Floridi's Philosophy of Information and Information Ethics: Current Perspectives, Future Directions

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Floridi's Philosophy of Information and Information Ethics: Current Perspectives, Future Directions

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In order to evaluate Floridi's philosophy of information (PI) and correlative information ethics (IE) as potential frameworks for a *global* information and computing ethics (ICE), I review a range of important criticisms, defenses, and extensions of PI and IE, along with Floridi's responses to these, as gathered together in a recent special issue of *Ethics and Information Technology*. A revised and expanded version of PI and IE emerges here, one that brings to the foreground PI's status as a *philosophical naturalism*—one with both current application and important potential in the specific domains of privacy and information law. Further, the *pluralism* already articulated by Floridi in his PI is now more explicitly coupled with an ethical pluralism in IE that will be enhanced through IE's further incorporation of discourse ethics. In this form, PI and IE emerge as still more robust frameworks for a global ICE; in this form, however, they also profoundly challenge modern Western assumptions regarding reality, the self, and our ethical obligations.

What we are discovering is that we need an augmented ethics for a theory of augmented moral agency. (Luciano Floridi, 2008, p. 198)

... *remain faithful to the earth*.... To sin against the earth is now the most dreadful thing. (Nietzsche, *Thus Spoke Zarathustra,* [1891] 1954, p. 125)

INTRODUCTION

Luciano Floridi's philosophy of information (PI) and correlative information ethics (IE) are widely recognized as

among the most significant developments in the larger field of information and computing ethics (ICE). Indeed, subsequent history may judge that his PI and IE stand among a handful of prominent developments of the first six decades of Western ICE (if we begin with Norbert Wiener, 1948). At the same time, Floridi's PI and IE may well take a place as one of the most significant developments in an emerging *global* ICE for at least two reasons. One, as his PI and IE take up a naturalistic philosophy, this work thereby provides a comprehensive philosophical framework that conjoins significant elements of both traditional Western philosophy (e.g., as represented by Plato and Spinoza) and important Eastern traditions (represented here in terms of Confucian and Buddhist thought). Two, alongside naturalistic philosophy as a bridge or shared commonality between these often radically diverse traditions, PI and IE further take up an *ethical pluralism*—one that seeks to conjoin shared norms, values, and practices alongside the irreducible differences between ethical traditions and norms that define and demarcate diverse cultures. Such pluralism, simply, is essential for a global ICE that hopes to delineate shared ethical norms, values, and practices as required for meeting the ethical challenges of ICTs that now interconnect 1.401 billion people around the world— while simultaneously preserving and fostering individual and cultural identity and diversity.

At the same time, of course, PI and IE have evoked a range of important criticisms—criticisms that, if successful, were sufficiently powerful to undermine PI and IE as promising frameworks for a global ICE. But PI and IE have simultaneously inspired criticisms intended as ways of expanding and making PI and IE more robust. Any effort to take up PI and IE in the service of such a global ICE must, therefore, come to grips with both sorts of critiques.

To my knowledge, the most recent systematic and extensive dialogue between Floridi and his critics has appeared in a special issue of *Ethics and Information Technology* (2008). In the following, I draw from this special issue with a view toward developing a reasonably coherent overview of PI and IE vis-à-vis some of its most

important criticisms and defenses as raised by 10 of the most thoughtful and significant figures in contemporary ICE. By attending to these, and, in turn, to Floridi's responses, we should gain a fair understanding of PI and IE in their (more or less) current form, i.e., as expanded, revised, and still open to important critiques. This overview and understanding will then serve as the basis for revisiting the question of how far PI and IE may succeed as much-needed frameworks for a global ICE.

I begin with PI as an ontology, taking up, in the first section, PI's emphasis on relationship between entities as a key component, followed by a review of Floridi's notion of *distributed morality* as a primary ethical intention and consequence of this emphasis on relationship. I then highlight both critiques and defenses of distributed morality, concluding with an important example of what distributed morality means in praxis and with regard to artificial agents as key components of "the web of relationships" we increasingly inhabit via networked information and communication technologies (ICTs). In the second section, I bring to the foreground how PI is to be characterized as a *philosophical naturalism*, one that resonates with a wide range of such naturalisms in both western and eastern traditions. Again, I take up the ethical consequences and difficulties of this naturalism, beginning with its intended affirmation of the intrinsic goodness of all entities. We will see that this affirmation issues in a series of important criticisms, clustering around the moral status that PI thus attributes not only to artificial agents, but to all entities. Again, I hope that through discussion of both these critiques and Floridi's responses a more robust and refined understanding of PI and IE will emerge.

In the third section, I turn more directly to two specifically ethical dimensions of IE—namely, Floridi's treatment of privacy and the closely related matter of what counts as personal data. Here, I also take up a central meta-ethical critique of IE as guilty of ethical relativism. As in the previous sections, I conclude with what I think emerges from critiques and responses, as an expanded and more robust account of how IE may fulfill its original intentions, by providing us with examples from *praxis* of how we may define privacy and personal data in the infosphere. At the same time, this section highlights three important directions for future expansion and development of IE and PI, including their incorporation of explicitly pluralistic approaches.

