

# RADIO-USA

Reprinted from the 1975/76 Annual Report  
of The John & Mary R. Markle Foundation

by Lloyd N. Morrisett, President

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Radio receives scant public attention. The press writes almost nothing about radio and public figures don't talk about it. Yet the vast majority of Americans are just as truly the children of radio as they are the children of television. Do you remember—the “Gold Dust Twins,” “Cliquot Club Eskimos,” “Eveready Hour,” H. V. Kaltenborn, Norman Brokenshire, Bernarr Macfadden, Graham McNamee, Mary Garden, Howard Barlow, “Amos 'n Andy,” “Voice of Experience,” “The Rise of the Goldbergs,” “Easy Aces,” “The Shadow,” “March of Time” . . . Murray the K, Imus. Pick your decade from the 1920s to the 1970s and you will probably find that radio has been part of your life. From the early days of dedicated amateurs building their own sets to the latest Top-Forty hits, radio has served Americans in many differing ways, but its continuing importance is nowhere better shown than in the behavior of all of us in 1976. Today more people spend a part of every day with radio than with any other medium. Television consumes more time, but radio reaches more people each day.

Radio receivers are inexpensive, portable and plentiful. The number of radios in the United States is startling—over 400 million or almost six radios for each household. All Americans can receive standard AM and FM signals, and so it is perhaps not surprising that radio listening surpasses television viewing for two-thirds of the day and is especially dominant between 6 a.m. and 9 p.m. This year as Viking landed on Mars we followed the news intently without much thought to the marvel that the landing and subsequent experiments were *radio* controlled. We almost casually accept that radio signals can be sent and received across millions of miles in space. If we eventually communicate with life elsewhere in the universe, radio

signals will probably hear that fantastic news. The marvels of radio are no longer news, but it has not always been so.

## THE BEGINNING OF RADIO

In the closing years of the last century the ideas that were to become modern radio were being pursued in many places. James Maxwell had investigated electromagnetic fields. Heinrich Hertz of Germany demonstrated the nature of radio waves and they were first called “Hertzian waves.” In England, Russia, Germany and France the possibilities of radio waves were being avidly pursued by a few people, and in 1895 Guglielmo Marconi carried out his first tests showing that radio waves could be sent and received even if there are hills and trees between the transmitter and receiver. In 1897 Marconi and others formed Wireless Telegraph and Signal Company, Ltd., and in 1899 the Marconi company helped report the America's Cup Races with much acclaim. In all of these early uses of radio Morse code was transmitted, but it was not long before Reginald Fessenden transmitted voice in the famous Christmas Eve broadcast of 1906. Meanwhile, Lee DeForest was working on the ideas that led to the “Audion” patented in 1906, the forerunner of the modern electronic vacuum tube.

Even in those early days commercial activity surrounding radio was feverish and military applications for communications loomed as important. The commercial and military interest was paralleled by an outburst of amateur enthusiasm. By 1920 the Radio Corporation of America had been founded to buy out the interests of the foreign dominated American Marconi. General Electric formed RCA and was subsequently joined by AT&T and Westinghouse as partners. It was agreed that GE and Westinghouse would use RCA patents to

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I wish to thank Kathryn M. Moody for her help in the preparation of this essay.

manufacture radio broadcasting and receiving hardware. RCA would act as the sales agent for these firms and AT&T would maintain control over telephone communications including the exclusive right to manufacture and sell radio transmitters. At the same time, amateur radio stations were broadcasting in many parts of the United States and the legion of amateurs with receiving sets was growing rapidly.

### EARLY YEARS AND THE GOLDEN AGE

Between 1920 and 1930 developments in radio surged. At the beginning of the decade radio stations were first beginning to be licensed, broadcasting on an announced schedule was a rarity, and music was the staple diet for all broadcasters. At the end of the decade NBC, with its "red" and "blue" networks, and CBS were in operation, hundreds of stations were broadcasting on a regular basis, dramatic series were supplementing music as the most popular broadcasts with Amos 'n Andy leading the way, and advertising had become the clear basis for the support of radio broadcasting. Sales of radio sets and parts were \$60,000,000 in 1922, a year of great excitement about the new medium, and were to reach \$842,548,000 in 1929. By 1930 the foundations of radio broadcasting were in place, and patterns were set that guided radio through World War II and until television became widespread. Radio had developed into a medium of popular entertainment dominated by large networks and financed by the support of advertising. Music and drama, comedy and news were the services provided. In 1927 the Radio Act was passed to bring order into the chaotic world of broadcasting and the Federal Radio Commission was created to administer the law. Even then the Radio Act was obsolescent—it was based on ideas from the start of the decade and failed to take account of the burgeoning industry and the trends that were clear in 1927. This pattern of backward looking legislation and regulation has been characteristic of the federal role in



