Toward a Culture of Creativity: A Personal Perspective on Logo’s Early Years, Legacy, and Ongoing Potential

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Abstract
Logo was born in 1966, forty-one years ago this summer. It was designed very specifically to be a powerfully expressive yet readily accessible language for construction, exploration, and investigation of ideas and processes in math, science, language, and music—to give children a lively learning environment. This was a time of great expectations in the United States. Following the first moon landing, American children everywhere were counting backwards from 10 to zero, closing with a triumphant “Blastoff!” Everything seemed possible. Schools, sometimes among the most change-resistant of institutions, were often open to project-based inquiry, in marked contrast with older, lock-step instruction.

Computers are now nearly ubiquitous in schools throughout the U.S. They are used extensively for word processing and information retrieval. Instructional applications abound, often enhanced by visually rich graphics and animation. Because of the dramatic rate of development and application of computers, one might have predicted that the new learning experiences made possible by programming ideas and activities would be well-established throughout schools by now. But sadly, facilities for student design and invention are severely limited or absent. The use of high-level programming languages in schools, particularly during children’s formative years, has almost vanished. Their powerful potential as expressive tools for knowledge construction has yet to be realized.

Education should aim to help children succeed in tasks that they have to work at, that take time, and that require a significant investment of thinking. Such learning experiences also teach children how to make a serious commitment to a task or subject area. Throughout its history, the Logo movement has played a significant role in fostering these goals, and it continues to do so, both within schools and outside. Logo may have gone underground in U.S. schools. But the influence of the ideas and philosophy underlying Logo remains powerful and pervasive, in the world and even in my country. I envisage a process of cultural change that will eventually produce a critical mass of young people who are comfortable and competent with the richness and variety of learning experiences made possible by constructive tools like Logo. These men and women will become, in turn, the creators and teachers of the next wave of learning technology.