

Rick's Place

Notes, Thoughts, and Random Musings on the Online Experience

by Rick Hein, AMIS web master

But there are signs of a change as new and powerful instrumentalities come into use. Photocells capable of seeing things in a physical sense, advanced photography which can record what is seen or even what is not, thermionic tubes capable of controlling potent forces under the guidance of less power than a mosquito uses to vibrate his wings, cathode ray tubes rendering visible an occurrence so brief that by comparison a microsecond is a long time, relay combinations which will carry out involved sequences of movements more reliably than any human operator and thousands of times as fast—there are plenty of mechanical aids with which to effect a transformation in scientific records.

Vannevar Bush, "As We May Think"
The Atlantic Monthly

Once again it has been a wild ride, and you are still hanging on in the sequence that marks the celebration of the end of the year in your location. Concerts, awards, presentations, assemblies, leavers' lunches, graduation; they all serve as signs and signifiers of the phoenix-like life of a school. Students, teachers, families leave and new ones arrive. This year's band holds its last note and next year's band is born at the cut-off.

As with all things, technology grows, matures and passes. Many of you have guessed at the date of the quote at the top of this page. My fellow "old" youngsters may recognise some elements to help us date the work. Alas, the technology in question never came to fruition in the author's lifetime. Like so many technical innovations it was an idea ahead of its time and the manufacturing capabilities thereof.

Vannevar Bush was lamenting the fact that so much was being published that the scientist of the day was becoming buried by the sheer volume and missing information that could have great impact upon his speciality. He suggested that by using a head mounted camera, short hand voice commands, an optical filing system, and the ability to physically link objects with other objects scholars could organise their reading and research. Sound familiar? By using a machine to take care of the physical concerns of relating, filing and archiving, the mind will be freer to do what it does best: think.

In 1945, Dr. Vannevar Bush was the head of the Office of Scientific Research and Development and had co-ordinated the activities of some six thousand leading American scientists in the application of science to warfare. In this article he was urging scientists to develop a machine he christened the Memex. This desk would have a head mounted camera, dry printing technology and relation of ideas, not by an arbitrary system such as an alphabet or ordinal series of numbers, but rather a set of relative connections - perhaps called links.

To us, almost sixty years later, the connections are obvious. Our microprocessors now pass 64 instructions in a billionth of a second. We take for granted xerography, scanners, digital audio, colour displays, filing systems that can hold one hundred and twenty billion bytes of information in an area the size of the palm of your hand. We also have the ultimate in indexed resources: the Internet. I used a search engine to look for information on the Memex. I typed the word, hit return and received the following information: "Results 1-10 of about 52,800 for Memex [[definition](#)]. (0.25 seconds)"

Dr. Bush would have been proud. Type in Palestrina and we receive: "Results 1-10 of about 181,000 for Palestrina [[definition](#)]. (0.50 seconds)" Hmm. Twice as long, yet three and a half times more records. Of course, I also received a humorous ad from Ene gland's leading food retailer- see sidebar. Someone must pay the piper. Machines and thinking are still a long way from us, yet they already can guess simple things. Computers work incredibly quickly and are quite happy to do repetitive tasks.

[Palestrina At Tesco.com](#)
All UK releases. Great Tesco prices
Prompt delivery. Massive savings
www.tesco.com

What is the connection, I hear you ask impatiently? (623,000 results for impatience...) What does the non-productive thinking of a scientist almost sixty years ago have to do with me?

A great deal, my friends. Over the summer you will re-create and renew your inner self. More reading, more travel, more chance to do those things that say "Yes" to you. You may even be one of those moving on and finding a different starting point waiting for you than the one you left. What ever you do, take your personal Memex with you. It may be a sketchbook, a notebook, your laptop, a digital camera or plastic boxes in which to collect sea shells. These are the objects that will help you to remember the sea breeze, the mountain stream, the meal on the veranda, the music arriving on the breeze from the concert on the town square in the heart of February, when the hot sun of summer is but a distant memory.

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As We May Think
<http://www.theatlantic.com/unbound/flashbks/computer/bushf.htm>