# Placing Satellite Radio in the Contemporary Radio Landscape

17

Sara Beth Keough

## Introduction

It is a Monday morning, 7:30 am EST, and as I get in the car to go to work (and as is my habit), I turn on the radio, hoping that during my 15 min commute National Public Radio's (NPR) "Morning Edition" will give me something to use as a teaching moment in class that day. While this act has been part of my morning routine for many years, it is also a cultural practice involving delineations and compressions of time, space, and place. "Morning Edition" is produced in Washington D.C. and syndicated by my local NPR station. By the time I leave for work, I am not hearing "Morning Edition" broadcast live. I do, however, hear live broadcasts of regional news and announcements made by local my public radio station; thus, the broadcast is simultaneously live and pre-programmed, local and global (through syndication and streaming over the web). My car stereo receives the terrestrial signal from the local NPR station, a signal with defined spatial boundaries and limits. The frame of my car defines another spatial aspect of my morning radio routine: the listening space. If my car windows are open, the listening space expands beyond the confines of the car's frame. The broadcast becomes part of my social space as I reflect on a particular story with a colleague later that day. Finally, as a listener to this program, I am connected to different places (spaces with meaning): some distant, some close and familiar. I am also connected to place through the regional accents of reporters and announcers, especially those from my local station. Finally, I am connected to place through the musical interludes during "Morning Edition," which are chosen to reflect the story just reported. Even if I catch a "Morning Edition" broadcast in another context (e.g. hearing it coming from

S.B. Keough, Ph.D. (✉)
Department of Geography, Saginaw Valley State University, University Center, MI, USA
e-mail: sbkeough@svsu.edu



S.P. Mains et al. (eds.), *Mediated Geographies and Geographies of Media*,
DOI 10.1007/978-94-017-9969-0_17

a colleague's office) and hear those eight chords that mark the transition between broadcast segments, I immediately picture myself in a specific, familiar place: as a listener in my car.

Radio's terrestrial signals define listening space and allow the radio to become what media geographer Paul Adams (2009) refers to as "media in space." Despite moving as I listen in the car, my link to the program remains even as my location changes, as long as I stay within the boundaries defined by the station's terrestrial signal. This is an example of Adams' "space in media." The representational images that news reports and music create exemplify how radio can create "places in media." Finally, my listening to the radio in the confined space of the car is an example of Adams' "media in place" because the boundaries of the broadcast are defined by the closed vehicle I am driving. This closed listening space provided by my car is also an example of the kinds of private listening spaces that mobile media technologies like the Walkman and now the cell phone allow us to enjoy (Bull 2004).

Spatialities change, however, as the type of signal changes, such as the case of satellite (and internet) radio. One must ask, then, is satellite radio still radio? This chapter answers that question by exploring the changing spatialities of satellite radio in the contemporary mediascape through an examination of how geographic concepts of landscape, space, place, commodities, and communities are negotiated in this medium. First, satellite radio is placed in an historical context as I trace the evolution of political power and agency in radio broadcasting. This history is followed by a brief description of SiriusXM satellite radio, the company I use for examples of these geographical concepts. Then, I "place" satellite radio within geographical and media theories by considering the cultural landscape of radio, the satellite radio's place in the global mediascape, the deterritorialization of media spaces in satellite broadcasting, the importance of place in satellite radio broadcasts, the commodification of radio, and new communities of satellite radio listeners.

## Historical Evolution of Power in Radio Broadcasting

In 1895, radio officially became the first wireless technology after Guglielmo Marconi purchased Thomas Edison's patent for electrostatic coupling and became the first person to transmit information wirelessly. Radio was initially adopted as point-to-point technology (called ham radio) and by the 1920s, radios had become popular and affordable, and had achieved commercial status in the United States. Radio was also profitable for owners, as the advertisers paid money to radio stations (or their parent companies) for advertisements aired on the radio, a concept called pay-for-broadcast. In this way, stations began to cover the costs of broadcasting. Broadcast networks (groups of stations) emerged in 1922, and thus programs could be aired to several potential markets at once. By the mid-1940s, three major networks (NBC, ABC, and CBS) owned 90 % of the radio stations in the United States. With the emergence of networks, broadcasting began a transition from bottom-up control to one of top-down control, as parent companies began to broadcast similar (or the same) content to all the stations they owned (Keith 2010).

Radio's popularity had consequences, however, because too many stations were using the same frequency resulting in widespread interference and frustration for listeners and broadcasters alike. Although the federal government had tried (unsuccessfully) to regulate radio communications earlier, by the 1920s the need for regulation of the radio medium was apparent. The government response began with the Radio Act of 1927, which created the Federal Radio Commission (later the Federal Communication Commission or FCC) for the purpose of licensing stations, issuing frequencies, and determining power and operating schedules (Keith 2010). Federal regulation meant, however, that the top-down control assumed by networks became partially relinquished to federal agencies that now controlled radio frequencies and how they were used.

