

Foucault, Deleuze, and the Ethics of Digital Networks

BERND FROHMANN

Introduction

Information ethics has become a scholarly growth industry in recent years, especially through the work of Rafael Capurro, the founder of the International Center for Information Ethics (ICIE). The maturity of the debate is reflected in the leading question of the International ICIE Symposium 2004 in Karlsruhe, Germany: how is embodied human life possible within local cultural traditions and the horizon of a global digital environment? The Symposium explores ethical ramifications of this question by encouraging research and reflection on effects of the Internet and post-Internet developments of digital networks on a wide range of phenomena, including community, democracy, customs, language, media, economic development, and cultural memory. These are valuable projects, and much can be learned from them about the causal relations in which digital networks in their current form are implicated. The knowledge gained by such projects can be put to work in policies designed to embody moral principles and ethical thinking. But is it possible for ethical reflection on the Internet to move beyond the current form of the technology? Is there an ethos in which moral value is sought in the creation of new possibilities, in new configurations of persons and digital networks? This paper attempts to direct the ethical thought of Michel Foucault and Gilles Deleuze to the problem of thinking about such possibilities. The method proposed here is Deleuzian and Foucauldian philosophical reflections on three leading concepts of the ICIE Symposium's question of the effects of the Internet on locality from an ethical perspective: effects, locality, and ethics. The paper is exploratory and provisional, seeking to identify problems and pose questions rather than propose answers.

Effects and Affects

How does Deleuze's concept of ethics help us think about the effects of the Internet on locality from an ethical perspective, with special attention to the concept of effects? An effect is one term of a causal relation, which assumes the givenness, stability, and objectivity of not only the terms but the relation itself. Identifying the effects of the Internet on locality involves fixing the meanings of »Internet« and

»locality«. The multiplicities of the many distributed digital systems connecting persons, groups, institutions, and machines are pared down to create a stable plug to fit the »Internet« socket of the causal relation. In Deleuze's language, the multiplicities of the Internet are segmented; it emerges as a stable phenomenon through the work of stratification. The same is true of locality. Analysis determines which of the multiple features of a social configuration are purely local. It must pluck from social complexes those elements that particularize them in such a way that they manifest an aura of unique »places«. Shared and interwoven threads running through them must be purged in order to isolate and make visible the »local« elements upon which the Internet's effects can then be seen to operate, so that the locality of places is rendered sufficiently stable to plug into the other socket of the causal relation. Causality works like a small, simple machine: select A as the cause and B as the target; plug them into the causal relation and record the results. This simple machine is portable (»generalizable«) – we can apply it anywhere, anytime, and we can become expert in its operation by practicing how to turn it on to generate knowledge of causes. This machine may, for example, generate conclusions about how the Internet diminishes locality or even obliterates it, or on the other hand perhaps the Internet strengthens local »places«, always and in every direction. But it also may be that this »Internet« strengthens the uniqueness of only some kinds of »places« and weakens others. Once the terms of the causal relation are fixed, the question »what are the effects of A on B?« becomes manageable. Further refinements are enabled, for example, ethical interrogations of the form, »are effects X, Y, and Z good or bad?«

Science studies of the past thirty years or so have told us (Bruno Latour is a fine representative) that many kinds of arrangements – which run the gamut from tinkered assemblages of equipment, routinized laboratory behaviors, scientists' social relations, the structures of their institutions, and their conceptual, material, literary, and cultural practices, to the circuits of scientific research funding, the public policies supporting it, and all the political and economic networks lying underneath – are necessary for the simplest scientific fact to stabilize and survive long enough to be useful to others. It is the same with causality. How many arrangements must be in place to operate even this simple machine? A moral of the story told by science studies is that triumphs in contests of discovery of facts require occluding the hard work of fashioning and stabilizing scientific phenomena, which consists in the labor of slowing down ongoing processes, movements, and flows such that a scientific phenomenon can emerge to enjoy a temporary, quasi-stability. Problems arise from an ethical perspective because often the ethical challenge is precisely to the kinds of stabilizations, stratifications, and segmentations achieved. For example, ethical challenges to the way military and corporate imperatives have stabilized the form of the Internet are limited when framed by causal investigations because they accept its form as objective and given. Ethical challenges are in general handicapped when the labor involved in the construction of strata and segments is occluded, but knowledge about the contingency of phenomena and the manner in which they are constructed can open ethical thought to new possibilities.

