

Opinion

Radio vs. the Internet

Evolution & Revolution

"Every new era in our history-and we have had several-has been based upon the exaggerated enthusiasm and the inflationary forces set in motion by some single new industry or industrial activity".

Business Week - January 29, 1930

So it was recognized - almost immediately after the 1929 crash - that much of the economic hype and Wall Street exuberance had been unjustified. Yes, the economy had seen almost a decade of inflation-free growth. Yes, there were new technologies, almost too numerous to mention (sounds familiar?), that had sparked the public's interest. And yes, the value of stocks had been rising without a sustained bear market for more than 8 years. One of the most noted economists and advocates of the new era, Dr. Charles Dice, summarized the public's enthusiasm in his book *New Levels in the Stock Market* published in the summer of 1929:

"Old standards of judgment have been overthrown. Who can judge the future development of Radio? Of the airplane? Of the automobile? Of steel alloys? Of the chain store?... Never has such an array of current and prospective potentialities appeared on the market scenes."

In this piece we explore the psychology of the Internet mania – and what it likely holds.

The Internet started out as a proprietary government technology almost three decades ago;

and when it was released to the public, it was originally scoffed at by business. Yet today, over 35% of American homes are "connected".

The leading companies have seen their value soar over 10,000% in five years... and investments in the industry have become the focal point of dinner-party conversations.

Nowhere, perhaps in the history of Wall Street, have so many profits been made in such a short time. And clearly, nowhere have investors seen those profits start to evaporate so quickly. In just one week last month, the Nasdaq stocks lost \$1.5 Trillion in a sharper percentage plunge than during the week of Black Monday in 1987.

Clearly, there has never been any parallel with the phenomenon of the Internet! Or has there? We are not the first to examine the unique analogy between the Internet and the birth of another communication medium – called Radio. And while such comparisons might, at first glance, appear trivial or invalid, we think you'll quickly change your mind.

Of greater importance, are the invaluable lessons that will help you negotiate what inevitably lies ahead.

Insights from the History of Radio

Radio Was Initially The Domain of Brash Young Scientists and Government

Originally, as innovations in communication, both the Internet and its ancestor, the Radio, incubated for a couple decades quietly out of the public eye - rejoiced over only by the scientists who developed them. It might surprise today's Internet users to know that the government actually funded the first "Internet" type connection, known as ARPANET, in 1969. Similarly, the British Marconi Company tried to sell the world on wireless technology as early as 1901 – 20 years before most people would recognize it as Radio.

From the start, the value of both technologies was questioned by academics and business alike. Only intrepid young scientists, fearless enough to devote their lives to what others thought esoteric or even pointless, were interested in exploring the new mode of communication called Radio:

"Scientists, with reliable incomes and reputations that might get sunk, naturally were afraid to go into Radio. However, there were quite a number of young men who had been given scientific training, and who had not made any scientific or engineering reputations that could be lost. Some of them were adventurous enough to go into Radio then, and a few still survive".

Radio Broadcast -April 1926

Initially, uses for the new technology were limited. Radio found a niche with "ham" operators and ship to shore communication (for the Internet it was government and universities). Even with its obvious life saving implications, many ship captains strenuously objected when they were required by law in 1912 to install Radios. Nobody could predict what lay ahead:

"It would be a commonplace remark to say that when wireless telephoning became practical, about the year 1914, no one dreamed that its use would ever be general or popular. Even two years ago few enthusiasts would have dared to assert that they would live to see hundreds of thousands of persons interested in radiotelephony."

American Review of Reviews - January 1923

"Just a few years ago it was predicted that the growth of the wireless industry would be slow... Then came broadcasting, and with it the revolutionizing of the industry."

Radio Broadcast- September 1924

It was not until 1919, at the request of President Wilson, that any business interests came to focus on Radio. With the British taking the lead in long distance wireless communication, a plea was made to protect U.S. interests in the new media. This led to formation of the Radio Corporation of America (later RCA) which pooled the patents, Radio inventions and research facilities of the major players at the time: General Electric, American Telephone & Telegraph, Western Electric, United Fruit and later, Westinghouse.

