Economy of the Ether: Early Radio History and the Commodification of Music

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Abstract
The early history of radio is an absorbing and complex saga. Often told from the narrative perspective of its inventors, technical milestones, or regulatory developments, little has been written about the commercial history of early radio and its influence on the commodification of music. Using a theoretical framework of commodification based upon the concepts of Ideologies, Reification, and Fetishism, this article builds upon an earlier case study of the player piano. Attention is given to under-researched aspects of early radio history such as the department store station phenomenon circa 1910-1931. As a conclusion, some observations are made about commodification’s impact on the current state of the music business, the future relevance of radio, and how theory can inform future research.

Keywords: commodification of music, ethnomusicology, mass communication, music business, radio, radio history

Introduction
History offers many examples of events that are unduly neglected because they do not memorialize an individual of charismatic personality, have timelines with a quantifiable beginning and end, or possess some other narrative device for easily communicating their story. The complex history of early radio often results in an oversimplification of the facts, as the narrative of its creation becomes obscure nearly before it begins. A technical history of tuners, tubes, and transistors would serve radio well as a chronicle of its evolution as a workable device, but such a history is of interest only to those with the requisite expertise to appreciate its nuance. Similarly, a legislative account of the various radio and communication acts of the twentieth century has merit, but it lacks the intimacy of human interest to which great history aspires. An under-explored methodology examines radio as an influence upon the commodification of popular music. This article delineates such an approach by establishing a theoretical framework for the process of commodification, applying this framework
to the early history of radio, and concluding with some observations about the future of radio and popular music.

The Process of Commodification

Culture scholar Stuart Hall noted the difficulties a “periodisation” of popular culture involves, though he offered the 1880s-1920s as a broad era of its genesis.\(^1\) Sometimes called “The Gilded Age” in American history, this period is marked by profound advances in scientific, economic, and artistic pursuits. It is also the era in which America emerges as a world power. While founding fathers such as George Washington and Benjamin Franklin defined the first one hundred years of the nation’s history, industrialist inventors such as Thomas Edison and George Westinghouse defined the next one hundred years. Edison in particular, perhaps more than any other man of his day, had a knack for recognizing the “commercial utility” of invention.\(^2\) His belief that the value of a new discovery was commensurate with its potential for monetization has become a bedrock principle of modern American capitalism.

While he acknowledged the impact that Edison’s phonograph, and later radio, had on the commodification of music, ethnomusicologist Timothy D. Taylor defended a theoretical basis for the process by which music became commoditized through scrutinizing the evolution of the player piano.\(^3\) By applying the concepts of Ideologies, Reification, and Fetishism to player piano advertisements, Taylor revealed several similarities between the economic behavior of music and that of traditional commodities.\(^4\) Whether or not an intangible product, such as music, can become a commodity in the purest sense is contingent upon how much room for abstraction is given to its definition.\(^5\) Still, despite any difficulties of classification that arise, the common language that these ideas offer is a convenient place to begin an exploration of how technology and mass communication have fundamentally changed the business of music.

It is clear that from the late nineteenth century on, music evolved from a primarily personal, cultural, and religious enterprise to become a highly commercialized entity. Taylor highlighted the central role that music technology and music products play in this phenomenon:

The production and dissemination of music involves a wide range of technological artifacts: violins, pianos, tin whistles, radios, CD players, MP3 players, and so forth.
Each of these technologies exists as a separate commodity—yet inextricably intertwined with the musical commodities they contribute to producing.  

He also identified ideologies of democratization and personal autonomy as crucial stratagems used by player piano advertisers to hawk their wares. Ideologies of democratization took a three-pronged approach by promoting: 1) “access” to music in the home, 2) the “ability” of anyone to play music using a player piano, and 3) the “availability” of more and more music as the library of player piano rolls expands. Ideologies of personal autonomy reinforced the necessity of the human element as the “soul” of the music in player piano operation, at least until later models became fully automated.  

Reification is the process by which an abstract concept becomes objectified. Player piano advertisers first emphasized the human operator providing a “self” to the music being played, and then later the importance of “the music itself.” This reification of “music itself” served an important function in overcoming an objection of some consumers, namely that music produced by player piano rolls was not “real” music at all. For the first time in history, music was available to the listener in a medium other than live performance, and reifying the idea that the “self” was still in music was critical to bridging this transition.  

Taylor concluded his theoretical treatment by examining the Fetishism of attaching celebrity endorsement to the player piano product, writing:  

In order to locate an object on which to direct the fetishism of reified music, advertisers and proselytizers for player pianos and phonographs focused on the great musicians who could come into the home because of these technologies, thereby transferring abstract, reified music onto the face of a particular musician who becomes in part a fetish herself.  