broadcasting ever since. Just as radio technology finally forced an attempt at order in 1927, newer developments may yet force what are now unforeseen changes. But the pattern was set and radio entered what is now thought of as its "Golden Age."

If the years between 1930 and 1950 were the years of the Depression and World War II, they were also the years of the flowering of radio. Popularity drew money and talent and these ingredients made radio more popular, and the cycle kept repeating. NBC and CBS were joined by the Mutual Broadcasting System and later the NBC "blue" network became the American Broadcasting System, ABC. Daytime serials grew in number and in fans. By 1938 there were thirty-eight sponsored daytime serials aimed at women at home, the "soap operas." At night comedians such as Jack Benny, Bob Hope, Fred Allen and Edgar Bergen held sway along with variety shows such as the "Kate Smith Hour" and George Jessel. "Screen Guild Theater," "Grand Hotel" and other dramas were there as well as game shows such as "Major Bowes Amateur Hour" and "True and False." Events in Europe gave increasing importance to radio news—H. V. Kaltenborn, Raymond Swing, William L. Shirer, and Edward R. Murrow chronicled the deepening world crisis and made it real to millions of Americans. Murrow's voice and eloquence brought wartime London into households across the sea. "It's a bomber's moon tonight...." Sponsors spent more and more money on radio time: \$72,887,169 in 1930, \$155,686,247 in 1940, \$453,564,930 in 1950. Talented writers, producers, actors and actresses all flocked to radio and enriched it as it began to enrich them.

#### TELEVISION—THE DEATH AND REBIRTH OF RADIO

Early in the development of radio, experiments were also conducted on television, and television was sometimes proclaimed as the next

great advance in communications. It was almost thirty years after these early experiments that television arrived on a commercial basis. In the short period of a decade after World War II television became the dominant broadcasting medium. In 1950 radio maintained the pattern that had been set by 1930. The mainstays of radio, the series and performers, continued to hold their popularity. On the networks more than one hundred different series had been on the air for ten years or more, twelve series for twenty years. Television quickly changed all of that. In the next few years advertisers began switching their money to television, radio ratings dropped precipitously, series and performers either left the air or went to television, and radio was dead as a major broadcasting medium—but like Mark Twain, the news of its death was greatly exaggerated.

Faced with declining revenues and declining audiences radio was forced to find and adopt new methods if radio broadcasting was to remain as an important medium. Declining revenues made it a necessity to cut costs, and ironically radio began to return to the staple of its earliest days, music. The era of the disc jockey was born. With disc jockeys a broadcaster needed only his equipment, records, and minimal personnel to continue broadcasting. Commercials could be easily interspersed with records, and one person at the microphone and an engineer could do it all. The “tight board” was developed in which the disc jockey said very little and simply switched from records to commercials. The FCC permits eighteen minutes of advertising each hour, but exceptions are often made. The “tight board” remains as the pattern for most music stations today.

Along with disc jockeys and the “tight board” another change in radio formats began to be instituted, “vertical programming.” As long as competing radio stations were playing essentially the same music and appealing to the same audience, there was little to distinguish

one station from another—little reason for advertisers to choose among stations. Some small Southern music stations began playing country and western music all day long. Similarly in the North, stations began playing rock all day long. These stations found that they could appeal to a particular and identifiable audience and consequently that advertisers would know who would be reached by advertising messages. “Vertical programming” is simply the broadcasting of one type of music, or news, to appeal to a particular audience segment.

With the adoption of vertical programming came the end of the radio station that broadcast a range of offerings to have wide appeal. Gone were the stations offering a combination of music, drama, variety, news, music and sports. Many observers believe that this loss of the broadly programmed stations greatly diminished the importance of radio and its ability to serve the public interest. The problem was that radio was caught in the explosion of television and no one thought much about radio’s contribution to the public interest in the excitement of the time. It took over ten years for all of radio to go vertical, but now across the country each of some 8,000 radio stations has its own narrow format. Throughout the broadcasting hours a station may play rock or “beautiful” music, or country and western, provide all news, or some other format. Each station tries to win a loyal following and advertisers know who is being reached.

