

Subjectivity and Information Ethics

by

Bernd Frohmann

The University of Western Ontario

Faculty of Information & Media Studies

London, Ontario N6A 5B7

Canada

voice: 519-661-2111 ext 88510

fax: 519-661-3506

email: frohmann@uwo.ca

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Subjectivity and Information Ethics¹

In “A brief history of information ethics”, Thomas Froehlich (2004) quickly surveys under several broad categories some of the many issues that constitute information ethics: under the category of librarianship: censorship, privacy, access, balance in collections, copyright, fair use, and codes of ethics; under information science, which Froehlich sees as closely related to librarianship: confidentiality, bias, and quality of information; under computer ethics: intellectual property, privacy, fair representation, nonmaleficence, computer crime, software reliability, artificial intelligence, and e-commerce; under cyberethics (issues related to the Internet, or “cyberspace”): expert systems, artificial intelligence (again), and robotics; under media ethics: news, impartiality, journalistic ethics, deceit, lies, sexuality, censorship (again), and violence in the press; and under intercultural information ethics: digital divide, and the ethical role of the Internet for social, political, cultural and economic development. Many of the debates in information ethics, on these and other issues, have to do with specific kinds of relationships between subjects. The most important subject and a familiar figure in information ethics is the ethical subject engaged in moral deliberation, whether appearing as the bearer of moral rights and obligations to other subjects, or as an agent whose actions are judged, whether by others or by oneself, according to the standards of various moral codes and ethical principles. Many debates in information ethics revolve around conflicts between those acting according to principles of unfettered access to information and those finding some information offensive or harmful. Subjectivity is at the heart of information ethics. But how is subjectivity understood? Can it be understood in ways that broaden ethical reflection to include problems that remain invisible when subjectivity is taken for granted and when how it is created remains unquestioned? This paper proposes some answers by investigating the meaning and role of subjectivity in information ethics.²

Self-centered information ethics

The moral subject was certainly at the center of Froehlich's 1992 ARIST review of ethical issues for information professionals (1992). He proposed a triangular model of self, organization, and context (or environment), intending it as a framework sufficiently robust to capture the "three facets of most ethical situations" (p. 294). This is a very general statement, one expressed even more forcefully later in the paper: "The proposed model acknowledges that there are *always* three definite elements present in an ethical situation: self, organization, and environment" (p. 297; my emphasis). For my purposes, the important feature of Froehlich's triangular model is its multiplication of selves and agents. Froehlich explains that "the self is the unique and autonomous moral agent, typically the actor facing the moral problem...the subject and/or object of moral choice" (1992, p. 295). In his model, the self splits into three: the self-as-person, the self-as-employee, and the self-as-professional. Although this tripartite self is a moral agent, it is not the only agent. The other two points of the triangle, organization and environment, are also agents. "The organization", he says, "is a moral agent as a whole". Like the self, it has an "autonomous will" (p. 295), which places demands on the self that pose ethical problems. The environment, or what Froehlich calls "context", is also a source of demands and tensions that summon the self to ethical reflection, and to that extent, it also exercises agency. Froehlich gives examples: the ecological demands familiar to us from environmentalist movements, and imperatives like "community standards" or "social responsibility". I suggest that these sorts of demands invest the self's context, or environment, with agency. But for Froehlich, whatever kind of agency this might be is at least not moral agency, which he sees as requiring people at some level, even if, as in the case of the organization, its autonomous will "may not be the sum of the wills of its employees or managers or its chief executive officer or governing board" (p. 295). The precise connections between all those wills and the organization's will is left somewhat mysterious, but the spirit of Froehlich's discussion seems clear enough: moral agency must somehow be connected to individual, human agents. Thus the

environment can contain non-individual moral agents, such as communities, groups, and institutions, who make demands of their own and, of course, it can contain individuals, with their individual demands. All of these demands, originating in these various kinds of agents, can multiply the possibilities of ethical tensions for the tripartite self.

Given the complexities of Froehlich's triangular model—the interactions between its main elements and the tripartite self—the multiplication of ethical tensions and conflicts comes as no surprise. Froehlich's taxonomies of organizational imperatives and the many different demands of the environment are mapped onto the tripartite self through his review of the many moral dilemmas populating the literature of information ethics. The many possible combinations of the diverse elements of the model create a dense network of ethical conflicts in which the self finds itself thoroughly enmeshed. How can it navigate this network? How is the agent at its center—the self—guided in moral deliberation when faced with conflicting demands? One can appeal to ethical principles and moral maxims, but when those in the literature are identified and examples of their applications are considered, moral deliberation is confounded by the conflicts and contradictions between principles and maxims. Even the most fundamental bases of moral deliberation are incompatible: justice or fairness, deontology, and consequentialism. The self's attempt to resolve conflict through appeal to ethical principles and moral maxims generates only more conflict. These conflicts, in turn, multiply proposals for resolving them; citing an example from the literature, Froehlich remarks : “one might examine...ethical concerns...under both deontological and consequentialist grounds in a sort of dialectical process” (pp. 307–308). Thus are we led from the three points of the triangular model, through the tripartite fragmentation of the self, to a manifold of multiplicities: multiple combinations of moral and ethical conflicts, and multiple proposals for the resolution of fundamentally irresolvable antagonisms.

