
dividuals which even the most effective catharsis cannot assuage. . . . There is
little prospect in resolving this debate in a scientific fashion."[10] Whitby's conclu-
sion, which identifies something of an impasse in scholarship, is supported by
recent empirical investigations. In his meta-analysis of studies addressing game
violence, John Sherry found little evidence to support either side of the current
debate. "Unlike the television controversy, the existing social science research on

the impact of video games is not nearly as compelling. Despite over 30 studies, researchers cannot agree if violent-content video games have an effect on aggression."[11] According to Sherry's investigation, both the pro- and anti-censorship positions lack sufficient evidence to demonstrate the presence or absence of a causal connection between game violence and actual aggressive behavior. In the face of this demonstration, there are at least two options available. On the one hand, investigations of virtual violence can continue to operate according to the pro- and anti-censorship debate in an attempt to better define the issue and eventually construct studies that will hopefully generate definitive data. This is, not surprisingly, the suggestion provided by both Whitby and Sherry. Whitby, for instance, cautions against dismissing the debate simply because we have not yet devised an appropriate method to test the claims. In his mind, the stakes are simply too high. "With many Western societies showing both a rise in civil violence and crime and an increase in the portrayal of such actions by entertainment media, there is at least the possibility of causal link. There is also the possibility that VR might pose more of a problem than previous more 'passive media. This is because it involves physically 'practicing,' in an important sense, the morally reprehensible acts which we would not wish performed in reality."[12] For Whitby, then, there is something of a moral imperative that motivates and justifies this line of research. "Morally speaking, it behooves scientists to commit a vast research effort to devising some way of answering these empirical questions."[13] What Whitby suggests, therefore, is a kind of brute force approach that will, if nothing else, keep social scientists gainfully employed and do so under the umbrella of a moral imperative. Sherry concludes his analysis in a similar vein, suggesting that "further research is needed to explore the relationships among a variety of variables implicated in the potential violent video game and aggression connection."[14] Like Whitby, Sherry calls for increased attention to this problem and a serious attempt to define appropriate empirical solutions.

On the other hand, we can admit that this particular debate, like so many of the binary oppositions that have structured Western thought, convey thinking into a kind of intellectual cul-de-sac. And because of this, we can attempt to define the issue in a way that proceeds otherwise. This alternative does not, it is important to note, simply dismiss the issue of game violence and aggression, but recontextualizes and reconsiders it from an altogether different perspective. Instead of adhering to the terms and conditions of the current debate and trying to devise an appropriate study to prove one side or the other, we can also fix on and question what it is they already hold in common. Such an investigation would target not the differences between the pro- and anti-censorship positions but the shared values and assumptions that both sides must endorse, whether conscious of it or not, in order to engage each other and enter into debate in the first place. Although the pro- and anti-censorship arguments appear to be situated in direct opposition to each other, they essentially value the same thing and are involved in protecting the same investments and interests. Both sides

of the debate invest value in the real and endeavor to protect appropriate moral behavior toward other human beings in the so-called "actual world." The point of contention only concerns the *effect* that the virtual world of the computer is perceived to have on this real behavior in social reality. One side argues the effect is negative; the other argues that it is positive. Despite this difference, both sides ostensibly agree that it is the real world and the other human beings who inhabit it that really matter. For both sides of the debate, then, the crucial issue is not what transpires within the virtual world per se but the subsequent effect of these activities on one's behavior toward other, real human beings who exist outside of and beyond the computer-generated virtual environment. At bottom, then, both positions affirm and agree upon the same fundamental values—an unquestioned anthropocentric ethics and metaphysics that has already made specific decisions about who qualifies as an appropriate moral subject, what is really valuable and important, and where responsible activity may or may not be properly situated. When considered from this perspective, what is needed is not more research data to prove one side or the other but a qualitatively different way of considering the philosophical dimensions of information and communication technology (ICT), our responsibilities in the face of what can only amount to other forms of otherness, and a mode of critical thinking that is able to operate and proceed otherwise.

Thinking Otherwise

Thinking Otherwise pursues this alternative. It is, therefore, not interested in simply joining, contributing to, or participating in the available debates involving ICT. Instead it is concerned with challenging, criticizing, and even changing the terms and conditions by which these apparent controversies have been organized, articulated, and configured. For this reason, *Thinking Otherwise* does not take sides, argue for one position against another, or seek to resolve extant disputes by negotiating a reasonable solution. It does so not to avoid controversy but to demonstrate that the range of available controversies surrounding ICT have not been controversial enough and to introduce alternatives that open the field to other possibilities. The first chapter, "Critique of Digital Reason: Toward a Method of Thinking Otherwise," investigates the binary logic that organizes, for better or worse, both the technical operations and critical reception of ICT. As is already apparent in what Brey calls the "pro- and anti-censorship" positions, assessments of computer technology are more often than not organized according to a binary structure where the two terms of the debate are defined and understood as the opposite of each other. In colloquial discourse this is often indicated in schematic form as *x* or *not-x*, in formal logic *x* or $\neg x$, and in the binary alphabet of the digital computer 0 or 1. The first chapter considers the intellectual expense and structural limitations of this particular form of thinking, assesses the various methods that have been proposed for dealing and dispens-

