The History of the Radio and Its Marketing: Is the Internet Listening?

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There are numerous parallels between the history of the radio and the internet. Many of same uncertainties, concerns and marketing opportunities surround the internet today as they did in the early days of the radio. This paper provides a brief history for both innovative communication mediums. Some of the marketing lessons learned from the radio are suggested as possibilities for the internet.

The radio provides a retrospective examination of a technology-based communication medium (Yadav 2000). Its impact on society was great as it re-defined communication. It was also a powerful force in the marketplace. Many propose that radio's greatest business impact was on the marketing of goods and services (Hanson 2000).

There are many similarities between the history of the radio and the internet. Both mediums leveraged technology to create new marketing, communication opportunities. Companies gained access to more individuals simultaneously. One difference, though, was in the design and broadcast of the marketing messages. Radio is credited with launching mass marketing while the Internet appears to be the vehicle for one-to-one or personalized marketing communications.

This paper focuses on how the radio and the internet have affected the practice of marketing in two ways. The first focus is on the marketing evolutions these communication mediums launched. The second focus in on the marketing solution for their financial sustainability. As the evolution of the radio is further along than the internet, there is more information about the radio. Yet the striking similarities in their historical roots and evolutions allow for reasonable forecasts of the internet's effect on the marketing practice.

Library and internet research techniques were employed for this paper. During the collection of the historical information, three general categories emerged. There is a section dedicated to each. The first section is an overview of the early origins of the radio and the internet. A second section presents the commercialization of each. Section Three examines the financial opportunities for the two WWWs (worldwide wireless and worldwide web). A fourth section was developed to highlight the parallels within the first three categories and translate them into reasonable possibilities for the internet's future. Section Five has concluding remarks.

EARLY ORIGINS

In 1899, the radio was a wireless alternative to the telephone in the United States. Amateur radio operators (primarily entrepreneurs with strong science backgrounds and engineers) were the first to capitalize on this medium (Douglas 1987).

During these pre-World War I days, the individual radio operators valued the radio for its ability to communicate with others in far away places. Their communication was very specific or targeted to one another; thus, the initial communication roots of radio were one-to-one.

It was not until the Titanic disaster that the radio received significant public attention. Unfortunately, radio communication on ships was not required twenty-four hours a day, seven days a week. There was a ship close enough to the Titanic to have provided life-saving measures during that tragedy; except the ship's radio communication was idle. Messages from the Titanic to the mainland had been intercepted and mixed with other amateur messages. This led to a misinterpreted communication that the Titanic was fine and proceeding on schedule (Hargittai 2000).

Once the ultimate fate of the Titanic and the radio communication mistakes were public, the press and public opinion turned negative toward the original radio operators. The government passed the Radio Act of 1912 which created the Federal Radio Commission (ultimately, the Federal Communications Commission)—responsible for the issuance of radio licenses (Cunningham and Wetsch 1999). Individual user rights would vanish.

The advent of World War I (1917) also had an effect on the radio's evolution. It quickly took the radio from its previous small, niche operated (private) communication vehicle to a public, war-focused communication vehicle. Manufacturing of the radio was also diverted to military use only (Weiner 1966).

After the end of the first World War, it was clear that the radio as a communication medium needed to be evaluated. The government did not want to regulate it nor did it want the U.S. subsidiary of a foreign corporation to

control it (Marconi). In 1919, the Radio Corporation of America (RCA) was incorporated as a United States entity to address these issues. One year later, RCA was granted the U.S. rights for telephony and to send telegrams and messages to ships that were hard to reach. RCA's business plan for its radio responsibility was to communicate with military and shipping companies via point-to-point communications. RCA saw their role as a security one and not as one to launch a commercial activity (Hanson 2000).

Also with a military focus, the internet began in 1969. It was referred to as ARPAnet (U.S. Department of Defense's Advanced Research Projects Agency Network). The Pentagon and National Science Foundation (NSF) funded the network. Its use was restricted to the military, some university researchers and their graduate students.

Each of these groups had a different communication purpose for the internet. The military's purpose was to have a robust, emergency military communication network (as the radio had been during World War I). The academic community focused on the internet as a communication channel to share research information without being restricted by geographical boundaries and time differences (analogous to the original users of the radio). The National Science Foundation (NSF) maintained the network's "backbone" and strictly prohibited any commercial use of the ARPAnet.