Prior to World War II, radio was largely an entertainment venue with broadcasts of space-specific events like concerts and sports competitions, and other entertainment options like music, radio dramas, and talk shows. Sporting events, such as the 1922 World Series, were the first programs simultaneously broadcast to different regions (thus expanding the spatial boundaries of radio's reach) because of the emergence of radio networks. During the Great Depression, shows like "Amos 'n' Andy" brought humor to the despair of the time. Franklin D. Roosevelt's "Fireside Chats" became a critical component of his efforts to reach and inform the American people. The fact that radio was free made it immensely popular during the Depression (Keith 2010). Shows like "Amos 'n' Andy" and Roosevelt's speeches indicated that individuals still had some power to choose what was broadcast, even though the networks were responsible for airing the programs.

During World War II, radio stations in the United States became key disseminators of information for Americans wanting daily updates on the war effort. It was during this time that broadcast news became an important element in radio broadcasting. Although the FCC placed an embargo on new radio stations during the War, the radio grew in popularity, as did industry profits (Keith 2010).

In the post-World War II era, when competition with television threatened radio's future, radio entered a new phase of broadcasting: format radio, where disc jockies (DJs) assumed some control over what was broadcast and the focus on niche audiences began (a condition that eventually became more narrow with the advent of satellite radio). In programming for niche audiences in this era, DJs were not only focused on genre, they also assumed their listening audience was tied to a particular place defined by the extent of the terrestrial signal. Initially, free-form programs were the norm, where DJs chose the musical numbers they wanted to play and the order they wanted to play them. This free-form nature of radio programming became an art form for some DJs, who earned recognition for the way their radio music shows were constructed. The result was a mix of popular and original music, some of which the audience had never heard before. Previously marginalized musicians, like Bob Dylan for example, got airtime and saw their popularity grow. Dick Biondi, a Top 40s DJ known for his screaming antics on the air in major radio markets, was the first to play Elvis Presley. Although Top 40 hits were broadcast at the beginning of the post-war era, they had yet to dominate the broadcast format. It was also during this era in the United States that the Corporation for Public Broadcasting was established and National Public Radio emerged in 1970 (Alper 2006).

Profits were of particular concern to radio stations because the growing popularity of television broadcasting in the 1940s and 1950s initially resulted in revenue loss for radio stations. While radio does not attract the advertising dollars today that it did in the first half of the twentieth Century, the industry profits are higher now than they were 60–70 years ago. Most of the advertising dollars in commercial radio come from local businesses (rather than networks or national advertisers). Thus, the juxtaposition between local and global emerged in radio, as stations played music determined to be "popular" on a national and global scale, while relying on local advertising dollars for profit (Keith 2010).

By the 1980s, however, networks and station owners realized the profit potential that could be gained through the commodification of radio. Stations hired consultants to establish prime listening (and thus marketing) times of the day and week and poll the listening audience. Although Billboard Charts had been used since the 1940s, it was during this era that the playlists of popular songs became standard use by radio stations. The sound produced by commercial radio stations became homogenized across the country as DJs from New York to San Francisco selected music from the same playlists, playlists created by corporations to determine the most popular songs. No longer could marginalized musicians get airtime on commercial radio. The consequences to profits were too risky (Alper 2006).

The 1990s could be called the era of de-regulation for radio. The FCC relaxed many of its rules, and soon there was no limit on the number stations a company could own nation-wide. The corporate station buying and selling binge that occurred in the beginning of this decade resulted in large debts when the economy slowed. To account for profit reductions, broadcasters began to form local marketing agreements (LMAs) whereby stations lease time and/or facilities from a station in another market (or another area). The loss of regional music identity in radio broadcasting that began in the 1980s continued through LMAs because a single company leasing airtime from stations across the country would broadcast the same content nationwide (Keith 2010). Regions of the United States famous for the evolution of particular music genres (like country music in the South and grunge music in the Pacific Northwest) no longer held the monopoly on particular music genres.

A classic example of this evolution from free-form programming to playlisting can be seen if once considers the history of radio station KSAN in San Francisco. This station, which began as classical music station KSFR, became a free-form rock station in 1968 after hiring striking employees from another Bay Area radio station who had the strike and their jobs. The station became a trend-setter in the 1970s, playing music by the Rolling Stones, the Grateful Dead, Bob Dylan, and more, as other stations across the United States followed suit. During this decade, KSAN reached the top position in the country in the 18–34 year old demographic, as its counter-culture broadcasts about the Vietnam War, the Nixon Administration, and marijuana use appealed to the country's angry youth. By 1980, however, due to declining ratings, the station changed its free-from format to playlisted country music, and its popularity returned. Station format changed again on July 3, 1997 to classic rock playing, ironically, much of the music that has made the station popular in the 1970s (Bay Area Radio Museum 2013; Crosper 2009).

The emergence of digital audio broadcasting (DAB) in the 1990s, which had become the industry standard by the 2000s, further changed the nature of radio broadcasting, as it made analog signals out-moded. Music recordings moved to MP3s (from tapes and CDs), and broadcasting began to occur through the internet and via satellite. These new broadcasting formats threatened what was left of the local nature of radio in the United States, yet in other countries that lacked the infrastructure for coverage and the financial means to expand broadcasting, the new formats were welcomed (Keith 2010). With the move to digital, a new mode of marketing and listening present in other industries became important in radio: a focus on niches.

