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**PUBLIC RADIO AND PUBLIC ACCESS: APPLYING HD RADIO TECHNOLOGY TO
A NEW FORM OF BROADCAST LOCALISM**

A Dissertation in

Mass Communications

by

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ABSTRACT

The recent development and implementation of HD Radio technology provides an exciting and challenging future for radio broadcasting in the United States. With its ability to broadcast multiple channels HD Radio gives public radio stations a unique opportunity to reconsider localism and provide meaningful citizen access to the airwaves. The ability to provide diverse local content is particularly important for public radio since it has historically held a position of serving audiences that are underrepresented and underserved by commercial media.

Until now, all policymaking attempts to foster localism have used indirect methods that rely on structural regulation or station management to determine how best to serve the local community. This has resulted in ineffective and inconsistent localism efforts that fail to support a robust public sphere where minority and unorthodox perspectives can be heard. The full range of opinions and viewpoints and the expression of what matters most to the community is more likely to be achieved by giving members of the local community direct access to the airwaves.

Historically, direct access has been considered unfeasible because of the scarcity of frequencies available under the government's management of the broadcast spectrum. Digital radio technology now gives stations the ability to transmit additional channels of content. Under current First Amendment jurisprudence, public radio stations can be required to provide access to broadcasting facilities and equipment for the local public. Access theory, as applied to broadcasting in prior Supreme Court cases provides a constitutional basis for this proposal. Current guidelines for PEG channels on cable television provide a workable, practical blueprint for citizen access to public radio. The potential of HD Radio to be used as a positive force for promoting localism can best be achieved with public radio stations providing public access to

broadcasting and production facilities, as well as access to a digital channel on their HD Radio spectrum for the creation and distribution of local content.

The intent of this dissertation is to provide a proposal that encourages public radio stations employing HD Radio technology to provide at least one digital channel for local public production and access. This is proposed in order for public radio stations to help foster the ideals and potential of broadcast localism as well as create a listening environment where local expression is encouraged and developed. When implemented this proposal will expand the public sphere and afford all individuals an opportunity to participate in public dialogue and democratic self-governance.

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LIST OF ACRONYMS

AAA	Adult Album Alternative
AM	Amplitude Modulation
AOR	Album Oriented Rock
CBS	Columbia Broadcasting System
CD	Compact Disc
CEA	Consumer Electronics Association
CIPA	Children's Internet Protection Act
CPB	Corporation for Public Broadcasting
DAB	Digital Audio Broadcasting
EAS	Emergency Alert System
FCC	Federal Communications Commission
FRC	Federal Radio Commission
FM	Frequency Modulation
IBOC	In-Band On Channel
KHz	Kilohertz
kps	Kilobits per second
LPFM	Low Power FM
MHz	Megahertz
NAB	National Association of Broadcasters
NBC	National Broadcasting Company
NPR	National Public Radio
NRSC	National Radio Systems Committee
PEG	Public, Educational, and Government
RSS	Really Simple Syndication

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DEDICATION

In Memory of
Gerald Eugene “Bucky” Turner
1923-2003

Chapter One

OVERVIEW AND THE RELEVANCE OF LOCALISM IN RADIO

The recent development and implementation of HD Radio technology provides an exciting and challenging future for radio broadcasting in the United States. With its ability to provide multiple broadcast channels within the spectrum space of one analog signal, HD Radio provides a unique opportunity for stations to provide a wide range of locally diverse and relevant content. This opportunity becomes even more tantalizing when considering how public radio stations might use the technology. The ability to provide diverse local content is especially important for public radio since it has historically held a unique position within the American media landscape of providing information and entertainment to audiences that have traditionally been underrepresented and underserved by commercial media outlets. Public radio has come under fire in recent years however, for its perceived abandonment of its founding principles and for its catering to a narrow, yet more profitable audience in order to maintain financial stability.

In order to develop a proposal regarding the use of HD Radio technology by public radio stations so that they may provide locally diverse and relevant content, it is important to explore the characteristics of broadcast localism. Examining theoretical concepts and rationales of localism as well as its previous regulation provides a deeper understanding of its background and a better understanding why prior attempts to foster localism have not been successful. This exploration of broadcast localism is necessary if a new method of achieving it through the use of HD Radio technology is to be implemented.

In addition to examining the conceptualization and history of localism, this dissertation provides an analysis of the radio industry from the political economy perspective. This analysis

provides a deeper insight into the economic and regulatory forces that direct the industry towards the consolidation of ownership and leads to the commodification and categorization of listeners as consumers instead of citizens. This form of analysis demonstrates why some audiences are regarded more highly than others.

An analysis of the conceptualization of the public is also necessary. Analyzing the public determines how individuals with common interests are able to come together to discuss and debate the issues that are most relevant in their lives and demonstrates the importance of localism in political and cultural life.

Until now all attempts to regulate and foster localism have used methods ranging from mandating station and studio location and the percentage of local programming, to ascertainment of local needs and interests. All of these methods were attempts by the FCC intended and designed to enhance localism indirectly through local station management. None succeeded, in large part because they all relied on a few individuals (station management) to decide what content would be appropriate to serve the needs of the entire community.

A significant part of a new operationalization of localism must focus on more direct methods such as providing direct public access to the broadcast airwaves. This allows the local community to determine and provide content that meets the needs and interests of local listeners. Under current First Amendment jurisprudence public radio stations could be required to provide public access to the airwaves as well as to broadcasting facilities and equipment. Access theory, as applied to broadcasting in prior Supreme Court cases provides a constitutional basis for this proposal. Current guidelines for PEG channels used by cable television provide a workable, practical blueprint for citizen access on public radio. The potential of HD Radio to be used as a positive force for promoting localism is best achieved with public radio stations providing public

access to broadcasting and production facilities, as well as access to a digital channel on their HD Radio spectrum for the distribution of local content.

The intent of this dissertation is to present a proposal that encourages public radio stations employing HD Radio technology to provide at least one digital channel for local public production and access. This is proposed in order for public radio stations to help foster the ideals and potential of broadcast localism as well as create a listening environment where local expression is encouraged and developed. When implemented, this proposal will expand the public sphere and afford all individuals an opportunity to participate in public dialogue and democratic self-governance.

Methodology

The findings in this dissertation are based primarily on qualitative research methods, ranging from historical research to legal textual analysis and the examination of current industrial trade journals and press releases. Cresswell (1998) notes the qualitative approach is appropriate when a project requires sorting and analyzing large amounts of information and reducing them to several themes or categories. More specifically, when conducting social or human research that does not have “firm guidelines” and is constantly changing or evolving, qualitative methods are the most useful (Cresswell, 1998).

Much of the methodology in this dissertation also relies on the political economy approach. This approach concerns itself with studying the social and power relations that make up the production, distribution, and consumption of resources (Mosco & Reddick, 1994) and is used in this study to examine and discuss the relationships that exist within both commercial and non-commercial radio. This is done in order to demonstrate how both forms of radio are failing in their efforts to provide content that meets the democratic needs of local audiences and thus

helps to maintain a strong democratic polity. Specifically in regard to communications, political economy concedes that social change is pervasive and ubiquitous and that social structures and institutions are in a constant state of growth, change, and development (Mosco & Reddick, 1994). The political economy approach is necessary in order to demonstrate how the continuous overarching system of government legislation and corporate influence has affected the radio industry since the 1920s. The political economy approach demonstrates how changes in government policy and corporate pressure have dictated the development of localism regulation, public broadcasting, and public access, and directed each toward a focus on the marketplace and not on public service.

The historical research methods used for this dissertation include an examination of government documents and previous scholarly works pertaining to the development, creation, and operation of NPR and HD Radio technology. An examination of government documents and scholarly works pertaining to the history and evolution of localism and access regulation is also included.

Closely related to this historical methodology is the examination of government documents and court rulings through legal textual analysis. This is done in order to discover the various means used by the government to develop and implement localism and access policy. Legal textual analysis is also used to determine the legality of requiring public radio stations to provide open public access on a portion of their HD Radio spectrum.

Since this dissertation is concerned with the application and use of a relatively new form of broadcast technology, it is necessary to include information gleaned from personal interviews with radio historians and industry personnel, as well as the examination of radio trade journals, press releases, and news stories. Each of these practices provides deeper understanding of the

background and development of public radio as well as current and updated information regarding the implementation and use of HD Radio technology.

Each of these research strategies is supported by the political economy approach. Political economy rejects *essentialism*, which is the reduction of social, political, and economic practices into single and isolated explanations (Mosco & Reddick, 1994). As previously stated, political economy recognizes the continuous activity and changing of systems (including communications systems) and as such, takes a more holistic approach by drawing from areas such as historical research, legal analysis, and industry analysis in order to develop better understandings of trends, developments, activities, and systems (Mosco, 1996; Mosco & Reddick, 1994).

The triangulation of these various methodologies aids in the corroboration of evidence from a variety of sources (Cresswell, 1998; Ely et al., 1991; Erlandson et al., 1993). This process provides a deeper insight into the topics presented in this dissertation and enhances the validity and reliability of the findings presented here.