The fourth section returns us to our starting point in ontology. There, I briefly take up the difficult debate between Floridi's PI as a philosophical naturalism and the Heideggarian components of Rafael Capurro's intercultural information ethics. This final, perhaps irresoluble, debate likewise points to future directions for further reflection.

By way of conclusion, I review what we now see as a PI and IE, whose core components have been clari-fied through this array of criticisms, and as strengthened through a number of important extensions and potential developments. This revised and expanded version of PI and IE, especially as they now more extensively incorporate an ethical pluralism, is clearly well suited to serve as a (but, importantly, not the only) framework for an emerging global ICE. At the same time, this version unmistakably points us toward a new, post-Cartesian conception of the self and ethical imperatives that will dramatically challenge modern Western conceptions.

PHILOSOPHY OF INFORMATION AS A RELATIONAL ONTOLOGY

As is well known, Floridi's Philosophy of Information is first of all an ontology—one that takes "information" as the primary ontological category and constituent. In this way, "to be is to be an informational entity" (Floridi, 2008, p. 199). Perhaps it goes without saying that for philosophers (at least of the classical sort), our most foundational work lies precisely in our primary account of what is real. Floridi's PI is thus a radical overturning of not one, but several prevailing ontologies—beginning with a modern Western materialism and androcentrism. Even more contemporary ontologies—whether those of Heidegger or of feminist and environmentalist accounts of reality as inextricably interwoven—do not go far enough, as far as Floridi is concerned. To be sure, his ontology resonates with feminist and environmentalist views in critical ways, as well as with Buddhist and Confucian views. But Floridi's PI is more radical than at least its closest Western cousins, as it starts with the (argued) claim that *everything* is fundamentally information.

Such a radical turn is inspired by an equally radical insight regarding information and communication technologies (ICTs) and their increasingly central role in our lives. That is, Floridi's PI is motivated from the outset by the observation that other metaphysical frameworks are ill-suited to take on and help resolve the multiple ethical issues and challenges evoked in the emergence of ICTs. His PI seeks to offset these deficits—in effect, by starting all over metaphysically and redefining our understanding of reality first of all in terms of information. Only such an informational ontology can sufficiently counter thereby the otherwise inherent tendency, in prevailing ontologies, to minimize or dismiss "information" as an ontologically subordinate and thus as an ethically insignificant component of our world and our philosophical reflections thereupon.

At the same time, as Alison Adam (2008) and Soraj Hongladarom (2008) point out, this ontology resonates with feminist and environmental views (Adam) as well as with the views of Spinoza and Kant (Hongladarom) in a number of key ways. As a first point of focus: For all

their crucial differences, these approaches share a view of reality as consisting of not simply constituent "atoms" or fundamental elements; in addition, reality is centrally defined in terms of the relationships between diverse elements. In this way, as Floridi himself emphasizes, his ontology draws on the emphasis on the interconnection between all things familiar from recent environmental and feminist philosophies—and, importantly, from such non-Western views as Buddhism and Confucian thought.

The ethical consequences of this ontological emphasis on relationship are immediate and crucial. To begin with, this relational ontology represents a foundational shift from modern Western emphases on the (human) moral agent as primarily a "psychic atom"—i.e., the *individual* who, as a moral autonomy, is primarily if not exclusively responsible for his or her actions—to the recognition that "moral actions are the result of complex interactions among distributed systems integrated on a scale larger than the single human being" (Floridi, 2008, p. 198). Whether in the terms of our interactions with one another via distributed networks or, in Floridi's example, within the processes of globalization as such, we are in need of developing notions of *distributed responsibility* in an ethics of *distributed morality* (Floridi, 2008)—i.e., notions better suited to our realities as informational agents and patients, who are inextricably interwoven with one another via computer and other networks. For her part, Alison Adam (2008) points out how this core insight of PI and IE can be reinforced with insights drawn from actor-network theory, as well as Daniel Dennett's account of "as if" intentionality (1994) and Lorenzo Magnani's description of "moral mediators" (2007).

By the same token, Frances Grodzinsky, Keith Miller, and Marty J. Wolf (2008) seek to refine Floridi's account of distributed responsibility by taking up the example of an artificial agent capable of learning* and intentionality* (the asterisks signify that the learning and intentionality of such artificial agents may not be perfectly identical with those of human beings). In doing so, Grodzinsky, Miller, and Wolf seek to highlight the point that a notion of distributed responsibility, while extending ethical accountability (as Floridi will emphasize) to artificial agents in the ways Floridi intends, should not thereby be understood to reduce, much less eliminate, the moral responsibility of designers for the behaviors of the agents they devise. For his part, Floridi points out that in fact, he has never attributed moral responsibility, but only moral accountability to artificial agents—a distinction familiar to parents, to follow Floridi's example, whom we may hold responsible to some degree or another for their children's behavior, but not accountable for a child's given action (Floridi, 2008, p. 195).

