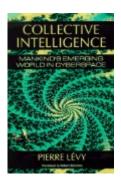
H-Net Reviews

Pierre Levy. *Collective Intelligence: Mankind's Emerging World in Cyberspace.* New York and London: Plenum Press, 1997. xxviii + 277 pp. \$27.95, cloth, ISBN 978-0-306-45635-0.



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"In response to the criticism that this is a utopian vision, I would say that, yes, the knowledge space is utopian, but it is an achievable utopia" (Levy, p. 180).

Levy's book is an ambitious attempt to convince the reader that nowhere (utopia) can be everywhere. Levy makes use of a number of metaphors, integrates a number of streams of thought, and draws on both modern and postmodern sensibilities. While the book is well-written, it is not always easy to understand--hardly surprising, given the scope and intent of the book. The book has four tables and two graphs; the former are more immediately accessible. Levy has placed notes for the foreword, prologue, introduction, and chapters after the epilogue, and these notes are followed by an index. The text itself is laid out very well and is quite clean: I can't remember finding any spelling errors. Sources in French are cited almost three times more often than sources in English (this comparison counts each citation, even if the source had been previously cited).

According to Levy, "From a political perspective the major phases in the dynamic of collective intelligence are listening, expression, decisionmaking, evaluation, organization, connection, and vision, all of which are interrelated" (p. 70). He invites us to "enter the circle ... by listening" (emphasis in the original) (p. 70). Let us take another tack. Bluegrass under a green sky; kicking the ball back and forth. You are facing your children. Wide field, warm day. Plenty of space. Smiling, laughing, your children face you. No one said this--no one said anything--but it is clear that the objective is for you to get the ball past them while their objective is to get the ball past you. So the scrimmage line continually shifts, sometimes more radically as one side temporarily succeeds in moving the ball behind the other side. If you traced the center of the scrimmage line throughout its peregrinations, the image would reveal a fantastic pulsing abstract work of art. Your intention was not toward the design; yet the design was a sign of your intention. In that sense the work of art designed itself (the idea of autonomous creation is very important to Levy). Movement to your side catches the corner of your eye.

A child comes into view. With tentative, silent steps, the child draws closer. Still closer. Watching. Hoping. Dumb. If you shift your gaze, smile, and say "come join us!" then you have an aptitude for the collective intelligence, Pierre Levy's utopia. As the people in the group change, the game is modified; the pulsing abstract work of art is an emanation of these variations. It is the emanation of the collective intelligence of the group. As long as the playing evolves as a function of the game and the group, then it remains a game. Once the game becomes forced--once someone says "we will play the game this way"--then it is no longer a game but a contest and the small collective intelligence which had flourished will wilt and perhaps be stamped out. The game captures the sense of equality and freedom which is central to the collective intelligence. The communitarian nature of the game is true to a macro-level understanding of the collective intelligence. But at the micro-level of the collective intelligence, each individual is playing his or her own game. The collective intelligence is what we all know--every variety of knowledge--though no one knows everything: "Collective intelligence is less concerned with the self-control of human communities than with a fundamental *letting-go* (emphasis in the original) that is capable of altering our very notion of identity and the mechanisms of domination and conflict, lifting restrictions on heretofore banned communications, and effecting the mutual liberation of isolated thoughts" (p. xxvii). In the collective intelligence, order evolves naturally out of the empathic interactions between individuals. Order is not imposed by the myths used to interpret the play (what Levy would call language of the Earth); the play is its own interpretation and also the interpretation of each 'actor.' Order is not imposed by the price it takes to play (what Levy would call language of the Market); the game is priceless. Order is not imposed by the battle over language, philosophy, or geography (what Levy would call language of Territory); no lines are drawn to keep people out, keep people in, or to

protect the privileged. The collective intelligence has no necessary eschatology. In this sense the idea of collective intelligence is post-modern: the idea of progress as movement toward some Edenic end-point is rejected, as is the idea of progress as an asymptotic approximation to an objective ideal. In the knowledge space, the space in which the collective intelligence finds its existence, progress is the ability of the collective intelligence to determine itself: it is random, chaotic (in the sense of "chaos" theory), and not the puppet of any master. Progress is movement toward an idyllic process in which each person is valued for his or her singularity; a process where whatever unfolds is the consequence of an unforced relation between individuals free of any hierarchy which places one person above another. The metaphor of "nomad" is one which Levy uses-though Levy intends for there to be some literalness in the metaphor. The free wandering of individuals is not the meaningless of existential anomie. It is not the wandering toward God, because God is an abstraction-as-constraint. This is one manifestation of Levy's post-modernist sensibility. However, this wandering is modernist in the same way as anarchism: individuality is of great importance.

