Chapter 19
Radio Space Wars:
Beyond Broadcasting, Podcasting, and Audio Implants

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ABSTRACT

This chapter examines how radio will continue to adapt to the tremendous technological and social challenges of the future. Sound is still one of the most underrated and unexplored areas of the future, yet speculations indicate that it will have a major impact on our future. Its simplicity, yet significance, is perhaps its greatest advantage over all media.

IMAGINE . . .

The year is 2060. Susan is responsible for the morning beat. She glides through the city in her mini mobile radio studio, basically it is wheels on a domed capsule, from which she delivers live news reports on the scene. It is exceptionally busy today, so she has to weave carefully through the sonic bubbles. The bubbles are various sizes, accommodating only individuals at times, and at other times whole families travel together. Typically, during rush hour, there are at least two persons per sphere, which 'pod pool' through the fast lane. The sphere is furnished with appropriate air flow and a dynamic sound system. Susan is one of the top newscasters, but there are other competing broadcasters who speed through the city reporting from their respective company domes. Few people walk these days in the city because the air quality continues to decline. The big story of the day is that the city's artificial sky is nearly complete; a project that has taken more than a decade to finish; it will span downtown into uptown and the neighboring suburbs for at least 50 miles. There are numerous other urban construction projects like this across the nation, and even the world. Some are even more impressive. The air is much better outside the city, and many residents are relocating toward the rural areas. However, the further one moves from the metropolitan areas, the worse the news coverage becomes. For some, it will be worth it, just to escape the curfews and smog. Many work from home across the world, so rural areas provide space to build for the

few that have the money to do so. Most students of all ages learn online, from kindergarten to college. Wealthy city children attend school at home, with their virtual assistants guiding them. Lower income children are transported to learning warehouses, where they are instructed by robot teachers, who also serve to babysit, care, and entertain them while their parents work. Most teachers work for companies that develop curriculum and train robots, who are placed in the field. After Susan's morning beat, she usually has time to check on her children at home, who are learning online. Her robot nanny watches over them during the day, which comes in handy if she is called out to cover an event later that day. She also has a home studio from where she can file her reports directly into the network for broadcast. Her reports feed audio streams into personal sound spheres, as well as across multiple Internets, and smart speakers are embedded in homes and in flying cars. Radio has adapted. It still provides a community service, but it is now far more reliable to urbanites. Some in the rural areas have developed their own low power networks, some have fed information under-the-government's radar via radio drones, powered by the numerous satellites that operate smart phones and personal and corporate drones, and satellite information networks. The pirate radio drones transmit from pods similar to Susan's mobile studio. The difference is that the pirate pods are unregulated and transmit across unused frequencies, which vary through the day, as operators shift frequencies to avoid interference with other licensed users. Penalty for unlicensed broadcasting can be up to one year suspension from social privileges and governmental benefits. Repeat offenders can be sentenced to jail, more than 5 years for the more radical broadcasters, such as those who fuel political dissent.

It will take years for this scenario to play out. The U.S. continued to lag behind the world in most technologies, as major corporations focused on profits rather than the future. These companies hung on as long as possible to terrestrial radio broadcasting. Of course, the radio industry continued to assimilate the competition, buying up local radio stations, online stations, and podcasting. These huge conglomerates were like large ships, which had a difficult time maneuvering through rapid technological change. Many of these terrestrial companies merged with satellite radio competition. The goal was full-service radio – the same content distributed thousands of ways. However, as smart phone usage expanded, and consumers demanded more bandwidth, most satellite usage by companies was directed away from terrestrial broadcasting, and toward space and the newly emerging Internetworks that would have developed by then. Eventually, smart phone radio seemed a better way to go, after the endless policy debates that waged on for decades – radio simplified itself into a powerful transmitter chip within the smart phone. Not only did the smart phone serve as a radio, but it also plugged into the sonic spheres, creating travel soundscapes. Similarly, smart speakers in homes and buildings linked to smart phones could play a variety of soundscapes, depending on one's mood or the event. Smart radio would become more than news, information, and music – it would adjust one's mental health. Most of the world would tune into their smart phones. Governments quickly adapted smart phones as an ideal way to connect to all users which would help with contact tracing for diseases, weather warning, uprisings, and overall general announcements. News alerts on smart radio would likewise interrupt listening when important national or world events occurred. In these dire times of climate change, world and national terrorism, pandemics, smart radio became the first media source for all.

This is the story of how radio transformed through the decades, starting in the late 2000s, and introduces the signposts that one might anticipate along the way.

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