Like America Online and Cisco (both 1980s entrants in the Internet) the new Radio Corporation initially had more pie-in-the-sky ambitions than actual customers. The public didn't really take notice of Radio until there was something available to spark their interest. That spark was ignited when David Samoff, then general manager and later president of RCA, arranged to broadcast the 1921 heavyweight championship fight between Jack Dempsey and Georges Carpentier. That's all it took - word spread like wildfire:

"Radio enthusiasm is spreading through the nation like whooping cough through a kindergarten; it has taken the place of prohibition as the foremost topic of dinner-party conversation. Everyone is speculating about the future of the art, and the wildest ideas are abroad in the land as to what Radio can and will do."

The American Magazine -June 1922

Radio Created More Questions Than Answers..... More Problems Than Solutions!

Like today's Internet issues with security, privacy, web site jamming and fights over domain names, a whole new set of complex issues threatened to swamp the fledgling Radio industry. Government had to step in to bring order to the airwave chaos.

"Scientists and Government officials are trying to find solutions to the tremendous problems this astounding development has brought about and that are already hampering it."

THE NATIONAL WEEKLY- April 8, 1922

From the beginning, anyone with a few thousand dollars and a little electrical knowledge could get into broadcasting. And there was simply no way to

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prevent people from broadcasting offensive material. The questions were clear even if the answers weren't... who would control Radio, who could broadcast, and what should be allowed to be broadcast?

"Here is a new power inconceivable in magnitude. How is it to be controlled? How operated? How supported? Is this another monster which humanity has created without being able to control it?"

Outlook- March 19, 1924

Initially, content was a real dilemma! Like the Internet, whose early content was often limited to academic dissertations, Radio broadcasts were filled with long, boring talks and not much else:

"Many of the lectures or talks delivered by Radio are uninteresting. The average Radio listener, sitting at home after a hard day's work, does not care to listen to some such subject as the preparation of oils for lubricating purposes or the election of glass for the manufacture of spectacles. There have been too many uninteresting subjects of that kind wished on the Radio audience, although it is well to understand that until such time as the broadcasters have money with which to pay for Radio talent, they must and will continue to fill in with such talks."

Scientific American -December 1922

And with any new communication technology, where listening is "free," there's the problem of royalty fees. The Internet is only encountering the same problem that Radio faced years ago:

"The composers of music refuse to permit their copyrighted compositions to be broadcast without payment of royalty; dramatists are taking the same stand as to plays."

The CENTURY MAGAZINE-June 1924

"In litigation, in which publishers have sought to restrain the unauthorized use for indirect profit of copyrighted music, the courts have held in their favor. One District Court of the United States decided that a station may not broadcast the copyrighted song "Mother Machree" without permission, although its only profit was in the indirect advertising benefit..."

The Independent-March 29, 1924

This, of course, brought up the ultimate question... If the public wants free entertainment and good content, who will pay the bill - sound familiar?

"Who is going to control this great communication system and who will pay the bill? These two questions are causing much agitation in the Radio world just now... Disregarding the few who are able to make an actual profit either from direct charges for communication service or from sales of

apparatus, they operate without revenue and amuse, entertain, and instruct the public without gain. Most of them started with an idea that sometime and somehow they would reap a benefit... For the first time in history the public is really getting something for nothing... Who then will pay? Only one class remains - those who want for diverse reasons to convey their voices or their thoughts to the waiting ears of those who listen... The advertisers will pay, and that term includes everyone who wishes to broadcast for his own purpose, irrespective of his motive."

The Independent-March 29, 1924

Yet, for all its unanswered questions and unsolved problems, Radio had become a focal point of national interest. And where there's interest, there's got to be money to be made.

