

# Falling in Love with Seymour's Ideas

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March 25, 2008

## **Mindstorms Over Time: Reflections on Seymour Papert's Contributions to Education Research**

**Presented at a Special Session of the  
2008 American Educational Research  
Association Annual Meeting**



As I began to think about my presentation for this session honoring Seymour Papert, I thought about all of Seymour's ideas that had influenced my research.

I thought about Seymour's theory of Constructionism, and how it guided my efforts to provide children with opportunities to learn through designing, creating, and inventing.

I thought about Seymour's and Sherry's ideas of Epistemological Pluralism, and how these ideas had guided my efforts to develop technologies that have not only a low floor (easy to get started with) and a high ceiling (opportunities for increasingly complex explorations over time), but also what I have come to call "wide walls"—that is, technologies that are accessible and inviting to children with all different learning styles and ways of knowing.

I thought about Seymour's discussion of Hard Fun, and how his ideas had guided my efforts to develop technologies and activities that are playful but at the same time engage learners in serious and sustained and challenging explorations.

These are important ideas. Seymour would call them "powerful" ideas. But as I thought about these ideas, I realized that just explaining these ideas would not capture what, for me, was most special about Seymour. To convey the ways that Seymour had influenced me, I needed to talk not only from my head but also from my heart.

I first met Seymour in 1982, more than 25 years ago. At the time, I was working as a science and technology journalist, covering Silicon Valley for *Business Week* magazine. The personal computer had been invented just a few years earlier, so it was an exciting time to be covering Silicon Valley. I regularly interviewed interesting and provocative entrepreneurs like Steve Jobs and Bob Noyce. It was an exciting job. But for me, something was missing. I enjoyed my job, but something was missing. I didn't feel a deep sense of meaning or mission or purpose in my life. And then I met Seymour.

It was the spring 1982, and I attended the West Coast Computer Faire, a free-spirited gathering of early adopters, early enthusiasts of the personal computer. I went to Seymour's talk, and I immediately felt a powerful connection to his ideas. I was intrigued as I learned more about Logo and the turtle. I had majored in physics in college, and I saw turtle geometry as a new way to think about many mathematical and scientific ideas. That was exciting for me. But that alone would not have sustained me for the past 25 years. There was something more, something different, in Seymour's ideas.

I am reminded of Seymour's brilliant little essay, *Gears of My Childhood*, that he wrote as the foreword to his book *Mindstorms*. In that short essay, Seymour talks about the influence of gears in his life. How he started playing with gears even before the age of two, and how his experiences with gears had provided him with a model for thinking about advanced mathematical and scientific ideas later in his life. But the most important part of that essay, in my mind, is the italicized sentence near the end: *I fell in love with the gears*. Seymour was passionate about gears, and that is what made them so special for him.

Well, when I met Seymour in 1982, I didn't just learn about Seymour's ideas, I fell in love with Seymour's ideas. And in the 25 years since then, I never fell out of love with his ideas. Seymour's ideas have given me a purpose, a mission, a meaning to what I am doing in my work—indeed, what

I am doing in my life.

At their core, Seymour's ideas are about providing everyone—everyone—with opportunities to find and follow their own passions, to explore and experiment with new ideas, to develop and deliver their own voices. These ideas have guided Seymour in his own life. He is one of the world's great learners, passionately exploring new ideas, playing with ideas, wrestling with ideas, developing new ways to communicate ideas. I have never met anyone who is, at once, so playful and so serious about ideas.

But more important, Seymour dedicated his life to providing these same opportunities to others, to provide others with the opportunity to find and follow their passions, to develop and deliver their voices. I'm not saying that Seymour was always successful in achieving these goals. But the vision is a powerful one. It is a vision that is deeply respectful of children, and it serves as a foundation for the type of society that I would want to live in.

I have set the same goals in my own work. In everything I do, whether it's creating new robotics kits like Crickets, or new software like Scratch, or new educational settings like Computer Clubhouses, I am guided by Seymour's vision, to provide opportunities for all children—from all backgrounds, from all walks of life—to find and follow their passions, to explore and experiment with new ideas, to develop and deliver their voices. It is not easy to realize this vision, to achieve these goals, but they are worthy goals, goals that make my work meaningful.

Last year, I gave a keynote presentation at a conference called IDC, Interactive Design and Children. After my presentation, in the Q&A session, someone asked: "Wasn't Seymour Papert trying to do the same things 20 years ago?" The comment was meant as a critique; I took it as a compliment. I answered simply: "Yes." For me, Seymour's ideas remain as important today as when he wrote *Mindstorms* in 1980. His ideas have provided me with a direction and a vision and a sense of purpose. I am still in love with Seymour's ideas, and I will be happy and proud to spend the rest of my life trying to make Seymour's visions into a reality.