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SVEN BIRKERTS

Into the Electronic Millennium

In “Into the Electronic Millennium,” Sven Birkerts takes aim at what were then, in 1994, recent developments in electronic culture. As Birkerts notes, the move toward electronic forms of information was well under way at that time and no longer, even then, the imaginings of an avant-garde. It’s clear from the anecdotes he includes that Birkerts is both concerned with and upset about the developments and consequences of a rapidly rising electronic culture.

Some years ago, a friend and I comanaged a used and rare book shop in Ann Arbor, Michigan. We were often asked to appraise and purchase libraries—by retiring academics, widows, and disgruntled graduate students. One day we took a call from a professor of English at one of the community colleges outside Detroit. When he answered the buzzer I did a double take—he looked to be only a year or two older than we were. “I’m selling everything,” he said, leading the way through a large apartment. As he opened the door of his study I felt a nudge from my partner. The room was wall-to-wall books and as neat as a chapel.

The professor had a remarkable collection. It reflected not only the needs of his vocation—he taught nineteenth- and twentieth-century literature—but a book lover’s sensibility as well. The shelves were strictly arranged, and the books themselves were in superb condition. When he left the room we set to work inspecting, counting, and estimating. This is always a delicate procedure, for the buyer is at once anxious to avoid insult to the seller and eager to get the goods for the best price. We adopted our usual strategy, working out a lower offer and a more generous fallback price. But there was no need to worry. The professor took our first offer without batting an eye.
As we boxed up the books, we chatted. My partner asked the man if he was moving. “No,” he said, “but I am getting out.” We both looked up. “Out of the teaching business, I mean. Out of books.” He then said that he wanted to show us something. And indeed, as soon as the books were packed and loaded, he led us back through the apartment and down a set of stairs. When we reached the basement, he flicked on the light. There, on a long table, displayed like an exhibit in the Space Museum, was a computer. I didn’t know what kind it was then, nor could I tell you now, fifteen years later. But the professor was keen to explain and demonstrate.

While he and my partner hunched over the terminal, I roamed to and fro, inspecting the shelves. It was purely a reflex gesture, for they held nothing but thick binders and paperbound manuals. “I’m changing my life,” the ex-professor was saying. “This is definitely where it’s all going to happen.” He told us that he already had several good job offers. And the books? I asked. Why was he selling them all? He paused for a few beats. “The whole profession represents a lot of pain to me,” he said. “I don’t want to see any of these books again.”

The scene has stuck with me. It is now a kind of marker in my mental life. That afternoon I got my first serious inkling that all was not well in the world of print and letters. All sorts of corroborations followed. Our professor was by no means an isolated case. Over a period of two years we met with several others like him. New men and new women who had glimpsed the future and had decided to get out while the getting was good. The selling off of books was sometimes done for financial reasons, but the need to burn bridges was usually there as well. It was as if heading to the future also required the destruction of tokens from the past.

A change is upon us—nothing could be clearer. The printed word is part of a vestigial order that we are moving away from—by choice and by societal compulsion. I’m not just talking about disaffected academics, either. This shift is happening throughout our culture, away from the patterns and habits of the printed page and toward a new world distinguished by its reliance on electronic communications.

This is not, of course, the first such shift in our long history. In Greece, in the time of Socrates, several centuries after Homer, the dominant oral culture was overtaken by the writing technology. And in Europe another epochal transition was effected in the late fifteenth century after Gutenberg invented movable type. In both cases the long-term societal effects were overwhelming, as they will be for us in the years to come.
The evidence of the change is all around us, though possibly in the manner of the forest that we cannot see for the trees. The electronic media, while conspicuous in gadgetry, are very nearly invisible in their functioning. They have slipped deeply and irrevocably into our midst, creating sluices and circulating through them. I’m not referring to any one product or function in isolation, such as television or fax machines or the networks that make them possible. I mean the interdependent totality that has arisen from the conjoining of parts—the disk drives hooked to modems, transmissions linked to technologies of reception, recording, duplication, and storage. Numbers and codes and frequencies. Buttons and signals. And this is no longer “the future,” except for the poor or the self-consciously atavistic—it is now....