Investment Opportunities Appear Unlimited and Unending

From the beginning, those with money to invest were clamoring to get in on the ground floor. Like the Internet, it didn't take much more than a concept to start a company. And for many of these upstart Radio ventures, the "business" of business was selling their own stock. It's not that there weren't cautionary voices. Investors were warned about speculative investments, yet they simply weren't listening.

"During the past three months more than 1,200 corporations have been organized in the United States to make and sell Radio apparatus. A very considerable proportion of them are at present more actively engaged in selling their stock to the public than in selling Radio equipment. Several hundred of them will never do anything else, judging by the conditions in the industry and the past records of the men at the head of them."

THE NATIONAL WEEKLY-August 9, 1922

Others simply sold blue sky, relying on the promise of the Radio industry itself for credibility.

Some Get-Rich-Quick Schemes that are All Bull and a Yard Wide

"Last summer the public was greeted by the lusty and hungry cries of newborn Radio promotions in the latest infant industry of the United States. These companies had sprung up all over the country as a direct result of the sudden popularity of Radio and the almost unlimited publicity gained by this fascinating product of many inventions..."

All of these companies sketched, in their sales literature, the enormous profits made by various remarkably successful industrial enterprises, such as the telephone and telegraph

Insights from the History of Radio

industries, and indulged in various blue-sky speculations which led prospective stockholders to believe that Radio might rival the telegraph and telephone in profits to investors in companies that manufactured apparatus."

Radio Broadcast - March 1923

But such doubters were quickly silenced by the unprecedented growth in the industry. Two of the biggest contributors to economic prosperity during the 1920s were the automobile and Radio. When compared to the mature car industry, Radio's prospects seemed limitless...and its growth, mindboggling.

Radio – A New Industrial Giant

"For the last decade or two - until the arrival of Radio – the automobile has had absolutely no rival as the great American bonanza industry. The automobile must now, however, definitely take second place; for Radio has magnificently outdistanced it in rapidity of growth... It does appear that within another year there will be as many Radio sets in operation as telephones; and in two years it is altogether likely that there will be more Radio sets than automobiles.

The rapidity of development of the Radio industry is breathtaking... within a year after the vacuum tube had been perfected, the great bonanza began. In the early part of 1921, the largest manufacturer estimated that 25,000 sets were all it could hope to sell; but before the year was out 25,000 sets was the quota aimed at per month. New Radio manufacturers began to spring into being at the rate of about 100 each week... New incorporation during twelve months totaled \$300,000,000 in capitalization. This, within a single year after the birth of Radio broadcasting, amounted to one-fifth of the total present-day capitalization of the thirty-year-old automobile business!"

The American Review of Reviews - Fall 1925

Nobody thinks about risk in a mania... nobody wants to think about risk! A rising tide carries all ships, even if they have no cargo! And so it was with Radio. The phenomenal growth in the industry hid any fundamental weakness. In the frenzy, everybody wanted a piece of the action, especially when demand was outstripping supply:

"The number of Radio manufacturers is legion. They even defy count... There are certainly no less than 3000, and perhaps as many as 5000 manufacturers of some Radio part or other, sold to Radio fans. It is estimated that close to half a million people are employed directly or indirectly in Radio... A formidable distributing army is in existence: nearly 1000 jobbers and 25,000 dealers, of which about 3200 are "exclusive" Radio dealers, selling Radio goods only... "Radio Shops" had been started by mere boys with little or no capital

or commercial experience, or by opportunists from other lines of business with no retailing knowledge."

The American Review of Reviews - Fall 1925

And in the media, all was justified by the fact that "we've never seen anything like this before!" Valuation? It didn't matter. It couldn't matter, because there was no historical data or track record upon which to base such judgment:

Radio - A New Field for Investment

"In a pioneer industry it is, of course, not possible to have an opinion on stocks representing that industry backed up by a mass of statistical and historical data, but the Radio business has grown so fast that public participation in those Radio investments which are upon the open market is increasing to substantial proportions, mainly because of the known facts of the developments in the industry as a whole."

