

In the face of the continued uncertainty surrounding the North American introduction of DTV, it may be useful to revisit some similar periods in the past and see what we can learn from them. Not that I presume to put the introduction of DTV on a par with all of these examples, but the expression of conventional wisdom, at the time of these events, is illuminating.

History is full of absurd examples of the shackles imposed on ideas by applying the strict limits of then current knowledge. Early examples include the dismissing of Galileo's 1610 discovery with the comment of contemporaries that, "Jupiter's moons are invisible to the naked eye, and therefore can have no influence on the Earth, and therefore would be useless, and therefore do not exist." Closer to home, When Louis Daguerre announced the invention of photography in 1839, a Leipzig newspaper summed up the current thought this way: "The wish to capture evanescent reflections is not only impossible, as has been shown by thorough German investigation, but the will to do so is blasphemy. God created man in His own image, and no man-made machine may fix the image of God. One may straightaway call the Frenchman Daguerre, who boasts of such unheard-of things, the fool of fools."

These are not isolated examples. We have a history of being constrained by what we know. By 1840 it was commonly expected that London would be knee deep in horse dung by 1940. U.S. Senator Daniel Webster in 1844 criticized the purchase of California from Mexico: "What do we want of this vast worthless area? This region of savages and wild beasts, of deserts, of shifting sands and whirlwinds of dust, cactus and prairie dogs? What use can we have for such a country?" Would we now agree? At the time of the Wright brothers first flight, astronomer Simon Newcomb wrote an article claiming: "The demonstration that no possible combination of known substances, known forms of machinery and known forms of force, can be united in a practical machine by which men shall fly long distances through the air, seems to the writer as complete as it is possible for the demonstration of any physical fact to be."

Our generation wasn't spared either. Lord Rutherford, having split the atom in 1930, saw no

practical use for his discovery. In 1941, Thomas Watson, founder of IBM, concluded that, "there is world market for about five computers." And, as late as 1961, a year before Telstar, FCC Commissioner T.A.M. Craven commented that,

"there is practically no chance that communications space satellites will ever be used to provide better telephone, telegraph, television or radio services."

The truth is that, if an experienced and knowledgeable person says that a thing is impossible, he or she is probably wrong. If, however, they suggest that it is possible, they are almost always right. To progress, then, we need dreamers whose dreams are not constrained by the limits of current knowledge.

It pays to dream because, in a sense, we, as a society, can become whatever we dream we can be. It's more difficult on an individual basis, but our society is not so much influenced as determined by the level of its scientific knowledge and the technological advances it has made. Politics and political events may influence history in the short term, but invention and discovery are the long-term drivers that determine how people really get to behave. We, singly and together, seek to improve our lot in life and, as long as we are permitted to achieve material goals, the aggregate force of this common drive pushes our society forward. The danger is allowing ourselves be limited in our goals by what we know. What is common now was unthinkable even a few short decades ago.

Current knowledge is only a place to begin.



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