ing with these logical dichotomies, and considers the consequences and stakes of these attempts to think binary opposition otherwise. In this way then, the first chapter describes something like a method of thinking otherwise, although the word "method" is not quite right in this particular context. "Methods," as Rodolphe Gasché explains, "are generally understood as roads (from *hodos:* 'way,' 'road') to knowledge. In the sciences, as well as in the philosophies that scientific thinking patronizes, method is an instrument for representing a given field, and it is applied to the field from the outside."[15] In scientific discourse or any kind of investigation that aspires to be called science, it is commonly assumed that a method of inquiry can and should be able to be articulated and justified in advance of its subsequent and particular applications. This understanding employs and trades on a number of old and well-established metaphysical oppositions: universal/particular, abstract/concrete, method/application, means/end, inside/outside, etc. *Thinking Otherwise*, if it is to be consistent and rigorous in its engagement with the logic of binary opposition, does not and cannot in practice adhere to these traditional dichotomies but must also submit them to critical questioning and analysis. Consequently, the first chapter does not propose a method in the usual sense of the word but describes and models the kind of engagements (always in the plural) that are necessary to intervene in and to think binary oppositions otherwise.

Following from this beginning, subsequent chapters take up and consider some of the more influential and persistent logical dichotomies that have organized thinking about and the evaluation of ICT. The second chapter, "What's the Matter with Books?" addresses the tension that is already situated between the book's subject matter and material, and it does so by engaging what Nicholas Negroponte has called "the paradox of a book."[16] One of the great ironies of contemporary culture's obsession with computer technology, digital media, and cyberspace is the remarkable proliferation of print publications that announce, in one way or another, the end of the book, the obsolescence of print, or the death of literature. In book after book, one can read about how the computer, the Internet, and virtual reality will eventually replace the "civilization of the book" with the wired and now wireless civilization of digital information and computer-mediated communication. Such publications are obviously involved in a curious and potentially contradictory form of self-effacement. That is, what these publications state about their subject matter appears to question and even invalidate the material in which these statements have been made. Consequently, what's the matter with books is that the subject matter of so many print publications in this, the so-called "late age of print," effectively negates the material in which it necessarily appears. This is of course not a new problem or recent dilemma. It is already present in and characterizes the first recorded debate about the oldest form of information technology, which takes place in Plato's *Phaedrus.* Toward the end of this dialogue, Plato reflects on and writes about the relatively new technology of writing. Writing, Plato has Socrates say, constitutes a threat to real

knowledge and effective communication and, for this reason, should not be taken seriously. In fact, whoever is worthy of the title *philosopher*, Socrates argues, "has the power to show by his own speech that the written words are of little worth."[17] Interestingly this argument against writing is presented in and by writing. Like recent publications addressing ICT, the *Phaedrus* is involved in what appears to be a potentially self-contradictory form of self-effacement, where the subject matter of its argument seems to be at odds with the actual material in which it comes to be presented. The second chapter examines this problem, which inevitably affects any and all writing on technology. It traces the history and mechanisms of "the paradox of a book," investigates how it has been explained or negotiated, and suggests some alternatives for understanding this strange occurrence and situation. In pursuing this matter, the book's second chapter cannot help but address and become increasingly involved with its own material. In other words, what is presented in the second chapter about texts that address information technology will need to be applied to the texture and technology of its own presentation. This self-reflectivity, which is both unavoidable and deliberate, not only interrupts the assumed instrumental transparency that is so often assigned to media technology but opens up, in both theory and practice, alternative ways to understand the role and function of both technology and text.