From an ethical perspective the concept of affect as developed by Deleuze and with his co-author Félix Guattari is a useful tool for thinking beyond effects. In its Deleuzian sense, »affect« refers to an impersonal intensity that augments or diminishes a body's power of action. Deleuze and Guattari write: »To the relations composing, decomposing, or modifying an individual there correspond intensities that affect it, augmenting or diminishing its power to act; these intensities come from the individual's own parts. Affects are becomings« (1987, 256). A body is defined by its affects because for Deleuze the important question is, what can a body do? Attention to affects discloses connections between bodies, revealing what Deleuze calls »assemblages«, instead of relations of cause and effect. One looks for »the active and passive affects of which [a body] is capable in the individuated assemblages of which it is a part«; the body is considered as »an element or individual in a machinic assemblage«. One asks »what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body« (257). Bodies cross paths, connect, and change. From the perspective of affects, the question is not, for example, about the effects of the Internet on a person, group, institution, nation, or place (locality), but about the intensities generated by digitally mediated connections between bodies that make it possible for bodies to change, mutate, and become capable of new actions in new assemblages.

The concept of affect leads directly to ethics. Deleuzian thought recognizes three ways (Deleuze calls them »lines«) by which we are formed. Each of these ways, or lines, is itself multiple, with the consequence that we are multiplicities ourselves. The first line is »rigid segmentarity«, which cuts us into large segments.

»Segments depend on binary machines [...] of social classes; of sexes, man–woman; of ages, child–adult; of races, black–white; of sectors, public–private; of subjectivations, ours–not ours. These binary machines are all the more compelling for cutting across each other, or colliding against each other, and they cut us up in all sorts of directions« (Deleuze/Parnet 2002, 128).

Apparatuses of power, such as those analyzed by Foucault, are implicated in the operations of rigid segmentarity, which occupies a zone or »plane« determining the forms of things and the formation of subjects. This first line is molar; it traces »the great major dualist oppositions« (Deleuze/Guattari 1987, 208). A second line traces more supple and multiple connections beneath, between, and among the molar binary oppositions. It recognizes the multiple and malleable segmentations that define us according to more finely grained determinations. But there is a third line, which Deleuze calls »the line of flight«. It traces movements of escape from the determinations occurring at the other two levels; it is a way out. Movements on this line are events of true becoming because they are mutations eluding both molar and more supple segmentations. Modes of individuation occurring at this level owe nothing to the ways in which a person, subject, thing, or substance is individuated. Here, a body is not defined by categories pertaining to either of the two kinds of segmentation, but

»only by a longitude and a latitude; in other words by the sum total of the material elements belonging to it under relations of movement and rest, speed and slowness (longitude); the sum total of the intensive affects it is capable of at a given power of degree of potential (latitude). Nothing but affects and local movements, differential speeds« (Deleuze/Guattari 1987, 260).

The difference between defining a body by the determinations of segmentarity (for example, by »generic and specific characteristics, organs and functions«) and by its affects is the difference between scientific knowledge – where causal relations find their home – and ethics. Deleuze and Guattari write:

»In the same way that we avoided defining [a body] by its organs or functions, we will avoid defining it by Species or Genus characteristics; instead we will seek to count its affects. This kind of study is called ethology, and this is the sense in which Spinoza wrote a true Ethics« (ibid. 257).

From the standpoint of ethics, a body is defined only by the mode of individuation traced by the third line, the »line of flight«:

»[...] in Ethics, the organic characteristics derive from longitude and its relations, from latitude and its degrees. We know nothing about a body until we know what it can do, in other words, what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body, either to destroy that body or to be destroyed by it, either to exchange actions and passions with it or to join with it in composing a more powerful body« (ibid. 257).

