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The Savior of the Nation? Regulating Radio in the Interwar Period

In 1924, Baron John Reith, the first general manager of the BBC, waxed lyrical about the role of broadcasting in British society. Reith called broadcasting "a servant of culture and culture has been called the study of perfection."[1] Like many in the interwar period, Reith invested radio with almost sublime potential to elevate listeners, overcome the trauma of World War I, and bridge class divides. Reith actively molded content to achieve these goals, like those involved in radio elsewhere. After the destruction of World War I, utopian hopes emerged for national radio communities that could flourish under the umbrella of international technical standards for issues such as spectrum.

Many have examined radio systems as national phenomena or categorized them based upon private or public-sector funding. In 1946, Judith Waller, director of Public Service at NBC, argued that there were three radio systems: state-owned; the British Royal Charter system of an independent nonprofit, public corporation; and the American commercial system. For Waller, institutional arrangements necessarily led to particular ideas of the audience and programming. Media content emerged from national politics and funding systems derived from political choices. "In dictator-controlled countries," wrote Waller, "the objective of broadcasting is to give the people what the state wants them to have; in Great Britain the objective seems to be to give the people what they ought to have; in America broadcasters give the audience what it wants."[2]

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These divisions were far from clear in the 1920s, when radio emerged. From the postwar perspective, Nazi Germany seemed the archetype of dictator-controlled radio, while Britain and the United States epitomized the other two systems. The three countries ended up in different places by the 1930s, but there were surprising parallels in institutions and attitudes to radio in the 1920s. In all three countries, radio appeared to offer elites the chance to build national communities through a private domestic device, though experiences in the 1930s heavily tempered or erased that optimism. American radio ultimately did not educate the masses like a university on air. British attempts to expand the BBC to the Empire did not create imperial cohesion. German radio could not prevent the fall of the Weimar Republic or the rise of the Nazis (even as the Nazis themselves seized upon radio to foster a *Volksgemeinschaft*). In the Soviet Union, by contrast, wired public sets and collective listening were the hallmarks of radio until after World War II. Only in the 1950s did the shift from wired to wireless sets turn radio from a mainly collective and public experience into a private activity.[3] Unlike radio under Communism, German, British, and American radio emerged from comparable and intertwined cultural and political understandings of radio along with technological exchange.

Comparative histories frequently examine synchronic similarities and differences, rather than diachronic change over time. In other words, comparison often illustrates snapshots while historical approaches investigate how the negatives developed into those snapshots.[4] Historians have examined Anglo-American broadcasting as well as compared German and American broadcasting, but not all three.[5] Diachronic comparison can explain not just initial similarities, but also why systems diverged as much as they did in these three countries. Communications scholars, meanwhile, often seek to compare systems rather than discuss how they emerged. The classic example is *Four Theories of the Press*, first published in 1956. It divided media into four theoretical types—authoritarian, libertarian, social responsibility, and Soviet Communist—to derive the normative characteristics of each. While disputing its conclusions, many subsequent scholars have sought to categorize media systems.[6] In making the models ahistorical, however, they precluded considering shared roots and lineages. Comparison in this case does not mean classification, but interconnection.

Within certain parameters, national systems could resemble one another. International regulation only addressed technical standards such as spectrum (the range of available radio frequencies), enabling myriad national

institutional arrangements.[7] German, British, and American radio initially exhibited similarities for three main reasons. First, radio emerged from a transnational exchange of technologies and the international coordination of technical standards. Second, the global event of World War I led to similar institutional arrangements for wireless telegraphy and spoken radio. As political circumstances increasingly differed in the three countries by 1930, so did beliefs about radio. Finally, all drew on Western elite cultural understandings of the public. Four main groups comprised elites interested in radio—engineers, state officials, content creators, intellectuals—though these groups often overlapped.

By taking examples generally seen as representing three different radio systems, this article shows both why media content and national institutional arrangements briefly resembled one another, as well as how political and cultural factors led to divergent paths. Content in these three countries paralleled one another, as did ambitions for radio as a public and private space in the 1920s. The 1930s saw radio trajectories deviate. But they did so over the same issues of news provision, state intervention, and radio's place in each nation's international ambitions. Engineers and intellectuals were disappointed by radio's inability to deliver universal peace. State officials' visions turned international by 1930, but they too would mostly be disappointed by broadcasting's inefficacy in influencing foreign populations and global politics. Finally, content creators moved from seeing radio as a medium of elevation through music and education to attempting to cater to more "popular" tastes. Utopianism gave way to pragmatism and propaganda.

THE EMERGENCE OF SPOKEN RADIO

Radio developed in relative parallel in all three nations due to exchanges of technology, interpretations of the medium, and the global ramifications of World War I. Starting around 1900, spoken radio built upon international innovations in both wireless signals and the transmission of speech.[8] The first wireless systems were often deliberately incompatible. Guglielmo Marconi, the Italian wireless pioneer who founded his Marconi Company in Britain, hoped to achieve market dominance by manufacturing receivers that could only communicate with other Marconi devices. After initial disputes and the Titanic disaster in 1911, the International Radio Conference in London in 1912 required companies to manufacture compatible wireless receivers. By 1914, the German Telefunken and Marconi were the two most significant wireless companies. International regulation intervened to create a global market of

wireless devices through compatible technical standards and by thwarting Marconi's attempt to create a market monopoly.

Radio also emerged from a three-way technological exchange between Great Britain, Germany, and the United States. Wireless telegraphy transmitted Morse code through the ether, but not sound. Marconi himself acknowledged that sound transmission emerged from patent exchanges with Alexander Meissner, who worked on amplification and antenna design in Berlin, as well as the American Lee de Forest's invention of the first vacuum tube in 1906.[9] Alongside technological exchange, the three countries understood wireless similarly. They constructed the ether as common public property and many newspaper publishers supported that conception of the electromagnetic spectrum. The state also gained the legitimacy and sole ability to negotiate international technical standards.

Simultaneously, the same two groups everywhere invested time, money, and energy into wireless: navies and amateurs. Navies were generally wireless' first supporters, as it allowed admirals to coordinate moving ships for the first time. Similar to telegraphy's growing importance during the Crimean War, wireless telegraphy during World War I globalized conflict on home fronts through propaganda and on the battlefield.[10] In belligerent nations, militaries supervised and regulated wireless. After World War I, governments extracted radio from militaries reluctant to relinquish control. Meanwhile, each banned amateurs, who were overwhelmingly white and male, from using radio during the war.

Just like all three countries had experienced similar developments before the 1920s, they confronted similar issues as spoken radio emerged during that decade. They had to allocate spectrum and prevent interference. They had to decide who would finance the initial costs of creating radio infrastructure, including erecting radio towers and manufacturing devices. They also had to decide whether and how to regulate content. Dealing with these issues required a balance between the state and commercial companies. These institutional arrangements differed along a sliding scale of state intervention, but all relied upon the paternalistic idea that political and economic elites had to act as caretakers of the masses' cultural and educational needs. While systems differed by 1930, each arrived at a national market through similar processes and beliefs about radio's role in society, including the socially and politically constructed belief in the scarcity of spectrum.[11]

Furthermore, all agreed that the boundary-crossing nature of airwaves required international agreement on spectrum allocation. But nowhere did that necessitate discussions of content. World War I had reinforced that the

ether was a global issue with a vital role in peacetime too. Article 197 of the Versailles Treaty forbade Germany from sending political news from Berlin and Hanover for three months after the treaty was promulgated. (The German Foreign Office interpreted the clause literally and continued to broadcast from Norddeich, which Article 197 had omitted.) International conferences to coordinate standards began soon afterward. In the 1920s, the American radio industry in particular promoted an international policy favoring multinational corporations and lobbied the State Department to take that position at international conferences. Europeans and Americans debated whether spectrum should be apportioned by nation or by type of user. Yet the globe-spanning spectrum could only be regulated by one policy. In 1927, the Washington Conference promulgated the American system of apportioning spectrum by usage, rather than to individual nations as the Europeans had desired.[12] Spectrum seemed technical, but it enabled the United States to start asserting its vision of global communications. The negotiations also showed how American commercial radio companies exerted considerable power over the state's participation in international conferences.