When UCLA connected with the Stanford Research Institute, in 1969, many electronic uses were developed that remain popular today. They are email (1971), @ in electronic address (1971), multi-person chat sessions (1973), and file transfer protocol (FTP) downloads (1973) (Hafner and Long 1996).

A community, among the researchers, evolved through the use of these four electronic communication avenues. Because of this community building, they visualized potential benefits to society and the application to businesses. The researchers proposed extending this electronic communication to a more general audience. However, the NSF maintained its restriction on commercial or public usage and the internet, in its early origins, continued to be used as a military and academic network only.

COMMERCIALIZATION AND INNOVATION

When RCA was granted the U.S. radio rights (1920), there were only five amateur radio operators that formed small broadcasting stations. The public popularity of these stations led to tremendous growth with a total of 575 stations by the end of the following year (1921) (Jome 1924).

RCA was delighted with the growth. Its revenues were 100-fold what their projections had been (RCA Annual Report, 1922). This radio craze had re-captured the entrepreneur spirit of its early origins. People talked about "combing the ether" as they searched for a variety of radio stations (Jome 1924).

For society, the radio impact was significant. The concept of distance and time for communicating information was forever changed. Information and entertainment were now transmitted simultaneously and was no longer bound by geographical proximity. As long as one owned or had access to the appliance or equipment, their lives were changed. People scheduled their days around radio programs.

The radio and its communication opportunities also influenced business practices. Many have said that the marketing of goods and services was impacted the most. Although radio's early origins were in the one-to-one communication of several radio operators, it was credited as leading the mass marketing evolution with its extensive reach.

This communication evolution was fueled by the production and transportation revolutions (Hanson 2000). Factories' post-war mass production increased supply while the ability to ship goods to retailers in new ways (rail and truck) provided the access. Companies were now under pressure to increase sales and found the radio to be the perfect medium to reach millions of households to promote their products and/or services (8 million households as of January 1925) (Jome 1924).

With this new way to deliver promotional messages, competition between companies intensified. Previous standardized products were expanded into product lines and brands as one way to differentiate themselves. Companies used the radio airwaves to provide instant awareness of their national brands. They also had the flexibility to modify their product positioning based upon their competitors' actions. These communication opportunities led to the first national marketing campaigns that were both product and image driven. In addition, retailers discovered that their in-store promotions could be enhanced through radio promotion.

The internet's commercialization evolved because of reduced government funding over time. In 1984, the Pentagon stopped funding ARPAnet and the network remained with the academic community. It was 1994 when the NSF subsidy was eliminated and commercialization was no longer restricted.

Prior to the Pentagon's cessation of funding, a limited number of applicable corporations, for example AT&T, had meet with the government regarding the network and their potential involvement with it. AT&T had been disappointed by the slowness of ARPAnet and was, therefore, unwilling to manage it as a national network which was an alternative when the government funding ended (Hargittai 2000).

In 1994, it was apparent that this communication vehicle was in need of a major breakthrough in order to survive. This occurred with World Wide Web (the second WWW), browsers and servers. Many recognize 1994 as the "public internet explosion" (Hanson 2000).

Although the early web sites (1995) were relatively static with limited content, companies seized the ability to communicate with customers using the new technology.

Marketing messages and materials were developed for global reach at a very low cost and were electronically disseminated through the company's web site. Interactive communication (one-to-one marketing) was more of a reality than ever before.

Internet access, usage and content exploded. Some of this growth was fueled by the venture capitalists (VC) that invested heavily in internet specific business strategies. In 1998, VC funding was $4.55 billion, which on average provided $5.8 million per internet-based company receiving their funds (online: SiliconValley.com).

The unprecedented, commercial growth of the internet has been measured in many ways. One of the most dramatic is its adoption rate compared with other technology-based communication devices. For the radio, it took 38 years to be in 50 million households; television sets took 13 years to be in the same number of households; personal computers took 16 years; and the internet, five (Meeker 1997).