Since ethics is located in an abstract zone before determinations of form, substance, and subject, Deleuze and Guattari identify imperceptibility, indiscernability, and impersonality as »the three virtues.« The power of ethical action consists in becoming imperceptible, »[t]o reduce oneself to an abstract line« (ibid. 280), to find a way out, to effect a true becoming. For digitally networked bodies, the ethical concern is about intensities that augment or diminish a body's powers of action in assemblages of flesh and silicon. Can such assemblages reveal a line of flight, a true becoming in a zone abstracted from both great and small segmentations? Is it possible for such assemblages to mutate into new forms, substances, and subjects? The answers to such questions will be both radically local and highly abstract, because the question always begins with an individuated assemblage but seeks new combinations of elements abstracted from existing segmentations. Ethical thinking about the Internet and locality is directed therefore to the intersections of networked bodies with the great »binary machines« and their processes of overcoding, to drawing maps of »the strata composing us« (ibid. 208) insofar as they traverse such bodies, and to finding lines of flight leading to true becomings, new possibilities, greater powers of action, and new assemblages. The focus is on multiplicities, singularities, and affects, not on causes and effects. Deleuze's ethics operates in a zone beyond efforts to enhance the »good« effects of the Internet on locality and minimize the »bad«. It suggests an ethos of escape from the current form of the Internet and prevailing determinations of relations of locality and globalization in order to create new assemblages and new becomings.

Locality

Transformations of temporality and spatiality wrought by digital networks have been at the forefront of discussion ever since they became extended across the globe. The question of the relationship between the Internet and locality is always situated in analyses of globalization, which raise questions about the fortunes of uniquely local »places« in global politics, economy, and culture. Much ethical inquiry has centered on the viability and even survival of such places. The production through global networks of spaces abstracted from locality are often seen as morally pernicious when it can be shown to imperil local communities and ecologies. Such arguments have generated much debate and are now familiar.

It is worth thinking about the concept of locality because whatever complexities it embodies ramify throughout its discursive terrain. And there are complexities, as, for example, Doreen Massey's work indicates. She argues for thinking of space in terms of intersecting events – »the simultaneous coexistence of social interrelations at all geographical scales, from the intimacy of the household to the wide space of transglobal connections« (Massey 1994, 168). Several consequences and complexities follow from this conception. First, the uniqueness of a place derives from the particular set of social relations taking place at a particular locality: »one way of thinking about place is as particular moments in such intersecting social relations, nets of which have over time been constructed, laid down, interacted with one another, decayed and renewed« (ibid. 120). Second, not all of these social interactions are face-to-face, many extend to other places, and even those that do occur in situations of co-presence are not necessarily more direct or unmediated than those taking place over a distance. Third, since »the understanding of any locality must precisely draw on the links beyond its boundaries« (ibid. 120), no place is only local or only global: the »global is in the local in the very process of formation of the local« (ibid. 120). Fourth, because the »identities« of places, Massey notes, »are constructed through the specificity of their interaction with other places« (ibid. 121), her conception bristles with singularities and multiplicities rather than traversing the smooth surfaces of causal relations between two abstractions, locality and Internet. Fifth, because »the social relations out of which they are constructed are themselves by their nature dynamic and changing« (ibid. 169), the identities of places are inherently unstable, thus setting further complexities in the way of readily generalizable relationships, such as causal ones, between these identities and digitized global »flows«. Finally, causal analyses seeking to establish connections between two stabilized forms such as »Internet« and »locality« not only abstract from complexities such as those already indicated but obscure what Massey refers to as the »power geometry« of the »time-space compression« so often cited as the distinguishing feature of global communication networks (see, for example Harvey 1989, and the »space of flows« in Castells 2000). Time-space compression, she notes, »needs differentiating socially« because

»it is [...] about power in relation to the flows and the movement. Different groups have distinct relationships to this anyway differentiated mobility: some people are more in charge of it than

others; some initiate flows and movement, others don't; some are more on the receiving-end of it than others; some are effectively imprisoned by it« (ibid. 149).

Famously, Marshall McLuhan said that electronic simultaneity turns the world into a global village, but somewhat less famously also pointed out that villages are often savage places. To attend to Massey's social differentiation is to work along a moral dimension.

The singularities, multiplicities, and complexities of the various entanglements of locality and globalization are worth keeping in mind in the face of a breathless discourse of radically unprecedented social configurations facing us in the »information age«, whether celebrated or decried. A quick look at Castells' »space of flows« highlights the limitations of exclusive focus on what is new. He argues that the »new logic« of spatial forms – the new »space of flows«– and the »processes dominating our economic, political, and symbolic life« (Castells 2000, 412) are determined by the material supports of simultaneous social practices that depend upon »programmable« interactions between actors separated in space. Referring mostly to digital networks (but sometimes including movement by jet aircraft), Castells says that »our society is constructed around flows: flows of capital, flows of information, flows of technology, flows of organizational interaction, flows of images, sounds, and symbols« (ibid. 412).