These changes in radio broadcasting, and the role that radio played in the decline of the music industry in the United States, are lamented in the *Frontline* documentary, "The Way the Music Died" (Kirk 2004). Michael Guido, music industry attorney interviewed for the documentary, calls what has happened to music and radio "the perfect storm." Record labels became consolidated, the industry preference moved from album creation to single tracks for download, and the radio stations that played this music became consolidated, especially after 1996. "There's essentially, I don't know, two or three radio stations for all intents and purposes right now," Guido stated, "which limits the ability of music, different music, to get out there. Program lists are being devised on an almost national basis for certain kinds of formats. The independent thinker as used to exist in the radio station is no longer allowed to exist." (Guido Interview 2013).

In general, the evolution of radio technology and broadcasting has moved from broad to narrow in focus. Terrestrial radio is generally considered broad in focus, even though some stations have specific music formats in their mandates. Internet radio, especially sites that select songs for the listener, are narrower. Satellite radio, however, may bridge the gap between the two. It could be considered "narrow-casting" because the channels are genre-specific, but at the same time, this technology can be considered broad, as channels can include any music recorded in that genre, not just the top-40 hits. The music-by-decade channels are a good example. The 1980s Music channel broadcasts popular hits from that decade, enough to satisfy listeners who like music from that era, but because the listener is already a fan of the music, programmers can include recordings that were not at the top of the charts in the 1980s. The commercial-free, 24/7 nature of broadcasting on satellite radio motivates the inclusion of such music because time must be filled by something.

## SiriusXM Satellite Radio

This chapter uses one specific satellite radio company to illustrate key ideas. SiriusXM, which resulted from the merger of two independent satellite radio providers (Sirius and XM) in 2008, is the only satellite radio provider in the United States and Canada. While satellite companies exist in other parts of the world (Eutelsat in Europe, and Worldspace in Europe, Africa, and Asia), these providers

offer both television and radio services via satellite. For the purposes of this chapter, SiriusXM is used because the company offers exclusively radio listening packages.

In the United States, a subscriber to SiriusXM satellite radio receives more than 130 commercial-free channels of music, sports, talk shows, comedy, and other categories for $14.49 USD per month. Channels are often genre-specific, and broadcasting occurs 24 h a day, 7 days a week. Reception is available nation-wide (as well as in Canada), unless the satellite signal is blocked by a physical feature such as a mountain, and the signal extends 200 miles off-shore. More expensive packages are available that include more channels and an annual subscription option. Subscribers must have a satellite radio receiver or access to the internet.

As of March 2013, SiriusXM had 24 million subscribers in the United States and 2 million in Canada, making it the largest radio provider by revenue north of the Mexican border (SiriusXM Corporate Website 2013). Carolyn Lin remarked that in 2006, the diffusion of subscriptions had become stagnant, which partly explains the merger of Sirius and XM companies in 2008 (Lin 2006). Subscription-based companies need to grow subscriber numbers (or increase fees) in order to increase profits. Thus, to continue profit expansion, SiriusXM began partnering with all major automobile manufacturers in the United States so that receivers are installed in cars and satellite radio signals are provided in most new vehicles and many pre-owned vehicles for a limited time, after which the owner has the option to continue the subscription. Offering the same channel packages through the internet also helped expand the subscription base as users can access the channels through most devices (including a number of smart-phone models) that can connect to the internet. Thus, while the title of this chapter indicates that the focus is on satellite radio, the relationship to, and influence of, internet radio must also be considered.

## Placing Satellite Radio

In her 1996 memoir *Radio On*, journalist Sarah Vowell claims that "radio is a landscape, a place inhabited by heroes and villains" (Vowell 1996, p. 1). While satellite radio had not yet emerged as a popular medium at the time Vowell wrote this memoir, the opening statement to her book is still quite relevant. Satellite radio makes an imprint in the media world that reflects some of the values of American corporate and listener culture. The landscape of satellite radio is a territory with boundaries. It has been deterritorialized and reterritorialized by both local and global forces. It is a place (i.e. a space with meaning) shaped by political and economic forces (the heroes and villains to which Vowell refers). Corporations, content producers, and listeners alike place value on the radio landscape, making satellite radio a cultural commodity. The nature of satellite radio's new "imagined communities" (Anderson 1991) shares some traits with terrestrial radio, but adds new dimensions as well. The rest of this chapter explores these elements of the satellite radio landscape.

## Satellite Radio as Landscape

Landscapes have long consumed the attention of geographers because of the meaning that can be derived from their analysis. People create cultural landscapes by leaving marks on the earth that give clues to their intentions, tastes, and desires. The landscapes defined and created by SiriusXM satellite radio reflect both corporate and listener culture in the United States. For subscribers, listening to satellite radio is part of everyday life, and should be considered in the context of daily activities (Orgad 2007). Furthermore, what listeners hear has been filtered by SiriusXM corporate practices and decisions. Therefore, the satellite radio landscape has been purposefully constructed by the corporation complete with holes (eliminated content) and content portrayed as that demanded by subscribers. Content broadcast by satellite radio is interpreted by listeners and new spaces of communication in everyday life are created (Silverstone 2004).

