Design Education and Electracy: (Hot Debate)

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Ken Friedman approaches design in relation to the role of education as a whole in helping society adapt to the new global conditions of knowledge. It is helpful to think about design education in the context of education as such, and to place education as an institution in the framework of history. What he says about design, of course, is relevant to any specialised field of knowledge, not to mention those many activities that have come to be bundled with the core disciplines as a matter of convenience or ideology rather than for any inherent affinity with 'school' as an institution. My comments will elaborate on one facet of this history that Friedman did not develop, but which has significant implications specifically for design. I am referring to the basic fact that education as we know it is organised within the apparatus of literacy, an apparatus that is undergoing a mutation.

The history of civilization may be periodised in terms of the language apparatus, of which there are at least three. Considerable scholarship has been devoted to the transition from oral to literate civilization, with the invention of the alphabet in Classical Greece as the

paradigmatic event. Grammatology is a field of research that studies our contemporary scene by analogy with the invention of literacy. I introduced the term 'electracy' (a portmanteau combining 'electricity' and 'trace') to clarify that what is happening today is not only a shift in technology but a shift in the language apparatus as a whole. An apparatus is not only a technology, but also an institutionalisation with practices native to the technology, and an identity formation, a subjectivation also native to the apparatus. According to grammatology (the history and theory of writing), the universities in which we work trace their existence back to Plato's Academy, the first school in the Western tradition. A brief review of that moment would include the Lyceum started by Plato's student Aristotle and Alexandria, with its great library and affiliated scholars, founded by Aristotle's student Alexander the Great.

The Greek schools invented the operating procedures of literacy: method (*Phaedrus* is the first discourse on method); and logic (Aristotle invented it). The point to keep in mind is that this shift in the apparatus was a shift in metaphysics, using the term in its original meaning manifested in Aristotle's work by that name (literally, the book after his physics), referring to the category system of literacy – ontology. What is real? The category or classification system of literacy distinguished itself from oral metaphysics. How did oral civilizations form categories? A good summary is in Levi-Strauss's *The Savage Mind* – his discussion of the science of the concrete. In a word: fetishism, magical thinking. We should not underestimate the efficacy of this spiritual materialism, since it was oral peoples who eventually invented literacy. Literate metaphysics (classification) is known as 'science.' In institutional terms, literacy did not become fully autonomous, able to operate on its own without oversight by the oral apparatus, until the Renaissance. The Church, that is, is an adaptation of oral metaphysics to the conditions of literacy. The turning point in that history is the confrontation of the Church with Galileo. Grammatology associates this moment with the invention of the printing press, not as causality, but as a manifestation of a major revision in the apparatus matrix as a whole.

This brief reminder that the university is not an absolute condition for education, but is relative to the literate apparatus, suggests what is at stake in our own moment. We have not even mentioned the register of identity which is equally a part of the apparatus and therefore displays a similar history of invention. The history of grammatology has established that the 'self' as an identity experience and related set of behaviors is the subjectivation native to literacy, and profoundly different from the 'spirit' experience of oral peoples. Similarly, the city state, which evolved in the print era into the nation state, is profoundly different from tribal collective identities. That the relationship between states and tribes has not been finally settled, no more than has that between

science and religion, is evident today in the clash between Islamic fundamentalists and the military-industrial complex. The immediate implication for grammatology is an outline of what is happening in electracy, what is undergoing transformation, and where the opportunities for intervention and invention are most likely to be found.

As I have argued elsewhere, the institution within which electracy is most dynamically evolving is entertainment. Entertainment is to school and its practice of science what school was to religion and its practice of … (what to call it? The Enlightenment called it superstition; Nietzsche described it as the Will to Power; anthropologists speak of magic and ritual... but all of that is from the point of view of literacy) … spirituality. Entertainment as we know it institutionally arose at the same time as the first signs of electracy, dated from the invention of photography in the 1830s, as part of the social adaptation to industrialisation and the rise of the city form. Entertainment itself, however, is not purely electrate but remains an adaptation, a transitional institution doing for imaging what the Church did for analytical thinking. Entertainment constrains the development of digital imaging within the commodity form, with capitalism being to the literate apparatus what theology was to religion (a creed guiding the approach to material existence).

What is happening to us today? What are we doing? It may be clear even from this crude sketch that the literate apparatus – the nation state and the individual self, not to mention books, libraries, and all the related practices of alphabetic reason – are just as threatened by electracy as are the oral orders of tribe and spirit. The corporation as a collective identity (agency) is gradually separating itself from the state (fascism might be considered in this context as an extreme attempt to keep the corporation beholden to the state, just as communism is an attempt to free the collective order from both the state and capital). Meanwhile, at the level of individual selfhood, persons have come to experience themselves as images, giving rise to new behaviours. Where these individual and collective forms of identity are heading is difficult to predict at this moment. Was Princess Diana the 'Socrates' of electracy? In any case, the point of intervention for educators is most directly not that of technology nor of identity but of institutional practices. The kind of world we will have has very much to do with the metaphysics (the category formation supportive of all thought and action) educators invent as the practices of electorate learning.

Why do I say design has a special role to play in this scenario? Design is one of the few areas in which all the authoring skills needed by an electorate person are already coming into contact. Lev Manovich in *The Language of New Media* showed the opportunities for electracy associated with the integration within one common representational code of all media. What are the practices (logic, rhetoric, poetics) capable of authoring in a similarly integrated way?

In literacy, alphabetic writing integrated speaking and drawing, and subordinated the latter to the former. In literate metaphysics the image and its associated experience of emotion, affect and the senses, were denigrated in favor of the abstractions of concepts and numbers. The emergence of imaging as a central part of electracy has exposed the limitations of literate categorisation. It is not a matter of replacing literacy with electracy, hopefully, but of an alliance and supplement, a hybrid adding imaging to analysis and numeracy.