Much of society – and the qualification is important whenever »society« as such is encountered – has always been organized around flows of these kinds. The discussion of »the domestication of the savage mind« in Latour's chapter »Centers of Calculation« in *Science in Action* (1987) is about the late 18th-century flows of »immutable mobiles« that made it possible to gain knowledge of colonized lands in the service of European imperialism. An especially illuminating example of early »flows« in aid of empire is the traffic in plants and seeds. Castells's »second layer« of the space of flows – its configuration of nodes and hubs – has a precursor, as Lucile Brockway has shown in her work on England's Kew Gardens. Kew was both a node and a hub, that is, in Castells's terms, one of the »exchangers, communication hubs playing a role of coordination of the smooth interaction of all the elements integrated into the network«, and one of »the nodes of the network, that is the location of strategically important functions that build a series of locally-based activities and organizations around a key function of the network« (Castells 2000, 413). Kew was the center of a »space of flows« of seeds and plants from around the globe and a »center of calculation« that consolidated knowledge of economic botany. Kew sent plants, seeds, and knowledge to the colonies for use in a »programmed« agriculture which provided needed economic support for England's global empire:

Those plants with economic properties were propagated in the Kew greenhouses, studied and sometimes improved by hybridization, and then sent out to the colonial gardens and botanical stations for trial and distribution to planters. In this way Kew became a depot for the interchange of plants throughout the Empire. Packets of seeds and letters of advice went out by the royal mail steamers from Kew to the directors of the satellite gardens in the tropics and subtropics around the world.

Projects of plant exchange with the colonies ... include the sending of tea plants and seed to Jamaica, ipecac and mahogany raised from seed at Kew to India, papyrus to India, cork oaks to Punjab, an improved variety of tobacco to Natal, both tobacco and cinchona to St. Helena, and Liberian coffee, grown at Kew, to both the East and West Indies. Pineapples were sent to the Straits Settlements, and rubber-yielding vines from Assam to West Africa. Plants of the palm family, yielding copra, oils, waxes, and fibers, were housed for study and display in the great Palm House at Kew, and distributed from one tropical colony to another (Brockway 1979, 84–85).

Richard Drayton's comprehensive *Nature's government* provides additional support for a botanical space of flows long before our electronic, digital version. Moreover, because plants were laden with potent representations, images and symbols flowed through these earlier circuits as easily as capital, information, technology, and organizational interaction:

»One aspect of the political value of plants lay in their contribution to the aestheticization of power. Ornamental gardens became part of the mark worn by European princes and potentates, a living equivalent to royal art collections. Exotic plants, by their sheer strangeness and beauty, provided a kind of dignity behind which arbitrary power could hide. Botanical classification, moreover, brought to a culmination in Linnaeus and Jussieu, embroidered these objects of wonder into the fabric of universal truth« (Drayton 2000, 45).

These brief remarks on historical examples of earlier spaces of flows suggest that relationships between the global and the local, which dominate discussions of the effects of the Internet on locality, have complex historical precursors. No analysis of such relationships can afford to ignore histories of flows and movements often thought to be unique to the current scene. Simultaneity and circuits of electronic impulses (the »first layer« of spaces of flows) bear the full burden of the novelty of Castells' networked society and the new configuration of locality by global spaces of flows. But since simultaneity is only a threshold of speed, more argument is required to establish the epochal significance of acceleration. The global flows of British imperialism may have been slower than those of digital capitalism, but so are some of the altered speeds of our own day (for the Pacific Islanders disconnected from the rest of the world due to the domination of jet travel, the speed of flows very important to them has diminished to zero). Appeal to specific technological phenomena (electronic impulses) as explanations of the novelty of our social order risks flirtation with a discredited technological determinism. The conclusion suggested by this brief excursus into history is that expectations of generalizable causal analyses of relationships between locality and specific technologies of networked societies are likely to be bedeviled by historical complexities.

Ethics

The affinities between Deleuze's and Foucault's ethical viewpoints lead us beyond issues of the effects of digital technologies. Both focus on multiplication: of affect,

life, possibilities, and creativity. They view ethical action in terms of freedom, whether articulated in Deleuze's »lines of flight« or in Foucault's »thought«. How can their thinking about ethics help us with the question of the relationships between the Internet and locality?