Research Questions

Cresswell notes that effective qualitative research is conducted through the expression of one central, overarching question with several sub-questions that are used to help guide the direction of the study (Cresswell, 1998). Sub-questions are generally presented in two sets, either individually or combined. One set is referred to as *issue* sub-questions which “address the major concerns and perplexities to be resolved” (Cresswell, 1998, p. 101). These are issue-oriented questions that are meant to tease out the problems and issues of a topic as well as present any complex and conflicting backgrounds that may exist.

The second set is referred to as *topical* sub-questions, which “cover the anticipated needs for information” (Cresswell, 1998, p. 101). Topical sub-questions focus on more specific issues to be addressed in the study and include direct questions that help provide a preview of what the reader can expect.

This dissertation follows Cresswell’s guide by asking one central question and providing several sub-questions from both the issue and topic sets that help direct the study:

Research Question: *Can public radio stations use HD Radio technology to provide public access in order to improve broadcast localism?*

From this central question, several sub-questions emerge:

- *How have previous attempts at regulating broadcast localism failed?*

What previous attempts have been made at regulating broadcast localism? What methods have broadcasters used in their attempts to promote localism? Are there any common traits among previous regulatory attempts? This discussion examines previous attempts at regulating localism and addresses a common trait among them that has ultimately led to their ineffectiveness.

- *Is there a way to improve the methods used to achieve the goals of localism?*

What are the political and cultural goals of localism? Why is localism important? Is public access a better method of promoting localism and meeting the needs and interests of citizens? Can public access provide a decentralized, less paternalistic environment where the goals of localism can be better met? The proposal in this dissertation focuses on the potential of providing public access on the HD Radio spectrum in order to better serve the informational and entertainment needs of the local public.

- *What are the potential uses of HD Radio technology?*

How does HD Radio technology work? How can it provide multiple channels for public use? This discussion examines the technological characteristics of HD Radio technology and provides several examples of how it can be used to provide multiple channels of content.

- *Why is only public radio considered for this proposal?*

What are the historical philosophies and missions of NPR? Have they changed since 1967, and if so, how? Can this proposal be applied to any form of non-commercial radio including religious, community, and college stations? Why are commercial stations not considered in this proposal? What are the institutional characteristics and social and power relationships that exist in commercial radio, that make it incompatible with this proposal?

- *How can public radio stations be encouraged to provide access?*

What are the legal concerns that emerge by requiring public stations to provide an open access channel? Can public stations be legally required to provide open public access on a portion of their HD Radio signal? This examination discusses the legality of access requirements and addresses the issue of tying federal funding to station participation.

- *What is meant by “access”?*

How has public access historically been legislated? Does public access through cable television offer a blueprint for public radio? What are some of the conditions that stations can employ to help regulate access? How may content be edited or censored? This review examines the regulatory development of public access through cable television and applies the results as an example for application in public radio.

- *What is meant by the “public”?*

Can radio be considered an appropriate platform for creative public expression? What might be the role of counterpublics in this proposal? This discussion examines the concept of the public sphere and considers how providing public access leads to a greater exchange of information and cultural material.

Public Radio In The United States

For the purposes of this dissertation, “public radio” refers exclusively to NPR and its member stations, although policy suggestions can also apply to other forms of non-commercial radio such as LPFM, college radio, religious stations, and community stations. NPR is considered exclusively for this project since it is the largest non-commercial public radio network in the United States and has the potential to reach over 92% of the entire radio listening audience in America (Kiger, 2001; Cappello, April 20, 2002). NPR estimates that its 860 member stations reach over 27 million listeners per week (National Public Radio, 2009). In addition, NPR was founded in part as a means of providing diverse content to local audiences that traditionally were not served by commercial media (Siemering, 1969; McCauley, 2005).

Several critics argue however, that NPR has abandoned its founding principles in order to emphasize financial stability over public service (McChesney, 1997; 1999; Ledbetter, 1997; Barsamian, 2001). Decreases in government funding combined with a near catastrophic financial collapse in the early 1980s led to the reliance on corporate and private funding in order to survive. Changes in funding sources led to changes in programming and the coverage of news and cultural events. These changes ultimately led to the NPR’s drive to cater to a narrow yet profitable audience, while at the same time excluding others simply because they weren’t as profitable (Barsamian, 2001; Ledbetter, 1997).

Despite NPR's programming focus that caters to smaller audiences, public radio still provides the best environment for the development of a new method of localism that focuses on access. The founding principles and guidelines of NPR provide an excellent grounding for this new application especially when combined with the technological capabilities of HD Radio.

In order to better illustrate the advantages and disadvantages of public radio over commercial radio, the current state of the public radio system is discussed in chapter two. This discussion shows that even though NPR operates similarly to commercial broadcasting in regard to targeting specific audiences and providing mainstream, "safe" content (McChesney, 1999; Barsamian, 2001; McCauley, 2002), it provides better options for providing public access than commercial stations. In order to ensure that NPR and its member stations use HD Radio as an open platform for citizen production and participation, chapter two calls for public broadcasters to return to the purpose and principles of the original intent of the Carnegie Commission report that led to the development of the Public Broadcasting Act of 1967 (Siemering, 1970; Napoli, 2001; PBPB, 1999).

Why not commercial radio?

Considering the political economy perspective, the proposal discussed in this dissertation cannot consider commercial radio as a viable option for its application and success. Political economy studies the social and power relations that affect (and are affected by) the production, distribution, and consumption of resources, including communications resources. Previous political economy research of the communications industry shows that the primary goal of commercial media is to maximize profit as much as possible. The maximization of profit is best achieved through commodification, which is:

the process of taking goods and services that are valued for *use...* and transforming them into commodities that are valued for what they can bring in the *marketplace* (Mosco & Reddick, 1994, p. 19, emphases added)

Specifically in regard to radio, commodification of the listening audience is a common practice. Audiences are regarded as “products” which are aggregated, sold, and delivered to advertisers as consumers rather than as a citizenry with social and political needs. Research by Wasko (2001), Bednarski (2003), Bagdikian (2000), Bettig and Hall (2003) and McChesney (1997, 1999) all conclude that commercial media in the United States are too centered on the maximization of profit through consolidation of resource and commodification of audiences, and are not capable of serving the needs of democracy.

While commercial radio has always had a difficult time serving the public interest, the problem has gotten worse since the passage of the Telecommunications Act of 1996, which dramatically deregulated commercial radio in the United States (McChesney, 1999, 2001, 2004; Bettig and Hall, 2003; Bednarski, 2003). In a move to strengthen their hold on media outlets and improve their financial standings, broadcasters lobbied the government to approve legislation that relaxed many previous ownership limits and made it easier for one entity to own multiple stations both within a market as well as nationwide (Bagdikian, 2000; Bettig & Hall, 2003; McChesney, 1999, 2004; Bednarski, 2003). The 1996 Act eliminated all caps on national ownership and allows an owner to hold up to eight radio stations in a single market with 45 or more commercial stations. It also allows an owner to hold up to seven stations in markets with 30 to 44 stations, six stations in markets with 15 to 29 stations, and five stations in markets with fewer than 15 stations (Davie & Upshaw, 2006; Bednarski, 2003). These relaxed caps have led to the concentrated ownership of stations in many markets. In Birmingham, Alabama for

example, five of the 22 stations licensed in the market are owned by Clear Channel Communications and six are owned by Cumulus Media. In Harrisburg, Pennsylvania where eleven stations are licensed, Cumulus and Citadel Broadcasting own three each and five are owned by Clear Channel (Who Owns What, 2009).

This trend of concentrated corporate ownership is not a new phenomenon. The 1996 Act merely strengthened the hold of corporate ownership and further propagated the notion that commercial media are the best arbiters of determining the most relevant content for the public. Ever since the FRC passed the Radio Act of 1927, corporate media have been allowed to dictate how the airwaves will be used in order to drive policy that ultimately benefits their financial pursuits rather than the public good (McChesney, 1993, 1999). This has led to the exclusion of “alternative” or “fringe” programming on commercial outlets because they are not as profitable as programs that appeal to mainstream audiences (McChesney, 1999, 2004).

In this regard, content is also seen as a “product” that is used to attract listeners to particular stations and formats, which leads to exposure to advertising. An increase in the size of the audience of a specific format is viewed as a financial success and leads to entrenchment of that format in local markets as well as copying by other stations looking to cash in on the current hot trend (Ahlkvist, 2001; Bednarski, 2003). The pursuit of profit also leads to a reduction of local programming since it tends to be more labor intensive and is generally more expensive to produce than obtaining the broadcast rights to syndicated or network programs. As a result, commercial media tend to provide small amounts of local programming in an effort to minimize costs and improve their financial health.

Group owners are also consolidating their production facilities in order to keep expenses down (Smith, 2001; Boehlert, 2001). Production techniques including voice-tracking¹ and heavy reliance on network-produced, syndicated material has led to an environment where many stations across the country sound very similar to others. Voice tracking and consolidation of facilities also lead to downsizing production staff and personnel, thus affecting employment opportunities within the industry (Boehlert, 2001; Lee, 2002).