Froehlich's narrative of the perplexing and dynamic manifold of ethical conflict in which the information professional is ensnared gains its force from the extraordinary energy of the conflicts and tensions he so convincingly describes. The moral subject is situated at the center of a field of force whose strength derives from ethical and moral conflict. This conflict is

generative; it produces effects. Its energy not only sustains the field in which moral agents are situated but configures their selfhood, or subjectivity. The denouement of Froehlich's story simply enacts the logic of his model of information ethics—although final resolution of ethical and moral conflicts may be an ideal, it cannot be guaranteed: “When deliberation leads to ambiguous solutions or decisions, success can be measured by discovering the source of ethical malaise or conflict, not in removing it” (p. 307). In Froehlich's information ethics, the best the moral subject can do is *recognize the value* of “conflicts of moral deliberation arising from different ethical orientations”, because that recognition allows one to “deal with [a] tension” (p. 308) that cannot be relieved. The conflicts and tensions generated by irresolvable moral and ethical antagonisms generate an information ethics centered in a self confronted by their irreconcilability. Froehlich names the mode of moral subjectivity constituted by the energy of this tension “malaise in moral judgment” (p. 307). His version of a self-centered information ethics is driven by the energy generated by the complexities of moral deliberation, which brings to life an angst-ridden moral subject condemned to know that her *malaise* has no cure, but whose virtue consists in accepting it. Without the energy of moral conflict, Froehlich's ethical manifold collapses, and with it the viability of information ethics as a scholarly pursuit.

A different kind of energy drives Robert Hauptman's variant of self-centered information ethics for librarians. The self engaged in moral deliberation is still the hero of the narrative, but Froehlich's angst-ridden antihero is nowhere to be found. Instead, moral absolutes replace moral ambiguity, certainty replaces malaise, tensions and conflicts receive a new meaning, and moral courage becomes the driving force of a heroic moral subject who fearlessly confronts hypocrisy, bigotry, ignorance, laziness, and expedience. “To act ethically”, Hauptman says, “is to consider basic principles, a course of action, and the potential results, and then to act in a responsible and accountable way” (Hauptman, 2002, p. 13). Moral deliberation is really quite straightforward: “The person who thinks things through and makes a decision based upon the evidence in the light of what he or she believes to be correct, is acting ethically” (p. 139). “Principled thinking”, he writes, “allows us to see through...convoluted and manipulative rhetoric” (pp. 137–138).

Librarians seeking special guidance can turn to Michael Gorman's eight enduring values (Gorman, 2000) because they "offer foundational support to librarianship: stewardship, service, intellectual freedom, rationalism, literacy and learning, equity of access, privacy, and democracy". Hauptman elaborates: "If we honored these, incorporated them fully and wholeheartedly into our individual and professional belief systems, acted upon them as if our lives depended upon their implementation, and inculcated them in colleagues, peers, and patrons, *then ethical commitment and concomitant actions would follow naturally and completely*" (p. 133; my emphasis). For a courageous subject, moral deliberation comes naturally because, first, ethical theory is uncomplicated,³ and second, there exist clear guides, that "series of principles, decrees, rules, or laws" according to which "[m]ost people in most cultures at almost any chronological point in civilization's evolution have oriented their lives" and which, if truly held, "are the glue that binds members of the social matrix" (p. 6). Should moral agents be guided by "traditional values", there would be no need for tortuous ethical philosophizing in pursuit of establishing anew our moral foundations: "If we adhere to traditional values, we will not be seduced into believing that when situations change so must our commitment; we do not require different ethical principles, mandates, or structures" (p. 137).

In Hauptman's world, it's not the deliberating that's difficult, it's the doing, the acting upon our knowledge of what, if we are honest, we clearly see as the right thing to do. But human beings, he reminds us, "are often dishonest, inefficient, ineffective, and unreliable; we mistreat each other, because in pragmatic situations the ends ostensibly justify the means...although we spend much of our time convincing ourselves that we are judicious and nurturing, we are frequently unfair and care little for real justice; finally, we abdicate in favor of mediocrity" (p. 134). But the moral failings of weak subjects are not the worst of it. Some of us vigorously pursue immorality. Take, for example, the intolerant, who actively scheme and plot to arrange the world so as not to offend their many delicate sensibilities: "Various religious, professional, political, private, or governmental representatives...are dedicated to the elimination of whatever it is they find abhorrent, unwholesome, or unacceptable. They do not like atheists, other

religions, creationists, government regulation, lesbians, helmetless cyclists, or just about anything else one might imagine” (p. 17). And, of course, there are the hypocrites: “The most horrendous visual depictions of violence are perfectly acceptable to suburban parents, who send their bored adolescents off to slasher films, while they enjoy some serene moments at *Taxi Driver* or *Silence of the Lambs*. But let two anatomically divergent body parts come into contact with each other, mention Darwin, gay or lesbian love, or a predilection for Daoism, and these same folks rally to picket the theater or bar the speaker from the podium” (p. 21). Navigating this sea of moral turpitude, we need a morality to stiffen our spines and grant us the courage to act on those timeless “traditional values” that are forever threatened by human failure, bigotry, intolerance, and hypocrisy. We need doctors, says Hauptman, who aren’t afraid to refuse to perform abortions, we need lawyers who aren’t afraid to refuse to defend those they know to be guilty, and we need librarians who won’t flinch from barring access to information they believe with certainty has harmful consequences. There emerges from Hauptman’s earnestly moralistic prose a mode of moral subjectivity dramatically different from Froehlich’s, a *dramatis persona* of great moral courage, clear of mind and certain of purpose, even in the face of strong opposition and grave repercussions. Certainty of moral principle confers that courage: it helps us confront the weak, the intolerant, the bigoted, the hypocritical, and those who abandon principle for expediency.

Absent from Hauptman’s scene are the clashes of principle and the conflicts between and among ethical principles and moral imperatives so crucial for Froehlich. Although Hauptman allows that “a true commitment to ethical decision making produces traumatic dilemmas” (p. 139), these are not Froehlich’s dilemmas. They are instead the conflicts and tensions between what moral agents know to be right and the pressures on them to do wrong, rather than conflicts and tensions between morally irresolvable courses of action. Hauptman’s subject does not suffer Froehlich’s *malaise*, but instead may lack the strength to muster sufficient *courage* to act on her moral certainties. Hauptman’s version of a self-centered information ethics is driven by the energy generated by moral clarity and conviction, which brings to life a courageous moral

subject who fearlessly marches to battle against moral turpitude, bigotry, hypocrisy, intolerance and the temptations of expediency. Without this energy, Hauptman's ethical manifold collapses.