The growth rate of worldwide, online users is also impressive. As of July 2000, there were 360 million online, worldwide users (www.nua.net) which are almost double from July 1999 (185 million). These online users have a number of web sites they may visit. At the end 1999, there were 3.6 million sites accounting for 1.5 billion pages. On a daily basis, 4400 new web sites are added, accompanied by two million new web pages. Projections are that by 2002 there will be 8 billion pages--more pages than people in the world (Lake 2000). An indication that many web sites may not be successful is supported by research citing 80% of the online traffic goes to 0.4% of the sites available (Lake 2000).

Internet users refer to it as a necessity and a source for their critical information ("surfing the net"). Companies are beginning to capitalize on this customer/individual-level communication process that technology enables. This capacity extends the mass marketing practice (led by the radio) to a customer management (one-to-one marketing or personalization) practice. This extension has not been completely embraced by internet users. Weitz (2001) summarized internet marketing as being in conflict between the ability to personalize or target the communication and the privacy concerns of the internet users.

FINANCIAL OPPORTUNITIES

The radio, for all its promise, faced the difficult question of self-sustaining revenues. It was a value-laden service to its audience or customers while not being profitable. Originally, radio profits were anticipated from the sale of the appliance (hardware). Although the first radios were cumbersome in their use, over time they became easier to use and less expensive. This led many in the industry to initially consider other revenue generating options such as selling advertising time (syndicated programs with advertising sponsorship).

Many outspoken leaders of the time were against advertising as means to support radio's existence. It was proposed that the U.S. government fund radio as Europe had done. This proposal was denied (Hargittai 2000; Glynn 1956).

At the end of 1924, there were 581 broadcast stations. Eighteen months later, fifteen percent of these stations per month were out-of-business. These failures were attributed to three main factors: one, the demand by the music writers for royalties for airing their music; two, severe competition; and three, the sizable decrease in the listening audience during the summer months (Jome 1924).

National networks emerged as the solution. By combining local and national programs with advertising sponsors, many of the surviving radio stations turned profitable. It was now apparent that hardware sales would not "save" radio rather the profits would be received from advertising.

The addition of advertising into radio programming was not well received by the radio's audience. Listeners felt that their entertainment was being interrupted by advertisements. These attitudes became so prevalent that, in 1930, some suggested that ad agencies dictated the content of the programs (Landry 1999). In actuality, listeners were being offered a wider range of programming content because of the financial viability provided by the advertising revenue. There were attempts to avoid the programs that had advertising sponsors but eventually those efforts were thwarted (Biel 2000).

The packaging of radio programs and advertising content provided the advertising industry with a successful model for syndication. A very similar syndication process is still used within television broadcasting today.

Similar to the radio, the internet is burdened with concerns about its financial viability. The last several months have demonstrated that internet sites are beginning to fail in noticeable numbers (for example, pets.com, furniture.com, eve.com, living.com, etoys.com, garden.com, etc.).

This paper has, thus far, demonstrated numerous similarities between the evolution of the radio and the internet and the practice of marketing. These striking similarities generate suggestions for the financial opportunities that may give the internet, as an industry, financial viability through its own marketing efforts.

Two marketing-based revenue sources for the internet are suggested in this paper. They are advertising and syndication. Although both of these revenue sources are all already in operation on the internet, neither has provided the financial performance necessary. There are impressive, researched opportunities to redefine them to achieve this higher level of performance.

Internet advertising is composed of an online and offline medium. Offline or traditional advertising of websites includes television, print and radio (magazines, network TV and radio are the most popular) (Lawrence 2000). Online advertising is typically in the form of banner ads (electronic billboards). These ads are generally placed on a web site that attracts visitors matching the customer

profile of the product or service being advertised. Their successes with branding and, subsequent sales (direct online purchases or leading to offline purchases) have been debated in the research literature. These debates have partially contributed to the advertising industry's lukewarm reception of the banner advertising concept (Lefton 2001). Several studies have researched this reluctance further and found that the industry is not able to successfully transition advertising from a passive medium (television) to an interactive one (internet) (Briggs and Hollis 2001; Cartellieri et al. 2001).

Thus, the financial state of affairs for internet advertising revenues is not stable or predictable. Data are provided from ad tracking services that do indicate appreciable levels of spending by internet companies. For example, from January to November 1999, companies spent $4.2 billion promoting their sites both online (banner advertising) and offline (traditional print, TV, radio). Most sources state that the advertising expenditures still exceed advertising revenue. The reported range for 1999 is from $3 billion to $4.4 billion, which suggests that some sources, found revenues exceeding expenditures (Lawrence 2000).