Sometimes the effects of concentrated ownership go beyond the content provided on the radio. In Houston, Texas for example Clear Channel Communications owns five stations; KODA, an FM adult contemporary station; KHMV, an FM “Hot” adult contemporary station; KLOL, an FM hard rock station; KTBZ, an FM alternative rock station; and KTRH, an AM talk station (Who owns what, 2009). Each of these stations (except for KTRH) plays some form of rock music and was ranked in a top 10 list of most listened-to stations in March of 2008 (KMJQ leads in Houston, 2008). What makes this instance notable is that Clear Channel has essentially cornered the rock music format in Houston not only by offering it on four of the top ten stations, but also by offering as many different forms of the genre as possible. This creates an exclusionary environment where any chance of starting up a new rock station is immediately threatened due to the control of the format already in place.

To expand further on Clear Channel’s domination of media content in Houston, a look into their other holdings shows they have the potential to control other facets of distribution and exhibition. Clear Channel also owns and operates approximately 200,000 outdoor billboard signs across the country, with signage in 49 of the top 50 U.S. markets, including Houston (Clear

¹ “Voice tracking” is the process where announcements are pre-recorded and played back at a later time, under the guise of live programming. Many times voice-tracked productions are made outside of a radio station’s local area by a third party, and then programmed on a local station under the guise of live and local programming (White, 1987). Examples of pre-recorded content include weather forecasts, listener call-ins from another city, and general announcer banter (Lee, 2002).

Channel outdoor fact sheet, 2009). In addition, Clear Channel owns Live Nation, an online site that informs users of upcoming concerts in their area and allows them to purchase show tickets. Separately, these entities seem innocent enough and could be viewed as Clear Channel “covering its bases” through responsible diversification. Combined however, this scenario creates a situation where Clear Channel owns a virtual lock on the distribution and exhibition of rock music performances in Houston. Hypothetically an artist can be highlighted on a Clear Channel station, promoted on a Clear Channel billboard, scheduled for a concert in Houston and have tickets to the show sold through Clear Channel-owned Live Nation at a number of venues in the greater Houston metropolitan area, including the Cynthia Mitchell Woods Pavilion (one of the largest outdoor concert venues in the country), which is also partially owned by Clear Channel. In this scenario Clear Channel gains a commanding share of profit ranging from radio airplay to ticket sales and revenue generated from concert attendance.

This illustrates the potential damaging effect consolidation and commodification can have on the diversity of expression within a local market area. Similar to the situation of startup rock stations trying to break into the local market, local artists who operate outside of the Clear Channel network face an exclusionary environment where breaking in is extremely difficult if not impossible (DiCola & Thomson, 2002).

Concentrated ownership not only affects the diversity of entertainment in local markets, it also harms the ability to provide basic public service in the event of a local emergency. In a well-known case involving Clear Channel, the inability to activate local emergency notification systems led to tragic results. On January 18, 2002, a middle-of-the-night train derailment spilled over 300,000 gallons of anhydrous ammonia in Minot, North Dakota, which led to one death and over 300 injuries. The city’s local EAS was supervised and operated through the six radio

stations owned at the time by Clear Channel. When local safety officials could not activate the EAS from their offices they called every station only to discover that each was operating on automated systems with no human operator. The emergency messages were delayed, thus putting many of the area's citizens at risk (Cappello, February 7, 2003; Democracy Now, 2007). While there is no guarantee that this disaster would have been averted had Minot's six radio stations been independently owned, the incident does illustrate the harmful effects that consolidated and remote ownership of stations can have on a local community (Lee, 2003).

While many commercial stations will use the extra channel space made available by HD Radio to provide multiple streams of content, trends indicate that the content will continue to be very similar to what is currently found on the air. As previously stated, commercial stations are managed and programmed first and foremost to maximize profit and will arguably use their available channels to continue to develop programming that appeals to audiences that are highly targeted by advertisers. This will result in the continued reliance on safer, mainstream formats for their HD Radio channels (Ramsey, 2005), and a brief look at the content provided by commercial stations on their HD Radio channels in Pennsylvania indicates this is happening. Of 74 commercial stations employing HD Radio technology at the beginning of 2009, 46 were broadcasting mainstream rock music or some variation of the format (classic rock, AOR, modern rock, etc.) on their digital signal. Only one station (WRRK FM in Pittsburgh) openly promoted itself playing "Local Artists" on its HD Radio channel (iBiquity Digital Corporation, 2009).

Through commodification, concentrated ownership, and providing content that appeals only to selected segments of the population in order to maximize profits, commercial radio does not do an adequate job of serving the local public in providing for its local needs and interests. The commercial imperative to improve the bottom line overtakes any consideration of public

service, and for commercial radio, public service becomes relevant only when it becomes profitable. Although critics argue public radio currently operates much in the same way as commercial radio in regard to attracting a profitable audience (Barsamian, 2001; Ledbetter, 1997; Morse, 1990), the basis of its formation in the late 1960s and early 1970s and its noncommercial status puts it in a better position to use HD Radio technology to provide community access and promote localism.

The Public

Since the proposal in this dissertation centers on public radio providing public access, it is important to examine and consider the concept of the “public” in order to better understand the purpose of the proposal as well as its guidelines and suggestions.

In *The Structural Transformation of the Public Sphere*, Habermas (1962) discusses the rise and fall of public “spheres” that formed as a result of the economic, social, and political changes that occurred throughout Europe in the seventeenth and eighteenth centuries. A general liberation of cultural and state customs, combined with advancements in literacy and technology as well as the restructuring of personal capital and resources led to opportunities where members of the emerging middle class could openly gather and discuss issues of common interest in public places (Habermas, 1962; Calhoun, 1997; Fraser, 1997).

The public sphere takes the form of an area where “political participation is enacted through the medium of talk. It is the space in which citizens deliberate about their common affairs”, which becomes an “institutionalized arena of discursive interaction” (Fraser, 1997, p. 110). Examples of public spheres included businessmen in Great Britain gathering to discuss matters of trade, to literary critics meeting in French salons to discuss current art trends, to “table

societies” in Germany where academics met to discuss politics and religion (Habermas, 1962; Calhoun, 1997).

Public spheres shared several common characteristics. To begin, group members met informally and engaged in “social intercourse” that tended to disregard the educational or social status of participants (Habermas, 1962, p. 36). Second, rational argument was considered to be the sole arbiter of an issue, regardless of the background or status of the speaker who provided it. Third, any topic was debatable within the public sphere. The public sphere was intended to be a place separated from the state and the market and as such, restrictions and penalties directed from these entities regarding discussion topics were not considered. Finally, inclusion was considered essential for the sustainment of existing spheres and the development of emerging publics. Any person who could gain access to both knowledge and to the location where group members met could participate (Habermas, 1962; Calhoun, 1997; Fraser, 1997). These characteristics of the public sphere made it an optimal space for democratic associations to form and allow the unfettered exchange of information and cultural experiences to take place. The public sphere gave its members the opportunity to enlighten and emancipate themselves from the constraints of the market and the state (Calhoun, 1997).

Scholars and critics have noted several flaws with Habermas’ conception of the public sphere including the exclusion of individuals based on gender or ethnicity (Landes, 1988; Eley, 1997), and by questioning the ability of public spheres to remain immune from market and government influences (Calhoun, 1997). Seventeenth and eighteenth century Europe was not the easiest place for women and persons of color to gain access to the larger mainstream public spheres. Persons who could not gain physical access to specific public spaces for reasons ranging from socio-economic status to physical impairments were also not given opportunities to

participate (Fraser, 1997). While Habermas attempted to describe a space where middle-class citizens of all backgrounds could gather and discuss the prevalent issues of the day, his conception fell short in the assumption that everyone would be able to participate (Calhoun, 1997; Fraser, 1997; Landes, 1988; Eley, 1997).

Although the larger, overarching public sphere can be exclusionary, this trait has led to the positive results of creating counterpublics or gatherings of minority and other marginalized communities in separate spheres. Counterpublics have served an important role in the democratic process by becoming strong voices for inclusion and acceptance within the overarching, general public. Examples of successful counterpublics that have emerged from exclusion by the larger public sphere include labor unions, prisoners' rights movements, women's suffrage campaigns, and gay rights movements (Fraser, 1997; Hauser, 2001; Brouwer, 2001).

The existence and growth of many smaller publics within the larger overarching public sphere can be difficult however, particularly if a society is stratified. In stratified societies the basic institutional framework of the society creates conditions where inequalities exist between various social groups and publics. These inequalities are generally expressed in terms of dominance and subordination and can lead to the exclusion of minority groups and their opinions. Although a stratified society creates inequalities, it is possible for a variety of "subaltern counterpublics" to successfully co-exist and interact within it (Fraser, 1997).