One example of satellite radio as media landscape was found on St. Patrick's Day 2013. On this weekend, SiriusXM offered "Irish" music (as defined by the station) on channel 142, available to all listeners. The new, temporary, option was announced on the homepage of the company's website and encouraged listeners to "Celebrate your Irish heritage (real or imaginary)." In this way, SiriusXM defined "Irish-ness" for its listeners and chose what music would represent the cultural heritage of this region. This definition was filtered through the music chosen for broadcast on St. Patrick's Day weekend. Although there are other channels on satellite radio that focus on music of a particular ethnicity as defined by the company (such as Korean, Mexican, and Latin), the temporary availability of "Irish" music on channel 142 implied that connection to one's "Irish-ness" is also a temporary condition. The decision to alter satellite radio's musical/cultural landscape by offering "Irish" music exclusively on one channel for one weekend also implies that the company anticipates listener desire for such music beyond those with familial connections to Ireland. Thus, SiriusXM defines "Irish-ness" by musical preference. This musical preference, or taste, is an important element of the cultural landscape of satellite radio because one can understand both the listening audience and corporate culture better by examining how taste is reflected in radio programming.

Part of the landscape of satellite radio is its soundscape: the sounds created by the act of receiving a satellite transmission and the expansion of these sounds outward from the point of reception. Unlike terrestrial radio, where boundaries are defined by the reach of the terrestrial signal, elements of the physical landscape define the soundscape boundaries of satellite radio transmission. If a listener's receiver is in the car, driving through a mountainous region can temporarily move the listener out of signal range. In a similar vein, if the listener has subscribed to SiriusXM's internet-only option, then the boundaries of the listening landscape are defined by the availability of internet connections. A listener may move across these borders many times throughout the day. For example, people traveling by subway in New York City may exist within the soundscape as they walk from their apartment to the subway station listening to a satellite radio broadcast through their smartphone, but

then step outside the soundscape of satellite radio as they descend to the subway platform and travel underground through the city. Once they emerge again at street level, the listeners enter the soundscape again.

The method of listening creates its own boundaries as well. If a person listens in his/her car, the car frame serves as a barrier to the expansion of the broadcast to secondary listeners (those outside the vehicle), similar to the example provided in the opening paragraph of this chapter, unless, of course, the vehicle's windows are down. A listener using ear buds restricts the expansion of sound to the individual and creates the smallest possible listening space.

## Satellite Radio in the Global Media Landscape

The global media landscape of the 2010s is marked by a move toward transnational media. Satellite radio is an example (Hilmes 2004). In North America, satellite radio subscriptions are sold in both the United States and Canada, but no interruption in service is experienced as one crosses the international border between the two countries. Theoretically, the technology involved in satellite radio broadcasting could allow SiriusXM to expand subscriptions (and thus service) to other countries as well.

One of the key characteristics of the global media landscape is deregulation. A combination of capitalist and entrepreneurial initiatives driven by profit and competition have insisted that growth is only possible if governments remove regulations that restrict corporate initiatives (Morley and Robins 1995). The Telecommunications Act of 1996 in the United States is a quintessential example of deregulation by the federal government. This Act removed many government restrictions on ownership concentration, and the result was a massive reduction of individual ownership of radio stations. As national networks bought more and more individual radio stations, control over the content became centralized, even though distribution of content was decentralized (Castells 2009).

In the case of satellite radio, the Telecommunications Act made it possible, 12 years later, for the satellite radio companies in the United States to merge in 2008. Subscription-based radio depends on a company's ability to grow the number of subscribers, and when Sirius and XM saw subscriptions level-off by 2006, a merger was the only option for either company to survive. The merger, in some regards, gave satellite radio's "direct-to-consumer" services an edge over broadcast radio, as listening options for subscribers expanded. The growth of satellite radio, however, increased the importance of local content in terrestrial broadcasts. It is perhaps for this reason that satellite radio tries to "appear" local by using place identification in station identification announcements, a condition that I elaborate on later in this chapter.

## The Deterritorialization of Radio Spaces

The arrival of the digital age, and satellite radio in the early 2000s, came with a power shift, to some extent, back to the individual. With the new focus on niche marketing, listeners can now listen to exactly what they want to, provided a specialized channel exists for their desired type of music. Instead of the radio introducing listeners to new, innovative, and marginalized music, satellite and internet radio provide listeners with the ability to listen to more of what they already know they like. Listeners no longer have to wade through music on a band's CD that they didn't want in order to play the song they desire. Instead, they can download a single song electronically and add it to a collection of music carefully chosen to reflect their tastes. They can load MP3s of their favorite tunes onto MP3 players, which they can plug into their car stereo systems, or download the files to their computers. Music websites like Spotify.com create playlists for listeners based on what other songs the listener likes (and what other listeners like).

The renewed power of listeners in the digital age has created "me-focused" listening, a type of deterritorialized listening experience. Listeners download songs and rate them on internet sites. Recommendations for new songs are made based on what other listeners liked. The experience is not completely deterritorialized, though, because there is an indirect, causal relationship between listeners (a song recommendation is not made until the current listener and other listeners have both agreed on and rated a common song). One variation on this concept is Pandora's music genome project. Here, company employees classify music by sound, instrument, or theme. Recommendations are made to listeners based on the classification of a listener's music choice, not on what other listeners to that piece also liked.

Pandora's approach to music selection creates greater opportunities for listeners to hear new music. One could argue that satellite radio shares this feature as well. Although the music broadcast on satellite radio is less spontaneous (the next song is not based on the listener's opinion of the current song), and the music is still genre-specific, the listener has the potential to hear songs from that genre that they have not heard before. In other words, some listeners may choose Pandora or Satellite radio because they like (and might miss) the anticipatory nature that traditional terrestrial radio offered: the thrill of not knowing what is coming next and the serendipity of listening to something new to them.