Similar remarks may be made regarding a related critique, articulated by Deborah Johnson and Keith Miller (2008). Briefly, Johnson and Miller argue that our acknowledgment of artificial agents as moral agents will inevitably result in the reduction or elimination of human responsibility for the design, implementation, use, and impacts of such agents. It is helpful here to remember that Floridi's ontology informs his IE. As Alison Adam has helpfully pointed out, "de-centring the human may not involve over-centring non-living things" (2008, p. 150, cited in Floridi, 2008, p. 198). Analogously, I would suggest, Floridi's point—as just made clear by Grodzinsky et al.—is that extending ethical accountability to artificial agents does not necessarily result in eliminating ethical responsibility on the part of their human designers. Whether or not Johnson and Miller will be satisfied by Floridi's specific responses to their critiques, however, remains very much to be seen.

In any event, taken together, Adam, Grodzinsky et al, Johnson and Miller, and Floridi's responses thus provide us with a fairly fine-grained account of what distributed morality means with regard to artificial agents as a key class of informational entities within the larger webs of engagements and interactions via ICTs that increasingly define our lives.

PI AS A PHILOSOPHICAL NATURALISM

A second, ethically pregnant characteristic of PI as an information ontology is its stance as a *philosophical naturalism*, one that takes reality qua information as intrinsically valuable. On the one hand, this results in a philosophical framework that overcomes a modernist emphasis on the distinction between *things* and *value*. Such a modernist emphasis can be seen especially in Descartes's metaphysics, as it locates value and worth primarily in the rational self as a thinking thing, in stark contrast with a "material" order whose value depends entirely upon such thinking selves. More broadly, this hierarchical view is often linked with the larger patriarchal views prevailing in Descartes's day. So, for example, on the basis of this dualism, Descartes establishes what has become the modernist thematic regarding science and technology—namely, that our separation from and superiority over nature allows us to exploit our new knowledge and powers over nature and thereby become "masters and possessors of nature" (*Discourse*, VI, 119). One need not be a feminist to notice that, until recently at least, the masters have usually been males; their mastery has been exercised over a nature that is almost without exception imaged as feminine (e.g., "mother nature"). In this way, the "natural" inferiority and subordination of matter in Descartes's thought thus reflect and inscribe a patriarchal worldview into the foundations of nature itself. In my view, it is one of the very great strengths of PI that, as its resonances with environmental and feminists ethics makes clear, it roundly rejects this

particular expression of hierarchy that has otherwise too deeply shaped Western philosophical traditions.

This is, to be sure, a radical move—one more radical than even feminist or environmental ethics, as these each insist that the circle of valuable beings extends beyond human males and, indeed, the human species altogether. Not surprisingly, PI's endorsement of the basic goodness of reality issues in a second set of important critiques. Broadly, these critiques argue that PI thus results in the ethical equivalent of Hegel's night in which all cows are black—i.e., a value homogeneity that does not allow us to meaningfully distinguish between the value of, say, an information device such as PDA or information agent such as a web-crawler, and that of a full-fledged human being. Philip Brey makes this point in a particularly striking way:

> IE is committed to an untenable egalitarianism in the valuation of information objects. ... From the point of view of IE, a work of Shakespeare is as valuable as a piece of pulp fiction, and a human being as valuable as a vat of toxic waste. (2008, p. 112)

For Brey, this means that PI thereby cannot provide us an essential ethical component, namely, a framework and/or procedure that allows us to distinguish between the intrinsic worth of two very different informational items—a distinction that is crucial in making many kinds of ethical choices. Floridi's response to this critique argues that Brey has missed a crucial distinction in turn. As Floridi puts it, PI's endorsement of the goodness of being is a metaphysical position, one that endorses the claim that "all entities are *at least minimally and overridably* valuable in themselves" (2008, p. 194). But this means in turn that, from any number of possible levels of abstraction (LoA), we are perfectly capable of differentiating between and establishing the relative value of, to use Floridi's example, a human life on the one hand and a spider's life on the other. To be sure, how we determine which LoA to take up in making such differentiations is itself a matter for critical evaluation; we will return to this point shortly. Here, it suffices to observe that the contrast Floridi draws between PI as a metaphysical view and how entities may be evaluated from the standpoint of a given LoA means that PI does not fall into the ethical night in which all informational entities putatively enjoy the same value and status from every possible LoA (Floridi, 2008, p. 190f).

PRIVACY, PERSONAL DATA—AND ETHICAL RELATIVISM

Before turning to two specific critiques of Floridi's IE involving specific applications of IE to the matters of privacy and personal data, it will help if we first examine a critique raised against IE at the meta-ethical level—namely, the charge of ethical relativism. Doing so will further fore-

ground Floridi's recent thinking with regard to two crucial components of Floridi's IE—namely, flourishing and entropy as IE's defining ethical norms. At the same time, this will help make explicit the role of ethical pluralism in IE, not only as part of Floridi's counter to the charge of relativism, but as a central component of PI and IE more broadly—a component, to recall, that is essential to their promise as frameworks for a global ICE.