Although Froehlich's and Hauptman's ethical universes may seem light years apart, they share important structural characteristics of a self-centered information ethics. The most basic similarity is that for both the problem space of information ethics is configured by conflicts and tensions arising from disparities between the judgments and actions of moral subjects. The mode of subjectivity of the morally deliberative agent varies in the two cases. For Hauptman, the conflicts and tensions arise from differences between the moral subject and various immoral or amoral individual agents and the forces that make them so. These conflicts impose upon the moral subject a mode of subjectivity I have designated "*courage*". For Froehlich, the basic structure is similar, but more complicated because of his tripartite model of the self. His moral subject also confronts dilemmas generated by conflicts with various other moral agents, whether individuals, groups, institutions, or the environment. But in addition, Froehlich allows for conceptual conflict between and among equally tenable ethical principles and moral maxims. These can arise from tensions between the moral agent and others, or between different parts of the tripartite self, for example, when the self struggles with irreconcilable conflicts between the moral principles of the self-as-person, the self-as-employee, and the self-as-professional. This wide field of irreconcilable moral conflict imposes upon the self a mode of subjectivity called "*malaise*", a form of virtuous, moral *aporia*. For both Froehlich and Hauptman, should conflicts and tensions be resolved, the basis of moral action is undermined. And because the two modes of moral subjectivity are effects of ethical and moral conflict and tension, to resolve the latter erases the conditions that brought the former to life.

Other versions of self-centered information ethics may be found beyond librarianship and information science. A brief glance at two further exemplars of the type reveals a very general feature of the subjectivity central to information ethics, and one underlying the differences between Froehlich's and Hauptman's concepts of the moral subject. Writing as a philosopher in *Computers and Society Magazine*, Kay Mathiesen (2004) seeks to "sketch a basic account of

information that can serve as the conceptual starting point for a theory of information ethics". She contrasts her concept of information to what she describes as Claude Shannon's and Warren Weaver's "purely syntactic theory" in order to capture our typical conception of information as "something that has a semantic content that can 'inform' us". The moral agent of information ethics is an epistemological subject, one who has the capacity to know and understand. Information, Mathiesen says, "must be capable of being understood (i.e., decoded) by some sentient being", but not just any sentient being. She explains that the condition of being understood implies that "information [has] a particular kind of relation to human beings". Information is not material, because it "can be encoded in a number of different physical forms and cannot be equated with a physical entity; thus, a picture of information as something abstract better captures our concept of information".⁴ Information is something that can be symbolically represented and understood. It is "the content that can be found both in symbolic form and non-symbolic objects". For Mathiesen, communication between epistemological subjects is not a necessary condition of being informed, because, as she acknowledges, Michael Buckland has reminded us that we can be informed by things (Buckland, 1991). But when the consciousness of the epistemological subject is a condition of the possibility of information, as it is for Mathiesen, issues of access to information become the central preoccupation of information ethics: who should have it and under what circumstances, rights to access to information, uses and misuses of information (what we do with it once we access it), ownership and control of information, benefits of access, and effects of unequal access. Almost all of the issues enumerated by Froehlich and referenced in the first paragraph of this paper are encompassed by this preoccupation (possible exceptions are issues arising in expert systems, artificial intelligence and robotics). Mathiesen is no exception. She argues that the moral value of information itself is not central to information ethics, but rather the value of access to information, or in her terms, the moral value of "access states".

The cases in which one or more subjects become informed by virtue of communication from one or more other subjects are a subset of Mathiesen's "access states". For other

philosophers of information ethics, communication is crucial. Rafael Capurro states its importance most clearly in his paper “Towards an ontological foundation of information ethics” (Capurro, 2006). He explains that “information ethics has to do with the problematization of behavioral rules about what is allowed or not to communicate, by whom, and in which medium due to basic changes and challenges in the power structures of communication in a given society” (p. 176).⁵ This “problematization” holds as firmly in the digital age as it has in the past. The context and challenges of the communication of information may change, but the fundamental conceptual framework of thought about information ethics does not: information ethics is about ethical and moral issues arising from the communication of information among human beings. The idea of information as semantic content communicated between persons, whether face-to-face or mediated through an ever-expanding array of media forms, whether one to one, one to many, many to one, or many to many, is a defining feature of this version of a self-centered information ethics. To situate information in human consciousness is to connect it to the Western philosophical tradition from the Greeks to the Enlightenment, as Capurro has reminded us more than perhaps any other writer on the subject. The problems encountered in the communication model of self-centered information ethics are organized by the connections between information, knowledge, rationality, consciousness, and the ethical idea of the dependence of free moral action on the right to know, and in the ideal situation, on the right to be conscious of any and all truths bearing upon the possibility of rational, moral decision-making. Free and open communication between rational subjects becomes a fundamental condition of the possibility of the exercise of moral virtue, whether the mode of subjectivity of the moral agent is the malaise occasioned by the irreconcilable conflicts endemic to the pursuit of such communication, or the courage required to confront the amorality and immorality of others who would seek to deny it.

A common feature of the subjectivity central to the information ethics of all four thinkers considered here is the moral, epistemological agent engaged in the process of understanding, deciphering, or “decoding” the meaning of information brought to mind or consciousness,

whether by other subjects or by the presence of the informing things of social and natural worlds. A condition of the possibility of any information ethics—or so it seems—is the moral, epistemological subject of a self-centered information ethics, whose mode of subjectivity may be contested, but the necessity of whose existence in *some* fully actualized mode of subjectivity is not.