To get a sense of the enormity of the change, you must force yourself to imagine—deeply and in nontelevisional terms—what the world was like a hundred, even fifty, years ago. If the feat is too difficult, spend some time with a novel from the period. Read between the lines and reconstruct. Move through the sequence of a character’s day and then juxtapose the images and sensations you find with those in the life of the average urban or suburban dweller today.

Inevitably, one of the first realizations is that a communications net, a soft and pliable mesh woven from invisible threads, has fallen over everything. The so-called natural world, the place we used to live, which served us so long as the yardstick for all measurements, can now only be perceived through a scrim. Nature was then; this is now. Trees and rocks have receded. And the great geographical Other, the faraway rest of the world, has been transformed by the pure possibility of access. The numbers of distance and time no longer mean what they used to. Every place, once unique, itself, is strangely shot through with radiations from every other place. “There” was then; “here” is now....

To underscore my point, I have been making it sound as if we were all abruptly walking out of one room and into another, leaving our books to the moths while we settle ourselves in front of our state-of-the-art terminals. The truth is that we are living through a period of overlap; one way of being is pushed athwart another. Antonio Gramsci’s often-cited sentence comes inevitably to mind: “The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum a great variety of morbid symptoms appears.” The old surely is dying, but I’m not so sure that the new is having any great difficulty being born. As for the morbid symptoms, these we have in abundance.
The overlap in communications modes, and the ways of living that they are associated with, invites comparison with the transitional epoch in ancient Greek society, certainly in terms of the relative degree of disturbance. Historian Eric Havelock designated that period as one of "protoliteracy," of which his fellow scholar Oswyn Murray has written:

To him [Havelock] the basic shift from oral to literate culture was a slow process; for centuries, despite the existence of writing, Greece remained essentially an oral culture. This culture was one which depended heavily on the encoding of information in poetic texts, to be learned by rote and to provide a cultural encyclopedia of conduct. It was not until the age of Plato in the fourth century that the dominance of poetry in an oral culture was challenged in the final triumph of literacy.

That challenge came in the form of philosophy, among other things, and poetry has never recovered its cultural primacy. What oral poetry was for the Greeks, printed books in general are for us. But our historical moment, which we might call "proto-electronic," will not require a transition period of two centuries. The very essence of electronic transmissions is to surmount impedances and to hasten transitions. Fifty years, I'm sure, will suffice. As for what the conversion will bring—and mean—to us, we might glean a few clues by looking to some of the "morbid symptoms" of the change. But to understand what these portend, we need to remark a few of the more obvious ways in which our various technologies condition our senses and sensibilities.

I won't tire my reader with an extended rehash of the differences between the print orientation and that of electronic systems. Media theorists from Marshall McLuhan to Walter Ong to Neil Postman have discoursed upon these at length. What's more, they are reasonably commonsensical. I therefore will abbreviate.

The order of print is linear, and is bound to logic by the imperatives of syntax. Syntax is the substructure of discourse, a mapping of the ways that the mind makes sense through language. Print communication requires the active engagement of the reader's attention, for reading is fundamentally an act of translation. Symbols are turned into their verbal referents and these are in turn interpreted. The print engagement is essentially private. While it does represent an act of communication, the contents pass from the privacy of the sender to the privacy of the receiver. Print also posits a time axis; the turning of pages, not to mention the vertical descent down the page, is a forward-moving succession, with earlier contents at every point
serving as a ground for what follows. Moreover, the printed material is static—it is the reader, not the book, that moves forward. The physical arrangements of print are in accord with our traditional sense of history. Materials are layered; they lend themselves to rereading and to sustained attention. The pace of reading is variable, with progress determined by the reader’s focus and comprehension.

The electronic order is in most ways opposite. Information and contents do not simply move from one private space to another, but they travel along a network. Engagement is intrinsically public, taking place within a circuit of larger connectedness. The vast resources of the network are always there, potential, even if they do not impinge on the immediate communication. Electronic communication can be passive, as with television watching, or interactive, as with computers. Contents, unless they are printed out (at which point they become part of the static order of print) are felt to be evanescent. They can be changed or deleted with the stroke of a key. With visual media (television, projected graphs, highlighted “bullets”), impression and image take precedence over logic and concept, and detail and linear sequentiality are sacrificed. The pace is rapid, driven by jump-cut increments and the basic movement is laterally associative rather than vertically cumulative. The presentation structures the reception and, in time, the expectation about how information is organized.