American firms became similarly powerful domestically during the 1920s, though within the boundaries of strong state regulation. When the United States entered the war in April 1917, secretary of the navy, Josephus Daniels, banned all amateur and commercial uses of wireless. He only lifted the ban in April 1919; the ban on transmission ended in September 1919. After World War I, the Radio Corporation of America (RCA) transformed from a military operation into a civilian organization. Like in Britain and Germany, military-industrial cooperation promoted certain aspects of radio: improved radio components, a centralized radio industry, and general legitimation and justification of monopolies in radio. The navy's control over radio gave conceptual weight to the idea that radio constituted a national and natural monopoly.[13]

Radio stations shot out of the ground like mushrooms after secretary Daniels lifted the ban on transmission. Initially, Herbert Hoover, then secretary of the Department of Commerce, developed guidelines to address the proliferation of radio stations. Like the British, Hoover saw spectrum as a public resource that the state should coordinate. However, he believed in providing broadcast licenses to multiple commercial companies rather than one company like the BBC. Hoover created a system where the state coordinated the technical allocation of spectrum to private broadcasters, but allowed each station to control content.

Hoover's system of corporate liberalism used "experts in integrating liberal ideals within a corporate economy dependent on consumer demand."[14] American newspapers owned many of the commercial radio stations. Publishers also fundamentally influenced policymakers. Many publishers became broadcasters simultaneously, creating a different political economy of competition between newspapers and radio. In 1923, Hoover created three classes of radio stations (high, medium, and low power). Large corporations like AT&T and Westinghouse received high-power stations, while universities, churches, and labor unions received allocations with less power. Further reforms to spectrum allocation in 1927 and 1934 gave larger corporations preferential treatment. The Radio Act of 1927 created the Federal Radio Commission (FRC) to allocate frequency and a particular class of power to each broadcaster. The FRC became the Federal Communications Commission (FCC) in 1934. The U.S. system of networks supported by advertising became dominant in the late 1920s and was consolidated through the Communications Act of 1934 against some reformers' wishes.

In the UK, the Post Office started negotiations to create a British Broadcasting Company that controlled both the apparatus and content. The state pushed manufacturers to form the British Broadcasting Company as a licensed monopoly with the exclusive right to sell radio sets. The company began as a private enterprise owned by radio manufacturers with the exclusive right over broadcasting. Radio owners paid an annual license fee; the Post Office and the BBC each received half the fee. This combination of public and private interests enticed manufacturers by promising protection from imports of cheaper Austrian and German radios.[15] It also guaranteed the state a significant degree of cultural and political control over broadcast content. Subsequent committees convened by the British government continued to affirm that "the control of such a potential power over public opinion and the life of the nation ought to remain with the State."[16] On January 1, 1927, after the Crawford Committee's recommendation, the company became the British Broadcasting Corporation, a public corporation with a royal charter governed by a royally appointed Board of Governors. This transformed the BBC from a business owned by manufacturers to a public utility regulated under a government license and bound to editorial independence. Foreign radio sets were permitted, though only the BBC could collect license fees. The BBC was meant to act as a "public utility service" through the new type of institution of the public-interest corporation.[17]

Like the United States and Britain, Germany mixed state regulation and private profit in its initial recipe for radio, though the proportions differed. The experience of World War I and the political upheaval of its immediate

aftermath in Germany made military and state officials more reluctant than their American and British counterparts to cede control. Yet here too private enterprise seemed crucial to innovate and manufacture radio devices. In Britain, the BBC initially built and operated radio transmitters, tying together the production of apparatus and programming. As in Britain, the German Postal Ministry provided the key regulatory body and created a system of license fees for participation. Unlike in Britain, the German system separated apparatus and programming. The Postal Ministry erected and operated transmitters, while private radio companies supplied German content and private radio companies supplied devices. The companies needed permission from the Postal Ministry to manufacture radios; more than two hundred companies worked in the field by 1924 (though many went bankrupt).

The main instigator of German radio in the 1920s, Hans Bredow (1879–1959), was ironically one of the most enthusiastic participants in international wireless before World War I. He was a key member of several wireless companies, such as the Atlantic Communication Company, which participated in transatlantic wireless communications from 1913. Bredow represented German radio companies at the 1912 International Radio Conference in London and negotiated in 1913 for the exchange of English and German radio patents.[18]

As state secretary for Post, Telegraph, and Telephone from 1921, however, Bredow established an intensely national and regional system. The Postal Ministry overcame significant military opposition to begin broadcasting to the public in October 1923. Bredow cooperated with various companies to sell receivers and the Postal Ministry stamped each legitimate radio before sale. Radios promised to become big business and the Postal Ministry hoped to use the money from sales to subsidize its other activities.[19]

The structure of the first decade of German radio involved a complicated compromise designed to maximize state profit while minimizing its investment in research and development. The Postal Ministry asserted legal control coupled with decentralized content through regional radio companies. Bredow's close colleague Ernst Voss founded the first content-producing company, Deutsche Stunde für drahtlose Belehrung und Unterhaltung (German Hour for Wireless Education and Entertainment). This company provided the musical and literary programs as a complement to Drahtloser Dienst (Dradag), which supplied political programs and was intimately connected to the Postal Ministry. Voss also spearheaded the creation of regional radio companies, starting with Bavaria in 1922. Eight other regional firms followed in 1924–25, producing a "system of public transmissions of privately produced programs."[20] As in the United States, regions mattered.

Government involvement in regional radio companies increased significantly with the radio reform of 1926. Deutsche Welle was created as a national broadcaster. The Postal Ministry coordinated the nine regional companies under the umbrella of the Reichsrundfunkgesellschaft (Federal Radio Company, RRG), which began operations on January 1, 1926. Bredow ensured that the Postal Ministry held a 51 percent controlling share in both the regional companies and the RRG. Deutsche Stunde was dissolved, meaning that Voss and the Postal Ministry directly owned their shares. Voss contractually obligated himself always to vote with the RRG representatives, secretly increasing Bredow's influence.[21] A reform in 1932 institutionalized this state control in a flawed attempt to solve the Weimar Republic's marketing problems.[22] The Nazis seamlessly gained control over radio in 1933, as radio already lay in state hands.

The question of revenue was critical everywhere in the early 1920s. Revenue derived from three components in broadcasting: station allocation (or favorable wavelength assignment), content creation, and device manufacturing. In all three countries, commercial companies sought profits, though for different aspects of broadcasting in each. In all three, device manufacturing started at least in the hands of corporations. In Germany and Britain, the cooperation of private companies with the state seemed to assure a return on their initial investments by guaranteeing a market for their devices while saving the state the initial costs of developing devices. Although the BBC became a public utility funded by a license fee, content-creating companies remained for-profit organizations until the early 1930s in Germany. Meanwhile, in the United States, the state handed legitimacy to communications corporations who presented themselves as acting out of "benevolent, farsighted paternalism."[23] But those corporations relied upon the FCC's allocation of wavelengths for their profits, as larger audiences meant sponsors and advertisers. As the state and corporations tested the boundaries of the political economy of radio in the 1920s, elites also debated the value of radio within national society using surprisingly similar terms, concepts, and arguments.