The instability of this revenue option should not be a deterrent for its consideration as a revenue source. The Internet Advertising Board and PriceWaterhouseCoopers found a 148% increase in online advertising revenue between 1998 and 1999 (Harr 1999). Forrester projects that by 2004 online advertising will represent 8% of traditional advertising revenues (exceeding traditional magazines and radio advertising) (Lawrence 2000). Schott (2000) reports steady, growing demand for online advertising. These findings suggest that, over time, advertising revenue may exceed spending. This projection is heavily dependent upon the advertising industry developing and supporting models for internet advertising (online or offline).

Pastore (2001) suggested a more comprehensive or integrated approach for internet advertising. He has labeled this as digital marketing. Digital marketing is defined as integrated marketing campaigns using online banner ads, online and offline promotions, and targeted e-mail. This combination is not widely used. It reinforces recent suggestions that to conduct online business successfully a seamless, unified or "one voice" communication approach must be employed across all channels (Weitz 2001).

Approaching internet marketing with a traditional, integrated marketing communication model may provide the advertising industry with a recognized model for adaptation. Consideration for the Pastore model might be the inclusion of other, recent suggestions that banner ads not be placed outside of the company's site; rather all marketing communication would be conducted on the companies' own site (similar to in-store or point-of-purchase advertising).

Syndication is the second financial option suggested in this paper. It is not as well known in the internet (or virtual) world as it is in the physical one. The syndicating process involves the aggregation and distribution of content with enhanced or value-added services provided by the distributor. There are three players in syndication. The originator creates the content while the syndicator packages it for distribution and the distributor delivers the content to the customer (Werbach 2000).

In the physical world, syndication is based only on content while, in the virtual world, is can be more extensive. In addition to offering products and services, the capability to offer business processes also exists. Revenues are generated through licensing fees, share of advertising revenues, and share of transaction revenues, if applicable.

In the virtual world, a company can operate as one, two or all three players in the syndication process. Motley Fool is an example of a company, which performs all three. The site originates content for its own site's use, then acts as a syndicator to combine other investment sites' information with its own, and then distributes it and other news stories through other sites (Werbach 2000). Britannica.Com syndication, Mondomedia, and StreamingMedia are examples of online businesses that originate and syndicate content to other web sites or traditional broadcasting (such as television and radio) (Lee 2000).

Syndicating business processes through the online environment are defined as unique bundles of products and/or services that provide customer solutions (Weitz 2001). Some of these processes include commerce (payment systems, shopping carts), human resources processes (payroll), fraud detection, and logistics (Werbach, 2000).

Using syndication for business processes can alleviate companies from creating and maintaining their own networks for these functions. The connections between the involved companies are critical and the network must function as a key element in the management of the business.

Syndication does pose a unique set of challenges in the virtual world. It necessitates companies changing their traditional or physical world strategies. For example, the concept of scarcity and shelf space management (consumer packaged goods' strategy of filling the shelves to prevent competitors' products from being seen) is not available on the internet. There is no shelf space limitation and a company's offering is there for anyone to view, at any time.

Therefore, traditional syndication strategies must be modified for the web. They require identification of the most valued niches which maximize the company's relationships with other firms and its customers. This relationship management must adapt to the speed of the technology and maintain meaningful, multi-channel communications through seamless integration of customer databases (Weitz 2001).

The merger of AOL/Time Warner and the MSNBC/Microsoft partnership provide two examples of companies that have developed formal relationships with a virtual syndication strategy. Their results will be an indication of the success or failure for online syndication.

HISTORY PARALLELS AND FUTURE SUGGESTIONS

The radio created an entirely new communication medium as the original www (worldwide wireless). Its early origins were among several radio operators but the technology was eventually leveraged through RCA to reach millions of households simultaneously. The second www (worldwide web) began within the confines of the military and various universities. During its early origins, it built information exchanges and electronic communities. Thus, the first parallel among the two communication mediums is in their early origins of limited use (the radio also had military origins based on its role during World War I). Each evolved from their position to either a mass marketing communication medium (radio) or a one-to-one, personalized communication medium (internet) due to its commercialization.