Further, the visual and nonvisual technology in every way encourages in the user a heightened and ever-changing awareness of the present. It works against historical perception, which must depend on the inimical notions of logic and sequential succession. If the print medium exalts the word, fixing it into permanence, the electronic counterpart reduces it to a signal, a means to an end.

Transitions like the one from print to electronic media do not take place without rippling or, more likely, reweaving the entire social and cultural web. The tendencies outlined above are already at work. We don’t need to look far to find their effects. We can begin with the newspaper headlines and the millennial lamentations sounded in the op-ed pages: that our educational systems are in decline; that our students are less and less able to read and comprehend their required texts, and that their aptitude scores have leveled off well below those of previous generations. Tag-line communication, called “bite-speak” by some, is destroying the last remnants of political discourse; spin doctors and media consultants are our new shamans. As communications empires fight for control of all information outlets, including publishers, the latter have succumbed to the tyranny of the bottom line; they are less
and less willing to publish work, however worthy, that will not make a tidy profit. And, on every front, funding for the arts is being cut while the arts themselves appear to be suffering a deep crisis of relevance. And so on.

Every one of these developments is, of course, overdetermined, but there can be no doubt that they are connected, perhaps profoundly, to the transition that is underway.

Certain other trends bear watching. One could argue, for instance, that the entire movement of postmodernism in the arts is a consequence of this same macroscopic shift. For what is postmodernism at root but an aesthetic that rebukes the idea of an historical time line, as well as previously uncontested assumptions of cultural hierarchy. The postmodern artifact manipulates its stylistic signatures like Lego blocks and makes free with combinations from the formerly sequestered spheres of high and popular art. Its combinatory momentum and relentless referencing of the surrounding culture mirror perfectly the associative dynamics of electronic media.

One might argue likewise, that the virulent debate within academia over the canon and multiculturalism may not be a simple struggle between the entrenched ideologies of white male elites and the forces of formerly disenfranchised gender, racial, and cultural groups. Many of those who would revise the canon (or end it altogether) are trying to outflank the assumption of historical tradition itself. The underlying question, avoided by many, may be not only whether the tradition is relevant, but whether it might not be too taxing a system for students to comprehend. Both the traditionalists and the progressives have valid arguments, and we must certainly have sympathy for those who would try to expose and eradicate the hidden assumptions of bias in the Western tradition. But it also seems clear that this debate could only have taken the form it has in a society that has begun to come loose from its textual moorings. To challenge repression is salutary. To challenge history itself, proclaiming it to be simply an archive of repressions and justifications, is idiotic.¹…

¹The outcry against the modification of the canon can be seen as a plea for old reflexes and routines. And the cry for multicultural representation may be a last-ditch bid for connection to the fading legacy of print. The logic is simple. When a resource is threatened—made scarce—people fight over it. In this case the struggle is over textual power in an increasingly non-textual age. The future of books and reading is what is at stake, and a dim intuition of this drives the contending factions.

As Katha Pollitt argued so shrewdly in her much-cited article in The Nation: If we were a nation of readers, there would be no issue. No one would be arguing about whether to put Toni Morrison on the syllabus because her work would be a staple of the reader’s regular diet anyway. These lists are suddenly so important because they represent, very often, the only serious works that the student is ever likely to be exposed to. Whoever controls the lists comes out ahead in the struggle for the hearts and minds of the young.
A collective change of sensibility may already be upon us. We need to take seriously the possibility that the young truly “know no other way,” that they are not made of the same stuff that their elders are. In her Harper's magazine debate with Neil Postman, Camille Paglia observed:

Some people have more developed sensoriums than others. I've found that most people born before World War II are turned off by the modern media. They can't understand how we who were born after the war can read and watch TV at the same time. But we can. When I wrote my book, I had earphones on, blasting rock music or Puccini and Brahms. The soap operas—with the sound turned down—flickered on my TV. I'd be talking on the phone at the same time. Baby boomers have a multilayered, multitrack ability to deal with the world.

