## Introduction

## ROBERT J. CAVALIER

The Cyberpolis we now inhabit poses new challenges to living life successfully. It also creates new areas for philosophical reflection on these challenges. Many negative aspects of the Internet are simply extensions of the moral life we lead in "real life." But cyberspace also encroaches on us in ways that would never occur to us in regular navigation through our cities, our relations, both personal and professional, and even our states of mind. This collection seeks to explore this impact of the Internet on our moral lives.

While the text is not strictly or exclusively Aristotelian, themes found in Aristotle do appear in various chapters. Aristotle was keen to show the complex relation between our cultural and political environment and our ability to live life well or poorly. And he emphasized the role that the virtues play in helping us 'hit the mark' in both our private and public lives. His observations can be relevant to our virtual environment as well. This is most obvious in Part I, in which Aristotle is linked to the work of Norbert Wiener and the impact of the Internet on our inner lives and outward behavior finds expression in such areas as copyright infringement, cheating, and cyberpornography. Part II contains ontological, cultural, and meta-ethical analyses generated by the very idea of the Internet itself and its impact on who we are and what we can do. This section shows how ethics might help us see these matters more clearly.

The historical emergence of the electronic computer in the 1940s, the Internet in the 1960s, and the World Wide Web in the 1990s converges with and simultaneously creates new types of cases and situations that confront our moral sensibilities and challenge our decision-making capabilities. In so doing, the Information Age (of which the computer is an icon) has given rise to the field of computer ethics. Terrell Bynum's opening chapter traces many

of our interests in the ethical and social aspects of the Internet to the writings of mathematician and communication theorist Norbert Wiener. Along with the work of Shannon and Weaver, Wiener applied technical theories of communication to the field of what he called "cybernetics." He also noted the consequence of man-machine communication theory for human flourishing and thus became one of the first to foresee the impact of the "Automatic Age" on our social and moral existence. Bynum finds some fascinating parallels between Aristotle and Wiener here, and uses these parallels to describe Wiener's appropriation of the science of his day to such basic ideas as the nature of humans and the purpose of life. In elucidating Wiener's methodology for what we today call "information ethics," Bynum describes the impact of information technology on human values (such as security and happiness), the social implications of "computerized factories," and the positive contributions of "artificial lungs" and other prosthesis technologies. Wiener even foresaw the creation of a global communications network akin to the Internet and thus anticipated, with his concerns and methods, many of the topics covered in this volume.

Richard Spinello tackles the Napster phenomena in the second chapter. The long philosophical and legal discussion of "property" confronts new challenges in the digital nature of "intellectual property." So, too, do the traditional frameworks for regulating property: more and more social norms seem to sanction the sharing of digital files and, as many college students will attest, the sharing of copyrighted music files is now the way one finds and listens to songs. But a careful analysis of the reasons for copyright law uncovers the role that it can play for the common good. Surely, Spinello argues, some protection of the costs and labor that go into the creation and publication of artistic works is necessary (even Steven Levy was distressed to see his book, Hackers, available for free download). But current proposals for software involving digital rights architectures go to extremes. It is important, Spinello says, to return to moral norms and heighten in the minds of users the intensity of the meaning of digital piracy. Using legal arguments that echo Aristotle and Aguinas, we see the need to appreciate the place of law in our lives; with moral arguments from contemporary philosophers like Christine Korsgaard and Bernard Gert, we observe the connection between "illegally copying a software program" and "violating a morally acceptable law to gain some benefit." But a central problem with regard to Napster-like piracy or the casual copying of office software is that for most people this is a moral issue of such "low intensity" that it may not be seen as a moral matter at all. Hence the importance, Spinello argues, of "strengthening the voice of morality." He suggests several ways to achieve this, not the least of which is "to demonstrate that the ramifications of disregarding copyright law for personal satisfaction are not so trivial." A second moral concern relates to the developers of code for the protection of software: awareness of the legitimate needs of users must

be built into the software architecture itself. Taken together, the proper understanding of "ethics" and "code" can work in fruitful ways to address the issue of copyright in cyberspace. This chapter should be read alongside Helen Nissenbaum's discussion of hacker culture and her view of the status of property in cyberspace.