A second parallel between the radio and internet was the creation of a new vehicle for obtaining critical information and entertainment. Receiving information was no longer affected by geographical proximity or time differences. It was instantaneous and created information-seeking activities with their own specific terminology (combing the ether for the radio; surfing the net for the internet). Both mediums had a major impact on society.

As a third parallel, companies have new vehicles for communicating with their customers in advanced ways. The radio was the medium for national marketing campaigns to present national brands that were communicated quickly and with the same message to all (mass marketing). Whereas, the internet capitalizes on the technological advances (since the days of radio) to develop the one-to-one communication opportunity. These advances define the interactive aspects of the internet. Internet users actively initiate the online, two-way dialogue based on their "search and seek" information needs. The radio is a passive communication avenue because of its fixed broadcast programs. Listeners may "search and seek" certain radio stations based on their programming, however, interactivity (one-to-one or personalized communication) is not available.

Profitability was a challenge for the radio industry and advertising and syndication revenue (the packaging or syndication of local and national programming) was the solution. This remains an uncertainty for the internet and, likely, one area that many would find comfort from possible historical parallels. In this paper, advertising revenues and syndication are proposed as possible solutions for addressing the internet's financial struggle rather than online shopping sales (e-commerce).

Online sales are not suggested because of the uncertainty and fluctuation observed each holiday shopping season. In 1999, online retailers invested heavily in marketing their sites through promotions and incentives. Commitments were made to online shoppers that the retailers were unable to meet (delivery times, wide assortment of products available, etc.). Therefore, the 2000 holiday shopping season was closely monitored on two dimensions. The first dimension was the noticeable shift in promotional dollars previously spent to distribution dollars spent. This was imposed on e-tailers from both the investment and consumer (shopping) communities (Couzin 2000). The second dimension was the increased presence of three major, traditional retailers (WalMart, K-Mart and Target) whose online marketing has been minimal. It was important to monitor their marketing strategies to determine if online success means having an existing infrastructure and considerable marketing experience.

WalMart and Target were the fifth and seventeenth (respectively) most popular sites for the 2000 holiday online shopping season. Both retailers advanced dramatically from previous months and years.

This does provide some evidence for the strength of a traditional retailer online. The observation is based upon the holiday 2000 statistics plus the noticeable lack of retail expertise by virtual-only stores that do not have the bricks and mortar establishment to exploit. (Weitz, 2001). This observation was challenged by pure e-tailers who still dominated the top internet shopping sites in 2000 (Amazon, CDNow, and the now defunct, e-toys.com). Weitz has hypothesized that, ultimately, online retailing will become another communication channel for traditional retailers leading to the demise of pure, virtual retailers.

CONCLUSION

Both of the worldwide communication mediums (worldwide wireless—the radio; and worldwide web—the internet) have been major contributors to both society and businesses. The practice of marketing has likely benefited more, from their existence, than any other aspect of business. From the historical overview presented in this paper, there are many similarities or parallels between the radio and the internet. Although continuing in its evolution, the radio industry has more information and data, whereas, the internet is in its infancy with considerable uncertainty about its future.

This uncertainty was voiced by Steve Jobs' comments about the internet only two years after it was a commercial entity:

> The web is going to be very important. Is it going to be a life-changing event for millions of people? No. I mean, maybe. But it's not an assured "Yes" at this point. And it'll probably creep up on people. It's certainly not going to be like the first time somebody saw a television. It's certainly not going to be as profound as when someone in Nebraska first heard a radio broadcast. It's not going to be that profound. (Wolf 1996)

More recently, this uncertainty was echoed within the consumer-packaged goods' industry. A study recently completed by the author finds that these firms are uncertain

and unclear about the internet and their use of it as a marketing channel. Considered to be leaders in marketing management, many other industries look to consumer-packaged goods for direction. Their uncertainty reinforces the suggestion that the internet's end result is still years away. Yet, the radio's success through advertising and syndication should provide important guidance and direction that could reduce this level of uncertainty.

There are important marketing lessons available to the internet from the history of radio. It is not yet known whether history will repeat itself. Regardless of the final outcome, though, the internet should be acknowledged as advancing marketing into another communication dimension—just as the radio did.

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