

Acton Public Schools
Acton-Boxborough Regional School District
Acton, MA 01720

A Quasi-plausible Scenario: Colleen's Challenges, Circa 2001

"Eleventh grader Colleen Boxton winds up an exhausting two hours of research in biotechnology using her personal digital assistant (PDA) connected to her school's information network center. She has been jointly analyzing electronic microscopic images of damaged nerve cells with her mentor lab technologist at the nearby medical center, where she also worked during last summer's four-week break. Through this hand-held PDA, connected to any one of several school access nodes, she not only communicates with her mentor, she often meets face-to-face with her teachers, her peers, and other skilled resource people related to her research project on genetically-engineered treatments for Alzheimer's disease.

Several years ago, Colleen and her 11th and 12th grade peers gave up driving to school every day. It wasn't necessary, except in those instances when she needed face-to-face interaction with her teachers and student colleagues. At other times, she went to the Town's public data center (formerly called "The Library"), the medical center, or some other school-negotiated worksite. While at these locations, or when using her PDA from home, she logged in to the school's main computer which was capable of identifying the location of her PDA regardless of where it was connected. (Colleen's custodial parent has a job in another town, and the school has to know where Colleen is from 7:00 AM to 6:00 PM).

Colleen's PDA is brand new. It has no keyboard (a good thing, too, because Colleen couldn't type her way out of the simplest virtual environment). It also features a flat, fold-out color screen that provides a full twelve inches of viewing space. Every PDA function is launched either by mouse, by voice, by electronic penpad, by image, or by video source. Earlier in the day, working in the video studio, Colleen conducted a live "video-huddle" with Toshiro, Olga, Jean-Claude and Hans, all members of an international work cluster on comparative government approaches to civil rights. Language was no problem. The system-wide translation protocol provided clear, gender-specific voice and text in the language of each user. Trying to achieve intellectual consensus among these folks, however, was quite another challenge!

As she folded up her PDA and placed it in her coat pocket to go home for the day, Colleen's thoughts turned to the evening's activity. Using her own home entertainment device (HED -- basically a consumer-equipped version of her PDA), Colleen decides to "go" to a virtual music-video event. Sure, she knows that virtuality is no substitute for the real thing, but through a virtual experience simulator, Colleen can sample a musical repertoire that she could not afford in live concert. (Moreover, she can artificially configure her evening's virtual date with the precise personal qualities she seeks -- mostly, an abiding intellectual interest in biotechnology and civil rights).

Just as Colleen is plugging in her HED (home entertainment device) to access a commercial "virtual entertainment experience base", an incoming message alert overrides her network start-up. "Probably just another telemarketing video-blitz," she fumes. Actually, it turns out to be her Mom, telling her that she'll be home late from work, and wondering if Colleen would prepare the evening meal. Colleen's hopes for the evening fade. This is the real world. Her HED may provide full immersion in musical virtuality, but it will not dice the carrots."

Dr. John LeBaron, CTAC, 1994 for the Superintendent of Schools' Technology Advisory Council.