Radio is a stratified system. Perceptions and expectations differ between commercial and public stations. Commercial radio is often perceived as more professional than public radio in regard to factors such as on-air presentation, programming, and production (McChesney, 1993; Barsamian, 2001; Ledbetter, 1997). Within the public radio industry itself, stations in larger

markets are seen as better than smaller stations. Many major public radio programs (*Marketplace* and *On the Media* for example) are produced by a handful of large market public stations and broadcast on a large number of smaller public stations that rely on this programming to help fill out their on-air schedules (Ahlkvist, 2001; Albarran & Pitts, 2001). These conditions and perceptions create a class system within the overall industry where public stations are viewed as second-class, and within the public radio industry where smaller stations are regarded as less relevant and unimportant (Barsamian, 2001; Ledbetter, 1999; McCauley, 2005).

Although these perceptions decrease the importance of public broadcasting in the eyes of the radio industry, it is important to note that the stratified system of radio provides opportunities for subaltern counterpublic stations to exist. Walker (2001) documents the operation of “Kind Radio”, an unlicensed microradio station that broadcast from a neighborhood garage in San Marcos, Texas in the 1990s. Kind Radio produced a wide range of local content that could not be found on other area stations. Listeners heard coverage of city council meetings and interviews with city planners, as well as music ranging from jazz to reggae to Tejano. Talk shows on Kind Radio “stretched from the anti-authoritarian left to the libertarian right and covered several places in between: feminism on *The Estrogen Hour of Power*; patriotism on *Liberty Call*; marijuana, on too many shows to mention” (Walker, 2001, p. 2). Programs produced by local gang members and prisoners were also broadcast on Kind Radio in the mid-1990s (Walker, 2001)

Fairchild (2001) documents the operation of CKRZ, a Canadian radio station that served the Six Nations and New Credit Indian reserves in Ontario. CKRZ produced many programs that appealed to the indigenous peoples of the area and provided access opportunities for many

local individuals who wished to participate on the air. Discussion topics on the station ranged from religion, to health news and information, and tribal music and storytelling (Fairchild, 2001).

It is important to note that while these stations serve valuable purposes in their local areas and therefore help enhance localism, their reach pales in comparison to NPR stations, which cover the entire nation but provide little meaningful local content. If National Public Radio member stations truly wished to live up to their name, they would provide a platform similar to Kind Radio and CKRZ for cultural expression and the exchange of information within their local communities. Doing so would help drive radio away from its current stratified system to a more egalitarian one, where class distinctions between people and stations would become non-existent and any individual or group would be provided with the opportunity for expression.

Where Habermas focuses on the creation and transformation of public spheres, Dewey (1927) centers on the problems the public has in regard to its identity and its purpose. For Dewey the public begins at the local level, where persons learn the value of citizenship, democracy, education, industry, and tradition. Persons learn more detail about democratic processes and the importance of their role in it at the local level than they do at the state or federal level (Dewey, 1927; Campbell, 1998). Dewey argues that humans are inherently social creatures who “need groups to *become* human” (Campbell, 1998, p. 24), and claims that in many instances individuals participating in local community activities discover their true selves due to the relationships they forge through their involvement with others in their community (Campbell, 1998).

Changes in bureaucratic practices, as well as the advancement of the nation-state in the early 20th century led to a decreased focus on local communities, which in turn led to a decrease in local interaction and activities. In addition, advancements in communication technologies that

erased time and space barriers, coupled with changing cultural tastes that hastened their implementation, did not consider the imperative idea that local communities were still relevant and necessary for the continued growth of a strong democracy. This has led to confusion on the part of the public in regard to what it needs to know and what it doesn't know it needs to know. For Dewey there is "too much public"; the public is so diffused and scattered in regard to its interests and goals that it cannot know what it wants or needs (Dewey, 1927). This scattering and diffusion has led to confusion, indifference, and apathy on the part of the public.

Both Habermas and Dewey blame the influences of big business and corporatism as a primary reason for the fall of the local, interactive public. The demise of the public began when private organizations assumed public power and the "state penetrated the private realm" (Calhoun, 1997, p. 21). The state and the private realm became intertwined and thus difficult to distinguish from one another, which led to the creation of a consumer class in Europe during the late 18th century and throughout the 19th century. This led to the loss of general, objective topics of interest between members of the public, which fragmented the public and made it more susceptible to advertising and the creation of a consumer class (Calhoun, 1997, p. 26).

In sum, the public can be described as fragmented, confused, indifferent, materialistic, and self-centered. It has been compromised by corporate interests that regard individuals and groups more as consumers than as citizens. This has led many people to abandon their ideas of local involvement and participation, which democratic society requires in order to exist. Changes in communications technology as well as cultural and social customs regarding their use have created environments where face-to-face communication (a basic requirement for local interaction and the exchange of information) is practically non-existent and citizens know more about national items of interest than they do local.

According to Dewey, the way to create a more active and local public is to create a system for its members to express their shared experiences with each other. Doing so creates a better understanding between the various individuals and groups that inhabit the public and creates opportunities for the exchange of information and cultural material. Interestingly, while Dewey criticized the effects of mass communications technology on the localized public, he also believed it could be used as a powerful tool to help reconstruct it:

We have the physical tools of communication as never before. [But] the thoughts and aspirations congruous with them are not communicated, and hence are not common. Without such communication the public will remain shadowy and formless, seeking spasmodically for itself, but seizing and holding its shadow rather than its substance. Till the Great Society is converted into a Great Community, the Public will remain in eclipse (Dewey, 1927, p. 142)

Providing communication opportunities in local communities has the potential to lead to the creation of “social critics” (Campbell, 1998). Using Dewey’s theories and observations of the public as a guide, Campbell notes that “good” social critics are not only engaged in the activities of their community, but they also see problems within it as well as possible solutions. Social critics attempt to convey this information to the overall public, not to necessarily criticize, but to raise awareness and lead toward the crafting of solutions:

If successful, social critics make the community a richer place by causing it to confront and overcome the contradictions between its values and its current practices. A central point in this community building is the process of discussion that makes social growth happen. The effective social critic thus attempts to justify preferred social proposals through interaction with others, and through this process of cooperative inquiry we discover together values upon which we can build (Campbell, 1998, p. 29)

The proposal discussed in this dissertation appeals to Dewey’s solution. One method of disseminating shared experiences is to provide open public access via the mass media. At the local level especially, this is best achieved through the use of broadcast radio. The creation of a

local public sphere through broadcast radio that is free of commercial influence provides an opportunity for the free exchange of ideas and information that would help local individuals and groups discover their “true selves” and become more knowledgeable about their local communities.

Background Of Broadcast Localism

History has shown that while defining the rationales and concepts of broadcast localism can generally be agreed upon, methods of *achieving* its goals have been difficult and have regularly led to vague and confusing results (Stavinsky, 1994; Napoli, 2001). This includes previous attempts such as regulating ascertainment (FCC, 1971), mandating the physical location of studios and facilities (FCC, 1987), mandating the amount and type of programming on stations (FCC, 1976) and relying on market forces to determine locally relevant programming (FCC, 1984). Localism policy has primarily been characterized as a “top-down” process that relies on structural regulations and station management to determine how the needs of local communities are best served. This process is paternalistic and has been ineffective in regard to using the mass media as a tool for the promotion of localism. Even formal ascertainment, with its intended purpose of discovering the needs of local communities, forced a handful of individuals to judge the needs and interests of thousands and sometimes even millions of diverse individuals.

At the core of the new operationalization of localism discussed in chapter three is an emphasis on citizen participation and access. This creates a “bottom up” form of localism that allows local citizens to express their own needs and concerns rather than relying on the federal government or station managers to guess and try to interpret them.

The Legality Of Access

In order to encourage public radio stations to embrace a more expansive concept of localism, this dissertation proposes that Congress amend the Public Broadcasting Act so that the amount of federal funding provided to public stations is conditional upon their using HD Radio technology to provide at least 24 kps of digital bandwidth for local public access. In addition, stations that choose to provide spectrum space would be required to provide access to the broadcast and production facilities necessary for local citizen participation.

Proposing regulation that determines how public stations must use their spectrum space and equipment is controversial at best and runs the risk of going against many First Amendment defense claims made by broadcasters. Chapter four addresses these concerns by first outlining access theory as developed by Jerome Barron (1967) and then analyzing key Supreme Court cases to demonstrate that this proposal would likely pass constitutional muster. Access theory challenges the commonly held argument that the mass media should have the right to deny access to “unorthodox” opinions and entertainment. Access theory is relevant because it provides a theoretical grounding for the specific guidelines of this proposal. While the Supreme Court has held that access requirements are unconstitutional when applied to print media (*Miami Herald v Tornillo*, 1974), the Court has held broadcasting to a lower standard due to the scarcity of frequencies and the need for government licensing (*Red Lion Broadcasting Co. v Federal Communications Commission*, 1969). This ruling, along with others discussed in chapter four, provides a reasonable foundation that public broadcast stations can be required to provide access to citizens and groups. However the proposal in this dissertation calls for voluntary and not mandated station participation. Relying on voluntary compliance ensures this proposal faces

reduced scrutiny with regard to First Amendment protections, and would thus be even more likely to pass constitutional muster.