The power of search engines and the ease with which people can find materials and copypaste them (unattributed) into term papers, business reports, and even published articles has had a powerful effect on the reliability of original work. In chapter 3, Lawrence Hinman combines philosophical reflection with practical advice regarding what I call "autoplagiarism." Hinman has served on disciplinary boards and crafted documents on academic integrity, and he finds much in Aristotle's ethics relevant to the discussion of cheating. Following Donald McCabe's pre-Web empirical research in this area, he divides students into those who "never cheat," "cheat occasionally," and "habitually cheat." Those roughly 20 percent of the students who never cheat need a campus culture that, he argues, is as "supportive as possible of their commitment to academic integrity." The middle group, roughly 60 percent in the McCabe study, are the ones most tempted by the Internet to engage in intermittent and spontaneous cheating (often caused by deadlines and panicked desires to get a higher grade). The last 20 percent fall into the hard-core group, those who cheat habitually and without scruple. Hinman uses Aristotle's famous discussion of performing right and wrong actions to analyze these types of noncheaters and cheaters. For those who don't cheat, they seem either to desire to do the right thing for its own sake (the "temperate") or because they know it is the right thing to do, even though they might desire to do otherwise (the "continent"). In both cases, these students exercise a degree of "self-restraint." Of those who do cheat, there are some who exhibit what was once called "weakness of the will." The temptation to copy sections of another's Web page into their paper, for example, just seemed too easy to do given the pressure of the due date, the difficulty of the topic, and so on. By far, most students who cheat fall into either this group or the "continent" group and they are the ones most tempted use the Internet to do something they would regret on reflection (or on being caught). The last group chooses to cheat and is not bothered by it. They fall into the category of the "incontinent" for Aristotle; they are the bad apples and can only be dissuaded by strict monitoring. For all the others, some discussion of the virtues of academic integrity might be of use. It is to these fundamental virtues of honesty, trust, fairness, respect, and responsibility that Hinman turns in the second part of his chapter. Following this rich discussion, he addresses the issues of distance learning and digital file sharing and their effects on online academic integrity.

One of the most hotly debated topics concerning the Internet is pornography. Susan Dwyer reviews the common arguments revolving around the

moral (and legal) status of pornography and finds that the issue can be approached somewhat differently, given the unique power of the Internet. Chapter 4 revives an ancient concern with the inner self and suggests that the practice of consuming pornography online carries risks of doing harm (though not of the kind that would involve state censorship). Surely there are Internet sites that will cause even the most jaded some cause for concern: "Hanging Bitches" is devoted to images of women being hung from rafters and so forth; certain sites specialize in images of forced rape and torture; illegal sites contain prepubescent child pornography. What the Internet enables, indeed encourages through the use of Java scripts and cookies, is an ever-cascading progress from 'regular' porn to its most extreme forms. And the cultivation of such fantasizing made possible by the Web is not without consequences for our sense of moral agency. Dwyer argues that these kinds of sexual fantasizing are actions that affect one's self (creating an ugliness of one's soul, as Plato might say). A thought experiment seeks to reveal this phenomenon: imagine two worlds, A and B, and imagine that in World A people have the most violent sexual fantasies (though they never act them out) and in World B people do not have these kinds of fantasies. The Gedanken asks: Which is the morally preferable world?

John Weckert discusses a central moral issue confronting the Information Age: online trust. He seeks to link the concept of trust to the very human dimensions of goodwill and friendship. But he also attempts to analyze the concept following the tradition of analytic philosophy: What does it really mean to say that A trusts B? For Weckert, trust (online or offline) is not solely a cognitive matter (as if "Jones trusts Smith" translates into a set of expectations that a rational actor applies when placing a bet). Trust is best construed in terms of "Seeing as": "Jones's seeing Smith as trustworthy is reasonable to the extent that Jones's seeing Smith in this way gives a coherent account of Smith's behavior." Adopting a position going back to the American pragmatist William James, he argues that genuine trust online emerges when those online see others online as trustworthy (the U.S. stock market crisis of 2002 demonstrates what happens when people stop seeing X as trustworthy). There are daunting obstacles to achieving online trust, but Weckert points to empirical studies of "virtual teams" in which such trust plays an important part in successful projects. And while we might not trust the e-mail that entices us to "open the attached files," many people now buy the bulk of their books online. Weckert's analysis may help us to understand that better.

Aristotle's definition of "man" as a "rational animal" has survived through the centuries. Formally, human beings are part of the genus "animal" and we are bipeds like apes. But the specific difference between an ape and a human being is that the latter has "reason." This is the essential nature of man as expressed in the Aristotelian definition. With the computational turn

taking place in fields as diverse as psychology, robotics, philosophy, and cognitive science, this fundamental notion of what it means to be human is undergoing a profound transformation. What if "information processor" became a new genus? Would it not be possible to speak of "man," "whale," and "computer" as a species of information processors (the first two being carbon based, the latter silicon based)? The potential for a radical transformation of what it means to be human marks the transition to Part II when James Moor poses the question: "Should we let computers get under our skin?"

Moor's chapter focuses on the use of computer implants to create cyborgs. He points out that many of us are already cyborgs to the extent that we use cardiac pacemakers and a whole range of transplant products coming out of the field of biotechnology. So it is not a question of whether we should become cyborgs, but how we should do so in light of potential ethical problems. He reviews the debate over the use of computer implants for therapy and/or enhancement. As the controversy over cochlear implants has shown, it is not always easy to draw the line between therapy and enhancement. (Is hearing really such a disability that it requires therapeutic use of implants in all cases?) From another perspective, should people be free to avail themselves of computer-based enhancements as long as they do no harm to others? Moor is sympathetic to this Millian argument, but he is also aware of the slippery slope toward the Borg world of Star Trek fame. One can imagine a "Web/human system" that begins to take on a life of its own, where control of our actions becomes ambiguous at best. There are practical moral consequences and policy vacuums awaiting us in this brave new world. Moor looks at these from the perspectives of privacy, control, and fairness.