PARALLEL WAVELENGTHS IN THE 1920S

Radio as a National Product

In Britain, the United States, and Germany, the push to create broadcast content relied upon particular constructions of radio audiences and radio

publics.[24] The elites of all three countries believed radio could create a national public through domestic audiences. Their views generally conflated "the public" or "the audience" with "the nation," even though listeners did not necessarily represent the nation as a whole. Many elites saw radio as a great unifier that could invest the nation with the politics of good taste and create cohesion across class boundaries.[25] In the 1920s, some of the American press praised the radio for this unifying quality, viewing it as a corrective to the decades of splintered groups of newspaper readers.[26] Conversely, the newspaper could prevent overhomogenization by maintaining local particularity.

All three countries' regulatory regimes also relied upon ideas of a national public interest. In the United States, the Joint Resolution to Amend the Radio Act of 1927 stated that radio was "not to be considered merely a business carried on for private gain, for private advertisement, or for entertainment of the curious." Radio constituted "a public concern impressed with the public trust" and should be considered "from the standpoint of public interest" and governed by the same principles as other public utilities.[27]

American broadcasters still had to apply to the Federal Radio Commission after 1927 to receive a license along with a frequency and power allocation. In a contested phrase taken from public-utility law, broadcasters were required to show that they acted in the "public interest, convenience, or necessity" on the air.[28] The commission stated that it had to take programming into account to decide whether broadcasters were acting in the public interest. The commission could (though rarely did) deny licenses to station owners who broadcast attacks on people or institutions. The FRC also had to negotiate the greater demand for wavelengths than the available supply. The FRC's decisions, based on the public-service clause, seemed to some commentators like Edward Caldwell to amount to "in spirit pure censorship."[29] Ultimately, however, it meant that the FRC (or FCC from 1934) held a certain regulatory jurisdiction fostered by Progressive rhetoric of "the public" and legal underpinnings of public-utility law.

British radio was also conceived as a public utility, regulated like the newly constituted Central Electricity Board established in 1926, the year before the BBC received its royal charter. The Post Office had started the talks to create the British Broadcasting Company and acted as the custodian of "public interest." The rhetoric of "public interest" guided the government's attitude toward the BBC in the following decades, though government and BBC elites reserved for themselves the "difficult and controversial" right to decide on the public's behalf what lay in the public interest.[30]

While Germans did not draw from public-utility law, they generally saw markets as a way to promote *Gemeinnützigkeit*, or a common public interest.[31] State officials thought radio could transcend regional and class divides to create a national public beyond political divisions. Hans Bredow even believed Germans needed a national word for radio—"Rundfunk." Bredow reflected in his memoirs that he had successfully pushed through the word "Rundfunk" against initial resistance from the press, industry, and amateurs who preferred "the artificial American word, 'radio,' that might sound good but means nothing to Germans."[32] Though most contemporaries and later historians have downplayed the transnational element, radio had transnational origins and relied upon international technical standards.[33] But each country's elites sought to portray radio as inherently national and regulated for the national public interest.

Radio as the Creator of Citizens

Beyond nation-building, radio seemed a way to foster citizenry and civic behavior. In 1887, the German sociologist Ferdinand Tönnies had theorized about the distinction between the preindustrial *Gemeinschaft* (community), where individuals knew each other, and the industrialized, depersonalized modern *Gesellschaft* (society). Many interwar American, German, and British elites hoped that radio could create an aural *Gemeinschaft* from an apparently anonymous *Gesellschaft*.[34] But that *Gemeinschaft* needed bourgeois values, at least according to those in charge of radio. Beliefs about who should assert authority over content stemmed from class. Bourgeois values in the ether would foster moral citizenry.

To create an aural *Gemeinschaft* of citizens, radio had to appear to exist beyond politics. Ironically, given their official, political positions, German state bureaucrats agreed that they could best guarantee non-political radio, by which they meant no party politics. Bredow thought radio could create a unified democratic citizenry out of war-weary Germans. Bredow saw a German public inflicted with "political fatigue" after World War I and the strife of the immediate postwar years.[35] Radio should distract people from common cares and elevate their spirits. This would make them more eager to work and unify them into a body of citizens beyond politics. Other bureaucrats at the Ministry of the Interior like Kurt Häntzschel disagreed, believing that the state should use radio to strengthen support for the state. While Bredow hoped to banish politics, the Ministry of the Interior aimed to spread "propaganda for the neutral conception of the State and the awareness of national interests."[36]

Bredow argued that radio's political neutrality meant ignoring the state; the Ministry of the Interior wanted to use radio to garner support for the state as an abstract concept. In a nation where many questioned the basic validity of the democratic state, both sides thought radio could create Weimar citizens, though they disagreed on how to achieve that goal and what a Weimar citizen should look like.

Of course, using state-regulated radio to create citizens could never be as non-political as Bredow and Häntzschel claimed. State censorship of programming was seen not as political, but as an assurance that radio promoted national culture, rather than political divisions. Article 118 of the Weimar Constitution stated that there was no press censorship with the exception of cinema, for which a censorship law was promulgated in 1920. Cinema seemed so psychologically powerful that the state needed to tame its potential.[37] Indeed, cinema had seemed a potent propaganda instrument during World War I. Bredow claimed similar jurisdiction for radio based on its analogies to cinema and used that to justify state observation and censorship of programming to ensure its non-political nature.[38] The American and British states too regulated cinema with licensing and supervisory boards to protect consumers from "immoral" content.[39] The British government vetted the appointments of chief censors on the British Board of Film Censors; censors were drawn from politics until the 1950s. Censorship also meant constraining free speech to protect the public interest, though each country drew the boundaries of acceptability differently. All three states shared a history of regulating new, non-print media for what bureaucrats saw as the interests of their citizens.

The United States too saw utopian hopes that radio would create "radio citizenship." This idea was inherently contradictory because "those who championed radio as a means to diminish crowd mentality welcomed it as a unifier of a heterogeneous republic."[40] How could radio both homogenize a diverse population and reduce homogenized mass thought? By the early 1930s, it had become clear that radio could not both provide sociocultural unity and foster individuality. As in Germany, organized labor and amateur radio hams worried about radio's undemocratic and homogenizing nature. During radio reform debates in the United States around 1930, the Radio Committee of the ACLU along with workers' unions portrayed commercial broadcasting as undemocratic. Censorship for the ACLU was unnecessary because advertisers' control meant that stations would not create controversial programming.[41] In Germany, workers' radio clubs (*Arbeiterradioklubs*, ARK) in cities became significant organizations to challenge what workers saw as radio's undemocratic structure.[42] Amateurs were decried as "endangering radio"

because the system relied upon payment for programming, a give-and-take between producer and consumer, while amateurs sought simply to communicate among themselves.[43] A state-run system inevitably excluded those outside state institutions, like workers or amateurs.

In Britain, John Reith fundamentally shaped policymakers' attitudes about radio's ability to create national citizens. The British Broadcasting Company appointed Reith its first general manager in 1922, managing director in 1923, and director-general in 1927, when the BBC received its Royal Charter. Reith left the BBC in 1938, but his guiding hand left a long-lasting legacy. Reith believed the BBC had a "moral obligation to exert a strong centripetal force on national culture."[44] Akin to Bredow's disdain for American radio, Reith frowned upon using radio for popular entertainment, writing that "to have exploited so great a scientific invention for the purpose and pursuit of 'entertainment' would have been a prostitution of its powers and an insult to the character and intelligence of the people."[45] Radio should provide entertainment of high quality and high culture. Radio could transcend traditional social and economic boundaries; for Reith, high culture would provide the moral uplift to unite Britons across those divides.

Though a contested process, radio was also feminized as a domestic, non-political arena in contrast to the male political sphere.[46] In Germany, Ernst Voss initially tried to create radio as an aural equivalent to cinema. Voss applied in 1922 for a broadcasting license to the Postal Ministry. He initially intended to erect loudspeakers in halls and charge the public to hear programs. Known as *Saalfunk*, the plan foundered on the poor quality of loudspeakers and the transmission tower at Königswusterhausen. In Germany, Britain, and the United States, radio became a permanent feature of domestic living rooms, which were rearranged to place the radio centrally for family entertainment. Though collective listening still occurred, Bredow proclaimed in 1926 that radio was an "indispensable means of connecting every household with the outside world."[47] While radio was a public medium, it also rearranged private lives.

