

TAMING THE MEDIA MONSTER

*Putting children on computers for any length of time is so ridiculous that
it hardly bears any further comment*

-Jane Healy, Failure to Connect

*Social Skills. Strength of character. Trust. Determination. Perseverance. You cannot download these
traits from a website. Every hour you spend with your brain in cyberspace marks sixty seconds you
aren't sharpening the skills our world so desperately needs.*

-Clifford Stoll, High Tech Heretic

*In the absence of precise educational goals computerizing classrooms
is merely an excuse to use expensive toys.*

-Alison Armstrong, The Child and the Machine

THE RESEARCH:

Proponents of Computer use are quick to say that research supports technology in schools when in reality the research strikes a more cautious if not downright critical note/tone. The “research” is set up in a way to find benefits that aren't really there. Most of the research isn't valid; it's so flawed that it shouldn't even be called research. Essentially it's worthless. (Oppenheim, Atlantic Monthly)

Computers of our day and age are like filmstrips of the 60s and 70s. No one had to think for an hour, the students got a break, the teachers got a break, but having access to the filmstrips gave the impression to parents and to the public that the school was “high-tech” even though no one was learning anything. (Clifford Stoll, *Silicon Snake Oil*)

How much computing do children really need? Up to age 12 – close to zero. Children need hands-on learning until this time! High school and onto college they should begin acquiring some skills, but how long does it really take to really take to learn how to send and receive email? Figure out word processing? Create a spreadsheet? Use a database? Maneuver around the Internet? Maybe a few weeks worth of instruction. Not semester after semester...starting in the crib! (Clifford Stoll, *High Tech Heretic*)

Again our trouble comes in that we are “teaching” a skill that they aren’t yet ready for, so it takes forever! Child development expert, Bev Bos tells us that it takes 135 hours to (attempt) to teach a preschooler the abstract concepts within a calendar; yesterday, today, tomorrow, etc. Yet if you wait until about 1st grade, which is when the brain is better at processing such abstract concepts, it takes about five minutes! We insist on spending time speeding them along when we don’t even see how much actual time we are WASTING!

New students can learn all the computer skills they need in a summer.

-Joseph Weizenbaum, professor emeritus, computer science, MIT

IF THEY ARE TO HAVE COMPUTERS – WHAT WILL THEY HAVE TO DO WITHOUT?

Art supplies

Libraries

Music programs

Fixed and repaired classrooms

School nurses

School plays

Creativity

Their OWN images

The use of “Reader Rabbit” software decreased creativity by 50% as evidenced by the fact that after using the program for seven months, 50% of the children in the study were no longer able to answer open-ended questions and showed a markedly diminished ability to brainstorm with fluency and originality (Oppenheim, Atlantic Monthly).

You can run an art program for an entire year for what it costs to purchase a computer. Strong Arts = Strong Schools. In 1993 a school tried an experiment to see if teaching the arts had a positive affect on student performance. Within ONE YEAR of implementing an arts program the suspension rate dropped from 70% to a mere 3%!!

Eventually they will learn what a computer can do for them, for now, they need to
learn what they can do for themselves.

Lauren Sheehan, Director, Swallowtail School, A Waldorf environment in Washington State

TV is passive and is considered “watched” whereas computers are seen as interactive and thus “used”. Because of this BELIEF parents prefer their children to “use” computers instead of “watching” TV and think that computer “use” is better. ***Yet BOTH activities are nothing more than sitting around motionless in front of a screen that feeds them rapid successions of images that compromise real experiences.***

IMPACT ON REAL, NATURAL EXPERIENCES:

Watching a video of a butterfly emerging from its chrysalis is NOTHING compared to watching one out in the yard in the sunshine with the grass under your bare feet. Outdoor natural experiences are being replaced with on-line technological substitutes.

Computers keep interactions safe, sterile, clean and solitary. Reducing natural real world outings with digital field trips deprives children of the creation of the emotional links that **MUST BE FORGED** in order to care enough about the environment to preserve it.