The celebrity fetishism that intertwined itself with music, and eventually with entertainment in general, was the logical conclusion of the advertising strategies pursued by player piano manufacturers. Rather than simply an art to be enjoyed, manufacturers had a vested interest in music being
positioned as a product to sell. Though the player piano has become somewhat of a historical novelty since its heyday, it helped to set the stage for the device that would complete the commodification of music: radio.

The Commercial History of Early Radio

The early history of radio is a story of genius innovators, great technical achievements, and the regulatory initiatives necessary to bring the medium to the masses. It reaches back as far as the early 1800s and the work of Michael Faraday, and incorporates the incremental advances of Heinrich Hertz, James Clerk Maxwell, and Oliver Lodge among others. Nevertheless, until the time of Guglielmo Marconi radio remained largely an ethereal mystery, an inventor’s dream. The historiography of radio does not allow for the narrative convenience of one definitive creator, but Marconi did set in motion a number of factors that all but ensured the dream would become reality.

Historian Tom Lewis made a distinction between the point-to-point nature of the wireless telegraphy that Marconi achieved, and the much farther reaching implications of broadcast radio. He named Lee de Forest, Edwin Howard Armstrong, and David Sarnoff as the primary movers behind radio’s eventual success, and also recognized important contributors such as Reginald Fessenden and John Ambrose Fleming. Supporters of Nikola Tesla’s claim to the invention of radio point to the 1943 Supreme Court ruling in Marconi Wireless Co. v. U.S. that invalidated Marconi’s original patent on the grounds that it was not substantially differentiated from Tesla’s. Kentucky farmer Nathan Stubblefield is yet another early pioneer with a claim to the title of “the father of radio,” though his story has largely been lost to history.

Marconi did not invent radio, but his advancements in wireless telegraphy did lead directly to its realization. For all his inspired improvements to existing technology though, it was his shrewd marketing and entrepreneurial tactics that left what eventually became his most lasting legacy. Marconi sold the world on a fledgling industry, supplying it with vital resources for its continued growth.

Player pianos, and later the phonograph, were aggressively marketed as consumer products. Yet, while physical radio sets were wildly popular with the public, radio as a mass communication medium had a much broader impact. In a seminal dissertation, Noah Arceneaux rejected the notion that radio declined into commercialism over time, and argued in-
stead that it was expressly commercial from its earliest days.\textsuperscript{18} As early as 1910, Wanamaker’s Department Store experimented with using the wireless telegraph to communicate between its retail locations in New York and Philadelphia.\textsuperscript{19} David Sarnoff himself was once employed as a wireless operator at the New York station.\textsuperscript{20} One of the first to seize upon the commercial value of the new medium, vice-president of Westinghouse H.P. Davis created station KDKA in 1920 that “from its very inception, was conceived as an adjunct to the merchandising” of radio sets that his company was eager to manufacture.\textsuperscript{21} At Bamberger’s in Newark, former wireless operator for the U.S. Navy Jack Poppele continued broadcasting from the store’s station WOR throughout the Christmas Holiday of 1922 because of the added incentive this content would provide shoppers who considered purchasing a set.\textsuperscript{22}

The rush to join the market of radio receiver retail was an important incentivizing factor for the creation of these early department store stations, and they added immediate value to the network of content available on the radio dial. Without this initial injection of content, radio might have taken much longer to catch on. Furthermore, while the initial business model of radio focused on the selling of physical sets, department store stations were among the first to realize the advertising potential of the new medium. The advertising-based model of radio and television programming is so ubiquitous as to be taken for granted today, but it began in the control rooms of Gimbel’s WIP, Wanamaker’s WOO, and Bamberger’s WOR.\textsuperscript{23}

\section*{Ideologies}

While player piano rolls and phonograph records are tangible products, in contrast “radio broadcasts are inherently intangible and ephemeral resources.”\textsuperscript{24} This fundamental difference between physical and non-physical mediums proved to differentiate the way each influenced the commodification of music. Like the player piano, sellers of radio sets used ideologies of democratization of access and availability to market their product. Radio promised to bring music, news, and other content to the masses like never before. Yet radio, unlike the user-operated player piano, had no need for a democratization of ability. The centuries old concept of music as a participatory exercise had now given way to “passive listening.”\textsuperscript{25} In place of democratized ability, sellers of radio sets employed a new ideology of “democratized luxury.”\textsuperscript{26} Radio was the fruit of American
hard work and ingenuity, a fruit rightly to be enjoyed by all. This materialist worldview was well suited to the newly available leisure time and disposable income of many Americans in the 1920s.