Radio Broadcast - September 1924

"Radio Will Change The Way We Live and Do Business"

It has been argued that the Internet is changing the way we communicate, shop, get our news and educate. Radio was viewed along exactly the same line. For the first time, anyone with a message could get it to millions of people at once - eventually to every household in America:

"Radio will very soon be in the homes of both rich and poor everywhere," says Owen D. Young, chairman of the board of directors of the Radio Corporation of America... "It will be the greatest potential educator and spreader of culture that has ever been dreamed of. It will be the most democratic, the most easily assimilated, the most universal and the cheapest form of publication man has imagined... "The possibilities for this for progress are almost infinite.""

THE NATIONAL WEEKLY-April 8, 1922

As part of their daily lives, Radio had become a powerful tool to influence the public. It opened doors and reached audiences and consumers in remote locations, who were not easily reached before. This new technology had the potential for affecting our entire social fabric:

"What the press agents have been promising for Radio is coming true - that it is developing into a social force of importance... No one with eyes or ears needs to be told how rapidly Radio is interpenetrating every part of our daily life."

The CENTURY MAGAZINE- June 1924

Insights from the History of Radio

Radio- the New Social Force

"With almost stunning suddenness, the Radio has become a power boundless in possibilities for good or evil. In all the history of invention, nothing has approached the rise of the Radio from obscurity to power."

Outlook -March 19, 1924

As people flocked to Radio, there was concern that it would replace all sorts of other communication and live entertainment - relics of the "old economy":

"Will Radio Replace the Phonograph?"

We have heard it predicted in speech and in writing, that with the Radio telephone bringing music to every home, the faithful phonograph will soon be left to collect dust in the attic, symphony concerts will be attended only by impossible eccentrics who desire to have their names in the papers, and opera seats will go begging."

Radio Broadcast -November 1922

LIMITS OF RADIO

"... soon the ordinary land-line telephone will be obsolete, and everyone will carry a pocket Radiophone ... That Radio broadcasting will replace the newspaper is another common view."

The Literary Digest - April 7, 1923

Is Radio to become a chief arm of education? Will the classroom be abolished, and the child of the future be stuffed with facts as he sits at home or even as he walks about the streets with his portable receiving-set in his pocket? Will political campaigns hereafter be conducted strictly in front porch style, the entire population of the country listening to a candidate at a single moment... Will newspapers be supplanted by reports dictated from the scene of great events, as prize fights and important ball games already are? What will be Radio's effect upon the theater?"

The CENTURY MAGAZINE- June 1924

Broadcasting Menaces the Theater?

"SCIENCE seldom makes a stride forward without the accompaniment of cries of alarm. Radio furnishes no exception. In its case the theater has voiced the loudest protest."

Current Opinion -March 1925

Such fears were a hot topic for debate. Like the Internet, perhaps the greatest potential impact of Radio was in marketing. Many felt the entire way of doing retail business would change forever. Business could no longer afford to sit on the sidelines and ignore Radio:

Direct Selling by Radio

"Is It a Menace to the Retail Business Structure?"

KFNF, Shenandoah, is now self-announced as the "merchandise center of the middle west"... In a few short years a business primarily devoted to seeds and nursery stock, with an annual turnover of probably about three hundred or four hundred thousand dollars, has grown with the aid of Radio into a business with a volume of more than three million dollars... HENRY FIELD has developed salesmanship by Radio into a very fine art - so fine an art in fact that many claim that if his example were followed by others fortunate enough to own a Radio station, the whole retail business structure of the country might be endangered..."

Radio Broadcast -May 1928

"Regardless of whether one embraced this new technology...and regardless of which side of the "old economy" versus "new economy" debate one was on... no one could deny that the miracle of Radio was changing the way we lived and did business. Who wouldn't believe that the best was yet to come?"