Ethical Relativism in the Infosphere?

As we have just seen, our evaluation of the relative worth or value of diverse entities in the infosphere depends entirely on the level of abstraction that we take up to make such an evaluation. But, for a number of critics, this opens IE up to the charge of ethical relativism. Most simply, it would seem that our choice of any one LoA over another is more or less arbitrary: Nothing, it appears, in PI or IE requires or endorses our use of any given LoA rather than another. If this were true, IE would be scuttled from the outset—in particular because such relativism would directly undermine IE's claims to establish a universally legitimate ethical framework.

Of course, by itself, this does not take us far enough: We need, in addition, greater clarity as to how it is that our choice of a given LoA is not, as Floridi puts so nicely in his reply to Stahl, "just a matter of whimsical preference, personal taste, or subjective inclination of the moment" (2008, p. 190). As far as I can gather, Floridi means to move here to an ethical pluralism, one that would endorse a wide but not unlimited number of LoAs—each one of which is defined by a specified goal, namely: What is the goal of the analysis that a given LoA makes possible? In Floridi's example,

> Thus, when observing a building, which LoA one should adopt—architectural, emotional, financial, historical, legal, and so forth—depends on the goal of the analysis. There is no "right" LoA independently of the purpose for which it is adopted. (Floridi, 2008, p. 190)

For Floridi, Plato, Spinoza, Heidegger, and Buddhism each represent "equally abstract LoAs"—in my terms, IE thereby makes available a plurality of frameworks that will work especially well in relation to a particular culture, ethical tradition, etc.

Well and good—but what further comes into play here, as those familiar with Floridi's PI and IE know, is the larger appeal to *flourishing* as the final norm and *telos* defining our actions. Such flourishing of reality as an infosphere, as far as I can tell, is Floridi's counterpart to Aldo Leopold's land ethic: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise" (1966, p. 262). And, as Terry Bynum has pointed out, Floridi's focus on flourishing works in parallel with Norbert Wiener's

taking up flourishing as the overarching goal and value of computer ethics as part of the larger human ethical impulse as such. For Wiener, "flourishing" includes advancing and defending human values (life, health, freedom, knowledge, happiness), and fulfilling "the great principles of justice" drawn from Western philosophical and religious traditions. Bynum further sees agreement on these central values in the work of such computer ethics pioneers as Deborah Johnson, Philip Brey, James Moor, and Helen Nissenbaum. As I have argued earlier, this convergence between Floridi and Wiener, as well as among these other leading figures, is crucial not only as it identifies the ethical norm toward which all actions should aim, but also because it thereby stands as an example of ethical pluralism (in fact, pluralism in the form of a *pros hen* or focal pluralism), as these divergent approaches nonetheless take up human flourishing etc. as their shared focal points (Ess, 2006). This pluralistic dimension of Floridi's IE directly correlates with the pluralism of PI as a philosophical ontology; we will return to these dimensions of IE and PI by way of conclusion.

Here, however, it is helpful to notice that Floridi elaborates on his notion of flourishing in an important way in his reply to Brey. Vis-à-vis Brey's critiques of Floridi's basic ontological/ethical claim regarding the intrinsic goodness of all entities, Floridi concludes one line of response this way: "We should not fear to respect the world too much. Rather, as Augustine nicely put it, *dilige, at quod vis fac* (love/respect and do what you wish)" (2008, p. 193).

As Floridi points out here in the accompanying footnote:

> Note that Augustine uses the Latin "diligere," not "amare," a term that precisely refers to love as careful respect. As well, this is in keeping with the emphasis in IE highlighted in this issue by Hongladarom—that IE's informational ontocentrism is a naturalistic philosophy that closely resonates with Spinoza, Plato, Confucius, and Buddhist thought (among others) in its affirmation of the intrinsic moral worth of the *cosmos* as such. (2008, p. 193)

Floridi is also quick to point out that being in the company of such thinkers does not make one right. But for our purposes here, the primary point is that "flourishing" for Floridi as a final *telos* of our actions is grounded in the foundational insistence on the goodness of being, and is the aim not only of Augustine's famous dictum that tells us that a primary posture of love as careful respect; thereby, his notion of flourishing intersects with similar ethical emphases across a range of world traditions. Again, such company does not mean anyone is correct. But it does point in a last way (for now) to what in my mind is an essential strength of IE—again, its pluralistic structure, in this case, with regard to its primary ethical orientation and injunction.