Electrate persons need some competence in the areas of writing, drawing, and programming. In addition they need socialising in the group dynamics of collaborative learning and improvisation, since electrate learning is most likely to follow the lead of science and be a group or team mode of intelligence and performance. If history repeats itself, electrate learning will eventually separate from schooling in its own institutional form. Perhaps the internet is capable of evolving that function. There is no necessity for this autonomy, and ideally school will integrate electracy with literacy. In order for that to happen the current trend (in the United States) of reducing or eliminating all art education from schooling must be reversed, for what numeracy is to science, aesthetics (design?) is to imaging. Perhaps an analogy to help legislators and boards of education might be that of the two-sided brain: schooling today suffers not just from the dissociation of the 'two cultures' (science vs. art) but of the two hemispheres of the brain. We are educating only the left brain, so to speak, and leaving the right (imaging, holistic processing) untutored. Literacy as an apparatus favors the left brain; electracy favors the right brain. The virtue of this analogy is that it clarifies the necessary interdependence of the apparati.

The logic of imaging has already been sketched out in studies of the creative process, unconscious dreamwork, and the like. The avant-garde arts have produced over the last century and a half or so the formal devices of collage-montage-bricolage that are native to electracy. General Design as a capstone approach to digital learning is an invention waiting to happen. If the core experience of literacy is problem solving (codified in cognitive science schema theory), what is the equivalent for electracy? This core experience has been described under a variety of terms. Rilke called it the Open, and Heidegger took his cue from Rilke for his account of the Clearing. Bergson called it Time and Foucault called it the Outside. These accounts emphasise that the Open is not thinkable or sayable within the conventions of instrumental calculation. It does not lend itself to analysis but operates in a quantum manner, as mood or *Stimmung*. Art has always drawn upon it, but its relevance to practical reason as well as scientific and political problem-solving should be obvious, if only through the figure of ecology and sustainability.

Proust wrote one of the best accounts of the Open as aesthetic event, and since we are talking about the core event of the emerging apparatus I will indulge in a citation. It is the moment when Swann first hears Vinteuil's Sonata, that one phrase or motif 'that had just been played, and had opened and expanded his soul, just as the fragrance of certain roses, wafted upon the moist air of evening, has the power of dilating our nostrils.'

> And so, hardly had the delicious sensation, which Swann had experienced, died away before his memory had furnished him with an immediate transcript, summary, it is true, and provisional, but one on which he had kept his eyes fixed while the playing continued, so effectively that, when the same impression suddenly returned, it was no longer uncapturable. He was able to picture to himself its extent, its symmetrical arrangement, its notation, the strength of its expression, he had before him that definite object which was no longer pure music, but rather design, architecture, thought, and which allowed the actual music to be recalled. This time he had distinguished, quite clearly, a phrase which emerged for a few moments from the waves of sound. It had at once held out to him an invitation to partake of intimate pleasures, of whose existence, before hearing it, he had never dreamed, into which he felt that nothing but this phrase could initiate him; and he had been filled with love for it, as with a new and strange desire.[1]

As the semiotician Algirdas Greimas explained in his study of the passions, 'before hearing Vinteuil's phrase, Swann is an ordinary individual, without ideals, without a project, subsisting intellectually and emotionally on little things, void in an insignificant world. Vinteuil's phrase is the figure of this initial operative subject, for it will indeed summon a place, designate in his mind the zone where, as Proust writes, Odette's name will be inscribed'.[2] If the place opened by the aesthetic experience makes it possible for Swann to fall in love, this 'love' may be generalised (as it has been from Plato to Heidegger) as 'philo-Odette' or 'philo-Sophia': it is the opening to the world that allows things to matter for the subject. Greimas makes explicit the interdependence of the two orders of 'value' in experience: the structural and the axiological (formal and moral):

> In other words, for signification to occur and for tensivity to be stabilised, the only solution for the operative subject is to categorise the loss of the object, and that is why negation is the first discrete operation. It is only on this condition that, by the introduction of discontinuity into continuity, behind the shadows of value, the subject will be able to have knowledge of the object. Without contradiction, summons

simply determines a pure singularity in the tensive continuum and does not succeed in making signification occur. This is why, after having seemed 'singular' and irreducibly individual Vinteuil's phrase appears as a network of contrasts, internal negations, to be discovered and uncovered, and ends up being the sign of an absence, an absence whose existence Swann never suspected, and which will give meaning to his life.[3]

You may have noticed the term 'design' buried in the vocabulary. Electracy is not about art appreciation, but is the name of an apparatus that augments and enhances the Open as a dimension of human individual and collective intelligence. The internet and its digital equipment is a prosthesis of the Open. The point is that in literate education students have had to choose between utility and beauty, to couch it in familiar terms, between pure and applied fields, since the analytical nature of the literate apparatus made necessary an institutional division into ever more narrow sub-specialisations. Electrate education recasts these specialisations as secondary phenomena, similar to the 'elements' in a quantum universe. Perhaps the phrase 'information design' poses an opportunity for an institutional convergence of knowledge and desire, moving towards the holistic categories of electracy.

Notes

1. Marcel Proust *Swann's Way* trans C. K. Scott Moncrieff, New York: Vintage Books, 1970, 160.
2. Algirdas Julien Greimas and Jacques Fontanille *The Semiotics of Passions* trans Paul Perron and Frank Collins, Minneapolis: University of Minnesota, 1993, 14.
3. Ibid 15.