



## High Tech, Then & Now

When did high tech begin? Were not fire and the wheel high tech at one time? Perhaps more realistically the phenomenon we know today as high tech began when, like high art, some of us as early adopters began to recognize and value technology for its own sake.

Ars gratia artis; art for its own sake. What of high tech? Machina gratis machinis? Early adopters often appreciate the elegance of new machines for their own sake. However, for any high tech endeavor to succeed there must be the inevitable divining of the broadly practical and durable from the merely novel. Here is one man's considered opinion of high technology.

*The whole art is so new, and so much of the truly wonderful has already been accomplished that many people are doubtless ready to believe almost anything claimed for it. To the quite honest misconceptions of the partially informed enthusiast have been added the overstatements of promoters who have something to sell. The interests of these people are best served by the greatest possible stimulation in the public of a desire to participate in a prospective golden harvest. This latter phenomenon is a common adjunct to every new invention or development which is made.*

- Frank Jewett, VP ATT/Bell Labs, 1928

In the context of today's high tech endeavors; the internet, digital media, etc. Frank Jewett's observation reads as thoughtful insight from someone with considerable experience. He offered this view in 1928, at a Harvard Business School lecture series on managing high technology. The lecture series chairman and organizer was none other

than David Sarnoff of the RCA, the Radio Corporation of America. Under discussion - the nascent commercial broadcast radio industry, economic models for one-to-one and one-to-many communications and the practicality of nascent television systems.

It is telling to consider the designs of radios both before and after this watershed event. The typical radio sold prior to 1929 was often sold as a kit or as component parts to be chosen, assembled and operated by someone with a considerable degree of technical skill. The aerial, power supplies, annunciator, receiver and amplifier were often of separate manufacture, and the customer had to understand how everything went together.

Abruptly, the radio became an integrated appliance all at once. In the new “tombstone” radio designs from 1930 onward all of the disparate components were housed in a box. There was a power switch, a simplified frequency tuning dial and knob, perhaps with presets, a volume control that controlled an inboard speaker, and the deluxe systems perhaps offered a tone control as well. The technology suddenly became invisible while simplicity and utility became the defining elements of success. Other technologies of the time such as talking pictures and the telephone went through profound design and implementation changes as well.

Certainly there were many high technology initiatives well before The Harvard Business School Event. The electric light, telegraph, telephone, transatlantic cable, phonograph and motion pictures were all well established and in common use. Edison, Zworykin, Alexanderson and other leading technologists of the day also refined the disciplines of the commercial research laboratory and the technology development team.

When Jewett, Sarnoff and other business luminaries convened at Harvard in 1928 they came together to explore the governing principles of a “high technology” business in order to develop radio and television both as a commercial enterprise and social force. Their journey forward to create the tools of a new industry began here. In the fullness of time their early dreams and much more were realized.

It might seem a stretch to look back on technology that is so simplistic today much of it is the stuff of science fair projects. However, if there is a central point about High Tech, Then and Now, it is that the truer term is perhaps, High Tech, High Touch, Then and Now. When we can move past novelty to achieve true utility and simplicity, then we have successfully harnessed technology in service to humanity in a world where the ultimate appreciation and success of high technology lies solely with the user.