In the first decade of radio, elites believed radio could produce a unified national citizenry from an audience. Radio would homogenize social tastes. But it would also elevate blue- and white-collar workers through educational programming. Only American radio producers explicitly saw listeners as consumers, even though listeners still paid through license fees in Germany and Britain. Elites involved in radio saw themselves as the arbiters of the content that could elevate and homogenize. These beliefs led to paternalistic, though popular, programming in the 1920s.

Radio as a Medium for Education and Entertainment

Entertainment and education formed the two key pillars of initial radio content. While each nation's understanding of entertainment differed, music played a vital role everywhere. Bredow initially called German radio "Unterhaltungsrundfunk" (entertainment radio). Entertainment, though, had a practical purpose of *Bildung*, or education, through words and music. Bredow saw the German people as economically impoverished, particularly after the hyperinflation of 1922–23. Radio needed to prevent their cultural impoverishment too. "A joyless people will become unwilling to work," wrote Bredow in 1923. Radio had to provide "rest, entertainment, and variety" to all segments of the population that would "distract the spirit from the difficult cares of the everyday" as well as "refresh and increase the will to work."[48] Programming of radio plays and classical music were broadcast during the evening, when there were the most listeners.[49]

Although democratic in his politics, Bredow was authoritarian in his attitudes toward mass audiences.[50] Bredow set about creating programs to produce moral uplift and national unity; he could not trust that to private hands. In 1926, the Postal Ministry established committees for each regional radio company to supervise programming. These censorship committees were justified by defining radio as a cultural instrument, rather than political. Yet these were highly political state committees, excluding workers and other democratic groups from input into content (though these groups may well have enjoyed the content produced).[51] One historian, Karl-Christian Führer, has claimed that programming displayed the "character of an aesthetic educational dictatorship."[52]

As in Germany, state control seemed important to protect the British public. The Sykes Committee, gathered in 1923 to consider improvements, saw state control as imperative both to prevent undue influence over public opinion and to protect newspaper sales. Lord Riddell, chair of the Newspaper Proprietors' Association, thought that broadcasting sports results in particular would "seriously interfere with the sale of newspapers." For instance, patrons of a pub broadcasting results might then not buy a newspaper.[53] While Bredow sought to supervise radio programming for political purposes, men like Riddell tried to circumscribe the BBC's content for commercial reasons.

Beyond fights to keep sports off the air, the BBC's first general manager, John Reith, firmly believed that broadcasting should uplift citizens' cultural tastes. Reith saw the BBC as "an ally of immense potency in the campaign for

a general intelligence and a higher culture."[54] For Reith, live broadcasts of ceremonies and speeches played a key role in informing and elevating the public. Music was particularly central and constituted the most popular programming in the 1920s. Classical, light, and dance music along with music hall formed 67 percent of BBC national weekly broadcasting in 1927 and 53 percent in 1930.[55] Like Bredow, Reith saw culture as an argument for unity rather than uniformity.[56] Culture was a mode of elevation, a means to educate citizens to develop good taste in music and the arts along with social and moral norms to match Reith's elite understanding of British culture.

Though always claiming to aspire to uplift the masses, Reith on occasion harbored sympathy for non-democratic approaches to cultivating unity through radio. In 1935, he claimed that he admired Mussolini and had "constantly hailed him as the outstanding example of accomplishing high democratic purpose by means which, though not democratic, were the only possible ones."[57] Like Bredow, Reith sought to foster an elevated and unified democratic citizenry, though not necessarily through democratic means of content creation.

In the United States meanwhile, there was greater tension between radio's commercial underpinnings and using the medium for high culture and education. In 1922, at the first of the national radio conferences on radio that he convened, secretary of Commerce Herbert Hoover, then the official in charge of broadcast regulation, stated that radio existed "for service, for news, for entertainment, for education."[58] Hoover believed radio had "vital commercial purposes," though he was cautious about advertising, noting in a 1924 speech that "the quickest way to kill broadcasting would be to use it for direct advertising."[59] But within a few years, advertising became central to American radio without great protest from Hoover, laying the foundation for a very different American system.

The growing role of advertising meant that radio-station owners generally saw no higher purpose in radio entertainment. Some critics conceived of radio as a medium of low entertainment, earning hostility from intellectuals who worried about frivolous programs supplanting newspapers.[60] As in Britain and Germany, radio offered music, though American radio increasingly offered sitcoms like Amos 'n' Andy. Far more than in Britain or Germany, live events swiftly became a central component of radio content, especially sports. Sports commentary was only allowed from May 1925 on the BBC. American radio often provided different kinds of entertainment from Britain and Germany, but all saw entertainment as central to radio nonetheless.

Much like Massive Open Online Course (MOOC) proponents today, some Americans believed radio could bring a new kind of educational uplift to the masses. Tufts University delivered the first lecture over radio in 1922, while many colleges and universities established radio extension schools. Every home, it seemed, had "the potentiality of becoming an extension . . . of Harvard University."[61] During the 1920s, university- and college-operated radios seemed to constitute a viable noncommercial alternative to commercial broadcasting.[62] By 1930, these hopes were dashed by the emergence of the broadcasting system privileging high-power for-profit stations and the relative lack of enthusiasm about educational programming. The National Committee on Education by Radio (NCER) emerged in 1930 as an umbrella organization of nine educational groups campaigning for public and educational support for radio reform. Educators interested in radio argued that commercial radio simply precluded broadcasting the best educational programs. CBS also broadcast an American School of the Air from 1931. But these groups and programs had little effect. By 1930, entertainment and live events along with a growing interest in news became the staples of Americans' radio diet. Like in Britain and Germany, certain groups thought radio could create moral uplift and educate the public. It was just that those groups controlled the creation of content in the UK and the Weimar Republic.

DIVERGENT PATHS IN THE 1930S

Radio News

Though they had shared many similarities in the 1920s, by the early 1930s British, American, and German radio sounded increasingly different. But broadcasting diverged over the two same main issues: the provision of news and the purview of radio beyond national borders. In the 1920s, all three broadcast far more educational and entertainment programming than news, which was mainly supplied by news agencies. Radio news-gathering divisions gained strength in Britain and United States in the 1930s, though for political reasons in Britain and commercial ones in the United States. Meanwhile, domestic political turmoil and the Nazis' rise to power entrenched state control over German radio and made news an item to be handled with extreme caution and state intervention. The legacy of World War I similarly affected all three systems in the 1920s; the international turmoil of the 1930s increasingly caused them to diverge.

Radio separated news into what Michael Stamm has called two "overlapping but distinct acts: the communication of facts about past events, and the communication of live accounts of ongoing events."[63] Radio enabled news to reach an audience live for the first time, something newspapers could not deliver. In all three countries, newspapers and news agencies faced the choice between trying to co-opt radio news, particularly factual reports, and allowing broadcast news to develop within such constraints that newspapers remained necessary products of everyday life.

