

Response to Perelman

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Perelman obviously entered a state of bemusement upon reading our paper (*Educational Technology*, April 1994). While reading his response (in the preceding article in this present issue), we easily sensed that this deeply disturbed him. We believe that our differences are relatively small, and we would like to reduce his cognitive dissonance and the unsettling feelings associated with that.

We pause for a moment, though, to thank Perelman for replying to our paper. His comments have served to clarify concepts that we mistook. With a clearer sense of Perelman's theses, we hope to contribute more fully to the ongoing conversation about future learning environments. We begin by taking issue with the following comments in his response: (1) on the whole, we presented our arguments illogically, and did not even define "school" or "restructuring"; (2) we missed the mark with respect to Perelman's primary thesis; and (3) the hyperlearning world is here now. Lastly, we briefly discuss Perelman's transportation analogy.

Essentially, Perelman stated that our arguments are confused and illogical. Upon carefully reviewing our response, we believe that we advanced cogent arguments. The framework of our arguments appears below to demonstrate how our conclusion is connected to prior material.

Is School Out?

In the first paragraph of the paper, we note that ameliorative school reform efforts are out, and according to much literature, systemic restructuring efforts are in. In the first sentence of the second paragraph, we state that Perelman has challenged all who seek to restructure schools. From Perelman's perspective, school is out; go directly to Chapter 3, "Life Without School: Learning in the HL World." We believe that school is not out, and so by the end of the second paragraph, we state that we disagree with Perelman's position. Therein lies the thesis of our whole paper.

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Now, consider the sections of the paper (which were identified in the second and third paragraphs of the article). The overriding message of the first section is that we, and many others (Perelman among them), are unhappy about the current state of schools. Throughout the second section (i.e., the critique of Perelman's book), we argued that about half a century will elapse before school's out. So, consider our perspective: (1) We're unhappy that many public schools are failing because we would like the students who frequent them to make substantial learning gains while in attendance; and (2) school won't be out for some years yet. Thus, it seems entirely clear, logical, and on the mark to conclude that we ought to continue trying to restructure schools.

The third section justifies the exclusion of definitions for "school" and "restructuring." (Note that exact definitions for complex social processes may even be impossible to formulate.) In particular, our scenario and commentary show that we still envision students receiving instruction in buildings with teachers and other learning resources. Further, we are very much open to the use of technology for changing the manner in which teachers and students interact. As noted in our paper, additional insights into our notion of schools and restructuring can be found in Reigeluth and Garfinkle (1992) and Frick (1991).

What Is Technology?

The second issue, the thorniest one concerning Perelman's work, is his thesis: "We have the technology today to enable virtually anyone ... to learn anything, at a 'grade A' level, anywhere, anytime." We appreciate Perelman's reminder concerning the proper definition of technology. In fact, we had considered his argument about the technology of schools primarily in the narrower, more common definition of "hard" technology, even though we support the broader view expressed by Galbraith (e.g., see Heinich, 1991, p. 67): "Technology means the systematic application of scientific and other organized knowledge to practical tasks." Galbraith's definition, though, may prompt misleading notions about technology. Heinich (1991, p. 66) discussed this problem: "Perhaps in reaction to the conventional view of technology as machines, it has become fashionable in certain circles to represent just about anything that uses organized thought as technology. In responding to one such definition, Peter Drucker dryly remarked, 'according to the speaker, a fox that has learned to cross the highway without getting killed has acquired technology.'"

Since Perelman wrote *School's Out* for a general audience, we may reasonably suspect that at least some readers will interpret technology more narrowly. Further, given the extent to which the efficacy of instructional technologies (e.g., television, electronic classrooms, programmed instruction, CAI) has been

exaggerated in the past, clarification of Perelman's major thesis is important.

Perelman's thesis makes no mention of people as an important instructional resource, even though he occasionally offers examples in which people are instrumental for learning. Consequently, while the following amendment may incense Perelman, we would be much more comfortable if his thesis read: "We have the technology [and the people] today to enable virtually ..." Also let's recall, as noted by Perelman, that virtually applies not just to anyone, but also to anything/anytime.

If we are simply to take Perelman's thesis, as he wrote it, then people are not part of the technology package. We believe that some of the power of technological devices is in mediating human interactions when learning complex subject matter. Instructional technologies such as intelligent computer-based instruction and systems like CAMS (Perelman, 1992, p. 26) will be of some value (though rather limited at this time) in this domain. Other than that qualification, we believe that we are on the same "conversational wavelength" as Perelman.

Is Hyperlearning Here Now?

As for the last major issue, Perelman claims that the hyperlearning world is here now; two years ago it was imminent (Perelman, 1992, p. 63). According to Perelman (1992, p. 27), the HL world promises a truly 'new world order' and it will not be here until four threads fuse. Let us attend here to only the first of those threads: the smart environment. In a smart environment, everything must be endowed with intelligence (e.g., Perelman's example, clothes). Our clothes are not yet so endowed.

Is it nit-picking to hold Perelman to one of his most fundamental conceptions of a hyperlearning world? Secondly, is it fruitless to speculate on when such a new world may exist? Apparently not: Perelman (1992) stated his guess on page 73 (see also pp. 29-30). In fairness to Perelman, note that he considers such predictions of secondary or even little importance and strongly urges people to recognize that incremental changes will eventually lead us to a new world order. That is an important point. If Perelman wishes from time to time, he may choose to reflect on the question concerning how many characteristics of the HL environment must be present for a truly new world order. Whatever his choice, we have struggled with the question concerning how much a school can change before it should no longer be called a school.

When discussing the scenario in the third section of our paper, we considered that it might be interpreted as suggesting that "school is out." Since we still envision teachers and students meeting in buildings (e.g., learning/media centers) sometimes, we believe that school's still in. Also note that in restructured schools,

learning/media centers may well fall under the jurisdiction of existing school systems. Many would argue that they do now in the form of school libraries.

An Apt Analogy?

Lastly, Perelman draws an interesting analogy between transportation systems and learning environments. We wonder, though, if it is pertinent. We would wager that if we went into some classrooms in traditional schools today, we would find individuals employing such soft technologies (Heinich, Molenda, & Russell, 1993) as collaborative learning and peer tutoring. Seemingly, those technologies have a place in a hyperlearning world too. So, while Ford could use no part of a horse in automobiles, future learning environments may feature *some* aspects of present-day classrooms.

Trapped by Semantics?

Looking back, we think that we have found some common ground with Perelman. Yet on some issues we may remain stymied by terminology. Hopefully, though, we will not allow ourselves to get trapped in the Sargasso sea of semantics. We ought to envision, design, and create learning environments in which technology will serve individuals who seek to learn in the knowledge era. □

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