As is equally well known, for Floridi, the opposite of such flourishing is what he has called "entropy"—a term that he acknowledges has caused him no little trouble. The difficulty is that any number of his readers have taken "entropy" in IE to mean the concept familiar from thermodynamics or Shannon's "equivalent measure." Against this common misconception, Floridi clarifies:

> Entropy in IE is *not* meant to refer to the thermodynamic concept nor to Shannon's equivalent measure at all. It is a metaphysical term and means Non-Being, or Nothingness. Metaphysical entropy is increased when Being, interpreted informationally, is annihilated or degraded. (2008, p. 200)

While this helps at least to avoid misinterpretation in order to know what either flourishing or entropy means in finer detail is to ask, how do these norms apply in *praxis*? Such a question, of course, points us toward the possible applications of IE as a crucial test of its potential as a genuinely useful ethical framework.

IE and Privacy

Herman Tavani generally seeks to defend Floridi's PI and IE—but precisely through the sort of critical philosophical analysis that begins by unveiling apparent shortcomings or weaknesses, with the intention of correcting these in order to make the sorts of modifications seen to be necessary to render a solid philosophical framework and approach even more robust (2008). He does so by taking up privacy as both a central issue in ICE more generally and as one of the topics Floridi has addressed most extensively as a primary area of application for IE. For his part, Floridi has already identified four significant problems regarding information privacy (2006)—and Tavani raises two further difficulties. One, he argues that Floridi's account of information privacy fails to make a needed distinction between informational privacy and psychological privacy. Two, IE on Tavani's account likewise fails to recognize an important distinction between descriptive and normative dimensions of information privacy. On the other hand, Tavani seeks to bolster Floridi's account by bringing on board his own "personality theory" of privacy.

In his reply to Tavani, Floridi agrees that the distinctions Tavani calls attention to are indeed important ones and must be taken on board. IE can do so, he argues—in particular, by taking up in turn Tavani's extension of IE through his own "restricted access/limited control theory of privacy" or RALC. At the same time, Floridi emphasizes:

> The fact that an informational ontology may help us to understand an individual as constituted by her information is meant to contribute and be complementary to other approaches to e.g. physical or mental/psychological privacy. . . . I see IE not as providing *the* only right theory, but a minimalist, common framework that can support dialogue. (Floridi, 2008, p. 199)

To be sure, the further development of IE via RALC is work yet to be done. Nonetheless, it would seem that IE, as now revised in light of Tavani's distinctions and suggestions, and in a version that explicitly intends to stand as simply one theory among others, thereby emerges as capable of giving us a still more robust account of information privacy. Such an account is valuable both for its own sake, and as it thereby counters critiques that charge that IE and thereby PI are of limited value because they ostensibly fall short of application in *praxis*.

IE and Information Law

As Dan Burk points out, a further crucial test of any information ethics is how far it may serve as a framework for analyzing and resolving legal disputes regarding information. Happily, Burk sees that a number of cases in the areas of privacy and intellectual property rights would, at least with "relatively small adjustment," serve as further examples of IE's successful application to real-world examples in *praxis* (2008, p. 146). At the same time, however, Burk argues that IE does not so far provide the sort of clear and complete ethical framework he takes as requisite for IE's complete success in this direction. He supports his claim by way of a recent case regarding the status of player performance statistics as intellectual property (2008).

Part of Floridi's response consists of arguing that what Burk sees as a deficit is really a virtue. That is, while a clear and complete framework may seem to be a desideratum, Floridi points out that such completeness and lack of ambiguity work only in very limited cases. As I would put it: Ethicists and philosophers familiar with Socrates' and Aristotle's emphasis on *phronesis* will remember that a central difficulty of making ethical decisions in the everyday world is just that the epistemological messiness and multiple ambiguities of any given situation precisely defy direct application of a limited set of principles in thoroughly univocal ways. On the contrary, the great difficulties for ethicists in particular and human beings more broadly arise as we are confronted with contexts defined by a sometimes staggering range of relevant and fine-grained details, coupled with a sometimes equally staggering range of potentially relevant norms and principles, open to an often very wide range of interpretations and applications to the particulars of that given context.

It is also important to note here: The wide range of interpretations and applications reflects not simply the intrinsic ambiguity attaching to general principles. In addition, our human freedom comes into play here in one of its most important forms, precisely because the lack of pure univocity and thereby the impossibility of a purely determinative deduction from an unequivocal general principle to a given particular means that we are free—and/or condemned—to interpret and apply what general principles and norms we

may take to be relevant to the specific contexts we find ourselves in. It is in these contexts that *phronesis* or practical judgment (what Kant later calls reflective judgment) must come into play. In fact, as complex and ambiguous as these core elements of our ethical lives may be, they become only more so, and on staggering new scales, as ICTs and their networks interweave our ethical lives with one another in a once unimaginable web of interrelationships. As in other domains of our lives so affected by ICTs, the crucial importance of "traditional" concerns (e.g., critical thinking about quality and reliability of online sources) is dramatically amplified, not somehow made simpler and easier by new technologies. In this case, "distributed morality" includes the recognition that the range of important contextual details and potentially relevant norms constituting an ethical challenge is now expanded in incredible, potentially overwhelming new ways. But this means: *Phronesis* and thus our attention to its development in *praxis* are even more important than ever before.