After the initial heyday of the amateur hobbyist, personal autonomy was no longer a useful ideology for promoting radio sets either. It was replaced by an audience-centered ideology that framed the listener as a participant in a vast social experiment. The end result of this experiment promised prosperity and a brand of egalitarianism that only equal access to information could afford. The workman, the alderman, and the captain of industry could all share in the same experience simply by tuning in. Listeners might enjoy a symphony, a radio drama, updates on the latest news, an educational lecture, or a sales pitch from the local department store. Yet the mere fact that they were listening, along with countless others in the signal’s radius, meant they were an important cog in the machinery of this brave new world of science, technology, and materialism. They were early adopters in the economy of the ether.

As radio encroached upon the phonograph’s market share, Edison disparaged radio’s lack of fidelity suggesting that “undistorted music in time will sound strange to those brought up on radio music and they will not like the real thing.” The lack of sufficient quality for the broadcast transmission of music was a genuine issue for early radio, and the ideology of democratized luxury helped to focus consumer attention on reasons for buying radio sets that transcended their technical difficulties. This is an early example of how the commodification process served to devalue the music product that it objectified. Audiences learned to tolerate poor quality music because the exact nature of the content being delivered on the radio was marketed as less important than the social status that radio ownership afforded.

Ideologies are not static phenomenon. Dramatic improvements in the quality of broadcast music came with frequency modulation (FM), and this development also served to change the ideological narrative surrounding radio. As its chief competitors transitioned from player pianos and the phonograph into film and television, radio concentrated on satisfying increasingly diversified audience segments with its many stations. Overt emphasis on participating in consumer culture through radio ownership became obsolete as consumer culture became an ingrained, accepted aspect of American society. Not surprisingly, quintessentially American ideologies of democratization were appealed to again as the radio transitioned
into the automobile, and arguably as radio entered the digital age through satellite and streaming technology. Radio has exhibited a remarkable re-
siliency in the face of the disruptive innovations it has encountered over the years, and the ideological strategies employed by its early proponents helped to result in its longevity.\textsuperscript{30}

Reification

Reification is a reflexive process of give and take between the idea being objectified and the audience it is objectified for. Radio was promoted as an audience-centered medium, and, in turn, the audience became “critical components in the making of radio, the establishment of its genres and social operations.”\textsuperscript{31} Similar to the player piano’s accomplishment in reifying the idea of “the music itself,” radio played a substantial role in reifying the idea of a mass audience for a communication medium. The individual could now be transcended, as they became part of a population, demographic, or audience segment. This reification of the audience as a great, untapped reservoir of commercial potential would in time prove to have as much influence on the future of music and popular culture as radio’s implementation of an advertising-supported programming model would have on television.

Radio, as the first mass communication medium of the technological era, was both influenced by an emerging materialist culture, and an influential reinforcement of its values. It helped to introduce the idea of corporate sponsorship for music as an extension of the artistic patronage that had existed for centuries among kings and clergy. Many of the most important programs of radio’s golden age overtly showcased their respective backers with titles such as “The Bell Telephone Hour” (Bell Telephone Company), “Cities Service Concerts” (Cities Service Petroleum Company), “The Railroad Hour” (Association of American Railroads), and “The Voice of Firestone” (Firestone Tire and Rubber Company).\textsuperscript{32} Like the advertiser-supported model of programming, corporate sponsorship is so pervasive in modern media that it is hardly noticed, but early radio is largely responsible for its origin and acceptance.\textsuperscript{33}

Radio also served to continue the reification of “the music itself” as it packaged and sold music that listeners were increasingly made to believe had become “better than what they could make for themselves.”\textsuperscript{34} To suggest a nefarious or calculated rationale for this outcome goes beyond the available source material. The conjured image of unprincipled capital-
ists, smoking cigars in the oaken-paneled parlors of high society, all while plotting to steal the soul of the people for profit and conquest is overly conspiratorial to say the least. It is far more likely that, at every turn, radio advertisers naturally followed the course of action they felt would best lead to the advancement of their product. Taylor emphasized the haphazard nature of commodification, remarking:

Thus music was gradually made into a commodity, but this could not be achieved in a direct fashion at first: It was music technologies that were advertised, marketed, hyped, while music went along for the ride... slowly becoming separate and transformed into a new form of commodity itself after its means of reproduction have become well known and naturalized.