In the early 1920s, American radio mainly broadcast news on special events, such as elections, the 1924 presidential nominating convention, or the 1926 Dempsey-Tunney boxing fight. While Hans von Kaltenborn started talks on current affairs on WJZ in Newark in 1922, there were few imitators. NBC hosted its first nightly news program in 1929. As late as 1932, the Associated Press promised to "make every attempt to curtail broadcasting of AP news."[64] The AP tried to prevent networks from independent news-gathering through the Press-Radio Agreement of December 1933. Newspaper publishers, news agencies, and leading radio networks agreed that news agencies would furnish complete news reports exclusively to the Press-Radio Bureau, which would prepare two daily fifteen-minute broadcasts and reports. By 1935–36, this arrangement was fairly ineffective as other news-gathering organizations had emerged to supply news to radio. News agencies responded by supplying more news to radio stations and the Press-Radio Agreement was officially annulled in 1939.[65]

News really boomed on American airwaves in the 1930s. Morning, noon, and late-night news began in the late 1930s, and 1938–39 proved the turning point for radio as a medium transmitting live and breaking news. The Munich crisis particularly seemed to commentators like Kaltenborn to create the ultimate audience for "news flashes." After its relative unimportance in the 1920s, broadcast news became a key element of radio's attraction for Americans in the late 1930s.[66]

In Germany, by contrast, news on the radio seemed dangerous. Bredow feared that radio news could cause uproar among the population. He and other officials justified excluding most news to keep radio as apolitical as possible. They believed that radio could occasionally disseminate official news to bolster state security.[67] Otherwise they thought news might divide the public, detracting from radio's ultimate purpose as an apolitical unifier.

The radio reform of 1926 reinforced radio's separation from the press. Policymakers insisted upon political neutrality, eliminating party politics from broadcasts. Only officially sanctioned news agencies could supply news,

ensuring that "the radio could not compete with the press as a source of political information."[68] The legislation allocated responsibility for news to the Ministry of the Interior. Drahtloser Dienst (Dradag) supplied news. Although the state owned 51 percent of Dradag, the semiofficial news agency, Wolff's Telegraphisches Bureau, and its main competitor, Telegraph Union, acquired 12.25 percent each of Dradag, along with smaller shares for the Federal Committee of the German Press and the German Publishers Association.[69] Wolff and Telegraph Union were instructed to supply news that "basically restricts itself to the reproduction of facts."[70]

Each regional radio company could decide which news services to broadcast. Bavarian radio, for example, initially transmitted three daily programs of unabridged reports at 1:45, 7:15, and 10:00 p.m. The first Bavarian newsreader, Hans Priehäuser, only started in 1928. From 1930, radio news was embedded in the Dradag department "Aktuelles," which conducted no independent journalism.[71] Even under the Nazis, radio broadcast far more entertainment than news, though this entertainment functioned as a "lure" to retain listeners for Nazi communiqués or speeches.[72]

These developments guaranteed that radio provided little political information. All governmental ministries concurred that only a news agency could disseminate news over radio. The ministries assumed that news agencies were impartial and less subject to commercial influences and editorializing than newspapers. Reuters news agency successfully argued the same in Britain.

In 1922, the BBC's initial licensing commission named radio "news" as "broadcast matter" to create a generic term to avoid "anxiety" among news agencies.[73] Other editors, meanwhile, drew on the American example to claim that radio news actually increased newspaper sales.[74] Until the mid-1930s, the BBC only broadcast three five-minute breaking-news programs daily, scheduled in the morning and late evening to avoid scooping the press. The BBC's new charter of January 1927 allowed it to broadcast earlier news bulletins, commentary, and eyewitness accounts. While only 4.51 percent of BBC broadcasting was news in 1927, this doubled to 9.02 percent by 1930.[75]

Just as Reith intended other types of broadcasting to elevate public taste, news too was rewritten to maintain standards. On Good Friday in 1930, the BBC announced that, regrettably, there was simply no news to report that night. The BBC's selection processes omitted all the items in newspapers that day on deaths, fires at a lord's mansion, or a motorcar accident.[76] A newspaper had to appear, no matter the news. As late as 1930, however, Reith's philosophy of elevation meant discarding "frivolous" items if they did not fit the high-brow bill.

The BBC's news mainly came from news agencies. Reuters negotiated on behalf of a consortium of British news agencies to supply news to the BBC from 1922 until the end of World War II. The BBC's mission to serve the public interest meant that it wanted to supply what it saw as unbiased and noncommercial news. Reuters's general manager, Roderick Jones, portrayed his organization as the perfect provider. At hearings on the BBC's charter in the 1920s and 1930s, Jones insisted that newspapers only sought "controversies," while the business of news agencies was "to be quite objective."[77] Reuters, however, was a commercial entity. Using Reuters and the news agency consortium meant that the BBC ignored or underplayed Reuters's focus on profits until it became too obvious to ignore.

As Reuters and the BBC renegotiated terms through the late 1920s and early 1930s, BBC executives became increasingly aware that the two parties had fundamentally different interests financially and legally. Financially, Reuters sought ever-larger payments for the news it provided. Legally, Reuters insisted that the BBC should assign copyright to its news, although this was not judicially binding. The copyright issue proved particularly contentious after the BBC launched the Empire news bulletin in 1932, as Reuters garnered most of its profits from the Empire and worried about newspapers simply copying its news from the radio. The BBC's increasing frustration with Reuters pushed the BBC to create a separate News Department in 1934 to develop its own news collection. In 1935, the Ullswater Commission still deemed the BBC's news-gathering mainly from news agencies with supplementary information from its own correspondents satisfactory, though the commission now recognized fears about how "commercial agencies" could influence opinions "with special reference to the relations of Capital and Labour."[78]

Soon after Ullswater, however, the BBC news division rapidly expanded. In 1939, a BBC report acknowledged executives' increasing awareness that "the interests of a news seller [Reuters] and a propaganda news broadcaster are quite incompatible."[79] By then, the BBC provided ninety-five minutes of evening news with two main programs at 6:00 and 9:00 p.m.[80] The BBC's increasing emphasis on news dovetailed with American developments. British and American radio coverage became a hallmark of World War II to contemporaries, including Germans listening illicitly to the BBC. During World War II and the later 1930s, Britain and the United States began to mirror each other by augmenting news content, as Nazi radio increased propaganda broadcasts as well entertainment to distract from politics. While technology remained relatively similar, the national political economies of radio led to divergent content.

Radio Abroad

Just as attitudes toward content such as news began to differ in the 1930s, each country sought to broadcast to different spaces beyond its borders. The International Broadcasting Union (IBU), founded in 1925, worked to resolve broadcasting issues within Europe. The IBU worked with the League of Nations and European musical elites to transmit music and concerts transnationally, though there were technical difficulties with interference and disagreements about the types of music to broadcast, copyright, and artists' rights.[81] Meanwhile, radio became a transatlantic medium, when on Christmas Day, 1929, Europe and the United States successfully exchanged radio programs over shortwave for the first time.[82]

Some American radio engineers initially attached great hopes to the exchange. NBC engineer C. W. Horn fervently believed that radio would work wonders. "If we can provide the means whereby anyone on this globe can in fact participate in events which are of world-wide importance, we shall have removed the last barrier to the perfect understanding among peoples which is so necessary for our peace and development." With the classic interwar utopianism of engineers, Horn believed that technological progress could create cultural exchange between peoples, enable them to form their own opinions, allow "backward" nations to catch up, and even reduce linguistic diversity to a few major languages.[83]

Britain and Germany sought to broadcast their content abroad for political reasons rather than to foster international peace. The British government hoped the BBC would unite its empire. The BBC launched an Empire news bulletin in 1932 both to "project domestically derived forms of Britishness overseas" and make British audiences aware of empire. These efforts were far less successful than expected.[84] Simultaneously, the BBC hoped to broadcast as widely as possible in multiple languages to counteract German and Italian fascist propaganda.

In 1929, the German Postal Ministry commissioned a global radio transmitter, *Weltrundfunksender*. Initially it mainly transmitted entertainment, starting with four hours of broadcasting daily. That same year, the station signed an agreement to exchange programs with NBC. When the Nazis came to power in 1933, they renamed the station *Deutscher Kurzwellensender* (German Shortwave Transmitter) and expanded its technical capacity. Radio served propaganda purposes and tried to entice greater international support for the Nazis. Until the end of World War II, German shortwave radio had the greatest technical capacity in terms of antennas and transmitters in the world.