For his part, Floridi points out that in everyday life, "the fuzziness and slippery nature of the boundary between what counts in or out bubbles up everywhere, and it reminds us of our epistemic limits, if not of the ontic vagueness of reality" (2008, p. 202). In both ways, then, what Burk sees as the as-yet-to-be-fulfilled requirement of IE— namely, the construction of a complete and unambiguous ethical framework—is for Floridi a virtue: IE, as what Floridi has characterized as "a minimalist, common framework," makes the epistemological and ethical room necessary for the sorts of interpretation and judgment essential to the ethical decision making of free human beings.

At the same time, however, Floridi acknowledges Burk's suggestion that more development of IE in the form of additional guidelines that might bring greater coherence to law regarding data representations is in order. He provides an example of one such guideline for determining when data count or fail to count as personal data (2008, p. 203).

As with Tavani's critiques and Floridi's responses, so here again we see an important revision and extension of Floridi's IE, now vis-à-vis information law. Again, insofar as IE—perhaps with some modification—may fit at least some important instances of contemporary information law, and, even better, insofar as IE may be further developed through the addition of guidelines that extend its capacity to serve as a useful ethical framework for such law, we likewise have a strong example of the relevance of IE to real-world *praxis*, and the promise of even greater relevance through further development.

IE and Discourse Ethics

As we have seen earlier, IE is sometimes charged with falling prey to ethical relativism. This critique arises

primarily in association with the central notion of levels of abstraction (LoAs). Our analysis—specifically, our ethical evaluation—of entities and situations in the infosphere depend entirely on which LoA we take up; however, the choice of LoA appears—to some, at least—to be a choice entirely determined by whim, accident, or personal preference (to paraphrase Floridi).

Bernd Carsten Stahl sharpens this critique by way of a comparison with the discourse ethics (DE) most famously associated with Jürgen Habermas. Stahl argues that DE, as an ethics grounded on the procedures defined to establish the ideal speech situation, is thereby better able than Floridi's IE to offer us the ethical guidance we require in *praxis*. In addition, Stahl argues that DE more clearly avoids the charge of ethical relativism (2008). For his part, Floridi argues that Stahl's critique rests on some mistaken understandings of IE and specifically how LoAs function. Beyond this, however, Floridi further acknowledges that Stahl's suggestions for strengthening IE by way of further comparison with and development through DE might be very fruitful indeed (2008, p. 191).

From my perspective, it is important to recall here that DE aims at the outset to function as a pluralistic form of ethics; indeed, Stahl explicitly seeks to exploit this pluralism in his own appropriation of DE as he develops an ICE intended to preserve the irreducible differences—including different ethical norms and traditions—that define national cultures (2004). Very briefly, the requirements set forth in DE to construct the ideal speech situation establish a space for free debate and dialogue regarding fundamental norms. As different communities undertake these dialogues, they may well come to the requisite consensus—but on diverse interpretations or understandings of norms otherwise shared between communities. The pluralism of DE thus preserves the differences defining the distinctive ethical traditions of diverse national cultures, while simultaneously making possible a shared ICE grounded on DE as a procedural ethics likewise shared among these diverse groups.

Where pluralism is a central component of DE, one particular outcome of IE's further engagement with DE might well be an additional set of arguments and procedures that would enhance IE as a pluralistic ethics. Such enhancements would provide still greater clarity regarding how IE—including its use of LoAs—works to establish a plurality of legitimate views, but not, as critics sometimes charge, an ethical relativism. And, as I will elaborate more fully by way of conclusion, such pluralism in IE would thus mesh with the pluralism in PI that Floridi has already articulated. Such a development would not only bring to the foreground still more clearly the requisite coherence between PI as an ontology and IE as an ethics; it thereby would strengthen PI and IE as frameworks for a pluralistic global ICE.

ONTOLOGY REDUX

Perhaps Floridi's clearest differences are with Rafael Capurro—primarily as Capurro includes among his starting points a Heideggerian view. On this basis, one of Capurro's most important concerns with Floridi's "informational turn" is that its non-androcentric insistence on the intrinsic (if easily overridable) value of all entities will inevitably lead to a potentially disastrous undermining of our emphases on the value and responsibility of human beings as key moral agents (2008). Of course, Floridi disagrees, as Grodzinsky et al. recognize and as Floridi points out in his reply to Johnson and Miller.