## MODERN RADIO FORMATS

Recently, format changes have become controversial and subject to debate among citizen groups, station owners, lawyers and the FCC. After requiring format changes to be approved, the FCC in 1976 decided it had no right to interfere with broadcasters who wish to change programming formats. A 1974 Court of Appeals decision held that the FCC was responsible for scrutinizing formats to make sure that all the cultural interests of a community were

served by its radio stations. Citizen groups in New York and Chicago are challenging the right of broadcasters to change formats and the principle is sure to be further tested in the courts. In the meantime, the FCC is saying that free competition is the best means of providing separate formats for each taste.

Among America's 8,000 radio stations the range of format is large--from "Agriculture and Farm" to "Underground," and from "Black" to "Bluegrass," but a few formats predominate.

Rock music in one form or another is the most prevalent radio format. It may be labeled "Contemporary," "Progressive," "Rock" or "Hard Rock."

MOR (middle of the road) stations play movie music, show tunes, and provide news and weather. Some stations have boosted their ratings by adding "oldies" to their schedule.

Country and western music has enjoyed a renaissance particularly in some Eastern urban centers. This music talks about the joys and travails of life at ordinary human levels.

Soul stations present ethnic and blues music. Although many AM stations programmed soul music for Black audiences, it drew a more diverse listenership.

For the most part, AM radio is a disc jockey's medium tied to the Top-Forty chart. Classical music is on the AM dial but only about a dozen stations employ it significantly, including WQXR in New York, WFMT in Cicero, Illinois and KFAC in Los Angeles.

Music is the major AM radio format, but there are others that are less frequently used. All-news stations exist in some cities where they



can be supported. Headline news is presented by an announcer and interspersed with ads. Usually the complete set of headlines is presented several times each hour so that listeners can find out quickly what is going on.

Call-in radio is another format that has sometimes proven successful. Listeners are encouraged to call the station and discuss their interests over the air with a host. The call-in stations utilize equipment giving a five-to-eight-second delay in the broadcasting of the called-in remarks in order to permit the censoring of noxious statements.

## RADIO NETWORKS

The networks that once dominated radio just as they now dominate television are only spectres of what they once were. When people turned to television for drama, variety, sports and news, radio stations began to program for their local audiences and they went vertical. There was no longer need for the high-cost, centrally provided programming that made the radio networks famous. Radio networks have survived but in a much modified form. Today's networks are essentially packagers and distributors of short items as, for example, five minutes of news. There are four nationwide radio networks and perhaps one hundred regional networks. ABC, The American Broadcasting Companies, has four specialized networks—ABC Contemporary News, ABC Entertainment, ABC Information Network, and ABC FM Network—and about 1,300 affiliated stations. MBS, Mutual Broadcasting System, has about 700 affiliated stations, and NBC and CBS radio networks have about 250 stations each. NBC has also provided the NBC News and Information Service which gives fifty minutes of news an hour to subscribers. A radio station may be affiliated with more than one network.

## THE GROWTH OF RADIO AND THE EMERGENCE OF FM

It is widely accepted that television is the dominant medium of broadcasting. It is dominant but mainly in advertising volume. In 1974 television had \$4.8 billion in advertising revenue, radio \$1.8 billion. Where television's revenue came mostly from national advertising, radio received its revenue almost solely from local advertising with more local advertising dollars than television received. To put these figures in perspective, newspaper advertising reached \$7.9 billion in the same year, or more than television and radio combined. There are approximately 8,000 radio stations in the United States with over 4,000 AM stations and over 3,000 FM stations. Americans spend more time watching television than listening to the radio, but among adults, those eighteen years of age and older, there is almost as much time spent listening to the radio as watching television. According to the Radio Advertising Bureau, the average American adult spends three hours, twenty-two minutes each day listening to the radio and only twenty-six minutes more watching television.