The theme of freedom may be found in Foucault's essay, »What is Enlightenment?«, where he describes a »philosophical ethos« answering to one of the chief concerns of his later work: what form does the practice of rationality take in establishing a free relation to oneself in which the authority governing one's actions derives not from law but is self-referential, that is, where the subject exercises authority over itself? Foucault refers to this practical reason as »criticism«, which he describes as a »historical ontology of ourselves«. Criticism is historical reflection with an ethical aim: it consists in revealing the contingent in what is given as transcendent and universal, thus making it possible to work on oneself to become free of the universal's domination: »it 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 1997, 315–316). Because »ethics is the considered form that freedom takes when it is informed by reflection« (ibid. 284), a historical ontology of ourselves seeks »to give new impetus, as far and wide as possible, to the undefined work of freedom« (ibid. 316). That »work« is a philosophical asceticism, an ethos of self-detachment, or a »care of the self« directed to *se dépandre se soi-même*, which Paul Rabinow in his introduction to *Ethics* renders as »to disassemble the self, oneself« (Foucault 1997, xxxviii). What is philosophical activity, Foucault asks, »if it is not the critical work that thought bears on itself? In what does it consist, if not in the endeavor to know how and to what extent it might be possible to think differently, instead of legitimating what is already known?« (Foucault 1988, 9).

In his response to an interviewer who suggested that people at Berkeley commonly pursue their lives as works of art, contrary to Foucault's claim that in our time art is thought in terms of objects but not individual lives, Foucault observed that most of them »think if they do what they do, if they live as they live, the reason is that they know the truth about desire, life, nature, body, and so on« (Foucault 1997, 261–262). His response evinces his concern for the relationship between ethics and truth. For Foucault, care of the self is eclipsed in Western thought by the will to truth, which is expressed as »know thyself«. The decisive moment came with Descartes, where only self-reflection was needed to arrive at truth, in the form of clear and distinct ideas. As Foucault puts it, with Descartes the »relationship to the self no longer needs to be ascetic to get into relation to the truth. It suffices that the relationship to the self reveals to me the obvious truth of what I see for me to apprehend the truth definitively« (ibid. 279). The will to truth was, for Foucault, the essential issue for the West:

»After all, why truth? Why are we concerned with truth, and more so than with the care of the self? And why must the care of the self occur through the concern for truth? I think we are touching on a fundamental question here, what I would call the question for the West: How did it come about that all of Western culture began to revolve around this obligation of truth which has taken a lot of different forms« (ibid. 295)?

As Rabinow sees it, Foucault deplored the price of self knowledge – the »renunciation of feeling, solidarity, and care for one's self« (Foucault 1997, xxv) – and worked to show the contingency of this renunciation and the »universal unbrotherliness« that accompanied it. Ethical action consists in a »mode of subjectivation« not eclipsed by the will to truth's drive to knowledge, transcendence, and universality.

A philosophical ethos seeks contingencies and singularities rather than universal determinants, which block the aim of getting »free of oneself«. Rabinow writes that for Foucault, »the challenge of the mode of subjectivation is not to base one's subjectivity [...] on any science, nor on any previously established doctrine« (ibid. xxxi); Foucault »categorically refused appeals to »science, religion or law« as the basis upon which a free person could shape his life« (ibid. xxix). The »criticism« that constitutes the historical ontology of ourselves is not driven by a will to knowledge of universals:

»that criticism is no longer going to be practiced in the search for formal structures with universal value but, rather, as a historical investigation into the events that have led us to constitute ourselves and recognize ourselves as subjects of what we are doing, thinking, saying« (ibid. 315).

It is an »always partial and local inquiry«, which »must turn away from all projects that claim to be universal and radical« (ibid. 316). Deleuze writes that Foucault's method »rejects universals to discover the processes, always singular, at work in multiplicities« (Deleuze 1995, 150).

Foucault's ethical thinking implies that an ethics relying on studies of causal relations such as those seeking to discover the effects of the Internet on locality are driven by a »will to truth«.