Nazi Germany disseminated programs from twenty-two radio transmitters in forty-seven languages.[85] American international shortwave operations began in response to Nazi propaganda. The Office of the Coordinator of Interamerican Affairs started to provide news to broadcast stations to counteract Nazi propaganda in Latin America and the government Office of the Coordinator of Information started its first international direct programming with Voice of America in early 1942. After World War II, radio broadcasting and jamming across the Iron Curtain became a key element of Cold War competition.[86]

Elites and government officials often represented radio as antipolitical in the 1920s, although the state was intimately involved in all three countries in different ways. By 1930, that antipolitics took very different national and international turns. Those involved in American radio portrayed it as a purely commercial product. Only in response to Nazi threats did the state create content. In Britain, radio seemed a glue to stick the nation and the empire together, while in Nazi Germany, radio was supposed to bind people to the Führer and fascism. International technical standards had given nation-states room to maneuver on content and institutions that they increasingly utilized.

CONCLUSION

In the 1991 revised edition of *Imagined Communities*, Benedict Anderson speculated that "radio made it possible to bypass print and summon into being an aural representation of the imagined community where the printed page scarcely penetrated."[87] But that nation-building could only happen with international technical standards allowing each nation to create content as it pleased. All three countries—Germany, Great Britain, and the United States—generated different systems of radio content and institutional arrangements by the 1930s. These differences were profound. But these states also operated within the same international political economy of media that had emerged from international conferences on technical standards. And their systems developed from surprisingly similar values about radio in the 1920s.

By 1930, the experimental phase of radio had ended. The installation of a loudspeaker in the radio receiver, a mains connection, and regular programming had made radio a quotidian phenomenon.[88] Different choices in the 1920s about the political economy of radio increasingly affected content. Elites no longer looked back to World War I, but rather looked forward to what radio could achieve in the future.[89] These future expectations emerged

from increasingly different political and social situations within each country. The general optimism about listeners and radio in the 1920s gave way to fears of "the crowd mind" and propaganda. And national radio more closely resembled Judith Waller's tripartite division into nonprofit corporation, commercial, and authoritarian systems.

Still, the early years of radio held great significance for its future. Kate Lacey has argued for Germany that "the combined pressure of government and commercial interests" prevented radio's development as an independent medium.[90] This applies equally to Britain and the United States, for there was no such thing as a radio infrastructure independent of the state. Rather than see three separate radio systems in the 1920s, we might conceive of an intersecting matrix of state and commercial interests. In each country, the state played the crucial role in determining how far commercial companies could operate radio transmitters, produce radio content, or manufacture radio devices. The apparent scarcity of radio spectrum made space for the state to determine which companies or stations would gain access to that precious commodity. The state defined the rules of the game, deciding how competition would function and the limits of that competition.

In 1920s Germany, Hans Bredow saw radio as a mechanism to help the German population overcome the scars of World War I and the political divisions of postwar revolutions. Ironically, Bredow's ideas mirrored hopes elsewhere that radio might build a national community. John Reith believed the BBC could educate the masses, while American radio initially raised utopian dreams of national radio citizenship. Although the 1930s saw these hopes dashed, examinations of different funding systems have masked the fundamental similarities in attitudes to the relationship between radio and national communities during the 1920s. In a symbiotic relationship with international conferences during the 1920s, these countries briefly saw radio as a savior of the nation.

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NOTES

1. Baron John Charles Walsham Reith, *Broadcast over Britain* (London, 1924), 217.
2. Judith Cary Waller, *Radio: The Fifth Estate* (Boston, 1946), 8.
3. Kristin Roth-Ey, *Moscow Prime Time: How the Soviet Union Built the Media Empire That Lost the Cultural Cold War* (Ithaca, 2011), 135–39. Maoist China too sought to make radio a communal experience, including sponsoring "broadcast assemblies" in

the Great Leap Forward. Alan Liu, *Radio Broadcasting in Communist China* (Cambridge, Mass., 1964), 51. Thanks to Anne O'Donnell and Liat Spiro for their help with the Soviet and Chinese cases, respectively.

4. Heidi J. S. Tworek, "Peace through Truth? The Press and Moral Disarmament through the League of Nations," *Medien & Zeit* 25, no. 4 (2010): 19. For theoretical reflections, see Deborah Cohen and Maura O'Connor, eds., *Comparison and History: Europe in Cross-National Perspective* (New York, 2004). For a practical illustration of a diachronic three-country comparison, see Charles S. Maier, *Recasting Bourgeois Europe: Stabilization in France, Germany, and Italy in the Decade after World War I* (Princeton, 1988). On the importance of transnational media research in radio, see Michele Hilmes, "Radio-Nationen: Die Bedeutung transnationaler Medienforschung," in *Radio Welten: Politische, soziale und kulturelle Aspekte atlantischer Mediengeschichte vor und während des Zweiten Weltkriegs*, ed. M. Michaela Hampf and Ursula Lehmkuhl (Münster, 2006), 84–93.

5. Michael Stamm, "Broadcast Journalism in the Interwar Period," in *Making News: Historical Perspectives on the Political Economy of the Press in Great Britain and the United States since 1688*, ed. Richard R. John and Jonathan Silberstein-Loeb (Oxford, forthcoming 2015); Michele Hilmes, *Network Nations: A Transnational History of British and American Broadcasting* (New York, 2012); Wolfgang Hagen, *Das Radio: Zur Geschichte und Theorie des Hörfunks–Deutschland/USA* (Munich, 2005); Kate Lacey, *Listening Publics: The Politics and Experience of Listening in the Media Age* (Cambridge, 2013); Inge Marssolek, "Radio Days: Did Radio Change Social Life in Germany and the United States?" in *Atlantic Communications: The Media in American and German History from the Seventeenth to the Twentieth Century*, ed. Norbert Finzsch and Ursula Lehmkuhl (Oxford, 2004), 247–70. Pascal Griset has compared the interwar British, French, and German radio industries. Pascal Griset, "Innovation and Radio Industry in Europe during the Interwar Period," in *Innovations in the European Economy between the Wars*, ed. François Caron, Paul Erker, and Wolfram Fischer (Berlin, 1995), 37–63.

6. Theodore Peterson, Wilbur Schramm, and Fred S. Siebert, *Four Theories of the Press: The Authoritarian, Libertarian, Social Responsibility, and Soviet Communist Concepts of What the Press Should Be and Do* (Freeport, N.Y., 1973); John C. Nerone, ed., *Last Rights: Revisiting Four Theories of the Press* (Urbana, 1995). For another classic example and a recent reassessment, see Daniel C. Hallin and Paolo Mancini, *Comparing Media Systems: Three Models of Media and Politics, Communication, Society, and Politics* (Cambridge, 2004); Michael Brüggemann et al., "Hallin and Mancini Revisited: Four Empirical Types of Western Media Systems," *Journal of Communication* 64, no. 6 (2014): 1037–65.

7. On the concept of institutional arrangements, see Lance E. Davis and Douglass C. North, *Institutional Change and American Economic Growth* (New York, 1971); Douglass C. North, John Joseph Wallis, and Barry R. Weingast, *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History* (New York, 2009).

8. Sungook Hong, *Wireless: From Marconi's Black-Box to the Audion* (Cambridge, Mass., 2001).

9. Marconi, cited in Hans Bredow, *Aus meinem Archiv: Probleme des Rundfunks* (Heidelberg, 1950), 18.

10. Heidi J. S. Tworek, "Wireless Telegraphy," *1914–1918 Online. International Encyclopedia of the First World War*, 8 October 2014, http://encyclopedia.1914–1918, online.net/article/wireless_telegraphy.

11. On American construction of spectrum scarcity, see Michael Stamm, "The Space for News," *Media History* 21, no. 1 (2015): 55–73. On how the Portuguese government created artificial scarcity of radio frequencies for its own political advantage in the 1930s and 1940s, see Nelson Ribeiro, "Censorship and Scarcity: Controlling New and Old Media in Portugal, 1936–1945," *Media History* 21, no. 1 (2015): 74–88.