FM and AM radio are approximately equal in audience ratings but the major growth in radio has been in FM during the last two decades. It was during the 1950s that FM radio began to emerge. Frequency modulation, or FM, is a method of radio transmission and reception that ordinarily allows a clear and realistic sound to be heard, and it is much more static free than AM. Invented in the 1930s by Edwin Armstrong, it did not begin to come into widespread use until the 1950s. Then, as television forced the restructuring of radio, FM began to be used to appeal to lovers of classical music.

Since 1959 the number of FM stations has gone from 776 to over 3,600. AM stations have increased from 3,377 to almost 4,500. As more

and more cars become equipped with FM radios it is estimated the FM listenership will outstrip AM. Now about 65% of all radios have both the AM and FM bands. FM formats are similar to AM formats in featuring music—"good music," "beautiful music," classical music and rock. The commercial FM stations ordinarily present fewer commercials than their AM counterparts. The FM band is also the home of the 892 noncommercial educational radio stations.

### THE DEMOGRAPHY OF RADIO

As radio became a medium of music in the 1950s and 1960s it also became the province of the young. Young people bought records, the disc jockeys played the popular records, and young people bought what they heard. The radio industry maintained itself with the help of the recording industry and in turn fed back into it. At the same time radio was helping to create the "youth culture." Young people were teaching their elders what the popular tunes were—handing up culture rather than having it handed down.

Practically all radio stations whether AM or FM are programmed to appeal to people 18-49 years of age—the buying public. The 18-49 market is the one advertisers most want to reach because adults in that age range are accumulating their lifetime possessions and are the major consumers. Since there are many more radio than television stations the competition for audience is severe. To take an extreme example, in New York City a radio station competes for audience with some seventy other radio stations plus TV. The emphasis of advertisers on the 18-49 market leads to drastic narrowing of the concept that radio stations operate in the public interest. Not everyone is the same and radio has almost nothing to say to children or the elderly, or groups that may fall outside the demographic characteristics of the most desired customers.

For reasons of expense, competition, and the demands of advertising, commercial radio stations on both the AM and FM dials are frozen into relatively few standard formats. Non-commercial radio provides some diversity in this landscape. The noncommercial stations, over 800 of them, range from independent, community controlled stations to college and school owned low wattage stations on the air only a few hours a day, from stations that are affiliated with National Public Radio and have relatively stable budgets to small one-man operations that exist on a shoestring.

### **NATIONAL PUBLIC RADIO**

National Public Radio (NPR), formed in 1970, provides networking and programming services to some 190 affiliated stations throughout the country and in Puerto Rico. The Public Broadcasting Act of 1967 created the Corporation for Public Broadcasting (CPB) and among other things specifically called for the encouragement and growth of noncommercial radio. After a survey had shown the need for a networking organization to serve the educational radio stations of the country, NPR was created. NPR has a president and permanent staff and is located in Washington.

NPR membership is available only to CPB qualified stations—those stations meeting certain standards of operation set by CPB including broadcasting at least eighteen hours a day, 365 days a year, and meeting minimum criteria with regard to staff, facilities, programming and transmitting power. Once a station is qualified by CPB it receives annual assistance grants from CPB, the amount based on the size of the area serviced, and is eligible to join NPR. Dues for membership in NPR are \$100 per year. Among CPB qualified stations, only the Pacifica stations have chosen not to join NPR.

Networking and programming services are provided to member stations by NPR. Public

radio strives to present broadly diversified programming with appeal to many different audiences in contrast to commercial radio with its vertical programming and typically narrow demographic focus. NPR programs concentrate on five areas: questions of public policy, the society, frontiers of knowledge, the creative and thinking human being, and problems of living. Some examples of the thirty hours of programming each week distributed via the two-way NPR network are: "All Things Considered," a daily ninety-minute newsmagazine program examining the day's issues and ideas in areas such as economics, education, business, government, finance, entertainment and others—about thirty percent of "All Things Considered" material comes from member stations; "Voices in the Wind," a one-hour weekly program exploring the arts; and important Congressional hearings, live and uninterrupted. Other NPR programming includes speeches, documentaries, forums, debates, jazz and folk concerts, opera, drama and programming for specialized audiences. Considerable programming is supplied by the British Broadcasting Corporation, the Canadian Broadcasting Corporation and Radio Nederland. Since NPR is a two-way network, programming can be provided centrally or from any member station.