**Fetishism**

The celebrity fetishism used in the marketing of player pianos was nothing new in its day, and it continues to be a primary strategy used in all manner of advertising and commercial ventures. Edison said of audiences that they are “self-hypnotized by [the] reputation” of the artist, and also described the tangible documentation that his phonograph record provided as “for the performer, a form of immortality.” As the content of programming for radio became more sophisticated, radio personalities in the form of composers, band leaders, disc jockeys, and announcers became celebrities in their own right.

In addition to the fetishism attached to individual celebrities, radio’s ability to mass communicate helped to reify a broader meaning of celebrity in culture. Much as heroes of patriotism gave way to heroes of invention in The Gilded Age, the postwar era saw heroes of invention give way to “heroes of consumption.” Radio was on the one hand responsible for blurring the lines of traditional socio-economic classes through the aggregation of large audiences, while on the other it had the effect of creating a new caste of celebrity status. Qualifications for this new class did not originate in noble birth or accumulated wealth, nor did they derive from merit as “radio shows emphasized status and prestige rather than knowledge and accomplishments.” Yet celebrity fetishism became an updated form of the class system nonetheless. The trappings of celebrity continue
to dominate the music and entertainment industries as each generation produces its stars and starlets, glorifies its heroes, and vilifies its villains.

**Contemporary Commodification**

The essence of a commodity is in its ubiquity. Classical examples of commoditized goods like corn, wheat, sugar, and oil are thought of as commodities precisely because they are so universal as to be indistinguishable by brand or origin. The conceptualization of a commodity used here is more abstract, and it is not meant to imply that modern music is bland or unremarkable when compared with previous eras. To think of popular music as a commodity is helpful in an economic sense, as it offers an explanation for how the industry could allow its productive output to become undervalued past the point of sustainability. Ultimately though, the similarities between music and traditional commodities do break down because the symbolic value that human beings attach to music causes us to treat it less rationally in economic terms than we do commoditized goods. The similarities that do exist do not suggest that commoditized music now has only an economic value, but simply that financial factors with overlapping—and often competing—priorities are now in play along with music’s artistic, social, and cultural functions.

Radio delivers many types of content other than music, and music exists outside of radio in many formats. While it is true that as early as the 1920s “music constituted the heart of radio broadcasting,” with the majority of its airplay being devoted to music of all types, ultimately they are two separate entities. Their effects on each other are not absolute. Music began to have commoditized value before radio in player piano and phonograph advertisements. Arguably the process could go back further still to printed sheet music or even to the prestige a commissioned symphony added to its patron nobleman or religious institution. The crux of this theoretical argument is that radio was the first medium that utilized music to aggregate a mass audience for advertising purposes. No longer was music’s value found solely in items that were explicitly musical in nature, like player pianos or phonograph records. It now had the potential to help sell any good or service in the market through radio commercials interspersed between musical programming. In this way, radio brought about the completion of the commodification of music.

As a point of observation, the similarity of tensions between physical phonograph records and ethereal radio broadcasts in the early twentieth
century with that of physical media and digital media in the present day bears mention. It seems that this struggle is nothing new, although the stakes have risen considerably. The financial underpinnings of the music industry have completely fallen out in the wake of streaming services and the digital download.\textsuperscript{43} The consequences of this fallout are not fully known. Is the music business in the early stages of a vast market correction that will shift the balance of power away from the advertiser and the industry mogul back to the listener and the musician? It is too soon to tell, but future historians may explore the extent to which the commodification of music went too far. Perhaps they will find that “the music itself” ultimately rejected the process of commodification and refused to fully assimilate into an industrial, product-driven market structure. Moreover, radio’s history of resiliency may be put to the ultimate test as it struggles to find paths to profitability in satellite and streaming markets, not to mention ways to pay more than a mere pittance to the artists who supply it with content.

\textbf{Conclusion}

Any consideration of the commodification of music would be remiss without some record of the many subcultures within the music business that have resisted its effects. Folk music survived the popularization of much of its standard repertoire throughout radio’s golden age, and resurged with a vengeance in the beatnik clubs and protest songs of the 1950s and 60s. Jazz splintered into genre after sub-genre as its greatest practitioners chose time and again to put the music first rather than follow the easiest path to profitability. “Independent” has become a byword for any new form of musical expression that is original, provocative, and disdainful of mainstream tastes or financial models. In a 2007 Seeger Lecture to the Society of Ethnomusicology, Bill Ivey describes the preeminent place that music holds for the millennial generation, noting that they “want to make [their] own art” as a way to reclaim some measure of the soul of music that has been lost to commodification.\textsuperscript{44}