Establishing the legality of mandated public access in broadcasting requires an examination of several Supreme Court rulings that have evaluated the issue, including *Red Lion* as well as *National Broadcasting Company v United States* (1943), and *United States v. American Library Association* (2003). These cases offer potential solutions to the legal issues that might surround this proposal's stipulation that public radio stations should provide access to the airwaves through the use of HD Radio.

Understandably many public stations would be resistant to such a proposal and refuse to participate. In that event the reservation of digital channels could be enforced through the withholding of federal funds for station operations. This approach was found constitutional in *United States v. American Library Association* (2003), which conditioned federal funding to public libraries based on their compliance with federal guidelines. This dissertation proposes legislation that would reduce or eliminate CPB funding to individual public radio stations that do not comply with this proposal. Again, it is imperative to note that the proposal made in this dissertation does not *require* public radio stations to provide open access. Instead, it calls for voluntary participation, with continued CPB funding used as an incentive to do so.

HD Radio Technology

HD Radio is the American version of DAB, which is different than the Eureka 147 model used in many other parts of the world (Bower, 1998; BBC R&D, 2002). The development of a DAB standard in the United States led broadcasters to create a system that would be simple for listeners to use, and would continue the use of frequencies currently used for FM and AM broadcasting (88 MHz to 108 MHz and 530 kHz to 1700 kHz respectively). After several years

of industry testing, the FCC approved the HD Radio system – then known as IBOC – as the DAB standard in the United States (FCC, 2002; Stimson, 2003; Smith, 2005; Manes, 2006). HD Radio receivers were introduced into the consumer market in January of 2004, with the purchase of the first consumer deck soon after (Tham, 2004; First HD Radio sold, 2004). Since 2002, HD Radio growth has been steady among stations with over 1,900 HD Radio stations on the air nationwide as of this writing (iBiquity Digital Corporation – Find a Station, 2009a).

Persons wishing to listen to HD Radio must purchase a new receiver capable of tuning in the digital frequencies. The current cost of an HD Radio receiver runs approximately \$50 to \$500 depending on the features of the receiver. In an effort to encourage listeners to purchase receivers, iBiquity Corporation (the sole provider and patent holder of HD Radio technology) teamed with eBay beginning in 2005 to provide incentives for persons who sold their old analog radios and used the proceeds to purchase HD Radio sets at reduced prices (iBiquity Digital launches HD Radio upgrade program, 2005; Logan, 2005).

HD Radio works by digitizing a station's analog signal. The digitization process allows stations to partition their signal and use these sections to provide digital simulcasts of the programming on their analog channel. Through a process known as multicasting, stations may also provide content that is different from their main channel content on their digital signals. Broadcasters first realized the potential of multicasting in 2005 when WAMU FM in Washington, DC broadcast the Supreme Court nomination hearings of John Roberts on the station's digital HD Radio channel ("WAMU2"). While WAMU FM was providing its regular programming on its analog channel, WAMU2 successfully provided coverage of the hearings on one of the station's digital channels. The test was the first in which an HD Radio station was able to multicast different content on different channels (Terry, 2005).

Unlike digital television in the United States, the FCC has not established a sunset date for analog radio. Stations may upgrade to HD Radio at their leisure (FCC, 2002), and the radio industry has thrown its full support behind the development and implementation of the technology, with Clear Channel, Emmis Communications, and NPR pledging their support to promote it (Li, 2005).

The technical ability of HD Radio to digitize a station's broadcast spectrum and thus create multiple channels in a space where previously only one could exist is discussed in further detail in chapter five. Chapter five also presents the technical differences and advantages of HD Radio and provides examples of how alternative programming can be offered, thus providing the means for public stations to provide open access on a digital channel (Lockett, 2004; Taub, 2006; Hanson, 2003; Piccininni, 2005).

Proposal For Public Access

In order to successfully implement a new method of achieving localism, this dissertation calls for Congressional action to amend the Public Broadcasting Act so that public radio stations will be encouraged to provide open public access on a portion of their digital broadcasting frequency. Stations that choose to participate will continue to receive CPB funding while those that choose not to participate will see their funding reduced or eliminated.

In addition to providing access to the airwaves, participating stations would also be required to provide access to production and broadcast facilities. The most efficient way to mandate this requirement is to also call on Congressional action to apply PEG channel regulations to public radio stations. Part of the founding PEG regulations established by the FCC required cable operators to provide access to the equipment and facilities needed for production (FCC, 1969) and it would be necessary for public radio stations to be held to similar stipulations

now. Public stations that provide access to physical studios will continue to receive CPB funding to help defray the costs associated with maintaining and supervising production equipment.

It is important to note that at times open public discussion as proposed in this dissertation can lead to the expression of ideas and opinions that are “antidemocratic and antiegalitarian” (Fraser, 1997, p. 124). Opening public access on cable television for instance, has led to isolated incidents where racist material has been broadcast (*Missouri Knights of the Ku Klux Klan v. Kansas City*, 1989; *Nationalist Television v. City of Houston, Texas*, 1999)². Even though such content may be offensive to the majority of the public, Fraser argues its expression should be considered positive as it helps to “expand discursive space”:

In principle, assumptions that were previously exempt from contestation will now have to be publicly argued out. In general, the proliferation of subaltern counterpublics means a widening of discursive contestation, and that is a good thing in stratified societies (Fraser, 1997, p. 124)

In other words, the expression of alternative, unorthodox content on public access channels may include material that is offensive to some members of the general public. Even content such as this deserves the opportunity for expression however, because doing so places these opinions in the overarching public sphere where they can be deliberated and acted upon as the public sees fit. The silencing of opinions and ideas due to their offensive nature only harms democracy and prevents opportunities for the exposure of new or conflicting ideas. As John Stuart Mill noted in the mid-nineteenth century:

The peculiar evil of silencing the expression of an opinion is, that it is robbing the human race; posterity as well as the existing generation; those who dissent from

² While the specifics surrounding *Missouri Knights* and *Nationalist Television* differ, they share the common trait of censorship in regard to content. In both cases, white supremacist organizations had their attempts at providing content halted by local cable operators. Court rulings in both cases stated that operators did not have the right to censor content simply because they found it offensive or inflammatory.

the opinion, still more than those who hold it. If the opinion is right, they are deprived of the opportunity of exchanging error for truth: if wrong, they lose, what is almost as great a benefit, the clearer perception and livelier impression of truth, produced by its collision with error (Mill, 1859/2002, p. 18)

The free expression of opinions and ideas is central to the proposal presented in this dissertation. It is the contention of the author that every idea should have the opportunity for expression and that public access to broadcasting (in this case radio) can do this job effectively. The proposal presented in this dissertation encourages participating stations to provide access to all individuals and groups that request it regardless of their ethnic background, socio-economic status, or opinion.

Similar to PEG regulation regarding public access channels on cable television (FCC, 1969), public stations would not have the authority to censor speech on their digital public access channel. Stations would only be able to edit material if it ran afoul of the current broadcast standards regarding obscene and indecent speech, which the FCC said are still in effect and applicable on digital channels (FCC, 2002).

The Radio Industry Today

The proposal discussed in this dissertation is intended to help create a new operationalization of broadcast localism through the use of HD Radio technology. As an ancillary benefit however, it also intends to help radio remain relevant in today's media landscape. To illustrate the importance of radio and thus the relevance of this proposal, it is necessary to take a brief look at the current condition of the industry.

By 2009, 14,253 radio stations on the air in the United States. Of these, 11,213 were categorized as AM stations or FM commercial stations and 3,040 were categorized as "FM educational", many of them non-commercial, public stations. By comparison only 1,759

broadcast television stations were in operation at the time (FCC, 2009). It is estimated that 93% of all Americans over the age of 12 listen to the radio at least once a week, and 72% of all Americans over the age of 12 listen to the radio at least once a day. Americans over the age of 12 currently spend over 19 hours per week listening to the radio (Radio Advertising Bureau, 2007).

While these are impressive numbers, the tendency for Americans to rely on radio as a source of information and entertainment has leveled off and in some instances even begun to fall. While the average listener currently spends over 19 hours per week listening to the radio, that number has fallen from 22 hours in 1998. Further data from Arbitron verifies a downward trend in listening by measuring the decline in radio's *cume* since 1997³. From 1997 to 2005, radio's *cume* fell from just over 95% to 93.7% (Radio Today, 1998; 2006).

Although it is difficult to pinpoint exactly what has caused radio's decrease in listenership, programming strategies that have led to a loss of localized content, as well as technological competition that gives listeners more control over content are arguably two reasons that must be considered.

Changes In Programming Strategies

As previously mentioned, commercial radio has always relied on advertising as its main source of revenue, and as a result has always sought to attract the largest and most profitable audience possible (Davie & Upshaw, 2006; Albarran & Pitts, 2001; Bednarski, 2003; McChesney, 1993, 1999). This has led to tailoring programming that attracts the audience with the most disposable income and results in a relatively small portion of a station's local listening

³ "Cume" is short for "cumulative audience" and is defined as the *percentage* of persons age 12 and older that listen to radio at least once per week (Radio Today, 2006).

area being served with content that is relevant to its needs and interests (Ahlkvist, 2001; DiCola & Thomson, 2002; McChesney, 1997). Stations also maximize profit through cost-cutting measures, including the reliance on automated delivery systems and voice tracking, to scheduling syndicated and network programs on a regular basis (Albarran & Pitts, 2001).