Today the term "hacker" has become associated with the world of malcontent adolescents, hactivist true believers, and high-tech terrorists. But Helen Nissenbaum reminds us that this was not always so and that the term "hacker" has itself been highjacked by the media to stand for something it did not originally mean. Chapter 7 seeks to find a framework for the shifting interpretation of the hacker, from the hero of Steve Levy's book on the heyday of programming in the 1980s to the criminal vandals of today. At least a part of this shift can be understood as a change in the ontological meaning of cyberspace: from the new frontier envisioned by John Perry Barlow to the current marketplace with its property rights and economic infrastructure. The latter can be seen in property metaphors and norms of behavior that constitute what some have called a "second enclosure movement." The results of this shift in the meaning of cyberspace are best understood, argues Nissembaum, by following John Searle's work on the construction of social reality. In this new environment, hackers (in the traditional sense) are seen as the bad actors (breakers of the rules and norms of the newly institutionalized world of cyberspace). Worse still, they become residual elements of a fervent programming ethic that are subsumed under the prototypical category of criminal behavior (the latter actually referring to "crackers" for those favoring a more nuanced terminology).

The once utopian vision of the Internet as a global village has in fact created a cyberworld that embeds (for better or worse) much of the Western, indeed American, values of commerce (including the free market of pornography) carried out in the language of English. It is not surprising that this cultural flavor of the Internet has evoked strong reaction. Benjamin Barber's rhetorical disjunction, Jihad or McWorld, points to a crisis within cultures seeking to sustain their identities in the face of global homogenization. Charles Ess's chapter seeks a way to retrieve cultural identity (both for the person and the society) within the thoughtful use of computer-mediated communication (CMC) technologies. After a survey of various cultural adaptations of CMC (including examples from South Korea and Kuwait), Ess suggests a Habermasian interpretation of the global village, one informed by a "culture of dialogue" aimed, in part, at preserving and enhancing diverse cultural identities. Here, CMC users will be enmeshed in their "thick cultures" as "embodied users" interwoven with a specific history and community. Ess discusses feminist and postmodern perspectives on these matters and concludes with an "Educational Imperative" that sketches out a possible synthesis of Eastern and Western traditions with regard to thoughtful use of the Internet. Integral to this education is the Medieval and Renaissance experience of "cultural flows" that were once obtained by personal travel but can now become part of our practical wisdom through a Web that sees others as others (and not just consumers for our products, etc.). The Socratic passage out of Plato's cave can be viewed as a perspective-taking on our own culture and an appreciation of other cultures (the ignorance overcome here is that of ethnocentrism). In this regard, Aristotle's phroneisis is not only an ethical virtue, but a wisdom filled with cultural experiences and dialogues. These Western conceptions of virtue and wisdom, finally, cohere with the Confucian goal of becoming a truly "exemplary person."

Charles Ess's tantalizing speculations about the potential of the World Wide Web are continued in chapter 9 by Luciano Floridi and J. W. Sanders. Just as Aristotle's *Poetics* focused on our human ability to *create* and *produce* drama and epic poetry, the authors here emphasize our ability to use the Web in a "poetical way." Indeed, they argue that viewing the Web as a "poetically enabling environment" entails a certain kind of "constructionist ethics" well positioned to reflect on the meaning and use of the Web itself. Constructionist ethics can be seen in the idea that persons "construct their lives" and, assuming that they want to be the best they can be, they do so by cultivating certain virtues and eradicating certain vices. From this perspective, a virtue ethics is a kind of existentialist ethics. It focuses on a subject-oriented approach and its concomitant philosophical anthropology. But, the authors argue, a change in the *direction* of constructionism is required to move from

"individual virtues" to "global values." This move recognizes the agent's responsibility toward the digital environment that it creates. It forms the theoretical ground for a future cyberethics.

Using Hans Jonas's classic work on the impact of modern technology on our moral condition as a point of departure, Herman Tavani's chapter reviews the current debate about whether the Internet creates novel circumstances that supercede our previous conceptual apparatus for analyzing and understanding our "moral condition." Along the way he discusses "expansionist and traditionalist" responses to the types of cases that seem to arise through the Internet (e.g., "cyberstalking"). Expansionists argue that the Internet alters the scope and scale of our behavior to such an extent that our traditional categories of ethics need to be expanded as well (in order to account for behaviors such as cyberstalking, online rape, digital child pornography, etc.). Traditionalists deny that entirely new ethical theories are necessary. They also deny that the Internet poses any truly new challenges. Tavani agrees with first part of the part of the traditionalist theory, but disagrees with the second. To support his position, he discusses Brey's "disclosive method" and Moor's concept of "policy vacuum" and concludes that, until there are new kinds of "objects" that warrant special consideration (like the robots in the movie AI), Brey and Moor's insights provide us with an adequate methodological framework. The "meta-ethical" nature of this chapter can be compared to the reflections of Floridi and Sanders in their discussion of homo poieticus.

Many of the scholars represented in this collection gave presentations on their topics through the University Lecture Series at Carnegie Mellon, special sessions at the American Philosophical Association (sponsored by the APA Committee on Philosophy and Computers), and panels at the Computing and Philosophy (CAP) conferences. The editor would like to thank those groups that made these presentations possible.