The limitations of this analysis are three-fold. First, an exhaustive survey of the commodification of music through radio, such as Taylor has produced in his examination of player pianos, is beyond the scope of this article. It is perhaps beyond the scope of a multi-volume anthology. While the breadth of source material available to a historian of the player piano is attainably bounded by the relegation of the device to the curiosity shop of history, the historical record of radio enjoys no such limitation. Second,
this analysis has occupied a specifically American perspective throughout for the sake of clarity and brevity, but simultaneous advances in radio and music were happening around the world, especially in Europe, during this same period. A comparison study between the U.S. and the U.K. that examines the evolution of radio policy, copyright law, and popular music is just one example of a course that future work might take. Third, a history of radio that centers on the complex relationship of the medium with music, economics, and popular culture is inherently specialized in nature. The narrow scope of this article is in no way meant to diminish the validity of studying radio on its own terms. What is offered here is simply a thumbnail sketch of an under-researched and under-valued topic, one especially deserving of further study.

Additionally, this article undertakes the same, somewhat rigid, treatment of the process of commodification that Taylor uses when examining the player piano in an effort to build upon existing work of recognized value. Yet, just as radio and the music business evolved considerably throughout the twentieth century, economics also evolved and inspired modern theorists. To apply Robert McChesney’s theories of political economy to this same subject matter, more focus could be given to “issues of ownership, subsidy and control” as well as “the role and implications of the market” and “broadcasting’s contribution to society at large.” Or to take Thomas Streeter’s critique of McChesney, more emphasis could be placed on cultural differences, the social inequalities reinforced by mass media, or feminist criticisms of Marxism. Jo Ann Tacchi advocates for an “anthropology of mass media,” and notes that most work in this area has focused on television studies. Her anthropological treatment of radio and popular music is offered as an initial foray into a field wide open to future scholarship. Finally, Michele Hilmes suggests that radio in the digital age may transition once again, this time from a hyper-local to a global medium. For Hilmes, the “flexibility, portability, and adaptability” of radio’s “stealth” nature gives it an “ability to evade control,” and this inherent counter-cultural aspect of radio should not be overlooked in future work that seeks to reinforce a sense of its relevance in the modern world.

If Hilmes is correct in her estimation of the future relevance of radio, it may indeed have counter-cultural potential to challenge the very hegemonic power structures in the entertainment and information industries that it helped to create. Yet even if modern technologies do result in increased empowerment for the musician and the listener, financial con-
siderations informed by the process of commodification will continue to exert influence on any content delivery system that radio uses to reach an audience with musical content. Musicians are often asked about their influences, and having a sense of lineage is considered central to finding one’s own unique voice. An exposition of the roots of commodification in early radio helps to reveal an important part of popular music’s lineage, and thus contributes to a deeper understanding of the tumultuous marriage between money and music.
Endnotes


4. Ibid.

5. Karl Marx, Grundrisse: Foundations of the Critique of Political Economy, trans. Martin Nicolaus (New York: Random House, 1973). Note that Marx’s somewhat infamous assertion that the piano maker is a “productive worker” while the piano player is not can be taken out of context (p. 305). In context, it is a matter of precision in conceptual definitions of “productive labor” and “capital” for him, and not intended as a slight against music as an art form. However, it is debatable that Marx’s conceptual definition will allow for an intangible music commodity.


7. Ibid.

8. Ibid., 288-291.

9. Ibid., 291-292.

10. Ibid., 292.

11. Ibid., 298.


14. Ibid.


18. Ronald J. (Noah) Arceneaux, “Department Stores and the Origins of American Broadcasting, 1910-1931,” (PhD diss., The University of Georgia, 2007). Note that while this dissertation does not claim to exhaust all source material available on its subject, it is the most thoroughly researched and highly regarded scholarship of the commercial origins of radio produced to date. This work is an excellent resource for those interested in more on this topic.
19. Ibid., 30.
20. Ibid., 48. Note that the lively account of Sarnoff as the lone receiver of distress signals from the RMS Titanic while at his post at Wanamaker’s on that fateful day in April 1912 has been proven apocryphal.
21. Ibid., 67.
22. Ibid., 72.
23. Ibid., 81.
27. Ibid., 96.
pany, Inc., 2005).


35. Ibid., 297.


38. Ibid., 149.


40. Douglas, Listening In, 149.


42. This is known as a “joint commodity” because the same product is being sold simultaneously in two different markets, in this case to the audience who wishes to listen to the music and to the entrepreneur who wishes to advertise to that audience.


49. Ibid., vi.


Gloor, Storm. “‘Selling Out’ Taken To New Levels: The Evolving Re-


Razlogova, Elena. The Listener’s Voice: Early Radio and the American


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