The end result is ultimately a loss of localism, with increased listener dissatisfaction. In a recent nationwide four-year tour of the United States, the FCC discovered in a series of town hall meetings that radio listeners and television viewers were increasingly unhappy with programming decisions that were made to increase profit margins rather than provide local service (McConnell, 2004; FCC, 2008). From this perspective then, the decrease in listenership could be blamed on operational cost-cutting measures and dissatisfaction with programming that does not meet the local needs and interests of the public. Relying solely on this reason however, ignores the changes in technological competition that radio has faced recently.

Technological Competition

Radio faces greater technological competition for consumers than it ever has before. New technologies and delivery systems including the Internet, satellite radio, and podcasting have all been added to radio's more "traditional" competitors such as television, newspapers, and film. These new competitors give listeners much more control over the content they listen to and have arguably played a significant role in the recent decrease in radio listeners.

Satellite Radio

Satellite radio services such as XM and Sirius have provided substantial competition for broadcast radio. For an initial investment of approximately \$25 to \$300 for equipment, listeners pay at least \$12.95 a month on either network to listen to a wide variety of formats and genres. Both services provide standard radio fare ranging from mainstream music and news/talk

programming, to specialty channels that provide more eclectic programs (for example, XM has a Grand Ole Opry channel while Sirius offers a Grateful Dead channel). XM offers over 170 program channels to choose from while Sirius provides 130. In 2006, Sirius and XM acquired the talents of broadcasting legends Howard Stern and Oprah Winfrey respectively, to produce their own programs. For sports enthusiasts XM offers coverage of every Major League Baseball game for every team during the regular season while Sirius provides similar coverage of the National Football League (XM Radio – Fast Facts, 2008; Sirius Satellite Radio, 2008).

By 2006, XM had seven million subscribers with Sirius close behind at six million (Google Press Release, 2006; Investor Relations, 2006). The number of subscribers for both companies has increased every year since their launch in 2000, although it was not until 2006 that Sirius earned the first quarterly profit in its history (Investor Relations, 2006). While Sirius and XM do not currently command an audience share as large as broadcast radio it cannot be denied that broadcasters have felt their effects and feel the need to compete against it using HD Radio (FCC, 2002).

In 2008, based on continued economic shortcomings suffered by both companies, the FCC approved a merger between XM and Sirius to form one national satellite radio corporation. In 2009, Liberty Media extended a \$530 million loan to Sirius XM to help it avoid chapter 11 bankruptcy (Kang, 2009). Although it is too soon to determine the merger's effects on listenership and the overall future of the enterprise, it is safe to assume that satellite radio will remain an attractive option to listeners who wish to have more content to choose from than what broadcast radio currently offers.

The Internet

Online streaming of broadcast radio content predates satellite broadcasting. Since the mid

1990s hundreds of broadcast stations have streamed their signals online. Audio services such as Real Audio and iTunes have taken the lead in terms of overall online audio consumption, although smaller services such as Shoutcast and Pandora Radio are also very popular. These services not only provide listeners with content from thousands of stations around the world but also give them more control over the audio content they consume for either a minimal fee or no cost at all. Apple's iTunes, for example, allows users to download many audio and video podcasts for free and practically any song they choose for no more than \$1.29 each. The popularity of iTunes goes without saying; the service notched its one-billionth downloaded song in 2006 (Silverstein, 2006). Apple's iPhone service offers a wide variety of downloadable applications ("apps") that consumers can use to listen to practically any radio station they choose through their iPhone. Applications such as AOL Radio, Pandora Radio, and Tuner Internet Radio allow users to tune in to hundreds of stations from around the world and listen to them either through their iPhone or through a separate plug-in device with external speakers. The popularity of Apple's iPhone apps is staggering as well. Over one billion applications had been downloaded just nine months after the service became available to users (Rao, 2009).

Podcasting

Podcasting is a relatively new competitor for radio. A podcast is an audio or video file delivered via the Internet using RSS technology that can be viewed or listened to on a computer or a portable mp3 player such as an iPod or a Zune (Apple iTunes, 2009). Podcast listeners can choose from a wide variety of program topics and sources. Topics on the iTunes podcasting service for example range from political satire, to the President's weekly radio address, to self-help and do-it-yourself programming, to academic lectures. Unlike broadcast, satellite, or Internet radio, podcasting allows users to time-shift programs much like VCRs or DVR services

do for television. Many programs that are available on public radio stations are also available via podcast including *Democracy Now!*, *This American Life*, and *On the Media*. Another unique advantage that podcasting technology has over satellite and broadcast radio is that it allows anyone with the right equipment to produce their own programs and make them available for download.

Radio's Disadvantage

What these competing technologies have most in common with each other is their ability to place greater control over content in the hands of consumers. While broadcast radio provides a variety of formats and genres to choose from, it is extremely limited compared to downloadable music or listening to satellite or Internet radio. Podcasting not only provides an extremely wide variety of choices for listeners, it also gives them the option of listening to specific programs at any time they choose. Broadcast radio listeners are still at the mercy of owners and programmers who essentially choose the content and provide it when it is convenient. While there may be more broadcast radio stations than ever before, with the homogenization of content and formats many listeners feel as if they have limited choices.

Another competitive disadvantage for broadcast radio is the limited number of stations available for listening in any geographic market. While there are over 14,000 broadcast stations nationwide, at most only a few dozen are available locally. Satellite radio has at least 130 channels to choose from, with Internet radio and podcasting options easily numbering in the tens of thousands, and all available “locally” either through a satellite receiver or a computer.

Why Radio?

A valid concern regarding this dissertation is why broadcast radio should even be considered. With decreasing listenership, dissatisfied audiences, and a myriad of digital

technologies already in place that give listeners more control over a wide variety of content to choose from, why should research focus on how radio – public radio in particular – deals with issues such as localism and public access?

Part of the answer lies in radio's relevance to democratic and participatory ideals.

According to Robert McChesney, radio is:

...the quintessential people's medium. It is the least expensive medium to produce a quality product and the least expensive medium to receive. It is ideally suited to local, decentralized content and popular participation in production" (McChesney, 2001, p. v-vi).

These three factors - low comparative cost, inclusion, and localism – as well as a newly emerged fourth factor, HD Radio, are radio's greatest assets when it comes to competing for listeners today and providing them with access to the airwaves.

Low Comparative Cost

Compared to other forms of electronic mass media, radio is still the least expensive for both production and reception. Listening to broadcast radio requires a minimal investment in equipment, particularly compared to satellite or Internet radio and podcasting. Even with the initial higher price of an HD Radio receiver, the long term costs associated with radio listening are still arguably lower when compared to the monthly fees, activation fees, or contractual obligations associated with satellite radio or Internet access.

Radio is also less expensive to produce. Unlike Sirius XM, broadcast radio does not rely on the launch and use of multi-million dollar satellites to transmit a signal. The production of Internet radio and podcasting requires the acquisition of production equipment and content ranging from computers, to microphones, to sound mixers, to music, which can become

prohibitively expensive for some. Compared to television and video production, radio is clearly less expensive as there are no cameras, video editors, or specialized video processors to purchase. Overall, radio is an extremely low-cost solution for consumption and production when compared to other electronic media technologies. This is beneficial for marginalized individuals or groups that may not have the deeper economic resources needed to purchase specialized equipment. Radio's low comparative costs can assist in the dissemination of content among disenfranchised groups that may not have a better means of expressing themselves otherwise.

Inclusion

While radio offers more opportunities for public inclusion and participation than other forms of electronic media, historically it has been difficult to achieve and practice this feature partly due to a station's technical inability to provide multiple outlets or channels. The ability of HD Radio technology to provide multiple broadcast channels in the space where previously only one could operate, gives stations the opportunity to become more inclusive when it comes to public participation.

Localism

Broadcast localism is a critical component of broadcast regulation, and when combined with competition and diversity, form the basis of public service and social responsibility in broadcasting (Communications Act, 1934; Leigh, 1974; Napoli, 2001). Historically, broadcast localism regulation and legislation has been driven by two broad concepts. The geographic, point-of-origin concept is the most basic way to contemplate localism. Due in part to the licensing methods used by the FCC in regard to frequency location and signal strength, radio signals travel only so far before they lose their integrity. As a result, broadcast localism in the

United States has generally been regulated by the concept of its geographic point-of-origin of content (Napoli, 2001).

Although the geographic point-of-origin concept has remained prominent in broadcast legislation, the FCC has also attempted to regulate broadcast stations' localism efforts through more content-based efforts. This concept focuses on the ability of content to satisfy the needs and interests of broadcast audiences and does not concern itself with a program's point-of-origin, either in regard to where it is produced or its originating point of broadcast (Napoli, 2001).