Information ethics and “modes of subjectivation”

What happens to information ethics when the point and purpose of many information processes either completely or to a great extent bypass the epistemological subject because they bypass consciousness? What does information ethics look like when it takes into account information systems and phenomena having nothing to do with informing anyone about anything, which have nothing to do with communicating semantic content from one conscious self to another, but which nonetheless have significant effects with profound ethical implications? How can information ethics take account of statements that originate in no consciousness, circulate automatically, are automatically “read” or processed, are autonomous of human subjects yet are deeply implicated in the configuration and constitution of human subjectivity? What kind of information ethics is possible and necessary when the autonomous selves and subjects of a self-centered information ethics are displaced from their privileged position at the center of ethical thinking? Can information ethics include in its purview how modes of subjectivity come about and the possibilities for the “becoming-other” of the moral subject?⁶ The remainder of this paper explores such questions by directing attention to autonomous and authorless information processes that bypass consciousness, and to how they are involved in the construction and deconstruction of modes of subjectivity.

Considered from the point of view of the epistemological subject of self-centered information ethics, autonomous and authorless information flows are mysterious. But in “The Discourse on Language”, Michel Foucault reminds us: “All around us, there are sayings and

texts whose meaning or effectiveness has nothing to do with any author to whom they might be attributed: mundane remarks, quickly forgotten; orders and contracts that are signed, but have no recognizable author; technical prescriptions anonymously transmitted” (Foucault, 1972, p. 221). Even scientific disciplines “constitute a sort of anonymous system... without there being any question of their meaning or their validity being derived from whoever happened to invent them” (p. 222).⁷ These “systems of thought”, Ian Hacking remarks in his recognition of Foucault’s work, “are both anonymous and autonomous...even the great positive achievements within a system of thought characteristically merely fill or elaborate certain preestablished uniformities” (Hacking, 2002b, p. 90).

Our electronic information environment multiplies cases of autonomous and authorless information processes. Many are found among military applications of information machines.⁸ The cyborg soldier is now a familiar figure, and cyber-warfare a recognized military strategy. Automatic munitions deployment in fighter aircraft is commonplace; weapons are triggered and aimed by information generated by either on-board or remote sensors, and processed by either on-board or remote computers. The same information is used to fly the aircraft; the aim is to take the human out of the loop as much as possible. A precursor of this kind of technology was developed in the Vietnam War’s Operation Igloo White under the authority of the then U.S. Secretary of Defense, Robert McNamara. Sensors were dropped along the Ho Chi Minh Trail to detect enemy truck and troop movements. The data were relayed from orbiting aircraft to a computer command center, then to patrolling Phantom F-4 jets, guiding them to the target and triggering their bombs, all capable of occurring within five minutes (Edwards, 1997, pp. 3–7). This communicative scene features the generation of authorless statements in the form of processed sensory data which function as commands to a non-human agent to drop bombs on humans—an information process that very deliberately bypasses the autonomous, rational subjects of a self-centered model of communication, yet one which unquestionably raises non-trivial ethical issues.

Automated electronic stock market transactions provide a less dramatic but still significant example. The aggregation of individual, automated market transactions generates digital statements that are processed to generate new financial statements, such as fluctuations in stock prices, which have significant social, political, and cultural effects. Point-of-sale purchase data provide another example. Electronic purchases generate digital statements recorded and processed to support corporate rationales directly affecting price, availability and marketing of consumer goods, and to configure the environment in which goods are manufactured and sold. Although consumer behavior causes the production of these statements, consumers are not their authors, because intentionality, an essential feature of the traditional communicative scene, is absent in their generation. Their production and processing occurs outside of consciousness, as Mark Poster observed almost fifteen years ago (Poster, 1993; 1996). Digital statements, generated and processed automatically, whether the input or output of programs, are paradigm cases of products of information processes, which by virtue of ease of processing, are authorless and autonomous to degrees and on scales that are historically unique. And in the vision of Ubiquitous Computing, there is more to come: an era where multiplicities of computing devices configure our environment, not intrusively, as personal computers do, but as a “calm technology”, analogous to other ubiquitous technologies like writing and electricity.⁹ Adam Greenfield uses the term “everyware” to describe this form of computing in which daily life is transformed by virtue of being immersed in a sea of digital statements, but serving what he imagines to be humanistic, ethical purposes.¹⁰

The importance of ethical issues arising from electronic and digital authorless statements and the autonomous information processes that generate them is recognized beyond the field of information ethics that has emerged from library and information science.¹¹ But within that field, such issues have been unduly neglected due to a disciplinary infatuation with the epistemological subject, the field’s most salient *dramatis persona*. Their connection to information ethics becomes undeniable when we consider the many documentary regimes at work in the two major Foucauldian examples of autonomous systems: scientific disciplines and the carceral networks

analyzed in *Discipline and Punish* (Foucault, 1979). About the former, Hacking remarks: “[disciplines] are not to be studied by reading the final reports of the heroes of science, but rather by surveying a vast terrain of discourse that includes tentative starts, wordy prolegomena, brief flysheets, and occasional journalism. We should think about institutional ordinances and the plans of zoological gardens, astrolabes, or penitentiaries; we must read referees’ reports and examine the botanical display cases of the dilettanti” (p. 90)—a list of kinds of “information” embracing Buckland’s “documents” and “information as thing” (Buckland, 1991; 1997). Foucault himself identifies “a network of writing,” “a whole mass of documents,” and “a system of intense registration and documentary accumulation” (1979, p. 189) as central to techniques of surveillance and incarceration. Institutionalized documentary systems work like machines that produce the autonomous statements whose effects on social, cultural, and biological life recommend them to the attention of information ethics.¹²