12. James Schwoch, "The American Radio Industry and International Communications Conferences, 1919–1927," *Historical Journal of Film, Radio and Television* 7, no. 3 (1987): 289–309; Daniel Gorman, "Freedom of the Ether or the Electromagnetic Commons? Globality, the Public Interest, and Multilateral Radio Negotiations in the 1920s," in *Empires and Autonomy: Moments in the History of Globalization*, ed. Stephen Streeter, John Weaver, and William Coleman (Vancouver, 2009), 138–56.

13. Douglas, *Inventing American Broadcasting, 1899–1922*, 290. See also Richard R. John, *Network Nation: Inventing American Telecommunications* (Cambridge, Mass., 2010), chap. 7.

14. Hugh Richard Slotten, *Radio and Television Regulation: Broadcast Technology in the United States, 1920–1960* (Baltimore, 2000), ix. On corporate liberalism in broadcasting, see Thomas Streeter, *Selling the Air: A Critique of the Policy of Commercial Broadcasting in the United States* (Chicago, 1996). For the classic work on American corporate liberalism, see Martin Sklar, *The Corporate Reconstruction of American Capitalism, 1890–1916: The Market, the Law, and Politics* (New York, 1988).

15. Sykes Committee, *Broadcasting Committee Report*, 1951 (London, 1923), 15. For more, see Paddy Scannell, "Public Service Broadcasting: The History of a Concept," in *Understanding Television*, ed. Andrew Goodwin and Garry Whannel (London, 1990), 11–29.

16. Sykes Broadcasting Committee, *Report*, 6.

17. Adrian Johns, *Death of a Pirate: British Radio and the Making of the Information Age* (New York, 2010), 31.

18. On patents, see Stathis Arapostathis and Graeme Gooday, *Patently Contestable: Electrical Technologies and Inventor Identities on Trial in Britain* (Cambridge, Mass., 2013), chap. 6.

19. In 1921, the Postal Ministry received a subsidy of 1,244,194 Marks. Bundesarchiv Berlin (henceforth BArch) R3301/2098, 101.

20. Kate Lacey, *Feminine Frequencies: Gender, German Radio, and the Public Sphere, 1923–1945* (Ann Arbor, 1996), 31. On regional broadcasting companies, see Konrad Dussel, *Hörfunk in Deutschland: Politik, Programm, Publikum (1923–1960)* (Potsdam, 2002), 49; Karl Christian Führer, *Wirtschaftsgeschichte des Rundfunks in der Weimarer Republik* (Potsdam, 1997), 17ff.; Winfried B. Lerg, *Die Entstehung des Rundfunks in Deutschland: Herkunft und Entwicklung eines publizistischen Mittels* (Frankfurt am Main, 1965), 245ff.

21. Führer, *Wirtschaftsgeschichte des Rundfunks*, 19. On RRG, see Winfried B. Lerg, *Rundfunkpolitik in der Weimarer Republik* (Munich, 1980), 194ff.

22. Konrad Dussel, *Deutsche Rundfunkgeschichte: Eine Einführung* (Konstanz, 1999), 75ff.; Lerg, *Rundfunkpolitik in der Weimarer Republik*, chap. 7; Corey Ross, *Media and the Making of Modern Germany: Mass Communications, Society, and Politics from the Empire to the Third Reich* (Oxford, 2008), 279ff.

23. Douglas, *Inventing American Broadcasting*, 317.

24. On the distinction between audience and public, see Kate Lacey, "The Invention of a Listening Public: Radio and Its Audiences," in *Mass Media, Culture, and Society in Twentieth-Century Germany*, ed. Karl Christian Führer and Corey Ross (Basingstoke, UK, 2006), 61–79.

25. Marszolek, "Radio Days," in Finzsch and Lehmkuhl, *Atlantic Communications*, 247–70.

26. Douglas, *Inventing American Broadcasting*, 305.

27. "The Joint Resolution to Amend the Radio Act of 1927," cited in Robert Fortner, *Radio, Morality, and Culture: Britain, Canada, and the United States, 1919–1945* (Carbondale, 2005), 97.

28. David Moss and Michael Fein, "Radio Regulation Revisited: Coase, the FCC, and the Public Interest," *Journal of Policy History* 15, no. 4 (2003): 389–416; Michael Stamm, *Sound Business: Newspapers, Radio, and the Politics of New Media* (Philadelphia, 2011), 45–54.

29. Edward C. Caldwell, "Censorship of Radio Programs," *Journal of Radio Law* 1, no. 3 (1931): 473. See Hugh Richard Slotten, *Radio's Hidden Voice: The Origins of Public Broadcasting in the United States* (Urbana, 2009), 120f.

30. Asa Briggs, *The History of Broadcasting in the United Kingdom: The Birth of Broadcasting*, vol. 1 (London, 1961), 131.

31. Boris Gehlen and Günther Schulz, "National Regulatory Traditions? Introductory Remarks," in *Regulation between Legal Norms and Economic Reality: Intentions, Effects, and Adaptation: The German and American Experiences*, ed. Günther Schulz, Mathias Schomeckel, and William J. Hausman (Tübingen, 2014), 3.

32. Hans Bredow, *Im Banne der Ätherwellen. Festschrift zum 75. Geburtstag des Verfassers am 26. November 1954*, vol. 2 (1954; Stuttgart, 1960), 166.

33. Hilmes, *Network Nations*, 2.

34. For a discussion of this idea in the American context, see Douglas Craig, *Fireside Politics: Radio and Political Culture in the United States, 1920–1940* (Baltimore, 2000), chap. 11. For an English translation of Tönnies, see Ferdinand Tönnies, *Community and Civil Society*, ed. Jose Harris, trans. Margaret Hollis (Cambridge, 2001). On transatlantic exchanges of social thought, see Daniel T. Rodgers, *Atlantic Crossings: Social Thought in a Progressive Age* (Cambridge, Mass., 1998).

35. Lacey, *Feminine Frequencies*, 34.

36. Ernst Heilmann, cited in Lerg, *Rundfunkpolitik in der Weimarer Republik*, 84.

37. The political theorist Carl Schmitt took this view. Though Schmitt thought that the political was unavoidable, he believed that the state should put cinema to the service of creating order or even homogeneity. See Carl Schmitt, *Verfassungslehre* (Berlin, 1954), 168.

38. Dussel, *Hörfunk in Deutschland*, 43.

39. Stamm, *Sound Business*, 15; James C. Robertson, *The British Board of Film Censors: Film Censorhip in Britain, 1896–1950* (London, 1985).

40. Craig, *Fireside Politics*, 206. See also David Goodman, *Radio's Civic Ambition: American Broadcasting and Democracy in the 1930s* (New York, 2011). On fears of the crowd sparked by the nineteenth-century popular press, see Caroline Sumpter, "The Cheap Press and the 'Reading Crowd,'" *Media History* 12, no. 3 (2006): 233–52.

41. Robert W. McChesney, *Telecommunications, Mass Media, and Democracy: The Battle for the Control of U.S. Broadcasting, 1928–1935* (New York, 1993), chap. 4.

42. Lacey, *Feminine Frequencies*, 35.

43. For an example of disparaging amateurs, see H. Thurn, "Erste grundlegnde organisatorische Maßnahmen (1924)," in Bredow, *Aus meinem Archiv*, 26.

44. Todd Avery, *Radio Modernism: Literature, Ethics, and the BBC, 1922–1938* (Aldershot, UK, 2006), 16.

45. Reith, *Broadcast over Britain*, 17.

46. Lacey, *Feminine Frequencies*, chap. 9. In the 1930s, the male archetype of the newsman emerged in the United States.