Given the centrality of truth to Western culture, this consequence is not surprising, but it does not mean that such investigations are not useful from a moral perspective. Even though in Western culture it is »within the field of the obligation to truth that it is possible to move about in one way or another«, some moves have moral value when directed »against effects of domination which may be linked to structures of truth or institutions entrusted with truth« (Foucault 1997, 295). Contests of morality do occur within what Foucault calls »games of truth«. But his ethics suggests other possibilities. From the perspective of the Foucauldian task of freedom, which involves finding the contingency of what is given as universal, investigations of the role of digital networks would not seek knowledge of the regularities of cause and effect but rather what is contingent and singular in them, that is, in what is not embedded in scientific truth. Pursuing such singularities instead of causal regularities could open thought to questioning digital networks as technologies of the self in the nexus of its relationships to others from the perspective of an ethos of freedom seeking to create a new culture and new relations of the self to itself rather than the truth of how digital networks in their current historical configurations affect individuals and groups. Such questioning, which in Deleuzian terms amounts to a »line of flight« from modernity's »will to truth«, would be the opposite of basing ethical action on knowledge of prevailing causes and effects.

In his discussions of the care of the self in antiquity Foucault often draws attention to the role of documents and writing (see especially »Self Writing« in Foucault 1997). Techniques and practices of reading and writing were among the »technologies of the self« used to work on establishing a proper relation of the self to itself. The role of documents and writing in ethical practices suggests an opening for ethical reflection on digital networks insofar as they are »writing machines«. If care of the self is possible in a culture in which ethical action confronts a will to truth where knowledge of the self obscures care of the self, one may ask, what kind of relationships can be worked out between the technologies of a contemporary care of the self and the writing practices of networked environments?

Dangers spring to mind immediately. Digital writing machines are not only communicating and recording but processing devices. Processing occurs at many levels, from display of keystrokes as screen images and production of interactive »stealth« traces of web site visits in the form of »cookies« to recording financial transactions in remote databases, surveillance of email messages, and data flows guiding weapons to remote targets. Information processing capabilities permit cybernetic capitalism to manipulate electronic consumer, legal, and medical records to rationalize corporate strategies. Digital networks are thoroughly stratified by the great »molar« determinations analyzed by Deleuze. We do not so much use digital writing machines to record and disseminate »information« as we feed machines that write us in scripts far removed from our knowledge and control. Since in the digitally networked environment writing becomes executable, it takes the form of raw material for cybernetic command and control mechanisms based upon traces of the movements of persons, data, and machines. Foucault remarked that what is at stake in a philosophical ethos of the historical ontology of ourselves is, »how can the growth of capabilities be disconnected from the intensification of power relations?« (Foucault 1997, 317). His question is especially pertinent to possibilities of ethical practices of self writing in networked societies.

Deleuze registers his sensitivity to similar dangers in his analysis of the State in terms of the realization of the »abstract machine« of overcoding of a society. The »abstract machine« is the »diagram« which maps the organization of »the dominant utterances and the established order of a society, the dominant languages and knowledge, conformist actions and feelings, the segments which prevail over the others«, thus ensuring »the homogenization of different segments, their convertibility, their translatability«, and the regulation of »the passages from one side to the other, and the prevailing force under which this takes place«. Deleuze poses an urgent question that suggests a need for investigations of how information science fits into the »assemblage« of the State:

»We should ask today which are the abstract machines of overcoding, which are exercised as a result of the forms of the modern State. One can even conceive of ›forms of knowledge‹ which make their offers of service to the State, proposing themselves for its realization, claiming to provide the best machines for the tasks or the aims of the State: today informatics?« (Deleuze/Parnet 2002, 129–130).

Deleuze's concept of the successor to Foucault's »disciplinary society« – a »control society« in which the population is constantly monitored, where capitalism is »no longer directed toward production but toward products, that is, towards sales or markets« (Deleuze 1995, 181), and where »the key thing is no longer [as in disciplinary societies] a signature or number but a code: codes are passwords, whereas disciplinary societies are ruled by precepts« (ibid. 180) – is a society marked by a particular relation to technology: »each kind of society corresponds to a particular kind of machine – with simple mechanical machines corresponding to sovereign societies, thermodynamic machines to disciplinary societies, cybernetic machines and computers to control societies« (ibid. 175).