These effects also recommend authorless statements to the attention of an information ethics concerned with modes of subjectivity. In *Discipline and Punish*, Foucault analyzes the knowledge produced by the systems of thought or “regimes of truth” that generate kinds of individuals—a process Hacking calls “making up people”—as systems of power.¹³ In his notes for a lecture of 14 January 1976, Foucault writes: “we should try to discover how it is that subjects are gradually, progressively, really and materially constituted through a multiplicity of organisms, forces, energies, materials, desires, thoughts etc” (1980b, p. 97). His later work on modes of “subjectivation” in volumes 2 and 3 of *The History of Sexuality* pose most clearly the “philosophical ethos” he espoused in his essay “What is Enlightenment?”, where he analyzed the problem of ethical practice as a “historical ontology of ourselves”, which takes the form of a rigorous “criticism” aimed at revealing the historical contingencies of the purportedly universal categories that define us and through which domination and control over us are exercised. Criticism, he says, “will separate out, from the contingency that has made us what we are, the possibility of no longer being, doing, and or thinking what we are, do, or think” (Foucault, 1997b, pp. 315–316). Rather than regard the fully actualized subjects of self-centered

information ethics as natural kinds, Foucault's ethics is directed to the formation of modes of subjectivation in ways that resist and escape how individuals are constituted by the many forces of domination that invest, colonize, and annex the mechanisms of power that drive the thousands of micropractices of everyday life. This problem was already addressed in the first volume of *The History of Sexuality*, in its analysis of the eighteenth- and nineteenth-century discursive explosion of sexualities, perversions, and new specifications of individuals according to a vastly extended grid of sexual practices, imaginings, desires, pathologies, legal transgressions, stimulations, and pleasures. It is also Hacking's problem, in both *Rewriting the soul: Multiple personality and the sciences of memory* (1995) and *Mad travelers: Reflections on the reality of transient mental illnesses* (1998), two brilliant studies of the "historical ontology of ourselves" to deeply ethical purposes, on the historical contingencies of how mentally ill people have been made up. Both thinkers provide resources to think about links between information ethics and ways of making up subjects. They show, in specific historical instances, how Foucault's "rigorous criticism" works as an ethics: its disclosure of the contingencies of the "regimes of truth" that fashion the purported universality and stability of specific modes of subjectivity also reveals an ethical practice directed to possibilities of escape from their domination and control. Both thinkers also point to documentary routines: Foucault identifies those underlying the many discourses of sexuality, and Hacking, those underlying the "avalanche of numbers that begins around 1820", and which constituted "the statistics of deviance", or "the numerical analysis of suicide, prostitution, drunkenness, vagrancy, madness, crime, *les misérables*" (2002a, p. 100). The "information ethics" at stake here does not derive from issues arising from the communication of semantic content between individuals, but from exercises of power, "one of the prime effects [of which is] that certain bodies, certain gestures, certain discourses, certain desires, come to be identified and constituted as individuals" (Foucault, 1980b, p. 98). The ethical problem is located at a different place than imagined in self-centered information ethics—a place where the subjects whose full actuality is taken for granted in that kind of ethics are first made up.¹⁴

Examples of studies in information ethics that escape assumptions of self-centered information ethics are certainly rare, but not completely non-existent. An exemplary case is the work of Fernando Elichirigoity (2007). His study of the many “calculative engines” used for individual retirement and investment planning that now populate the Web situates information ethics in a space where subjectivity is not a given but is managed by interactions with these information machines. Highly formalized statements fly from the keyboards of users to automated retirement, mortgage, and college calculators: statements declaring household income, amount of money desired upon retirement, rates of savings, financial instruments used, retirement age, college of choice, and so on. These statements are processed by the calculators, and another set of highly formalized statements fly back: statements declaring probabilities of achieving investment goals, financial aid expected to finance children’s college education, investment recommendations, forecasts of portfolio performance, and so on. Information moves, documents circulate, but given that users’ statements most closely resemble database entries than communications of the semantic content of their thoughts, those statements are at best only quasi-authorial, whereas the returning statements, those generated by the processing algorithms of the calculating engines, are paradigm cases of autonomous discourse and authorless statements. The communicative scene does not feature two autonomous subjects communicating with one another: these are machinic and quasi-machinic interactions.

The important point of contact with information ethics emerges from Elichirigoity’s analysis of the modes of subjectivation immanent to these interactions. He presents calculative engines as a “technology of the self” in the Foucauldian sense; they institute a particular mode of subjectivation whereby the self is managed according to an “anticipatory thinking” that maps awareness of life, longevity, and finitude of human existence onto financial judgment. As Elichirigoity puts it, biological time is translated into financial time. It is a mode of subjectivation subject to specific forces of domination, since the redistribution of risk from financial institutions to individual, small investors secures windfall profit-taking by corporate leviathans at public expense. Moreover, since the self-knowledge users seek to gain about their