Stavinsky (1994) and Napoli (2001) argue that a combination of both concepts creates the best form of localism that provides the greatest utility and service to local audiences in regard to meeting their needs and interests. Both of these concepts of localism, including previous legislative and regulatory efforts to encourage them are discussed in greater detail in chapter three.

HD Radio Technology

In addition to the three factors that make broadcast radio unique, the implementation and use of HD Radio technology must also be considered. Broadcast radio is the last form of mass media in the United States to digitize its delivery system (FCC, 2002), and admittedly this delay has led to a situation where radio finds itself in a "catch up" mode compared to other digital audio technologies. HD Radio technology finally provides broadcast radio with the ability to program and disseminate multiple channels of content where previously only one could exist. Based on the industry's late entry into the digital arena, HD Radio provides an opportunity for broadcast radio to regain some of the popularity it has lost over the years due to homogenization of content and technological competition. In order to be successful in this endeavor however, radio broadcasters – public radio in particular – must be willing to combine HD Radio

technology with radio's comparative low cost, inclusive traits, and local appeal if they wish to see the industry survive well into the 21st century.

The Relevance Of Localism

While the concepts of broadcast localism are important to consider, it is also necessary to consider the relevance of broadcast localism today. Although historically broadcast localism has not been debated, researched, or regulated as often as competition or diversity (Napoli, 2001) it still remains prominent topic of interest with the public. As previously mentioned, a recently concluded four-year nationwide series of town hall meetings held by the FCC demonstrated the importance of localism to the public and to broadcasters (McConnell, 2004; FCC, 2008). Additionally, the constant work of activist groups such as the Prometheus Radio Project, help keep LPFM broadcasting in the minds of legislators and the public (Prometheus Radio Project, 2009).

The FCC localism hearings, as well as the continued support of LPFM demonstrates the public's desire for broadcast media that provide content that is relevant to their needs and interests. As a result, further research and investigation into broadcast localism is warranted. Additionally, a new method of improving the operationalization of broadcast localism is a positive step toward achieving the results sought by the public.

Localism's relevance can be viewed through the perspective of two broad rationales. The *political rationale* is used to provide an environment for the discussion of political knowledge and ideas as well as for educating citizens about political processes and participation. Generally, the localization of political power has been considered a vital component of a stable republic, and since the media are acknowledged in many circles to significantly impact political

institutions it is argued that they should have a localized presence as well (Dewey, 1927; Napoli, 2001; Barber, 2003). In order to promote political education, activity, and debate among the citizenry, media outlets must operate within their local broadcast areas to provide communities with the relevant, locally oriented programming they need in order to make fully informed decisions and take appropriate actions. Only through the local level, can an individual “learn democracy” (Dewey, 1927) and only by providing local access can a broadcast station provide that type of learning opportunity (Pateman, 1970; Barber, 2003). In this regard, local media play a role in political education, engagement, and empowerment. This emphasis reflects an opinion that localized political activity affects an individual’s life more so than state or federal politics and that citizens have a greater impact on government and democratic processes at the local level than at the state or federal level (Barber, 2003; Dewey, 1927).

A second rationale of localism is concerned with increasing the knowledge and understanding of local cultures and customs. This *cultural rationale* encourages the creation of, participation in, and expression of cultural content by local citizens and groups (Napoli, 2001; Barber, 2003). It views localism as “essential to the presentation of unique cultural values and traditions within particular communities” (Napoli, 2001, p. 207), and it encourages stations to operate at the community level with minimal interference from outside sources or organizations. This is done in order to protect the cultural material of local areas including music, writing, and art from becoming homogenized or eliminated through the penetration of outside cultural forces. Although the cultural rationale appears to have a restrictive or protective purpose in this sense, its intent is to insure that local cultural activities and forms of expression will continue to exist (DiCola & Thomson, 2002; Napoli, 2001).

These rationales emphasize the importance of localism in regard to broadcasting. They also assist in the development of public spheres through the creation of environments that encourage open political debate and the exchange of cultural knowledge. Providing public access on HD Radio is the final ingredient that brings the possibility of creating robust, active public spheres much closer to reality.

As previously mentioned, the best way to achieve the goals and rationales of localism is to rely on public radio rather than commercial, for-profit stations. Public radio has a historical background that allows for the easier implementation of a new operationalization of localism to take place. It also has a better-established precedent of using its resources to provide service to disenfranchised and marginalized groups (Siemering, 1970; McCauley, 2005; McChesney, 1997; Fairchild, 2001) and therefore provides a better opportunity for a new application of localism to take root and grow.

Broadcast radio will never replace or eliminate competing technologies such as Internet radio, podcasting or satellite radio, but with the appropriate use of HD Radio technology to develop and foster localism through access, it will regain much of its lost popularity and become a leading option in the public's array of media choices. While this dissertation is sure to invite debate and discussion over the issues and concerns raised, at the very least it will provide a new perspective of broadcast localism and public access. Combining public access and HD Radio technology with the founding principles of public radio creates a new approach for the practical application of localism and insures that broadcast radio will remain relevant in the mass media landscape for many years to come.

In sum, the proposal presented in this dissertation develops a new operationalization of localism by encouraging public radio stations using HD Radio technology to provide public

access on one of its digital broadcast frequencies. This proposal is necessary to help foster the ideals of broadcast localism so that the exchange of information and cultural material can take place in a public environment for the benefit of the citizens living within a station's local area. Democracy operates best at the local level and radio, with its inherent qualities that make it the best form of local media, provides the best forum for open debate and discussion that democracy desperately needs. This forum is best found on public stations using HD Radio technology rather than commercial stations. Public radio was created specifically as an alternative to commercial broadcasting so that the technology could be used for the development and exchange of localized content that appealed to marginalized and disenfranchised audiences.

The political economy approach demonstrates that commercial radio's focus on profit maximization is antithetical to democracy and the creation of public spheres due to its inherent nature of turning individuals into consumers rather than citizens. Consolidation and commodification of audiences and content have only hastened commercial radio's demise and current trends indicate that it will use HD Radio technology as a means of continuing its pursuit of profit while leaving public service ideals, including localism, behind.

Although public radio has a history of appealing to marginalized and disenfranchised audiences, it has recently failed in this regard due to its fear of offending corporate and government sponsors. Public stations must be willing to return to the founding principles of public broadcasting that openly advocated providing relevant content to local and underrepresented audiences.

Previous FCC attempts to regulate broadcast localism have failed due to their predilection of creating patriarchal, "top-down" models that rely on a small number of people to determine the needs and interests of local audiences and then provide programming that fulfills them. This

is an impossible task, as it requires the small groups of decision makers to be constantly knowledgeable about the needs and interests of diverse groups that live within a station's broadcast area, respond to any changes within the groups, prepare for the introduction of new groups into the local area, and provide content that meets all of those needs and interests.

The best solution to this challenge is to place the control of providing content into the hands of the local public. This requires providing public access to a digital HD Radio channel on public stations currently using the technology. HD Radio technology provides stations with the technical capability to provide multiple channels on a licensed radio frequency, where previously only one could exist. Supreme Court decisions regarding public access in broadcasting provide the precedents for requiring public radio stations to set aside a portion of their HD Radio channel for open public access. The constant popularity of LPFM and public access channels on cable television systems demonstrates that public is interested in local content and would be willing to participate in its production. The best method of implementing public access practices in public radio is to employ the model used by PEG channels on cable television systems. Cable PEG regulation provides a template for the successful implementation of this proposal, particularly in regard to content and management.

This dissertation explores these issues in order to propose a reliable, valid operationalization of localism that can be used to better serve the needs and interests of the local publics served by public radio stations. A better operationalization of localism leads to opportunities for members of local publics to enlighten and enrich their lives through the open exchange of information and ideas.

Examining the founding and current principles of public radio in the United States is critical to crafting this new operationalization of localism. The next chapter provides a look at the history and current status of public radio, and NPR in particular.

Chapter Two

NATIONAL PUBLIC RADIO

This chapter provides an overview of the creation and development of NPR and examines the network's founding and current philosophies and principles. An historical look shows that over time, NPR and its member stations have come to rely on "safe", mainstream programming that caters to a narrow, yet profitable audience. Based primarily on profit motive, but also on the fear of losing government and private support, NPR has sought to avoid conflict by providing a steady diet of non-controversial, non-alternative programming. While this programming strategy helps keep the network and member station bottom lines secure, it harms local programming because it does not provide content that appeals to a wide variety of cultural, political, and ethnic audiences that also live within a station's broadcast area. The proper implementation and use of HD Radio technology would allow member stations to provide an outlet for alternative local programming, while still providing "safe" mainstream fare on another channel. HD Radio can only be successfully used in this endeavor however, if NPR and its member stations return to their original, founding principles of programming and public service.

History Of NPR

Contemporary public radio was created by the Public Broadcasting Act of 1967 (PBPB, 1999; Barsamian, 2001; McCauley, 2005). Prior to the passage of the Act, most non-commercial radio was referred to as "educational" radio and provided programming that ranged from academic lectures, to do-it-yourself workshops, to agricultural news. Many early non-commercial stations were associated with land grant universities, which saw the intrinsic value of providing local information that served a wide and broad audience (Tyler, 1933; Atkinson, 1942; Hill, 1942; Waller, 1950; McChesney, 1993, 1999; Engelman, 1996; Douglas, 2000). The

majority of these stations were decentralized from each other in regard to operation, management, and production.