NPR has made a notable beginning but it is not really a fully national asset because NPR does not have affiliated stations in about one-third of the largest cities in the United States. The inability to establish NPR stations in these cities stems from crowding of the limited FM band and also from lack of planning and regulation. There is no systematic allocation of channels for public radio or, for that matter, for anything else on the FM band. Almost half the licensed FM stations are Class D or 10-watt stations. A 10-watt station can broadcast within only about a mile of its transmitter. Such stations are often owned by colleges and universities and may be used for only a few hours a

day. These stations serve legitimate and worthwhile purposes but in urban areas they may at the same time block the introduction of more full power stations that are increasingly desired by NPR, community groups and others. Some observers think that a rational reordering of channel allocations could preserve part of the FM band for 10-watt stations and at the same time increase the potential number of full power stations. When radio was in its early days there was little competition for channels and planning was unnecessary. Now channel space is in demand and sooner or later the FCC will be forced to deal with these issues.

The Corporation for Public Broadcasting is the primary source of financial support for NPR and also provides annual "Community Service" grants to CPB qualified stations. Coverage expansion grants are also available to develop new public radio stations. The CPB funds available for NPR are dependent on both the level of Congressional appropriations for CPB and the amount that goes for public television. After deducting certain administrative and other expenses, CPB gives 82.25% of its funds to public television with the remaining 16.75% to NPR. This arrangement means that there will always be a battle between television and radio for their federally generated monies. The Corporation for Public Broadcasting must exercise the wisdom of Solomon in determining the two shares. NPR does receive money from other sources but 70% comes from CPB. The further expansion and development of NPR will depend on increased funds and developing new NPR stations in those areas of the country not now served.

#### **INDEPENDENT RADIO**

There are also hundreds of noncommercial, independent, community stations that are not CPB qualified. As a result, these stations cannot obtain CPB monies or NPR membership.

Many of these stations are "independent" in the sense that they are community controlled in contrast to educational broadcasters who are under the auspices of a municipality or educational institution. Such community stations are often characterized by low budget, local programming, volunteer help, listener support and diverse styles of presentation. They range from KOPN in rural Missouri, to bilingual KBBF in Santa Rosa, California, to Juncau, Alaska's native American KTOO.

The National Federation of Community Broadcasters (NFCB) was founded in the early 1970s to coordinate and represent the interests of these independent stations. Some thirty-nine stations broadcasting to potential audiences totaling fifty million people are members of NFCB paying monthly dues. Based in Washington the NFCB coordinates station efforts to utilize resources, represents its members before the FCC and CPB, develops research and policy, and assists in the establishment of new outlets. NFCB is concerned about the lack of channel space for new independent stations, the lack of support for independent stations and the split in the noncommercial radio stations between CPB qualified stations with NPR affiliations and the others.

### ALTERNATIVE CHOICES

In almost every part of the United States there are many alternatives to choose from if you decide to listen to the radio. In Sacramento, California, with a population of 800,000 there are fifteen AM and FM stations: one all news station, one Top-Forty, one country and western, one contemporary (rock), one religious, one offering variety, education and Black programming, one classical stereo FM outlet, one beautiful music, four middle of the road, and three rock stations. Savannah, Georgia, with 200,000 people has thirteen radio stations: one country and western, one contemporary (rock),

one diversified, one college station, two with Black programming, two beautiful music stations, and five that say they are middle of the road. Neither of these cities has an NPR station, but Minneapolis-St. Paul has two NPR stations among the thirty-six stations that serve its listening area.

### ENCOURAGING CHANGE

Four hundred million radio sets and eight thousand stations add up to a wealth of opportunity to listen to radio, but critics contend that this wealth is largely imaginary because the range of available programming is extremely small. With the exception of NPR stations and some others, the programming that is presented is popular music and headline news. Little attempt is made to exploit other forms of programming—drama and the arts, education, programming for children, the elderly—programming that reflects the range and variety of human taste and interest. Defenders of the present system will counter these criticisms by citing the commercial success of music and news formats and the absence of any concerted public demand for anything else.

As with many other perplexing social problems, there is truth on both sides. The critics of radio are justified in demanding fuller use of radio's potential and broadening of service, but they must also face economic realities. American radio is an advertiser supported system and deviation from the accepted norms of radio service are likely to be economically risky at best. If any change in the overall quality of radio service is to be achieved, the critics of the present system must help find ways to encourage economic viability, and the defenders of the present system must be ready to change if their economic concerns can be met.