I don't know whether to be impressed or depressed by Paglia's ability to disperse her focus in so many directions. Nor can I say, not having read her book, in what ways her multitrack sensibility has informed her prose. But I'm baffled by what she means when she talks about an ability to “deal with the world.” From the context, “dealing” sounds more like a matter of incessantly repositioning the self within a barrage of on-rushing stimuli....

My final exhibit—I don't know if it qualifies as a morbid symptom as such—is drawn from a Washington Post Magazine essay on the future of the Library of Congress, our national shrine to the printed word. One of the individuals interviewed in the piece is Robert Zich, so-called “special projects czar” of the institution. Zich, too, has seen the future, and he is surprisingly candid with his interlocutor. Before long, Zich maintains, people will be able to get what information they want directly off their terminals. The function of the Library of Congress (and perhaps libraries in general) will change. He envisions his library becoming more like a museum: “Just as you go to the National Gallery to see its Leonardo or go to the Smithsonian to see the Spirit of St. Louis and so on, you will want to go to libraries to see the Gutenberg or the original printing of Shakespeare's plays or to see Lincoln’s handwritten version of the Gettysburg Address.”

Zich is outspoken, voicing what other administrators must be thinking privately. The big research libraries, he says, “and the great national libraries and their buildings will go the way of the railroad stations and the movie palaces of an earlier era which were really vital institutions in their time.... Somehow folks moved away from that when the technology changed.”
And books? Zich expresses excitement about Sony's hand-held electronic book, and a miniature encyclopedia coming from Franklin Electronic Publishers. "Slip it in your pocket," he says. "Little keyboard, punch in your words and it will do the full text searching and all the rest of it. Its limitation, of course, is that it's devoted just to that one book." Zich is likewise interested in the possibility of memory cards. What he likes about the Sony product is the portability: one machine, a screen that will display the contents of whatever electronic card you feed it.

I cite Zich's views at some length here because he is not some Silicon Valley research and development visionary, but a highly placed executive at what might be called, in a very literal sense, our most conservative public institution. When men like Zich embrace the electronic future, we can be sure it's well on its way.

Others might argue that the technologies cited by Zich merely represent a modification in the "form" of reading, and that reading itself will be unaffected, as there is little difference between following words on a pocket screen or a printed page. Here I have to hold my line. The context cannot but condition the process. Screen and book may exhibit the same string of words, but the assumptions that underlie their significance are entirely different depending on whether we are staring at a book or a circuit-generated text. As the nature of looking—at the natural world, at paintings—changed with the arrival of photography and mechanical reproduction, so will the collective relation to language alter as new modes of dissemination prevail.

Whether all of this sounds dire or merely "different" will depend upon the reader's own values and priorities. I find these portents of change depressing, but also exhilarating—at least to speculate about. On the one hand, I have a great feeling of loss and a fear about what habitations will exist for self and soul in the future. But there is also a quickening, a sense that important things are on the line. As Heraclitus once observed, "The mixture that is not shaken soon stagnates." Well, the mixture is being shaken, no doubt about it. And here are some of the kinds of developments we might watch for as our "proto-electronic" era yields to an all-electronic future:

1. Language erosion. There is no question but that the transition from the culture of the book to the culture of electronic commu-
will gradually be replaced by a more telegraphic sort of “plainspeak.”
Syntactic masonry is already a dying art. Neil Postman and others
have already suggested what losses have been incurred by the advent
of telegraphy and television—how the complex discourse patterns of
the nineteenth century were flattened by the requirements of com-
unication over distances. That tendency runs riot as the layers of
mediation thicken. Simple linguistic prefab is now the norm, while
ambiguity, paradox, irony, subtlety, and wit are fast disappearing.
In their place, the simple “vision thing” and myriad other “things.”
Verbal intelligence, which has long been viewed as suspect as the act
of reading, will come to seem positively conspiratorial. The greater
part of any articulate person’s energy will be deployed in dumbing-
down her discourse.

Language will grow increasingly impoverished through a series
of vicious cycles. For, of course, the usages of literature and scholar-
ship are connected in fundamental ways to the general speech of the
tribe. We can expect that curricula will be further streamlined, and
difficult texts in the humanities will be pruned and glossed. One need
only compare a college textbook from twenty years ago to its contem-
porary version. A poem by Milton, a play by Shakespeare—one can
hardly find the text among the explanatory notes nowadays. Fewer
and fewer people will be able to contend with the so-called master-
works of literature or ideas. Joyce, Woolf, Soyinka, not to mention
the masters who preceded them, will go unread, and the civilizing
energies of their prose will circulate aimlessly between closed covers.