The soundscape of satellite radio has also become deterritorialized as the SiriusXM broadcast is broken up among more than 100 channels, and signals can be received by listeners through a variety of devices (receivers, internet, phones). This schizophonetic (Murray Shafer 1969) soundscape of satellite radio is created when the original musical piece, sporting event, or talk show is transmitted via satellite signal and then received by a listener via any number of methods. The geographic and acoustic distance between original sound and reception of that sound (by the listener) has increased with satellite technology, yet at the same time, the listener has more immediate access to music, sporting events, or talk shows through personal transmission devices like smartphones.

## The Importance of Place in Satellite Radio Broadcasting

Despite the deterritorialization of satellite radio, place remains important. Consideration for how place is represented in radio broadcasting can illuminate those "media in place" connections (Adams 2009). Longan (2013) studied how places are represented in and by the World Wide Web. In my own satellite radio listening experience, DJs of channels that play music with a regional hearth in the United States indicated in their commentary between music segments that the channel was broadcasting from the hearth. For example, the Broadway Music channel DJs talked about being in Manhattan. The Bluegrass channel DJs said they were broadcasting from Nashville. While I was not able to determine if indeed the DJs were actually broadcasting from these places (satellite technology makes it possible to broadcast from anywhere), this rhetoric indicates two important ideas about place. If indeed some channels base their broadcasts out of a musical hearth, then SiriusXM must recognize the advantage of locating broadcasts from a place where a specific musical genre was born and currently enjoys popularity. If, however, the DJs say they are broadcasting from Nashville, for example, but they are really sitting in a cubical in Manhattan, this demonstrates that SiriusXM acknowledges that place is important at least to the listener. Perhaps the company feels that presenting the perception of being located somewhere specific adds credibility to the broadcasts in the eyes (and ears) of the listeners.

Regardless of which scenario is accurate, the rhetoric of place demonstrates that satellite radio provides an important bridge between the global and the local. SiriusXM is a transnational company, with subscribers in Canada, and the border between the United States and Canada is irrelevant in signal acquisition. The satellite technology allows content to be broadcast from any location, yet references to specific places situate certain channels in locales, similar to terrestrial stations. While terrestrial commercial stations use local advertisers to indicate the station's location, commercial-free satellite radio must use a different tactic. Nevertheless, place references in DJ narratives suggest that this element of terrestrial radio broadcasting is still important with satellite radio technology.

The assumption that terrestrial radio remains local while satellite radio is national or global in focus was challenged in 2004. FCC licensing agreements mandated that the content broadcast by satellite radio companies must be broadcast nationally. This agreement did not prevent XM and Sirius from broadcasting city-specific content, like traffic and weather updates; it simply mandated that this information be broadcast nationwide and not just to subscribers in one city. Politicians and terrestrial radio broadcasters alike grew concerned that the practice of broadcasting city-specific content by XM and Sirius would threaten the life of "free" terrestrial radio stations. XM and Sirius responded to these concerns by confirming that city-specific content was indeed part of national broadcasts, and thus no license violation existed. Furthermore, the two companies claimed that they used repeaters solely to circumvent physical barriers to the satellite signal, not to broadcast content to one geographic market that was not available to another market. At the same time,

media access proponent groups argued that under the First Amendment, anyone who wanted to broadcast local content should be able to do so (Zarek 2004).

Despite the controversy, the merged company SiriusXM prevailed in their efforts to broadcast local content. In 2013, SiriusXM had traffic and news channels for most large urban centers in the United States (SiriusXM Corporate Website 2013). The traffic information is more useful to drivers with an online subscription or navigation system installed in their vehicle, than those drivers with just an audio receiver, due to the mapping feature involved. In addition to regularly updated traffic reports, this navigation feature also includes information on local gas prices and weather conditions. In accordance with licensing requirements, this information is available to all subscribers who pay the extra fee and have the hardware to support the feature.

This example demonstrates the position between the local and global that satellite radio occupies. The controversy itself speaks to the importance of local content in broadcasting, especially the satellite radio company's claim that listeners want local content (Zarek 2004). The importance of local content is clear because terrestrial commercial radio stations felt their local content gave them a competitive advantage over satellite radio and Internet music sites like Pandora. *USA Today* reports that the new units in automobiles that provide riders with access to satellite radio, HD listening options, and other "apps" are further forcing terrestrial commercial stations to provide quality local content to remain competitive (Woodyard 2013). This trend supports geographer Ronald Abler's 1973 prediction that instead of homogenized communication spaces, "media innovations may promote cultural diversity and spatial differentiation" (Abler 1973, p. 186).

The traffic and weather feature now available on SiriusXM, however, diminishes terrestrial radio's role as provider of local information. Furthermore, subscribers to SiriusXM Traffic can get information about an urban area through which they are traveling long before they reach the boundaries of that city's terrestrial radio stations carrying similar information. In other words, SiriuxXM Traffic transforms and compresses space and time (Harvey 1990; Castells 2000) because information about locations can be accessed quickly and at any time by someone who subscribes to the feature with the location-sensitive technology of satellite radio that permits access almost anywhere.