When preschoolers are in front of the computer or the TV you **MUST** think about what they are **NOT** doing. Learning through direct physical experiences **WILL NEVER** be able to be reproduced on a computer screen. **NO** TV show or Computer Program can replace the direct first hand experience with real things... planting a garden or a flower, watching the moon wax and wane, walking thru a forest, putting your feet in a stream, catching a frog, climbing a tree, watching clouds, walking on a beach, learning how to identify the stars, collecting rocks, sticks and shells and simply **LOOKING** at the world around you...

*...without intimacy with nature, we can confuse crimes against
the Earth with technological progress.*

-David Suzuki, The Buddhist Way to Teach Kids Ecology

*There is a strong link between genius and the experience of being close
to the natural world during childhood.*

-Edith Cobb

Manipulating objects, storytelling, critical thinking, problem solving, playing with sand, water, playdough and blocks all invite pondering and reflection whereas...

1. Computer software urges immediate action,
2. Word processing invites constant changes, substitutions, deletes and additions,
3. Speed and fast manipulation = power and this is valued over thoughtfulness and understanding.

SHOW ME THE MONEY:

We currently need **\$112 billion** to restore the 80,000 public schools to good condition and to comply with accessibility and safety regulations including replacing leaky plumbing, fixing old outdated ventilation systems, maintaining heating and air conditioning and replacing broken lights. Yet funding technology is a higher priority. In 1997 one Northern California district spent \$27 million on new computers for a mere 11 schools, a school in Los Angeles dissolved it's music program in order to hire a tech coordinator, a school in Massachusetts fired the art teacher, music teacher AND gym teacher only to then spend \$333,000 on computers and many schools dismantled the libraries to create computer labs. (Oppenheim, Atlantic Monthly)

The COST of technology isn't limited to the amount of \$\$ needed to put computers in schools.

What was cut to provide computer literacy classes? What used to be in the room where the computers are? These too are important questions. If libraries are being dismantled, access to printed materials is being limited, class sizes are increasing, music and art programs are being cancelled in order to pay for TECHNOLOGY and it's fringe requirements (classes, training, repair, computer desks and furniture, tech coordinators, upgrades, security, theft, etc)...we must question what we are losing.

CHILDREN AS CONSUMERS

Schools should be sanctuaries for children and as far removed from the commercial marketplace as possible. It is one thing for students to study the marketplace, and another entirely different thing for them to be the unwilling and unconscious subject of an onslaught of advertising.

-Joan Almon, Coordinator, Alliance for Childhood

12,000 US schools subscribe to “Channel One.” (for more visit:

<http://www.ibiblio.org/commercialfree/channelone.html>) Channel One loans television sets to schools in exchange for the schools’ agreement to give the company access to the students for twelve minutes every day. 8 million students are bombarded with Channel One’s 12 minute “show” – a 10 minute “news program” followed by 2 minutes of commercials and advertisements each day for Pepsi, Mountain Dew, Snickers, MnMs, Twix, Bubble Yum and Froot Loops, etc etc. Over the course of a school year this amounts to one solid week of TV viewing with one full day being devoted to watching commercials, costing taxpayers a total of \$1.8 Billion in lost class time per year.

We forget that the only reason TV shows exist is to serve as the vehicle through which advertisements and commercials receive airtime in order to reach the consumers! We throw caution to wind and find it in short supply when schools and government agencies are seduced by corporate sponsorships.

Computers deliver an abundance of symbols (font, logos, trademarks, icons) yet offer an impoverishment of experiences (running, climbing, learning how to get along with others).

Try not to be intimidated by people who claim that children will be left behind or ill prepared for the computer age unless they are exposed to the computer early on. People who say such things are invariably trying to sell you something.