2. Flattening of historical perspectives. As the circuit supplants the
printed page, and as more and more of our communications involve
us in network processes—which of their nature plant us in a perpetual
present—our perception of history will inevitably alter. Changes in in-
formation storage and access are bound to impinge on our historical
memory. The depth of field that is our sense of the past is not only a
linguistic construct, but is in some essential way represented by the
book and the physical accumulation of books in library spaces. In the
contemplation of the single volume, or mass of volumes, we form a
picture of time past as a growing deposit of sediment; we capture a
sense of its depth and dimensionality. Moreover, we meet the past as
much in the presentation of words in books of specific vintage as we do
in any isolated fact or statistic. The database, useful as it is, expunges
this context, this sense of chronology, and admits us to a weightless
order in which all information is equally accessible.
3. The waning of the private self. We may even now be in the first stages of a process of social collectivization that will over time all but vanquish the ideal of the isolated individual. For some decades now we have been edging away from the perception of private life as something opaque, closed off to the world, we increasingly accept the transparency of a life lived within a set of systems, electronic or otherwise. Our technologies are not bound by season or light—it's always the same time in the circuit. And so long as time is money and money matters, those circuits will keep humming. The doors and walls of our habitations matter less and less—the world sweeps through the wires as it needs to, or as we need it to. The monitor light is always blinking; we are always potentially on-line.

I am not suggesting that we are all about to become mindless, soulless robots, or that personality will disappear altogether into an oceanic homogeneity. But certainly the idea of what it means to be a person living a life will be much changed. The figure-ground model, which has always featured a solitary self before a background that is the society of other selves, is romantic in the extreme. It is ever less tenable in the world as it is becoming. There are no more wilderences, no more lonely homesteads, and, outside of cinema, no more emblems of the exalted individual.

The self must change as the nature of subjective space changes. And one of the many incremental transformations of our age has been the slow but steady destruction of subjective space. The physical and psychological distance between individuals has been shrinking for at least a century. In the process, the figure-ground image has begun to blur its boundary distinctions. One day we will conduct our public and private lives within networks so dense, among so many channels of instantaneous information, that it will make almost no sense to speak of the differentiations of subjective individualism.

We are already captive in our webs. Our slight solitudes are transected by codes, wires, and pulsations. We punch a number to check in with the answering machine, another to tape a show that we are too busy to watch. The strands of the web grow finer and finer—this is obvious. What is no less obvious is the fact that they will continue to proliferate, gaining in sophistication, merging functions so that one can bank by phone, shop via television, and so on. The natural tendency is toward streamlining: The smart dollar keeps finding ways to shorten the path, double-up the function. We might think in terms of a circuit-board model, picturing ourselves as the contact points. The
expansion of electronic options is always at the cost of contractions in the private sphere. We will soon be navigating with ease among cataracts of organized pulsations, putting out and taking in signals. We will bring our terminals, our modems, and menus further and further into our former privacies; we will implicate ourselves by degrees in the unitary life, and there may come a day when we no longer remember that there was any other life....

Trafficking with tendencies—extrapolating and projecting as I have been doing—must finally remain a kind of gambling. One bets high on the validity of a notion and low on the human capacity for resistance and for unpredictable initiatives. No one can really predict how we will adapt to the transformations taking place all around us. We may discover, too, that language is a harder thing than I have allowed. It may flourish among the beep and the click and the monitor as readily as it ever did on the printed page. I hope so, for language is the soul's ozone layer and we thin it at our peril.

POSSIBILITIES FOR WRITING

1. Identify the anecdotes that Birkerts includes as part of his essay, and explain his purpose in using each. Consider the extent to which they are useful to Birkerts in making his point about the development of electronic culture.

2. Summarize the three main consequences that Birkerts foresees as outcomes of the rise of an electronic culture and its dominance of print. Consider the extent to which you agree with his assessment.

3. Reflect on your own use of computer technology and your reliance on print culture. Write an essay in which you explore Birkerts's ideas in light of your personal experience, your observation of others, and your reading.