Epitaph

Broadcasting's 100 Years in 10

"Its century of progress in a decade is a merchandising miracle."

Business Week -November 7, 1936

Less than a decade after its introduction in 1921, the Radio had changed many aspects of life in the U.S. Never before had the public seen such rapid growth in a single industry. Seldom had any technological development exerted such far-reaching influences on a global scale.

"The development of this new communications system has been remarkable enough. In an incredibly short time it has put us in direct and lasting contact with virtually every quarter, and a great many corners, of the globe, and has become an enormously important factor in the whole scheme of world communications.."

The Saturday Evening Post - November 16, 1929

Yet, just as China has failed to openly embrace the Internet, there were others more fearful of the Radio and the "propaganda" that it might carry:

"Japan's Fear of the Radio"

The fear of foreign propaganda among the Japanese people has held back, it seems, the development of broadcasting by Radio..."

The Literary Digest -September 20, 1930

Insights from the History of Radio

Somehow, through all its trials and tribulations, Radio had still fulfilled many of the wild-eyed projections of its early advocates. What Owen D. Young, Chairman of RCA, had said in 1922 was true: "The possibilities for this for progress are almost infinite." In fact, by 1931 Radio had laid the foundation for what would eventually become two of the next infatuation - industries of the decades to come - airline transportation and television:

"AIRPLANES LAND BLIND - GUIDED BY RADIO"
Scientific American - July 1931

"THE INVESTOR LOOKS AT RADIO"

IT IS PROBABLE that more money has been made and possible that more has been lost in Radio than in any other development in this generation ... The growth of the industry has been truly fantastic and has naturally aroused public interest not only in actual receiving apparatus, but also in securities of Radio manufacturers. In many cases large profits were realized, both because of the growth of the industry and the rapidly rising stock market, but in almost as many cases losses were equally great.

If we were to attempt to survey the situation in Radio strictly from the investor's point of view we could not proceed much further, for few, if any, of the common stocks of Radio companies are entitled to true investment ratings... The Radio industry may be compared in a number of respects with the automobile industry in its early stages. Of the many early manufacturers, only a few of the strongest have survived."
Radio Broadcast - April 1930

The #1 premier company, of course, had been Radio Corporation of America. In five short years, the stock had soared from under \$5 per share (adjusted for splits) to over \$110 per share, or +2,614%. If one had gotten in on the ground floor of RCA in 1921, the gain was over 10,000% or enough to turn \$10,000 into a cool \$1 million by 1929... IF one possessed the foresight and presence to exit near the highs.

Unfortunately, few did! And those who bought Radio Corp. of America as a long-term investment in 1929, found they (or their heirs) did indeed have to hold it a long time to break even... more than three decades to be exact. Ironically, it would be on the next technological wave led by RCA - the widespread introduction of television.

No one can say whether stars of the Internet, like Yahoo!, AOL and Amazon, which have

experienced similar 10,000% run ups (at least to their highs), will see a similar fate. All we do know with a fair amount of certainty is that the Internet, like the Radio, has seen expectations get far ahead of underlying values. Many "hot" Internet charts were as parabolic as the pre-1929 chart of RCA... now a growing number are looking like the backside (post-'29).

The similarities between the Radio phenomenon of the 1920s and the Internet of the 1990s are painfully obvious. From the inception, to the skeptical acceptance, to the public's infatuation and phenomenal growth, who could ever guess that we would be reading the same media "insights" 70 years later.

Perhaps the most fitting epitaph for the Radio era of the 1920s comes from Business Week, one of the few periodicals that tried its hardest to keep People expectation rooted in reality 1927-29. It's not just about Radio, but describes the whole speculative fever that had swept economy. As the article states, it was a fever based on "psychological illusion" that was "stronger and more widespread than has ever been the case in this country"... at least until today.

About Vaxa Inc.

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We were founded in 1996 on the principle that we would provide innovative and fact-based research to help our clients to make strategic choices and decisions.

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