THE PERESTROIKA OF EPISTEMOLOGICAL POLITICS

Seymour PAPERT

Massachusetts Institute of Technology, USA

Recent dramatic political events in the USSR, in Eastern Europe, in Latin America, in South Africa and in China mark a global wave of rejection of hierarchical, authoritarian forms of government. Structures that seemed immutable crumbled with breathtaking swiftness. I use these events to look at change and resistance to change in education, and to present the central question about the uses of computers in education as this: will the new technology become the instrument of fundamental change or will it be the ultimate bastion of resistance to change?

When Mikhail Sergeyevich Gorbachev came to power in 1985 he proposed what in retrospect looks like a minor jiggering of administrative forms... a restructuring that would keep the essential structures of his society intact. We are now witnessing a not untypical behavior of a system which is displaced from a state of equilibrium: it does not stay where you left it but swings precipitately in search of a new equilibrium. Already fundamental ways of thinking are being called into question. Managerial perestroika has given rise to an epistemological perestroika.

Edward Fiske writing in the New York Times, beat me to print in suggesting that the word "perestroika" be adopted for the currently fadish talk of restructuring in our schools. The parallel goes deep. Our large school systems are closer in structure than anything else I know in capitalist America to the bureaucratic, centralized economies that failed so abysmally in the Soviet world. The curriculum is our "Gosplan". In the name of efficiency and accountability a central authority decides what will be done all the way down the hierarchy -- of schools in our case, of factories and farms as well in theirs.

But experiments in decentralization (such as school-based management) are like the first talk of perestroika: here, too, something more is needed than administrative jiggering. We need an epistemological perestroika, a restructuring of our ways of thinking not simply about school but about the nature of knowledge, of thinking itself.

Am I crying in the wilderness? No, I see many manifestations of an epistemological shift, surely part of the global anti-hierarchical wave, directed here not against the hierarchy of politics or economic planning but against the cognitive hierarchy expressed in the value-laden theory of intellectual stages that supports the hegemony of abstract, formal, rule-like thinking. These manifestations crop up in many communities who do not always recognize one another as allies. Feminist writers have spoken with a strong voice against the male-genderized Baconian view of "objective" science. Ethnographers of science have made it clear that thinking in the laboratory does not conform to the canonical form. Ethnographers also show us how many people who "can't do math" in a school sense handle fractions very well in supermarkets and kitchens. These are examples of a broad movement toward a "revaluation of the concrete" -- an affirmation of heterarchy over hierarchy.

From this follows a clearer perspective on the possible roles of the computer: to reinforce the canonical, propositional, rule-based knowledge that lends itself to standardization in curriculum and in software; or to provide a context for the development of pluralistic ways of knowing which will never conform to a standardized curriculum. Science can inform this choice, but it will be made in a new political arena in the battle for epistemological liberty.

Papert, S. (1990). The perestroika of epistemological politics. In A. McDougall & C. Dowling (Eds.), Computers in Education: Proceedings of the IFIP TC 3 Fifth World Conference on Computers in Education, WCCE 90, Sydney, Australia, July 9-13, 1990 (p. 3). North Holland.