Here is the desirable Babylon. Not a city in a particular place, but a city of the whole Earth, where each--individual! unique! holy!--speaks to each and each speak to all, according to the desire of each. It is not the cacophony of ancient Babylon but the multiphony of singularities. What can connect each person is cyberspace. But, as Levy points out, "We live in thousands of different spaces, each with its own system of proximity ... Each space has its own axiology, its own system of values or measurement" (p. 144). Levy identifies the four major spaces "which extend to the whole of humanity" (p. 145). They are Earth, territory, commodity and knowledge. "The earth," he writes, "provides the fundamental frequency. The first space corresponds to the introduction of velocities exceeding those of animal life: the velocity of language, technology, and culture. The territorial space introduces the first velocity perceptible at the individual level, that of writing and empire, bureaucracy and borders ... With capitalism the market or commodity space" comes acceleration. The knowledge space itself develops within the limits of real time, on the other side of 'live'" (pp. 147, 148).

Levy devotes Chapter Nine of his book to explaining the identity of each space. "On earth," he states, "names, tatoos, blazons, totems, and masks are all signs that signify identity. ... The ascendants of a human being are mythical ancestors, heroes, gods, animals planets, a whole range of totemic, archetypal, or fundamental entities" (p. 151). He notes that "territory" "is not limited to geography alone. It involves position and rank in institutions, castes, hierarchies, civil service corps, ... orders ..., disciplines ..., everything that organizes a space in terms of borders, ranks, and levels" (p. 152). Here "the body is a hierarchized organism and the soul appears as a micropolis, a micro polis" (emphasis in the original) (p. 153). 'Market' or 'Commodity' is a space where "the signs of identity are quantified: income, salary, bank accounts" (p. 153). Here the individual is "a micro oikos" (emphasis in the original) (p. 153). As for the knowledge space, "individual identity is organized around dynamic images, images it produces through exploration and transformation of the virtual realities in which it participates" (p. 155).

In Chapter Ten of his book, Levy discusses the semiotics of each space. The semiotics of "Earth" form a seamless connection; they "weave an unbroken canvas of meaning. This is the semiotic environment of primitives, animists, preliterate cultures, and very young children" (p. 164--here Levy draws on the work of Daniel Bougnous). The semiotics of "Territory" is one of separation: "space is detached from living breath and attached to an inert substrate; it is made sedentary through writing... The things to which these signs refer are distant from us in space and time" (p. 164). As a consequence, "The changing, living, actual bond that exists among beings, signs, and things are deferred" (pp. 164, 165). What happens is that this semiotic division becomes institutionalized: "In territorial space, the law establishes names, and words become a matter of convention" (p. 165). The semiotics of "Market" or "Commodity" space takes "Scenes and faces, landscapes and music, rites and spectacles, events of all kinds" and reproduces and distributes them indefinitely (p. 166). As for the semiotics of "Knowledge," there is "the return of being, of real and living existence within the sphere of signification. This escape from the world of absence, this resumption of contact with reality should obviously not be understood as a process of objectification or relation tied to a given signified, a guaranty of signs by means of transcendence. The real is that which implies the practical activity, intellectual and imaginary, of living subjects" (p. 168). This "suggests that the sign space becomes sensible, similar to a physical space (or several of them), which we can enter and navigate, explore, touch, and change, where we can meet others. The knowledge space is nothing more than this virtual reality, this utopia already present in patches, stippled, as a potential, everywhere humans dream, think, and act together" (p. 169). Levy further clarifies the distinctions between the four spaces in Chaptere Eleven ("Figures of Space and Time") and Twelve ("Navigational instruments").

Let me here focus on Levy's navigational instrument for the knowledge space, what he calls "cinemaps" (see pp. 190-193). According to Levy,

A collective intellect navigates within a moving universe: A cinemap is the product of this interaction. On the cinemap the informational universe (or databank) is not structured *a priori* (emphasis in the original), in keeping with some form of transcendent organization similar to that found in territorial space. It is not standardized by the use of statistical averages or distributions, as in commodity space. The cinemap integrates the qualitatively differentiated space containing the attributes of all the objects in the informational universe. The topological organization of this space expresses the variety of relations experienced by the objects or actors in this universe. ... Each point on the cinemap is a different attribute, a particular quality, shown by an icon, a unique sign. The cinemap is a moving mosaic in a state of permanent recomposition, in which each fragment is already a complete figure but one that, at each instant, only assumes it full meaning and value within the general configuration. ... The objects or actors in the informational universe continuously transform themselves, lose and gain attributes. ... Each member of the collective intellect can find his individual location on the cinemap" (pp. 191, 192).