## Satellite Radio as a Commodity

Materials become commodities when they hold value to individuals or groups. Bill Campbell, co-owner of Blue River Communications, a broadband technology provider in Indiana, laments what he refers to as the commodification of radio: the fact that radio stations and companies can be bought and sold for profit by brokers working on commission or purchased through auctions. In either case, those involved in the sale are "people who sometimes have little appreciation or understanding of what radio is really all about," and the mission of radio stations and companies to inform and entertain the public has been lost (quoted in Keith 2010, p. 21). In other words, Bill Campbell criticizes those who decide and benefit

from the value of radio stations because they often care only about profit and have little attachment to the station and its purpose.

The cost of obtaining radio stations has increased as well. In the 1980s, the average price of an AM radio station was $450,000. Today, the price tag of AM stations is in the tens of millions of dollars, and FM stations are even more expensive (Keith 2010, pp. 21–22). This rise in cost happened despite the introduction of Internet and satellite radio, although these new radio broadcast methods (often commercial-free) did force terrestrial stations to generate revenue in new ways besides just the sale of advertisements.

The fact that SiriusXM is a subscription-based option that broadcasts or communicates cultural content (especially music) demonstrates one way that radio has become a commodity. Access to content on satellite radio is considered something of value that must bought. Sirius/XM is an example of "an organized system of machines which produce symbolic goods that are transmitted to its consuming publics" (Brunner 1992, p. 21). In this way, satellite radio is a cultural commodity because it "turns society [the consuming public] into a market" to be exploited for profit (Martín-Barbero and Janer 2000, p. 28), at least more directly than does commercial radio, as with satellite radio there is no need for advertising—subliminal or blatant.

Martín-Barbero and Janer (2000) encourage scholars to move away from traditional definitions of culture industries and commodities suggested by Horkheimer and Adorno (1944) that standardize cultural components and mass-produce them to a large group of passive receptors (i.e. the public). Instead, the definition of culture industry should consider:

> places of condensation or interaction of multiple cultural webs, as cross- roads of different areas of social production, made up of complex devices that are not merely technological, mercantile, or political and in which affiliations weigh less than alliances, heavy machines of fabrication less than sinuous trajectories of circulation, and [that take into account] both appropriation stratagems and the logic of property. (Martín-Barbero and Janer 2000, p. 28)

In other words, when considering satellite radio as a culture industry or commodity one must include how satellite radio becomes a medium for interaction between listeners and content, how that content is diffused or circulated, ideas of ownership as conceived by both company owner and listeners alike, and the value associated with these interactions and ideas.

Thus, SiriusXM satellite radio is a cultural commodity because it makes cultural content, in this case music, sports, news, and talk, available to those willing to pay for it through subscriptions and the upfront cost of purchasing a receiver. There is value placed on commercial-free broadcasting in American culture, and such a benefit is something listeners are willing to pay for. SiriusXM connects listeners to content regardless of their location, as long as they are in listening range of their receiver or have an Internet connection (for Internet subscribers). Listeners can interact with this content as they hear broadcasts and "share" things they like via social media like Facebook and Twitter. While SiriusXM categorizes content by genre, listeners have the opportunity to hear new content on channels to which they regularly listen, since the content is regularly updated, or by hearing content on

channels to which they do not normally listen. The company itself has owners, but listeners themselves are involved in levels of ownership as they obtain receivers or Internet connections. Listeners can also create customized channel guides, a form of "ownership" that encourages listeners to think of SiriusXM as "theirs."

## New Imagined Communities of Satellite Radio

Several media scholars (McLuhan 1964; Cavell 1999; Longan 2013, p. 129) have studied how technologies of space produce and reproduce society. We have already established how satellite radio creates and emphasizes the importance of space and place. This technology produces society because new "imagined communities" (Anderson 1991) of listeners are formed. These imagined communities in turn reproduce a fan base for particular musical genres, talk shows, or sporting events.

The "imagined communities" concept aptly applies to terrestrial radio because as a form of mass media, listeners to terrestrial radio can assume a larger pool of interested listeners for a station exists, otherwise the station would not be able to draw the kinds of advertisers (or supporters in the case of community radio) needed for the station's survival (Keough 2009, 2010). The concept applies to satellite radio as well, but in some ways, these imagined communities are different than the ones that exist for terrestrial radio. While there are certainly some overlaps in these communities (listeners who both subscribe to SiriusXM and also listen to terrestrial stations), satellite radio is sub-culture based and niche-focused, narrower in scope than terrestrial radio, because individual channels have a defined format that is more specific than most terrestrial radio channels. Subscribers to satellite radio listen to specific channels that match their tastes, thus becoming part of the sub-culture that the channel represents, and will never access other channels. Terrestrial radio listeners can assume that the imagined community of listeners has some connection to the place of the radio station, whether they live in the city or are just passing through on their way somewhere else. Satellite radio listeners cannot assume that their imagined community is connected to place, but rather to genre. A listener to the Grateful Dead channel on SiriusXM, for example, assumes that enough fans of the band exist in North America for SiriusXM to justify an entire channel that plays only music by that band. If a Washington Redskins game is broadcast on one of the sports channels, listeners can assume that fans of either the Redskins or the opposing team exist, but that these listeners could be anywhere on the continent (including at the game itself). Thus, the subculture groups, or "minicultures" (Abler 1973), of satellite radio may not share territory, but they share an affinity with particular musical groups, sounds, or eras. Furthermore, Abler (1973) would argue that the variety of niche-focused channels on satellite radio creates more diversity among these communities due to the number of listening options.