financial security is a mode of knowledge production that may be, as Elichirigoity puts it, characteristic of the first half of the twenty-first century by virtue of emerging from “our interactions with our simulations” (Elichirigoity, 2007, p. 293), it is also a knowledge held hostage to the ultra-rapid fluctuations and modulations of international finance. Calculating engines situate self-management in the network of risks that emanate from the instabilities of electronic flows of finance capital. Elichirigoity shows that the ethical issues arising from the information processes of these calculative “technologies of the self” are located precisely at the place where self and information system are mutually implicated, rather than, as assumed in self-centered information ethics, a fantasized space of communication between stable and fully actualized, autonomous, moral subjects who use information systems conceived to be entirely independent of them. The ethical center of Elichirigoity’s analysis is where the “vectors of freedom” (p. 297) have not yet been neutralized—or in Gilles Deleuze’s terms, over-coded or territorialized—by forces of domination, and where possibilities still exist for “powerful political counter-practices” (p. 298). In a Foucauldian spirit, he argues that information ethics needs to be genealogical because “we need to look at the moral and ethical possibilities embedded in the regimes of information that we inhabit” (p. 299). The given, autonomous, moral agent, and the ideal communicative scene of the free communication of the semantic content of thoughts between them cannot be necessities of information ethics because “the individuality and subjectivities that are made possible at any historical time are bound with the socio-technical systems that make them possible” (p. 299). Information ethics must take account of the possibilities of ethical action in zones where subjects are not fully given, but where the forces of stabilization, coding, territorialization and domination at work to construct and configure modes of subjectivation can be negotiated, opposed, resisted, and transmuted. Insofar as ethics is concerned with subjectivity, the problem is not located in debates about how given moral subjects ought to act, but in the interplay of power between forces of domination and possibilities of freedom in the formation of subjects.¹⁵ We need an information ethics that acknowledges how information processes and technologies are implicated in making up people.

Subjectivity in control societies

A self-centered information ethics limited to problems arising from the communication of information between given, autonomous, epistemological subjects cannot take into account the kind of information processes indicated in this paper. The importance of doing so can perhaps most economically be acknowledged by insisting on a need for an information ethics of what Deleuze (1995) calls “control societies”. Unlike the disciplinary society that preceded it, the control society does not seek to mold the individuality of each member, but to detect and modulate flows of desire, taste, affect, and other transient personal attributes, but abstracted from individuals and controlled by techniques of aggregation.¹⁶ “Individuals”, as Deleuze puts it, “become ‘dividuals,’ and masses become samples, data, markets, or ‘banks’” (p. 180). The aim of control is not to fashion individualities in order to situate them in a mass, but to constantly monitor and modulate flows of affect: “controls are a *modulation*, like a self-transforming molding continually changing from one moment to the next” (pp. 178–179). The mechanisms of control are pervasive, invisible and escape the direction and command of individual consciousness. Control operates through specific technologies: “control societies function with a third generation of machines, with information technology and computers, where the passive danger is noise and the active, piracy and viral contamination” (p. 180).

Dataveillance is an example of a mechanism of control. Contemporary marketing and politics in cybernetic capitalism are unthinkable in the absence of the constant collection, aggregation, and processing of data pertaining to voters and consumers. In their study of the sophistication of new dataveillance technologies, the authors of “Digital technology and the market for political surveillance” (Howard, Carr & Milstein, 2005) focus on Grapevine Polling, a public policy polling firm, and United Campaigns, a political advocacy consulting firm (both American). “With its new media tools,” they note, “Grapevine is able to track popularity shifts minute-by-minute during a televised event such as a presidential debate or to deliver population-

projectable claims on everything from whether a growing readiness exists to disagree with the president on going to war to whether people think pineapple juice should be mixed with cranberry” (p. 64). In addition to more traditional methods such as surveys and data mining, Grapevine uses spider programs that crawl through the Web, “automatically collecting website content, such as a person’s email or physical address, or an organization’s press releases” (pp. 63–64). Both Grapevine and United Campaigns use spam and spyware; the latter is installed either covertly or “with the generally underinformed consent of the user, who often later forgets about its presence” (p. 63). Both are able to provide dynamic, time-sensitive portraits of fluctuations of taste and opinion, much like the real-time representations generated by the sophisticated information processing technologies of financial markets. The clients of these companies use their products to manipulate markets or political processes; they include “advertising and public relations agencies, media and entertainment companies, university research institutions, pollsters, non-profits and private foundations, political parties, internet service providers, and PACs [political action committees]” (pp. 68–69). The authors itemize in particular the techniques, such as indirect-inference public policy polling, that do not involve any interaction or direct contact with respondents. Dataveillance is a striking example of information processes occurring automatically and autonomously, beyond consciousness. In their concluding remarks, the authors remark that the “ability of United and Grapevine to freely gather often comprehensive personal data without their subjects’ awareness marks one of the hallmarks of dataveillance” (p. 70).

These examples of information processes occurring beyond the subjects of self-centered information ethics removes us from a communicative scene of semantic content transmitted from mind to mind. If any model of information is at work here, as Tiziana Terranova (2004) and Scott Lash (2002) have pointed out, it is Claude Shannon’s mathematical theory of communication, in which the representation or semantic content of a message is irrelevant to its effect. The only thing that matters, in many important regions of the contemporary communicative scene, is clearing the noise from a channel; the objective is simply *to make*

contact. American presidential politics are highly evolved in this regard, and set a standard other countries now strive to meet. The point of much political communication dependent upon digital technologies is to make contact by arousing affect in carefully crafted target audiences. Many information processes in contemporary political life take the form of broadcasts of performances which are simply blasts of affect: outrage, piousness, excitement, joy, and other infantilized emotional postures. Once aroused, affect is manipulated by deployments of digital technologies; instances of affective response to staged events are translated into digital statements subsequently aggregated to represent dynamic flows of affect. The success of the contact such information processes achieve is measured by the magnitude of the repetition and amplification of affect and its effective management, which is aimed at assembly with and connection to a corresponding magnitude of voting behavior. From this perspective, we see many information processes that are not about semantic content and its representation in individual consciousness. Such processes are not about the communication of ideas, thoughts, propositions, arguments, evidence, or judgments. They are about the affective powers of digital information processes, and about identifying the assemblages in which those powers are most effectively exercised in the interests of specific clients, and corporate and political strategies.