If the icons or colors chosen to signify individuals and/or attributes and qualities are created by one individual or a group of individuals, we slip from the knowledge space toward the territory space, when of course we should be moving the other way. If, on the other hand, the icons or colors chosen to signify individuals and/or attributes and qualities are created by the individual whose person, attributes, or qualities are being signified, or by the individual who wishes to signify other individuals and/or attributes and qualities, how will anyone other than the creator of the icon or selector of the color understand what it signifies? For example: would the picture of a horse as an icon signify a horse, a horse-lover, or a lover of horse meat, or quadrupeds, or objects larger than a breadbox? To put it another way: if we want to avoid language which excludes or which abstracts or which transcends, how do we avoid using icons (or colors) with meanings so particularistic and ephemeral as to be worthless as communicative devises to everyone--let alone to a majority? These are such intractable problems, given language as it now stands, that it will come as no surprise that Levy sees on the far horizon what he calls "the over-language" (emphasis in the original) (p. xxviii). As he puts it: "The problem faced by collective

intelligence is that of discovering or inventing something beyond writing, beyond language, so that the processing of information can be universally distributed and coordinated, no longer the privilege of separate social organisms but naturally integrated into all human activities, our common property" (p. xxviii). As Levy envisions it, "the virtual worlds of collective intelligence will develop new forms of writing: animated pictograms, cinelanguages that will retain the trace of the interactions of their navigators. Collective memory will organize and redeploy itself for each navigator on the basis of his interests and travels in the virtual world. The new, angelic space of signs will be sensible, active, intelligent, and at the service of its explorers" (p. 109; see also p. 124 for other comments related to the over-language).

We also get some hints of the individual characteristics which will complement (maybe be the basis for the creation of) this over-language and which are necessary if the knowledge space is to flourish. Two important characteristics are hospitality--allowing "strangers" in--and reciprocity (p. 26) In Levy's view, "The just man includes, he integrates, he repairs the social fabric. In a society of the just, and in accordance with the conventions of reciprocity, everyone strives to include the other" (p. 26). What Levy is loathe to admit--what we learn from Lot leaving Sodom (see Levy's discussion of Abraham and Lot on pp. 23 and 24)--is that an indefinite striving can only be in behalf of those who accept the principles of hospitality and reciprocity. Other important characteristics are "exchange, attentiveness, respect, recognition, mutual apprenticeship, negotiation among autonomous subjects" (p. 86), communicating "laterally, .. outside categories and hierarchies, folding and refolding, weaving and reweaving," (p. 55) using a "mediation" which is "immanent rather than transcendent" (p. 68). Thinking of each person as a singer, each must resist the following: "the desire to mask the voice of their neighbors by singing too loudly, the urge to remain silent, and the tendency to sing in unison" (p. 68). Individuals

should make sure that the collective intelligence does "not focus on a particular goal or become reified through any of its internal actions, or a particular phase of its dynamic, when its essence is autonomous movement, the self-creative process" (p. 70). As Levy puts it, "listening itself is an immanent process within the community, a creative circularity" (p. 71). Individuals should take a longterm, not a sort-term, view of democracy (pp. 79-81). Individuals should see democracy as "organized not around the vision of power over a society (totalitarianism), not around the spectacle of power (the media), but the communication of the community with itself, knowledge of the community's self" (p. 82). Individuals must recognize the "ineluctable uncertainty" of democratic calculation (p. 83), where "calculation cannot supply an ultimate plan for what is best, but continuously tracks itself in an indefinite series of approximations, following in real time the arrival of new information and changing situations" (pp. 83, 84).

Anonymity is still another important principle (p. 27), though why this is so is not completely clear. Perhaps it is because anonymity preserves enigma, and when a person is enigmatic he or she is desirable (see p. 102), hence worth cherishing and preserving. Levy thinks ten is the minimum number of people it takes to establish a just society and that somehow anonymity is essential to a just society (p. 27). Abraham's bargaining with God to save Sodom if there are ten good people is where Levy gets the number (pp. 23-27). But if the Bible is such a sure guide when it comes to establishing the just community, why then is it not a sure guide for establishing the existence of God and moral absolutes?