So far in the history of radio in the United States, only two forces have proven capable of

creating order or instituting change—government regulation and the competing technology of television. Technological change will certainly continue but at present its effects on radio broadcasting and quality of service are impossible to predict. Some form of governmental regulation is sure to continue, but judging by history, the present regulatory efforts are most unlikely to result in greatly increased quality of service. In an industry dominated by economic considerations, exhortation has accomplished little. If radio broadcasting is to be changed in order to offer broader services and more variety, then some incentives must be invented to encourage the desired result.

The tax system now makes one major distinction in radio broadcasting. Those stations that have commercial licenses and are owned by commercial corporations are taxed at corporate rates. Pretax income of more than \$50,000 is subject to 48% federal corporate tax except for certain deductions and credits. Those stations that have noncommercial licenses are exempt from taxation. In effect, this is a two category tax system—full taxation for commercial stations, and tax exemption for noncommercial stations. Since commercial stations are overwhelmingly programmed with popular music and news, it is this class of service that is fully taxed and attracts advertising and large audiences.

It might be possible to devise additional tax categories in order to give incentive to diversity and to improve service. A category of full service stations might be defined that would offer minimum percentages of music, both popular and classical, news, radio documentaries, drama, and children's programs. Perhaps this class of station should initially be taxed at one-half the normal rate therefore giving incentive to attempt a form of service that might not initially be as profitable as popular music programming. Other formats could also be

differentially taxed. Perhaps, again as an illustration, stations that wanted to try radically different formats—all children's programs, all programs for the elderly, etc.—could apply for a tax rate based on "experimental programming." Such a rate would be set and revised on the basis of experience to give experimental stations a chance at economic viability.

Differential taxation is a well recognized means of encouraging desirable social goals. Elaborating the existing two-class tax system to foster greater diversity and experimentation is seemingly a natural extension of present practice. While such a system would give incentives for change, it would not be coercive. A broadcaster would have the choice of trying a risky new form of programming and being taxed at a lower rate, or sticking with traditional radio formats and being taxed at present corporate rates. Economic studies of the industry could give estimates of the tax incentives necessary to create change, and then the rates could be adjusted based on actual experience.

The right to broadcast is now granted by the federal government through the Federal Communications Commission. Broadcast licenses are granted on a free basis to the most qualified applicants. A number of critics have questioned the desirability of granting the free use of radio frequencies for broadcasting and the concept of rental of the airwaves has been advanced. If a system of rentals were to be initiated, then the rental cost could be varied in a manner similar to the proposal for differential taxation. A scale of rentals could be worked out to encourage diversity and risk-taking. Rental of radio frequencies to broadcasters has the advantage of emphasizing that the radio spectrum is public property, but the initiation of a rental scheme would be a dramatic break with tradition and might be difficult to bring about. Differential taxation is a more accepted practice and would perhaps be more easily accomplished.

## RADIO USA—A SLEEPING GIANT

The history of radio in the United States shows an early, sudden and dramatic growth followed by a period of enormous popularity, power and profitability. Our national passion for television changed the fortunes of radio and transformed the national broadcasting of the 1930s and 1940s into the locally oriented music broadcasting we know so well today. Yet the potential of radio continued to grow—new AM stations and a burgeoning growth of FM. Radio sets became cheaper and smaller and are now easily available to everyone. Radio has unparalleled reach and provides many alternative stations for most listeners.

The untapped power of radio is not simply a matter of numbers of stations and sets. Radio broadcasting has a great advantage over television in its production costs. A high quality radio program costs only a fraction of what a similar quality program on television would cost. Radio can also be much more easily used to accompany other activities than can television, as shown by the popularity of car radios. Over and above these advantages, radio may be able to do things that television does not. Since radio depends solely on sound, it may be able to provide a stimulus to the imagination that is difficult or impossible for television. Radio drama, for instance, demands and depends upon the active participation of a human imagination for its success, much more so than does television drama.

The need is to look again at radio as a national asset—a sleeping giant. How can its full use and development be encouraged? National Public Radio is one bold attempt to move in this direction. NPR must be encouraged, but much more is needed. Perhaps an economic stimulant in the form of differential taxation or rental of frequencies would be useful. The power and potential are there, but until we have new policies, the giant will remain asleep to the disadvantage of us all.