The third chapter, "Second Thoughts: Toward a Critique of the Digital Divide," employs this alternative understanding of text in an investigation of what many individuals, including technologists, academics, politicians, journalists, and social activists, consider to be the leading moral crisis involving ICT—the unequal distribution of access to information technology, or what is now routinely called the "digital divide." Recent attention to this problem is significant, because it challenges and attenuates the often unrestrained optimism that has characterized much of the popular and scholarly assessments of ICT. In particular, the digital divide provides something of a "reality check," reminding those of us who enjoy the unique opportunities afforded by ICT that the material conditions of access, which we often take for granted, have not been distributed across the globe in a way that approaches anything close to equitable. In defining the characteristics of this particular issue, the numerous scholarly publications, empirical studies, government reports, and popular discussions addressing the digital divide have more often than not organized things by distinguishing and documenting the separation that exists between what the U.S. National Telecommunications and Information Administration (NTIA) calls "the information haves" and "the information have-nots."[18] In formulating its problematic in these terms, the debates and discussions about the digital divide arrange and proceed according to what is clearly a binary structure. The third chapter engages and investigates the terms and conditions of this particular arrangement. Its analysis, however, is distinguished from other attempts to address this subject matter insofar as it does not seek to document or analyze the empirical problems of unequal access but considers the logical structure and form that have defined

and directed work on this important socio-ethical issue. For this reason, the investigation does not collect empirical data on the actual distribution and use of ICT, nor does it reevaluate the numbers that these kinds of studies generate. Instead it targets and investigates the extant texts, reports, and studies on the digital divide in order to track how this particular problem has been organized and to question whether and to what extent there might not be philosophical complications already encoded in the way the issue has been defined and characterized. To have second thoughts about the digital divide is not to question the validity or importance of the various socio-technological inequalities that have been documented in recent empirical studies of computer usage and ICT distribution. Instead "second thoughts" means reconsidering the entire problematic that is organized by the digital divide, examining its underlying binary structure and form, and explicating how such preconditions authorize, regulate, and ultimately restrict its investigation and proposed reparation.

The fourth and fifth chapters take up and investigate the logical distinction situated between material reality and its various opposites (immateriality, artifice, illusion, fiction, simulation, falsity, appearance, etc.) that already is, in one way or another, deployed by and operative in the previous chapters. The fourth chapter, "VRx: Media Technology, Drugs, and Codependency," examines the way the logical distinction situated between the real or true world and the fiction of computer-generated artifice is dependent on both a rhetoric and logic of drugs. A perfect example of this affiliation is evident in the first *Matrix* film. At a crucial point early in the narrative, Morpheus presents the protagonist Neo with a pivotal choice between two pills. The blue pill, Morpheus claims, leads to a life of illusion and fantasy in a fully immersive virtual reality. The red pill deposits one, body and soul, outside the computer matrix in what is determined to be the real and true world.[19] This curious confluence of computer technology and drugs is not something that is limited to or first introduced in Andy and Larry Wachowski's cyberpunk narrative. It is part and parcel of an old and often unacknowledged codependency. Already in Plato's *Phaedrus*, the technology of writing had been connected to and described in terms of drugs. In fact, the *Phaedrus* is a dialogue on drugs. It begins with Socrates falling under the influence of a book and ends with a consideration of writing that is, quite literally, all about pharmaceuticals. Consequently, media technology and drugs, from the time of the Platonic dialogues to the *Matrix*, share a common intellectual heritage, endeavor to achieve virtually the same objectives, and, as Avital Ronell suggests, often suffer similar crackdowns in the face of moral evaluation and the law.[20] The fourth chapter tracks the codependency of ICT and drugs, traces this interaction to its Platonic origins in the *Phaedrus*, and examines the way this ancient pharmacology already controls and parses understanding and evaluation of media technology. The goal of this investigation, it is important to note, is neither to endorse experimentation nor to institute something like an intellectual 12-step program. Instead it endeavors to understand the mecha-

nisms of and to intervene in the dialectic of drugs that is already operative in and has already determined critical investigations of technology in general and ICT in particular. In other words, the fourth chapter is neither for nor against drugs and technology but proceeds in such a way as to open this rather restricted binary pairing to other opportunities, alternative kinds of questions, and new arrangements that are and remain otherwise.