It is also possible that the act of listening as both an individual and as a collective practice is a central component of a community identity/relationship. The SiriusXM presence on Facebook provides an example. Accurately measuring the size of a radio station's community is impossible due to the nature of the

technologies involved, but Facebook has made it possible to estimate. At the time of this writing, over 577,000 people had "liked" the SiriusXM Corporation Facebook page, and in the moment I checked the page, 3,286 people were talking about the satellite radio company. While the page is designed so that only the administrators (most likely employees of the company itself) can make large posts, people who "like" the page can make comments. Comments made the day prior to my accessing the page mostly consisted of complaints about customer service and channel changes, or technical questions. Posts made by the company, however, were mostly advertisements about events occurring on various channels, but each post was accompanied by an image, thereby adding a visual element to radio programming that isn't available when a listener accesses the service through the receiver in their car. Individual channels have their own Facebook pages as well, with their own communities. Most of the posts made by the company employees on these pages get comments from listeners. On music channel pages, there are a large number of song requests posted by listeners. On sports pages, listeners comment on sports news and results posted by company employees. It is difficult, however, to call the Facebook communities "imagined" because specific names (and sometimes locations) are directly connected to each individual who has "liked" the page. One member of the community can list other members by name using the Facebook page. The "imagined" part of the community should come in the assumption that other listeners exist without having direct access to them. In this way, Facebook has taken imagined communities and made them real.

Media technologies shape everyday life by changing or adding to the material world (Silverstone 2004). Listeners to satellite radio can be considered a community or society because they share elements of their material worlds: satellite radio receivers, computers with Internet connections, and smart phones that can access streaming content from the SiriusXM website. These elements of material culture connect listeners to content, although unlike terrestrial radio's talk shows and request programs, this material culture does not facilitate connections to other listeners. Listeners to satellite radio do not participate in these broadcasts in the way that listeners do in traditional radio. Thus, while listeners may subscribe to satellite radio for similar reasons (Lin 2006), the everyday uses of satellite radio are different from the participatory nature of terrestrial radio.

## Conclusion

In the afterward to the Michael C. Keith's *The Radio Station*, Jay Williams, Jr., a radio broadcast consultant from Charleston, South Carolina, notes that the term "radio" had changed in meaning since its inception. Originally, the term "radio" referred to "AM and FM stations licensed to a limited number of cities in a given city or market" (in Keith 2010, p. 329). Today, however, technological changes mean that the term now encompasses a variety of transmission methods. Some methods, such as Internet programs like Pandora and satellite radio, do not use the radio wave

technology from which the term was originally derived. This change necessitates radio scholars to consider whether or not satellite radio is, indeed, "radio."

On the technical side, satellite radio shares some, but not all, of the components involved in terrestrial radio broadcasting. Patsiokas (2001) identifies four main segments of satellite radio systems: ground, space, repeater, and technology. Satellite and terrestrial radio both share the ground segment (where content is acquired or produced) and the repeater segment (which uses devices that repeat the satellite signal around physical barriers, like tall buildings, in areas of high population density). Unlike terrestrial radio, however, the space segment is necessary in satellite radio, whereby a signal is transmitted from the ground to two geostationary satellites. The technology segment for satellite radio includes some components that are not present in terrestrial radio, like certain hardware and software used to operate the system. The mobile antenna, however, is one element of technology that satellite radio shares with terrestrial radio, especially since satellite radio receivers are now installed in most new automobiles produced in the United States. This agreement between SiriusXM and car manufacturers indicates that these companies recognize the consumer demand that drives the cultural practice of radio listening, as well as the potential profits gained by recruiting listeners to satellite radio who might not have gotten a subscription on their own.

Hilmes (2004) and Lin (2006) indicate that in purpose, satellite radio is still "radio." Lin concludes that traditional radio has simply been "refurbished . . . to fit in a new delivery system." Hilmes (2004, iii) uses the term "re-staging" to refer to the transformation from terrestrial radio to satellite and digital formats. Furthermore, Lin concludes that listeners choose satellite radio for some of the same reasons that they listen to terrestrial radio: listening provides a diversion, and the act of listening had become a habit. In other words, the term "radio" can refer to the purpose for using the technology, in addition to (or instead of) the technological features of the delivery system.

Despite the fact that satellite radio has been publically available for more than a decade, there is (at the time of this writing) surprisingly little empirical research on this form of media, and much of this research was published prior to 2008, before the Sirius and XM companies merged. Alper (2006) was optimistic about the future of satellite radio because he felt that subscribers still held some power: if the corporation tightened music programing to focus only on popular songs and added commercials to increase revenue, subscribers would cancel, thus forcing the company to revert back to original programming practices. The merger of XM and Sirius in 2008, however, indicates that the plateau of new subscriptions was compromising each company's profits. There remains, then, many unanswered questions about the geo-cultural elements, impact, and significance of satellite radio. How is music chosen for broadcast on each channel? How much control do channel DJs have in music selection? How often is new music introduced and what sources provide this new music? How has audience reception and adoption habits changed since Lin's (2006) study? What is the balance between online subscribers and those listening via a receiver? How have the spatial dynamics of satellite radio changed in the last 10 years compared to terrestrial radio? How does satellite radio negotiate

content at the global and local levels for a seemingly diverse national audience? Answers to these questions and others will help media geographers further explore satellite radio's place in the contemporary media landscape.