Since the Enlightenment, the essence of the rational individual in the Western tradition has been the transcendental subject, or the consciousness that organizes perception and thought. When information processes bypass that consciousness by slicing the individuals of Foucault's disciplinary society into the "dividuals" of Deleuze's control society—those indicators of sub-individual, highly specific and highly mobile human attributes, affects, and powers, whose processing dissolves individuals into data clouds, mere place-holders for the modulations and control of culture in the service of capital accumulation and political control—then we are witnessing "the widespread progressive introduction of a new system of domination" (Deleuze, 1995, p. 180) in which an information ethics of the Enlightenment's transcendental subjects is obliged to confront an information ethics of how they are made up.

Conclusion

Information processes characterized by the examples of authorless statements and autonomous discourses presented here should be acknowledged as relevant to information ethics. They have significant effects, and information ethics should study them. The ethical practices of Foucauldian “criticism” can be directed to the specific “historical ontologies” in which contemporary information systems, techniques, and technologies are implicated in “making up people”. Foucault and Hacking have shown the way and their work should be taken up as resources for thinking about information ethics, as Elichirigoity has already done. But the examples presented here of electronic and digital information systems that generate authorless statements and autonomous discourses and which raise significant issues for information ethics—examples from information warfare, the data flows of commerce and international finance, and the control society—are not intended to restrict the scope of a Foucauldian ethics of freedom to an “applied ethics” of electronic and digital information systems, for at least two reasons. First, these systems came into their own only after Foucault’s death, and second, Foucault’s “ethical turn” led him to the ethical practices of the Greco-Roman world and early Christianity rather than to his contemporary scene. The value to information ethics of a Foucauldian ethics of freedom is far more general: how can his ethical thought illuminate the role of phenomena of interest to what is currently designated as “information ethics”—systems, technologies, and processes involving information, documentation, and writing—in the ethical practices of “criticism” directed to resistance to or escape from the forces of domination at work in making up people? The examples of electronic and digital information systems, technologies, and processes presented here are intended to dramatize with respect to well-known, contemporary instances the form Foucault’s ethics might take in relation to information ethics in general, whether the objects of study are contemporary or historical information systems.

A comprehensive study of Foucault’s importance to information ethics remains to be done. But this paper does intend to show that a Foucauldian ethics of freedom offers a critique of a self-centered information ethics. Some explanation of this claim concludes this paper.

The point can be made by considering the striking difference between Foucault's treatment of subjectivity and the self-centered information ethics of Froehlich and Hauptman, this paper's two paradigm exemplars of the type. For them, the moral subject emerges from what we might call two different but closely related *ethical assemblages*. By "assemblages" I mean configurations in which many heterogeneous elements—physical, conceptual, discursive, technological, institutional—are aligned to produce wholes.¹⁷ The specific elements comprising assemblages will vary from case to case, but by "ethical assemblages" I mean those configurations that include ethical, moral, and normative practices, reasoning, or mental and physical disciplines. Both Hauptman and Froehlich situate their ethical and moral elements in assemblages of institutions and organizations, professions, communities, groups, and so on—all of the elements that give rise to the conflicts that animate the modes of subjectivity of their moral agents. The chief difference between them consists in two crucial, but different vectors. Froehlich's assemblage includes the vector of conceptual conflict—that irreconcilability of divergent but equally tenable moral standards and principles and of the ethical theories that justify them. This vector is absent from Hauptman's assemblage; his crucial vector is conflict between persons and groups. Even if the other elements in their moral assemblages remain more or less the same, the two vectors generate the two different modes of moral subjects: the one animated by *malaise*, and the other by *courage*.

In Hacking's terms, these subjects are made up; in Foucault's terms, two modes of subjectivation have come about. But as Foucault and Hacking have also shown, the making up of such subjects is serious business, much more serious than is adequately addressed by what Hacking calls "the lazy terminology of social construction" (Hacking, 1998, p. 101). The subjectivities that are "made up" are not fakes or "mere constructions" (as opposed to—what?). As Hacking has especially shown in his analyses of how mental illnesses are made up, even these "made-up", or "constructed" mental patients suffer. Froehlich's angst-ridden moral subjects, Hauptman's subjects who struggle to act courageously, the moral assemblages in which they are situated, the field of moral deliberation they face and the problems they seek to solve—

all of these are made up, yet precisely because they are made up, they are real, sturdy, and durable.¹⁸

The difference between Foucault's ethics of freedom and the self-centered ethics of Froehlich and Hauptman is that in the latter case, the subjectivities are *too* durable and *too* stable. Although they are emergent constituents of moral assemblages, their configurations are taken as given once and for all, without the possibility of their contingencies or the failure of their assemblages ever being entertained. In each case, because the moral subject is a creature of a configuration of elements whose connections are assumed to be rigid, inflexible, and fully actualized, there is no point of leverage whereby those fully actualized, stable subjectivities can be resisted, subverted, or dissolved. In a Foucauldian ethics, the point of ethical practice is freedom from precisely the rigidities and inflexibilities that reify specific modes of subjectivation, whereas the practices of a self-centered ethics—including those operating on planes of articulation and expression, which include the scholarly literature—further stabilize particular modes of subjectivation, thus further reifying the connections between the elements of their moral assemblages. Foucault's ethics is directed towards possibilities of freedom from how we are made up through a *criticism* of stabilizations of connections between the elements of assemblages and through a recognition that processes of stabilization are also transformations of relations of power, which contain productive and generative possibilities, to relations of domination, which do not. Articulations of a self-centered information ethics aids the mutation from relations of power to relations of domination.

Foucault, Deleuze, and Hacking show us a way of ethical thinking that illuminates a field of problems and issues in information ethics veiled from the perspective of a self-centered information ethics. Their work also confronts us with possibilities of escape not only from dominating modes of subjectivation immanent to information systems, but from narrow range of moral problems that goes along with them. But it also suggests a criticism: that insofar as a self-centered information ethics contributes to the stabilization of modes of subjectivity and the

assemblages from which they emerge, it is complicit in the reification of the forces of domination from which their ethics seeks to free us.