Readers who carefully review both Capurro's extensive criticisms and Floridi's reply may see the way toward some sort of resolution or compromise position that would bridge these otherwise seemingly incompatible views. After all, both Capurro and Floridi agree that information ethics must now include as one of its central tasks the development of an intercultural computer ethics (Capurro's term)—what I have called "ethics for the rest of us," i.e., everyone who interacts with an ICT, whether in the form of a "traditional" laptop or an Internet-capable mobile device (Floridi, 2008, p. 201). Further, both philosophers clearly share deep commitments to what I think of as some of the best of Western norms and traditions, alongside equally deep commitments to the critical ethical importance of pluralism in a world increasingly interwoven by ICTs. But "parts is parts"—and ontologies are ontologies. Whether or not the deep ontological divide between an intercultural information ethics resting in part on Heideggerian foundations, and an information ethics resting on a more radical, non-androcentric philosophy of information, can be bridged in some way remains very much an open question—and a question whose responses will carry with them enormously different consequences.

CONCLUDING REMARKS

Keeping this deep divide between Floridi and Capurro fully in mind, I believe it nonetheless fair to say, from the larger perspective constructed through this article, that Floridi's IE and PI, especially as clarified through his responses to important critiques and as extended in several ways (especially via Hongladarom, Tavani, Burk, and Stahl)—and as now complemented by at least three areas for further development (i.e., in informational privacy, guidelines for application to information law, and appropriation of a procedural DE)—stand as a still more robust and promising framework for a global ICE. This is not simply because Floridi has managed to defend PI and IE against important critiques, and to expand and thereby strengthen PI and IE through the thoughtful criticisms and suggestions of others. In addition, these critiques and

suggestions have helped bring to the foreground the importance of pluralism in conjunction with his key norm of flourishing, and point toward a still stronger from of pluralism for IE as it may take up DE and its emphasis on procedural approaches designed to establish such pluralism from the outset.

In doing so, Floridi extends the pluralistic character of his philosophy as already articulated with regard to PI. That is, in parallel with what he notes here regarding IE as one minimalist framework among others, Floridi has previously described PI as a "lite" form of information ontology:

> First, instead of trying to achieve an impossible "view from nowhere,', the theory seeks to avoid assuming some merely "local" conception of what Western philosophical traditions dictate as "normality"—whether this is understood as post-18th century or not—in favour of a more neutral ontology of entities modelled informationally. By referring to such a "lite" ontological grounding of informational privacy, the theory allows the adaptation of the former to various conceptions of the latter, working as a potential cross-cultural platform. This can help to uncover different conceptions and implementations of informational privacy around the world in a more neutral language, without committing the researcher to a culturally-laden position. (2006, p. 113)

And so, as I have argued previously, PI is indeed an important example of the pluralistic approach that I believe is essential to the development of a global ICE that seeks to conjoin shared norms and practices (as necessary for our life and work together in an world increasingly interconnected via ICTs) alongside the irreducible differences that define our distinctive individual and cultural identities. That is, pluralism allows precisely for the possibility of interpreting or applying a shared norm—as we saw in the example of flourishing—in diverse ways in diverse cultures, i.e., in ways the reflect and preserve precisely the distinctive traditions and values that define a given culture (cf. Ess, 2006).

Even better, what now appears to me to be still greater clarity regarding pluralism within IE proper, along with the promise of rendering IE even more robustly pluralistic via DE, reinforces and expands on the pluralism of PI in helpful ways, and renders PI and IE together a still more suitable framework for a global ICE.

Yes, But . . .

In my view, one of the most important insights to emerge in the special issue of *Ethics and Information Technology* comes in Floridi's reply to Hongladarom. Here, Floridi acknowledges Hongladarom's account of the resonances between PI/IE and Spinoza—and, as Hongladarom further spells out, with still older conceptions of ethics, ranging from Aristotle through Confucian and Buddhist traditions. Indeed, Floridi continues here to extend the web:

> Plato, of course, is another great defender of the intrinsic "goodness of Being," and in *Genesis* we are told that the Biblical God not only creates the universe but also rejoices again and again at the sight of its intrinsic goodness. (2008, p. 203)

Most importantly, Floridi continues,

> I am happy to concede that perhaps it takes a spiritualistic form of naturalism to find the approach [of IE] attractive. Any materialistic view of the world, like Hume's, will struggle with the possibility that Being might be morally pregnant and overflowing with Goodness. (2008, p. 201)

If ontology in general is indeed foundational, as it provides our most basic frameworks for how we think (and, as a feminist, a Confucian, as well as a post-Cartesian philosopher alive to contemporary discussions of embodiment would add, *feel*) about what is real and valuable, I think that here Floridi has put his finger on a still more fundamental issue within our ontological debates. That is, key to the general debate over androcentric, human-centered, biocentric, and/or informational ontologies and ethics is just our sensibility regarding the intrinsic goodness of reality as such. For better and for worse, Descartes defined the metaphysics of the modern West by way of a secular but radicalized form of Augustinian dualism and *contemptus mundi*—contempt for the (material) world, including body. Three centuries of such metaphysics—especially as it echoes and reinforces similar dualisms prevalent among many Western religious traditions—will not be easy to dismiss or overcome.