**Acknowledgements** I would like to thank Dr. Robert Drew for the immensely productive brainstorming sessions that helped shape this chapter, and for his helpful comments on earlier drafts. I would also like to thank Dr. Scott Youngstedt and Dr. Thomas Bell for their helpful suggestions on drafts of this work.

## References

Abler, R. (1973). Monoculture or miniculture?: The impact of communications media on culture in space. In D. Lanegan & R. Palm (Eds.), *An invitation to geography* (pp. 186–195). New York: McGraw-Hill.

Adams, P. (2009). *Geographies of media and communication*. Malden: Wiley-Blackwell.

Alper, G. (2006). XM reinvents radio's future. *Popular Music and Society, 29*(5), 505–518.

Anderson, B. (1991). *Imagined communities: Reflections on the origin and spread of nationalism*. Rev. and extended 2nd edition. London: Verso.

Bay Area Radio Museum. (2013). KSFR radio 94.9, San Francisco: A broadcast day begins. http://bayarearadio.org/audio/ksfr/index.shtml. Last Accessed 3 Jul 2013.

Brunner, J. (1992). *América Latina: Cultura and modernidad*. Mexico City: Grijalbo.

Bull, M. (2004). 'To each their own bubble': Mobile spaces of sound in the city. In N. Couldry & A. McCarthy (Eds.), *MediaSpace: Place, scale and culture in a media age* (pp. 275–293). New York: Routledge.

Castells, M. (2000). *The rise of the network society* (2nd ed.). Malden: Blackwell.

Castells, M. (2009). *Communication power*. Oxford: Oxford University Press.

Cavell, R. (1999). McLuhan and spatial communication. *Western Journal of Communication, 63*, 348–363.

Crosper, A. (2009). Part two: San Francisco, Oakland, San José Radio (1950s–2000). *San Fransicso-Bay area radio history*. http://www.playlistresearch.com/sfradiohistory2.htm. Last Accessed 3 Jul 2013.

Guido Interview: http://www.pbs.org/wgbh/pages/frontline/shows/music/interviews/guido.html. Last Accessed 10 Jul 2013

Harvey, D. (1990). *The condition of postmodernity: An enquiry into the origins of cultural change*. Cambridge, MA: Blackwell.

Hilmes, M. (2004). Forward: Transnational radio in the global age. *Journal of Radio Studies, 11*(1), iii–vi.

Horkheimer, M., & Adorno, T. (1944). *Dialectic of enlightenment*. Stanford: Stanford University Press.

Keith, M. C. (2010). *The radio station: Broadcast, satellite and internet* (8th ed.). Burlington: Focal Press.

Keough, S. (2009). Internet radio and cultural connections: A case study of the St. John's, Newfoundland radio market. In T. Bell & O. Johannson (Eds.), *Sound, society, and the geography of popular music* (pp. 185–204). Hampshire: Ashgate.

Keough, S. (2010). The importance of place in community radio broadcasting: A case study of WDVX, Knoxville, Tennessee. *Journal of Cultural Geography, 27*(1), 77–99.

Kirk, M. (Writer, Producer, Director). (2004). *The way the music died*. Frontline. Available at: http://www.pbs.org/wgbh/pages/frontline/shows/music/

Lin, C. (2006). Predicting satellite radio adoption via listening motives, activity, and format preference. *Journal of Broadcasting and Electronic Media, 50*(1), 140–159.

Longan, M. (2013). Landscape as media, media as landscape: Representing Northwest Indian as landscape on the World Wide Web. *Aether: Journal of Media Geography, 11*, 127–147.
Martín-Barbero, J., & Janer, Z. (2000). Transformation in the map: Identities and culture industries. *Latin American Perspectives, 27*(4), 27–48.
McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: Signet Books.
Morley, D., & Robins, K. (1995). *Global media, electronic landscapes, and cultural boundaries*. London: Routledge.
Murray Shafer, R. (1969). *The new soundscape: A handbook for the modern music teacher*. Toronto: BMI Canada.
Orgad, S. (2007). The internet as a moral space: The legacy of Roger Silverstone. *New Media & Society, 9*, 33–41.
Patsiokas, S. (2001). XM satellite radio technology fundamentals. *SAE Technical Paper 2001-01-1328*, doi: 10.4271/2001-01-1328.
Silverstone, R. (2004). Regulation, media literacy and media civics. *Media, Culture & Society, 26*, 440–449.
SiriusXM Corporate Website. http://www.siriusxm.com/. Last Accessed 10 Mar 2013.
Vowell, S. (1996). *Radio on: A listener's diary*. New York: Martin's Press.
Woodyard, C. (2013, 25 Mar). Newfound rivals jam car radios. *USA Today*, p. 1B
Zarek, C. (Summer 2004). Catching static: Satellite radio companies XM and Sirius come under fire for broadcasting local traffic and weather reports. *The News Media and the Law*, 38–39.