-Aaron Falbael, Mothering Magazine, Fall 1990

ERGONOMICS AND OTHER PHYSICAL IMPLICATIONS:

Many classrooms do not have workstations, but rather desks that hold the computers. There is not room for any reference materials, so children are holding books, papers and reference materials on their laps while the computer takes up desk space.

A 2002 study by the Berkley School of Optometry studied 253 children. Of them, 25-30% had initial signs of far-sightedness (attributed to skewed visual perspective accompanying multiple-hour computer use). Premature nearsightedness was apparent in children who spent time looking at a distant object and then refocusing on the computer screen only 20 inches away. (IE: looking at the teacher or the blackboard and then refocusing on the computer at the desk).

After 40 minutes you need to get up and move around and let your eyes relax, yet the average US child spends an uninterrupted 1-3 hours in front of the screen on a daily basis!

Few resources have been devoted to studying the physical effects of computer use on children because it has not cost society any money yet...

-Richard Pilkington, Occupational Health and Safety consultant

IN CONCLUSION.....MY BOTTOM LINE:

Contrary to popular belief (really – I’m not a luddite!) I do believe that computers are a useful tool – but that is where it ends. It is a useful tool... just as the fax machine, telephone and dishwasher are useful tools. Do I think computers will change the world? Not really. It’s the people running them that I care about. Do they know how to think creatively? Solve problems? Talk with people? Worry about the environment? Their dogs? Their families? Do they know their neighbors? Ever help out a friend in need? Know how to cry when they are sad and laugh when they are happy?

Fifteen years from now when software has been eliminated and all the computers are in the trash heap (because we are talking to the air to order our eggs, butter and bread) we will still be able to teach resonance with a tuning fork, vibration with cotton string and a spoon, absorption with a coffee filter and colored water, evaporation with a puddle, a rainy day and some chalk and density with shampoo, dish detergent, vinegar, colored water and shaving cream.

Which will make the greater impact?

Which lessons will they remember?

IN A NUTSHELL:

Why don't computers belong in classrooms – especially early childhood classrooms!

1. They hinder and discourage essential bodily movements.
2. They do not encourage socialization.
3. They cannot and will not ever be able to offer REAL experiences.
4. The programs they learn will be obsolete in 5 years.
5. The machinery they are learning how to use will be obsolete by the time they are old enough to enter the work force.
6. They do not facilitate creative thinking, problem solving or the kind of in-depth thoughtfulness which will be required to solve the real-life problems these children will be faced with as they grow up.
7. In order to make room and find funding, computers elbowed out music programs, drama class, art programs, school plays, phys-ed classes, school nurses and libraries.
8. Creativity decreases after using computers.
9. Computers keep children inside and alone instead of being out in the world where they forge emotional links with other people and with nature.
10. Children do not have sufficient hand-eye-coordination until roughly age 9.
11. Their fingers are cartilage until roughly age 8.
12. The many stated PHYSICAL ISSUES about children using computers including: not blinking, pulled ligaments, bad posture, tension in neck and shoulders and joint problems.
13. Computers (at best) only engage 2 of our 5 senses - hearing and sight, and only 2-D sight at that. Children need to manipulate real objects in their world.

A Very Brief List of Resources:

BOOKS

Four Arguments for the Elimination of Television, Jerry Mander

High Tech Heretic: Why Computers Don't Belong in the Classroom, Clifford Stoll

The Child and the Machine: How Computers Put Our Children's Education at Risk, Alison Armstrong

ARTICLES

"Children's Computer Use Grows, but Gaps Persist, Study Says", By Tamar Lewin, New York Times, January 22, 2001.

"Heavy Computer Use May Strain a Child's Eyes", Alan Mozes, Reuters Health, March 18, 2002.

"Pros and Cons of Computer Kids", Darryl Owens, Orlando Sentinel, July 26, 2001.

"Software Debuts for Toddler Set", Martin Wroe, San Diego Union Tribune, September, 1996.

"The Computer Delusion", Todd Oppenheimer, Atlantic Monthly, July 1997.