If the fourth chapter provides the opening to an alternative, the fifth pursues its exigencies and consequences. This chapter, titled "The Virtual Dialectic: Rethinking *The Matrix* and Its Significance," not only continues examination of the logical oppositions that have organized critical thinking about ICT but also defines another arrangement that remains, in ways that will need to be characterized in some detail, outside the scope of the recognized options, decisions, and values. Like the previous chapter, this investigation also leverages the imagery that has been presented in the *Matrix* films. This is done, it is important to note, not out of some mistaken perception concerning the role and status of this or any other science fiction narrative. Slavoj Žižek is right about this one: "There is something inherently stupid and naïve in taking the *philosophical* underpinnings of the *Matrix* trilogy seriously and discussing its implications. The Wachowski brothers are obviously *not* philosophers. They are just two guys who superficially flirt with and exploit in a confused way some postmodern and New Age notions."[21] Heeding such advice, this chapter, quite deliberately and unlike so many books recently published on this subject,[22] does not endeavor to expose, explain, or evaluate the "philosophical themes" that are supposedly contained in and exemplified by *The Matrix* and its numerous spin-offs. Instead, it proceeds otherwise, not only submitting these philosophical interpretations of the *Matrix* franchise to philosophical scrutiny but also addressing this pop-culture material from an entirely different perspective. "What is interesting," Žižek argues, "is to read The *Matrix* movies not as containing a consistent philosophical discourse, but as rendering, in their very inconsistencies, the antagonisms of our ideological and social predicament."[23] This is precisely how the *Matrix* franchise in particular and science fiction literature and cinema in general are employed in this chapter and throughout the text of *Thinking Otherwise*. Understood in this fashion, science fiction constitutes something like contemporary parables or myths that articulate, often in very melodramatic terms, the various antagonisms and binary oppositions that comprise the contemporary situation. Consequently, chapter 5 takes up and employs the conceptual opposition situated between the red and blue pill as a mechanism for investigating the philosophical dilemmas and the choices that are commonly associated with ICT. This investigation is divided into two parts. The first reconsiders the logical structure of this decision, arguing that the choice between these two alternatives originates in the history of Western thought and that this dialectic informs both the theories and practices of ICT. The second questions the choice of the red pill. It critiques the assumed value of "true reality" that is expressed in the cinematic

narrative and validated within much of ICT research, and it suggests alternative ways to think technology beyond the limited either/or logic that supports such a decision. The objective of such an undertaking is not simply to question the philosophical assumptions of what has been typically defined as the "right choice" but to learn, through such questioning, to suspend the very system that already delimits the understanding of and the range of possible decisions that are made within this field. This chapter, therefore, suggests alternative methods to question and to respond to ICT that are no longer limited by the two terms of this particular logical opposition.

Although each chapter of the book is clearly concerned with some aspect of ICT and ethics, it is the sixth chapter that takes up and explicitly investigates ethics in particular. It does so, however, in a way that is significantly different from what would typically be described under the terms "computer ethics," "cyberethics," "Internet ethics," and "media ethics." To put it in rather blunt philosophical terms, this chapter, which goes by the name "The Machine Question: Ethics, Alterity, and Technology," is interested in advancing within the field of ICT an approach to ethics that is oriented otherwise. In doing so, the investigation leverages recent innovations in moral philosophy, especially what has been called, in the wake of Emmanuel Levinas's influential work, "an ethics of otherness."[24] This does not mean, however, that the chapter simply applies Levinasian ethics to computer technology. Instead, "The Machine Question" asks about the moral status of those other forms of otherness, most notably the animal and the machine, which have been, even in Levinas's own work, systematically excluded from the rank and file of ethics. An example might help to illustrate this rather abstract characterization. In a now well-known and often reproduced *New Yorker* cartoon by Peter Steiner, two dogs sit in front of an Internet-connected PC (personal computer). The one operating the machine says to his companion, "On the Internet, nobody knows you're a dog."[25] The cartoon has often been employed to address issues of identity and anonymity in computer-mediated communication.[26] As Richard Holeton interprets it, "the cartoon makes fun of the anonymity of network communications by showing a dog online, presumably fooling some credulous humans about its true identity."[27] On this reading, what the cartoon portrays is that who or what one *is* in computer-mediated communication (CMC) is, as Allucquère Rosanna Stone, Sherry Turkle, and others have demonstrated, something that can be easily and endlessly reconfigured.[28] This reading of the cartoon, although not necessarily incorrect, misses the more interesting and suggestive insight that is provided by the wired canines. What the cartoon demonstrates is not the anonymity and indeterminacy of others in ICT but the unquestioned assumption that despite this anonymity, users assume that the other with whom they interact online is another human. The other who confronts us in cyberspace is always, it is assumed, another human being, like ourselves. These others may be "other" in a "celebrate diversity" sense of the word—another race, another gender, another ethnicity, another social class, etc.

But they are never a dog. Consequently, what the cartoon shows, through a kind of clever inversion, is the standard operating presumption (SOP) of mainstream moral philosophy and ICT ethics. Online identity is, in fact, reconfigurable. You can be a dog, or you can say you are. But everyone knows, or so it is assumed, that what is on the other end of the line is another human user, someone who is, despite what are often interpreted as minor variations in physical appearance and background, essentially like what we assume ourselves to be. The cartoon works, because in ICT everyone always already assumes that the other is human. "Inside the little box," Stone concludes, "are other people."[29] This chapter of *Thinking Otherwise* responds to and seeks to intervene in this deep-seated and often unquestioned anthropocentric assumption. In doing so, it does not simply rage for the animal and machine, but shows through an engagement with these other forms of otherness the structural limits of ethics as it has been previously thought and practiced.