47. Hans Bredow, cited in Heinz Pohle, *Der Rundfunk als Instrument der Politik* (Hamburg, 1955), 60. On collective listening practices in Britain and Germany, see Lacey, *Listening Publics*, chap. 7.

48. Hans Bredow, "Dem 'Deutschen Rundfunk' zum Geleit" (1923), in Bredow, *Aus meinem Archiv*, 15.

49. Dussel, *Hörfunk in Deutschland*, 137–75. On pioneers of radio plays and radio content, such as Hans Flesch's "Enchanted Radio," see Hagen, *Das Radio*, 89–112.

50. Bredow remained a staunch opponent of extremist politics, resigning his post the day after Hitler became chancellor. After World War II, Bredow became a key figure in radio, serving as head of the administrative council of Hessian radio from 1949 to 1951.

51. Adelheid Saldern, "Rundfunkpolitik, Nationalidee und Volkskultur (1926–1932)," in Marssolek and Saldern, *Radiozeiten*, 59–82.

52. Christian Führer, "Auf dem Weg zur Massenkultur? Kino und Rundfunk in der Weimarer Republik," *Historische Zeitschrift* 262 (1996): 776.

53. Lord Riddell, Sykes Broadcasting Committee, 29 May 1923, cited in Briggs, *The History of Broadcasting in the United Kingdom*, vol. 1, 157.

54. Reith, *Broadcast over Britain*, 217.

55. Calculated from table in Asa Briggs, *The History of Broadcasting in the United Kingdom: The Golden Age of Wireless*, vol. 2 (London, 1965), 35.

56. Michael Coyle, "Radio," in *TS Eliot in Context*, ed. Jason Harding (Cambridge, 2011), 146.

57. Cited in Avery, *Radio Modernism*, 17.

58. Herbert Hoover, "Opening Address to National Radio Conference, February 27, 1922," cited in Stamm, *Sound Business*, 46.

59. Herbert Hoover, "Address to National Radio Conference in 1924," cited in Craig, *Fireside Politics*, 46.

60. Bruce Lenthall, "Critical Reception: Public Intellectuals Decry Depression-Era Radio, Mass Culture, and Modern America," in *Radio Reader: Essays in the Cultural History of Radio*, ed. Michele Hilmes and Jason Loviglio (New York, 2002), 41–62.

61. Hugh Aitken, *The Continuous Wave: Technology and American Radio, 1900–1932* (Princeton, 1985), 94–95.

62. Slotten, *Radio's Hidden Voice*.

63. Stamm, "Broadcasting Journalism." Stamm also has the most up-to-date work on Anglo-American broadcast news in the interwar period.

64. Dowling Leatherwood, *Journalism on the Air: An Abridged Textbook for a Course in Radio Journalism, with Laboratory and Microphone Exercises* (Minneapolis, 1939), 87.

65. On the press-radio wars of the 1930s, see McChesney, *Telecommunications, Mass Media, and Democracy*; Stamm, *Sound Business*.

66. Susan J. Douglas, *Listening In: Radio and the American Imagination, from Amos 'n' Andy and Edward R. Murrow to Wolfman Jack and Howard Stern* (New York, 1999), 164.

67. BArch R3301/2098, 20 December 1923, 67.

68. Lacey, *Feminine Frequencies*, 34.

69. BArch R1501/114232, March 1925, 49.

70. BArch R1501/114231, March 1926, 88.

71. Klaus Greiner, "'Mit dem Gongschlag ist es ...': Die Nachrichten im Hörfunk," in Margot Hamm, Bettina Hasselbring, and Michael Henker, *Der Ton, das Bild. Die Bayern und ihr Rundfunk 1924–1949–1999: Begleitbuch zur Ausstellung des Hauses der Bayerischen Geschichte und des Bayerischen Rundfunks* (Augsburg, 1999), 123–30.

72. Hans Sarkowicz, "Das Radio im Dienst der nationalsozialistischen Propaganda," in *Medien im Nationalsozialismus*, ed. Bernd Heidenreich and Sönke Neitzel (Paderborn, 2010), 209.

73. RM POST 33/704, 3 October 1922, pt. 2.

74. Hamilton Fyfe, editor of *Daily Herald*, Royal Mail Archives (henceforth RM) POST 89/27, Crawford Broadcasting Committee, 3 February 1926, 1, para. 3.

75. Briggs, *The History of Broadcasting in the United Kingdom*, vol. 2, 35.

76. Michael Bromley and Tom O'Malley, eds., *A Journalism Reader* (London, 1997), 325.

77. Sykes Broadcasting Commission, 5 June 1923, RM POST 89/20, 1977. For the same stance at the 1935 Ullswater Commission, see British National Archives (henceforth BNA) CAB 24/259, sec. 81. On news-gathering arrangements, see Stamm, "Broadcast Journalism."

78. BNA CAB 24/259, Ullswater Commission Report, 1935, para. 81.

79. Report of interview between Turner, Moloney, Murray, and the BBC, 18 July 1939, BBC Written Archives Centre, London, R28/162/1.

80. Paddy Scannell and David Cardiff, *A Social History of British Broadcasting* (Oxford, 1991), 136.

81. Suzanne Lommers, *Europe on Air: Interwar Projects for Radio Broadcasting* (Amsterdam, 2012). On private, commercial European stations like Radio Normandy and Radio Luxembourg, see Jennifer Spohrer, "Ruling the Airwaves: Radio Luxembourg and the Origins of European National Broadcasting, 1929–1950" (Ph.D. diss., Columbia University, 2008).

82. RCA and Marconi had started experimenting on shortwave transatlantic broadcasts in 1927. On transatlantic shortwave, see Derek W. Vaillant, "At the Speed of Sound: Techno-Aesthetic Paradigms in U.S.-French International Broadcasting, 1925–1942," *Technology and Culture* 54, no. 4 (2013): 888–921.

83. C. W. Horn, "International Broadcasting," in *Radio and Its Future*, ed. Martin Codel (London, 1930), 88. On similar beliefs in the power of engineering to promote peace, see Elisabeth van Meer, "The Transatlantic Pursuit of a World Engineering Federation: For the Profession, the Nation, and International Peace, 1918–48," *Technology and Culture* 53, no. 1 (2012): 120–45.

84. Simon James Potter, *Broadcasting Empire: The BBC and the British World, 1922–1970* (Oxford, 2012), 14. See also Aitor Anduaga, *Wireless and Empire: Geopolitics, Radio Industry, and Ionosphere in the British Empire, 1918–1939* (Oxford, 2009).

85. Eberhard Burmester, *30 Jahre Deutsche Welle* (Munich, 1983), 7–16; Werner Schwipps and Gerhart Goebel, *Wortschlacht im Äther: Der deutsche Auslandsrundfunk im*

Zweiten Weltkrieg: Geschichte des Kurzwellenrundfunks in Deutschland, 1939–1945 (Berlin, 1971).

86. Michael Nelson, *War of the Black Heavens: The Battles of Western Broadcasting in the Cold War* (Syracuse, 1997); Martha Siefert, "Radio Diplomacy and the Cold War," *Journal of Communications* 53, no. 2 (2003): 363–73. On jamming practices and foreign broadcasting in the Soviet Union, see Roth-Ey, *Moscow Prime Time*, chap. 3.

87. Benedict Anderson,*Imagined Communities: Reflections on the Origin and Spread of Nationalism*, rev. ed. (London, 1991), 54 n. 28.

88. Carsten Lenk, *Die Erscheinung des Rundfunks: Einführung und Nutzung eines neuen Mediums, 1923–1932* (Opladen, 1997), 253.

89. On interwar German visions of the future, see Rüdiger Graf, *Die Zukunft der Weimarer Republik: Krisen und Zukunftsaneignungen in Deutschland, 1918–1933* (Munich, 2008).

90. Lacey, *Feminine Frequencies*, 25.