Written in the late 1990's as an opening day welcome to the staff:

There was a class of fourth or fifth graders, in a large bright room not unlike the cafeteria of the high school I was then principal of, with many youngsters each in his or her own environment, that is a moveable chair/desk with a complex panel composed of a CRT, a keyboard, a video-disk player, a "hollographer", a printer, and other peripherals and a grey plastic dome to provide privacy if a student should desire that. The teacher had an accompanying "environment" with a few additional buttons:

• if the student misbehaved a red button would be pressed and the student would fall through the floor into the waiting jaws of a green alligator (cloth, of course!);

• if the student performed particularly well and deserved a reward, the teacher had a blue button which opened up the ceiling to the deluge of chocolate kisses and other "delectables..."

Here are the ways in which I envision the technology to be used:

1. In Visual arts…new courses at the secondary level and capability for any person to use Dazzle Draw or Print Shop to create materials for classroom use or for exhibition purposes.

2. Science...increased use for simulations, data collection and graphic display of data and demonstration; also data analysis. Specialized scientific programs are available which make instruction clearer and more realistic, allowing teachers to demonstrate phenomena which are either too small, large or dangerous  and long term to be otherwise observable. Also which cannot be taught easily without such a tool.

3. Math....multiple representations of reality, including graphic, tabular, formulaic and pictorial, strengthening students' ability to understand the relationships between the different ways of representing a problem, e.g Geometric Supposer, Green Globs. Problem solving software for K-8 engages students in solving complex problems using graphics to reduce the level of abstraction.

4. English/Language Arts...word processing has revolutionized the teaching of composition/writing, especially of revision. It frees the teacher to expect multiple versions of a piece of work and motivates students to persevere and strive for perfection. WP has also reduced the amount of paper work for teachers and administrators who have access to computers.

5. Music...the use of computers has made possible the teaching of musical composition and theory so that students can revise and study alternatives with little extra work. It saves time and enables students to be actively involved.

6. Physical Education...The Fitness Gram allows teachers to diagnose and prescribe a program of physical activity appropriate to individuals' needs. It also keeps track of all the statistics, saving time and making possible analyses which were not available before.

7. Social Studies…At the elementary and middle school level simulations concentrating on group process, decision-making, analysis of data and problem solving.

8. Foreign Language… Teachers are using word processing for professional management, computer language labs

9. Information Science...Identify problems and plan solutions, debug solutions, learn the structure of computer languages, learn to apply currently known tool software to the solution of real problems, and encouraging the use of these tools in all subjects

10. Industrial Technology...the hardware of the information age is here appropriately being studied with the objective of enabling students to repair and do maintenance and to have control over the functioning of the electronics. CAD is an important element in the disciplines of woodworking, metals, auto shop, mechanical drawing, and electronics.

11. Library Media... Information management and retrieval techniques have been revolutionized.  In the information age, we have begun the critical task of teaching students how to evaluate sources and locate efficiently and easily the best information available. Computerized card catalogues, circulation lists, and inventory have saved much professional time which can now be spent working directly with students and in assisting staff with materials selection.

12. Special Needs...Drill and practice programs help students master facts (memorization, where appropriate) and practice skills in mathematics, spelling, vocabulary. Word processing for learning how to write has increased students' self-esteem especially in cases where students have had difficulty with handwriting and spelling. IEPs have become much less time consuming and more consistent in quality across the school system since they have become computer generated. Voice synthesis seems to be around the corner.

13. The Business Office is receiving its supply bid requests from the schools directly from teachers through the terminals.

Success in integrating technology in schools is different than success with other past interventions. Technology is expensive in material and development costs, in time for training, in changing people's attitudes, allaying their anxieties.  In my opinion it is worth it, when you think of what and how students can learn.