This is all the more difficult because it means engaging not only our minds in rethinking our fundamental thoughts about reality, ethics, etc., especially as focused on ICTs and a global ICE. In addition, and to elaborate on Floridi's happy concession, all of this further means that we must learn to understand—and, however much it will make many readers shudder, *feel*—our world, beginning with our own bodies, in new (but also very old) ways. Indeed, in this direction, as the backgrounds of ecological and feminist ethics should suggest, Floridi stands among a growing array of philosophers enjoining us to move beyond the Cartesian mind–body split and all that it implies in modernity. So, for example, building on phenomenology, Barbara Becker has coined the neologism "BodySubject" (*LeibSubjekt*) to highlight that our bodies and senses of self and personal identity are inextricably interwoven (2002; cf. Barney, 2004). More recently, Susan Stuart provides an excellent overview of how phenomenology, reinforced and expanded by a range of discoveries in neurophysiology, points to a post-Cartesian understanding of the person as "there is an inseparability of mind and world, and it is embodied practice rather

than cognitive deliberation that marks the agent's engagement with its world" (2008, p. 256). In these ways, moreover, contemporary Western conceptions move closer to both pre-modern Western and non-Western conceptions. So Plato offers the *cybernetes*, the pilot whose knowledge and *judgments* about how to navigate in difficult seas as a primary metaphor for *phronesis* and its central role in our ethical lives (*Republic,* I, 332e–c, and VI, 489c). This pilot "*feels* [διαισθάνεται] the difference between the impossibilities and possibilities in his art and attempts the one and lets the others go; and then, too, if he does happen to trip, he is equal to correcting his error" (*Republic,* 360e–361a). As anyone who has sailed a ship knows, this feeling one's way through the often conflicting pushes and pulls of current, wind, momentum and balance is done through and with the body—not against it. Similarly, Confucian thought includes an understanding of the human being as *xin*, "heart-and-mind." As Ames and Rosemont elaborate, for such human beings, there are no thoughts without emotion, and no emotions without cognition (1998, p. 56). All of this is to say that Floridi's move towards a sense of self that goes beyond a purely Cartesian emphasis on the self qua disembodied mind appears to me to be part of a larger shift in these directions marked out in recent Western philosophy, beginning with the development of both ecological and feminist approaches that stress interconnectedness over atomistic difference. This shift represents a recovery and perhaps revision of pre-modern conceptions. And it is a shift whose trajectory, finally, is precisely toward a conception of self that may be more easily shared (though of course, pluralistically) among the larger globe (Ess, 2004; Ess & Thorseth, 2009). To be sure, none of this says that Floridi is right. It does say, however, that his move beyond the Cartesian mind–body split cannot be dismissed as somehow idiosyncratic. On the contrary, and more importantly, it is a move that takes us in the directions I believe are essential for establishing a genuinely global ICE.

For some (perhaps many), this will simply be too demanding. It will smack of an inappropriate—if not dangerous—reintroduction of the religious and the spiritual, after three centuries of absolutely essential Enlightenment efforts to ban these from the public and academic spheres as irrationalisms that can only lead to the sorts of ferocious internecine warfare affiliated with religion in previous centuries.

But if Floridi, along with multiple feminist, environmental, and globally-oriented philosophers such as Hongladarom who help bring into play Confucian and Buddhist perspectives, are right—then a key component of an emerging global ICE is precisely a radical reconfiguration of not only how we think, but also *feel*, about reality at its most foundational levels.

This radical reconfiguration not only implicates an equally fundamental reconfiguration of our sense of self and reason and their connections with the emotive and the body; these re-conceptions are further accompanied by new ethical imperatives. We can recall here that Hongladarom (2007) has argued that the Buddhist practice of ego reduction, alongside cultivation of the virtue of compassion, may strongly contribute to resolving problems of privacy, insofar as these practices and virtues undermine our primary motivations for wanting to invade the privacy of others in the first place. To my ear, this does not sound much different from Augustine's injunction, which we may paraphrase as: Begin from a posture of respectful care, and do what you will. For both Hongladarom and Floridi, then, their naturalistic philosophies require us not only to feel differently about the world; they further require us to practice approaching that world, in all its expressions and constellations, through a posture of compassion and careful respect. Or, in Nietzsche's phrase, contra Descartes' thematic mastery and possession of nature, we are now enjoined to remain faithful to the earth.

I could not agree more. Again, in this way, Hongladarom and Floridi bring us closer to a global ICE that points toward shared norms—but ones expressed in diverse ways in diverse traditions, i.e., as respectful care or as compassion. While this serves as yet another example of a pluralistic structure in an emerging global ICE, their shared call to a sort of virtue ethics that has us attend to our feelings and requires us to cultivate compassion will again deeply challenge those modern Western ethicists who take a more purely conceptual approach, one resting, I suspect, on Cartesian dualisms that both Floridi and Hongladarom explicitly reject. Certainly, as Floridi points out, those deeply wedded to materialism simply won't get it. More's the pity. But Nietzsche would be pleased.

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