The ethical issues at stake for both Foucault and Deleuze are grounded in the possibility of freedom. Deleuze speaks of stratification, segmentation, and over-coding, and Foucault of determinations experienced as universal. Both thinkers see ethical action as strategies of escape from such determinations, albeit localized, partial, and always incomplete. For Foucault, these are strategies of a »historical ontology of ourselves«, and for Deleuze, a pursuit of »lines of flight«. Since neither lived to see twenty-first century digital networks, they could not directly address issues of the form of ethical action in our networked environment. But some extrapolations can be made that offer a contrast to more traditional approaches in information ethics.

To recognize digital networks as data processing machines implies that analyses based just on their communicative capabilities are inadequate. A primary issue of traditional information ethics is access, which in a networked environment becomes the familiar issue of »information rich« and »information poor«. Issues of access rarely extend beyond proposals for improved traffic flows of information and more efficient delivery systems, often based upon analyses of the effects of networks considered as conduits. But when we reflect on the processing capabilities of networked digital machines, issues arise of how we are constituted through and by such systems, how we are written by them, and what they do with and to us. These issues are not only different from those of access, but shed a different light on the benefits and moral value of access. Deleuze's work suggests that the discovery of a »line of flight« leading us away from the »self writing« performed by networked digital machines might be a compelling ethical issue, as does Foucault's emphasis on the role of documentation in disciplinary societies (see especially Deleuze 1979, 189–192). Instead of enlarging networks of communication under the rubric of access to information, ethical action could take the form of »becoming imperceptible« to these machinic self writings that »make their offers of service to the State« by manipulating the data traces of individuals in ways utterly imperceptible to them. Deleuze suggests as much when he says: »The quest for »universals of communication« ought to make us shudder [...]. Creating has always been something very different from communicating. The key thing may be to create vacuoles of noncommunication, circuit breakers, so we can elude control« (ibid. 1995, 175). Perhaps a pressing ethical question is: how does one become digitally imperceptible? We may ask, in Deleuze's terms, how to

create digitally imperceptible multitudes that can intensify lines of flight from the dominant molar stratifications at work in networks of digital machines. Ethical action may have more to do with moving imperceptibly through these networks than localizing it, more to do with escaping from the determinations of networked writing than installing »localities« within them.

Conclusion

Deleuze and Foucault suggest ways in which ethical thought about digital networks might move beyond causal analyses and the determinations, segmentations, and stratifications prevailing in specific historical configurations. They direct our thought to multiplicities, contingencies, singularities, and the possibilities of mutation into new configurations. The problems and questions presented here can be summarized as follows:

1. How do digital networks augment or diminish the powers of action of assemblages of humans and machines to create new possibilities, new becomings?
2. The problems encountered in creating such possibilities may be expected to be both radically local due to the focus on individuated assemblages and highly abstract as measured by the distance between new becomings and prevailing determinations.
3. Any new becoming in the realm of digital networks will confront the great binary segments that configure our historical period.
4. Analyses of locality in relation to digital networks confront problems of the inherently unstable nature of a »place« and the complex interconnections between the local and the global which have been a feature of Western culture for centuries.
5. What are the possibilities, in the Foucauldian ethical sense of a »technology of the self, «of »self writing« in an environment in which we ourselves are written by networked, digital machines?
6. How can information ethics address the inadequacies of analyses based upon the communicative effects of digital networks?
7. What are the possibilities of an ethos of »becoming digitally imperceptible«?

Deleuze and Foucault have left rich bodies of work with profound ethical implications. This paper aims to open reflection on their importance to information ethics.

BERND FROHMANN, Prof. Dr., born _____, Associate Professor at the University of Western Ontario; main research topics: *documentation, information science*; <http://www.fims.uwo.ca/people/faculty/frohmann/index.html>; e-Mail: frohmann@uwo.ca; publications:

- (2004): *Deflating Information: From Science Studies to Documentation*, Toronto – Buffalo – London: University of Toronto Press;
- (2004): *Documentation Redux: Prolegomenon to (Another) Philosophy of Information*, in: *Library Trends*, 2004, vol. 52: 387-407;
- (2000): *Cyber-Ethics: Bodies or Bytes?*, in: *International Information and Library Review*, vol. 32, 423-435; Translated into German by Anne Lausch as: *Cyberethik: Bodies oder Bytes?*, in: *Netzethik: Grundlegungsfragen der Internetethik*, edited by Thomas Hausmanninger & Rafael Capurro, München: Wilhelm Fink Verlag 2002, 49-58.