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Notes

¹ This paper originated as a presentation given on 16 September 2005 to the Nordic Research School in Library and Information Science workshop, Structures of Power: Information, Knowledge, and Property, held at the Department of Archival Science, Library and Information Science, Museology (ALM), Uppsala University, Sweden, September 15-17, 2005. It has been extensively revised.

² In a paper on cyberethics (2000), I asserted that there was no information ethics in any special sense beyond the application of general ethical principles to information services. Here, I take a more expansive view.

³ “[T]he astonishing fact is that despite all of the esoteric complexifying, all of the pedantic quibbling, all of the superfluous pilpul, ethical decisions are made in only two ways. Either one holds that something is good or evil and acts upon this belief or one considers the potential results of one’s actions and acts accordingly. All of the extrapolations, variations, and confusingly disparate terminology, all of the disquisitions, tracts, studies, and adjurations from Aristotle to Spinoza, from Bonhoeffer to Frankel, are merely commentary” (Hauptman, 2002, p. 6).

⁴ For a more nuanced account of this abstract idea of information, see Nunberg, 1996; for a

critique of the idea, see Frohmann, 2004.

⁵ Capurro acknowledged the limitations of this statement in a personal communication to the author in January 2007.

⁶ For a brief discussion of an ethics that addresses the constitution of subjectivity, see Frohmann, 2007.

⁷ It is sometimes necessary, to avoid the misunderstanding that claims about autonomous and authorless information processes imply no human is ever involved in their production, to clarify that such claims deny instead that the “author function”, as Foucault put it—“the action of an *identity* whose form is that of *individuality* and the *I*” (Foucault, 1972, p. 222)—is at work in the production of those processes.

⁸ For a recent study, see Blackmore, 2005.

⁹ “The third wave of computing is that of ubiquitous computing, whose cross-over point with personal computing will be around 2005–2020... The ‘UC’ era will have lots of computers sharing each of us. Some of these computers will be the hundreds we may access in the course of a few minutes of Internet browsing. Others will be imbedded in walls, chairs, clothing, light switches, cars—in everything. UC is fundamentally characterized by the connection of things in the world with computation. This will take place at many scales, including the microscopic” (Weiser & Brown, 1996).

¹⁰ “In everyware, the garment, the room and the street become sites of processing and mediation. Household objects from shower stalls to coffee pots are reimagined as places where facts about the world can be gathered, considered, and acted upon. And all the familiar rituals of daily life, things as fundamental as the way we wake up in the morning, get to work, or shop for our groceries, are remade as an intricate dance of information about ourselves, the state of the external world, and the options available to us at any given moment.

“In all of these scenarios, there are powerful informatics underlying the apparent simplicity of the experience, but they never breach the surface of awareness: things Just Work. Rather than being filtered through the clumsy arcana of applications and files and sites,

interactions with everydayware feel natural, spontaneous, human. Ordinary people finally get to benefit from the full power of information technology, without having to absorb the esoteric bodies of knowledge on which it depends. And the sensation of use—even while managing an unceasing and torrential flow of data—is one of calm, of relaxed mastery” (Greenfield, 2006, pp. 1–2).

¹¹ There is, for example, a large critical literature on the ethical and policy implications of surveillance and dataveillance. The political economy of information, on the effects of what Kevin Robins and Frank Webster (Robins & Webster, 1988) almost twenty years ago called “cybernetic capitalism”, and what now has evolved into scholarship on the work of Michael Hardt and Antonio Negri (Hardt & Negri, 2000; 2004), is another example.

¹² For an application of Foucault’s emphasis on documents to information studies, see Frohmann, 2004, p. 148 & ff.

¹³ In “Truth and Power”, Foucault says: “‘Truth’ is linked in a circular relation with systems of power which produce and sustain it and to effects of power which it induces and which extend it. A ‘régime’ of truth” (1980a, p. 133). For “making up people”, see Hacking, 2002a.

¹⁴ For a more extended treatment of information ethics along Foucauldian lines, see Frohmann, 2007.

¹⁵ For a discussion of the difference between relations of power and relations of domination, see Foucault, 1997a.

¹⁶ It may be necessary to point out that despite the Deleuzian context of the term “affect”, it is used throughout this section in its ordinary sense of a feeling, emotion, or desire, not in its Deleuzian sense of a capacity to affect and be affected.

¹⁷ The concept of assemblages comes from Deleuze, in both his own work and his collaborations with Félix Guattari, especially Deleuze & Guattari, 1987. For a recent elaboration of assemblage theory in social science, see DeLanda, 2006; for the use of the concept in recent anthropological studies of globalization, see Ong & Collier, 2005; for its use in Bruno Latour’s actor-network theory, see Latour, 2005.

¹⁸The absurdity of supposing that to show something is constructed is to diminish its reality or to show it's a fake is excoriated by Latour in his 2005, where he says: “in all domains, to say that something is constructed has always been associated with appreciation of its robustness, quality, style, durability, worth, etc. So much so that no one would bother to say that a skyscraper, a nuclear plant, a sculpture, or an automobile is ‘constructed’. This is too obvious to be pointed out” (p. 89); “Facts were facts—meaning exact—*because* they were fabricated—meaning that they emerged out of artificial situations. Every scientist we studied was proud of this connection between the quality of its construction and the quality of its data. This strong connection was actually one’s main claim to fame. While the epistemologists might have forgotten this, etymology was there to remind everybody” (p. 90); “When we say that a fact is constructed, we simply mean that we account for the solid objective reality by mobilizing various entities whose assemblage could fail” (p. 91).

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