Even though Levy talks of God--what only He can do--it seems pretty clear that Levy means this metaphorically (see in particular pp. 92-103). Indeed (perhaps I am placing too great of weight on this), at one point Levy states the following: "The economy of human qualities, however, contains no transcendent moment, even if it were to manifest infinite respect for individual liberties. It is a monadology without God. No one holds power. No one possesses absolute knowledge of the whole" (p. 83). In Levy's collective intelligence, what are the prospects for true believers? Levy's position on moral absolutes is somewhat ambivalent. In one part of his book, he says "The good engenders and enhances human qualities. ... Anything ... that causes the growth of human beings would be judged good, and primarily moral: dignity, recognition, communication, collective intelligence. ... Conversely, those forces that diminish and eventually destroy humanity will be judged as bad: humiliation, depreciation, separation, isolation" (p. 28). Yet in another part of his book, Levy seems to reject moral absolutes: "Collective intelligence is a utopia of the unstable and the multiple. It responds to an ethics of the best rather than the morality of the good. Static, definitive, decontextualized, the good is imposed *a priori*, on top of any existing situation, whereas the best (the best possible) is situated, relative, dynamic and provisional. The good doesn't change; the best is different wherever it is found. The good is opposed to evil; it is exclusionary. The best, however, includes evil since, logically equivalent to the lesser evil, it is satisfied with minimizing it" (p. 250). We have a problem. Determining "the best" still requires some kind of moral judgment. Perhaps this should be exercised by the majority after long, careful, and open-minded consideration, by a patient and understanding majority willing to reconsider--as suggested by Levy (pp. 69-89). If "the majority" had all the desirable characteristics previously enumerated, I would be less reticent to trust the will of the majority. Nevertheless, generally speaking, I, too, would be in favor of greater tolerance in this age of anger.

We have another problem as well. What if there are moral absolutes? Those who believe in moral absolutes probably find it easier to translate them into single-issue politics. Levy has a very low opinion of single-issue politics: "What about minorities united around a single, compelling issue ...? A discontinuous politics is born of the infantile relation between irresponsible categories each of which makes claims for itself without reference to the community, and decisionmakers who only respond to such claims on the basis of short-term electoral forecasts" (p. 80). One of the tragedies of politics is that at some point we the community have to become intolerant. I simply do not agree with where Levy wishes the line to eventually be drawn: leaving out "God" as religion would understand that term.

Back to the collective intelligence. Cyberspace, used in an inclusive and fluid manner, is central to the flowering of the collective intelligence. Technical evolution has made the language of "Territory" obsolete: "Just as nanotechnology can build molecules atom by atom, nanopolitics cultivates its communitarian hypercortex with the greatest attention to detail, the greatest precision and individualization, by promoting the complex interaction of cognitive abilities, fragile sources of initiative and imagination, quality by quality, without any loss of human wealth" (p. 55; see also pp. 14, 15, 49, 50, 58-65, and Chapter Six). Connecting everyone is technically feasible, but, in a manner of speaking, the other spaces--Earth, Territory, Commodity--make such connections impracticable. Levy realizes the window of opportunity is limited: "We have an opportunity to experience one of those rare moments when a civilization deliberately invents itself. But this opportunity won't last for long" (p. 59).

We have now considered the game for some time. We have seen something of the way the ball and the line of scrimmage traces its beauty. We have considered Levy's invitation to "enter the circle" (p. 70) and we have looked at the circle itself. The game has covered semiotics, epistemology, eschatology, progress, politics, and morals. Levy draws on Western, Middle Eastern, and Eastern thought to help us gain access to his vision of the game. Clearly (using another metaphor), the hope to move us to become gardeners in the flow-

ering of the collective intelligence is a kind of eschatology, a kind of gospel of progress, a politics of kindness. Or to use still other metaphors: Levy is a scout (my metaphor), a smuggler and ferryman (his metaphors) trying to get us across the border of a new frontier: "The knowledge space is not simply a way out of the territorial labyrinth but a bridge between the three previous spaces. It enables the earth, the territory, and commodity space to communicate with another. As it evolves in understanding and creativity, the collective intellect finds that it has nothing to defend or sell. All its efforts are directed toward welcoming, making available, understanding, and reinventing its own conscious becoming. The collective intellect works to enlarge emptiness. Not loss or absence, but Taoist emptiness, the openness and humility that alone give rise to learning and thought" (pp. 242, 243). Shall we play--before it gets too dark?

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