The development of a national, public, non-commercial broadcasting network for television and radio formed during the 1960s, partly due to advancements in broadcasting technology, as well as changes in social and civil rights movements. Additionally, the efforts of organizations such as the Carnegie Commission on Educational Television guided the desire for the development of a national public broadcasting network (Ledbetter, 1997; McCauley, 2005).

In February of 1967, the Carnegie Commission released a report titled, *Public Television: A Plan for Action*. In the report, the Commission outlined several suggestions for the creation of a television system that operated on a non-commercial, non-profit basis which would connect individual stations together while maintaining financial independence from government and private sources (McCauley, 2005). In regard to content, the Commission called for public broadcasting to provide a variety of programming that would serve minority and other traditionally underrepresented audiences. The Commission wanted public broadcasting to “see America whole, in all its diversity” (Barsamian, 2001, p. 23).

Although the Carnegie report went into great detail regarding the development of a public television network, for some reason it neglected to provide any mention of radio (Barsamian, 2001; McCauley, 2005). Fearing that this exclusion would leave non-commercial radio out of any future government legislation and funding, several advocates of non-commercial radio including the National Association of Educational Broadcasters, published a report titled, *The Hidden Medium* in April of 1967. *The Hidden Medium* highlighted past successes of educational radio including what it called service to the “Forgotten Audiences”, in which it detailed examples of educational stations providing programming to a variety of local audiences

including children, Spanish-speaking migrant workers and the elderly (PBPB, 2000). The report called on Congress to include radio in its deliberations, which it did by the time the Act was approved on November 7, 1967 (Ledbetter, 1997; PBPB, 1999, 2000; McCauley, 2005).

The PBA created the Corporation for Public Broadcasting (CPB), a non-profit entity charged with soliciting, securing, distributing, and managing funds for public television and radio stations and networks. The CPB is managed by a board of directors that is appointed by the President and confirmed by the Senate to serve six-year terms. The CPB does not produce programming, nor does it dictate what networks or stations may broadcast (Ledbetter, 1997; Corporation for Public Broadcasting, 2008).

In November of 1968, the CPB held a planning conference which included work on the creation of a national public radio network that would be used to help centralize operations and management as well as provide a sort of warehouse for the sharing and distribution of programming. The CPB settled on a plan that would rely on a core group of five to eight stations that would assist in determining national policies, provide production and programming assistance, and act as the network's key affiliates and anchor stations (McCauley, 2005).

In November of 1969, the CPB announced the creation of NPR and hired William Siemering to create the mission statement for the fledgling network. Siemering was a veteran of educational radio, and prior to working for NPR was the station manager of WBFO at the State University of New York at Buffalo. While at WBFO, Siemering developed a programming philosophy that was heavily influenced by nearby Canadian stations, which emphasized inclusiveness and listener enlightenment in their programming (McCauley, 2005). One of Siemering's most notable accomplishments at WBFO was his supervision of a broadcast studio that operated from a storefront in downtown Buffalo in the 1960s. The studio provided 27 hours

of programming a week that was “planned and produced” solely by minority residents in the community (W. Siemering, personal communication, February 28, 2006).

Siemering believed that public radio had to distinguish and separate itself from commercial radio by providing local communities with programming that reflected the cultural makeup of the listening area. He expressed this view in 1969 in an article that would eventually influence his mission statement for NPR:

The *raison d'être* of public broadcasting is frequently defined in terms of the omissions of commercial broadcasting. We salivate at their inaction... to allow minority views to be unrepresented or misrepresented is to deny freedom of choice and threaten the life of the democracy. ... (an individual) is not allowed (to be free) if options are closed because of ridicule by media or by his ignorance of diversity... he needs an effective medium to communicate directly his frustrations, grievances and problems. ... If we (public radio broadcasters) are to be true to our name and high hopes, we must provide a program service meeting human needs: esthetic, intellectual and affective. Rather than a mass medium which tries to unite us in a common banality, public broadcasting must unite us in our common humanity. (Siemering, 1969)

Siemering believed in a higher purpose and sense of duty for public radio. He had seen the positive effects of inclusion and local expression at WBFO and believed public radio provided the best environment for these opportunities (Engelman, 1996). Not surprisingly, Siemering believed NPR should operate in a similar fashion:

National Public Radio will serve the individual; it will promote personal growth; it will regard the individual differences among men with respect and joy rather than derision and hate; it will celebrate the human experience as infinitely varies rather than vacuous and banal; it will encourage a sense of active constructive participation, rather than apathetic helplessness. (Siemering, 1970; McCauley, 2005)

Siemering also believed that member stations should “substitute superficial blandness for genuine diversity of regions, values, and cultural and ethnic minorities which comprise American

society; (they) would speak with many voices and many dialects” (Siemering, 1970, p. 2). Siemering felt that NPR and its member stations had to provide content that reflected the diversity of a station’s entire local audience.

In this spirit NPR was incorporated on March 3, 1970, and first went on the air on April 1, 1971 with coverage of Senate hearings on the Vietnam War that aired over 90 member stations (Ledbetter, 1997; Kiger, 2001; McCauley, 2005).

Growth, Development, And Project Independence

NPR grew in popularity through the 1970s. During the decade, it developed a variety of network programs, anchored by *All Things Considered*, which debuted shortly after NPR’s launch in 1971, and *Morning Edition* and *A Prairie Home Companion*, which both debuted in 1979.

Although public broadcasting as a whole faced hefty political hurdles in the 1970s (including constant charges of liberal bias as well as specific episodes such as President Nixon’s vetoing of the reauthorization of the PBA in 1972), NPR itself remained relatively unscathed. For once it seemed the popularity of television actually helped radio by taking most of the brunt of criticism from government and political opponents (McCauley, 2005).

NPR spent the decade experimenting with a variety of programming and production strategies while always trying to avoid the wrath of political adversaries. One example of somewhat risky experimental programming that proved to be successful was the decision to broadcast 37 days of live gavel-to-gavel coverage of the 1978 Panama Canal debates in the Senate. Critics were concerned about the objectivity of NPR’s coverage as well as how this type of programming could be made interesting to the public. NPR ultimately won the DuPont-

Columbia Award for its coverage and pulled off a major public relations victory with members of Congress for what was perceived to be fair and complementary coverage (McCauley, 2005).

The late 1970s saw the beginning of an increase in private funding to NPR. Since its inception NPR has always accepted private donations, however by the end of the decade NPR saw its non-government donations rise from \$294,000 in 1977 to \$3 million by 1982 (Wolf, 1984). Starting in the 1980s, NPR came to rely more heavily on private funding for several reasons. The first occurred shortly after Ronald Reagan took office in 1981. Spurred mainly by what was perceived as liberal bias in public broadcasting, Reagan's administration recommended a 25 to 28 percent cut in CPB funding in its 1981 budget and went so far as threatening to completely eliminate the CPB by 1985. To the surprise of many at the CPB, Reagan did not make such extreme cuts in 1981 and even left the 1982 CPB budget intact. The 1983 budget however was cut by 20 percent, which greatly affected the financial health of NPR (McCauley, 2005).

The second event was the FCC's relaxing of underwriting regulations in 1984. Underwriting entails the process of private businesses sponsoring programs and promoting themselves on non-commercial stations for a fee. Prior to 1984, underwriting guidelines were very strict in regard to what could be mentioned about a given business or sponsor and its product or service. The FCC's relaxation meant that NPR and its member stations could now provide "value-free statements" (basic information such as addresses, phone numbers, and hours of operation) and slogans for businesses. This made underwriting on NPR more attractive to advertisers and marketers and aided NPR's slide toward reducing the amount of experimental and fringe programming (Husseini, 1994; Hanson, 1999).

A third event that caused NPR to rely more on private funding came from within NPR itself. Frank Mankiewicz, the Chief Executive of NPR at the time, took the 1983 Reagan budget cuts as an opportunity to remove NPR from the constant ups and downs that came with relying so heavily on government support. Mankiewicz claimed that he would have NPR completely weaned from the federal dole by 1986 (“Off the fix by ‘86” was his slogan), and unveiled a three-part plan called “Project Independence” in 1982. The first part of the project required NPR to seek out new methods of fundraising from corporations and other private sources. Part of this initiative introduced the idea of “selling shares in NPR news and performance funds” (McCauley, 2005, p. 55). For example, a \$250,000 “purchase” by a corporation would net dozens of brief on-air mentions during the broadcast day.

The second part called for the creation of a new service called “NPR Plus” which would extend NPR’s 24-hour classical music service that was distributed to member stations via satellite. Previously, the classical service had been provided for a reduced cost or sometimes for free to member stations. Under Mankiewicz’ plan station membership dues and fees would cover the cost for the expansion in services. If a member station wanted to use NPR Plus it had to pay for the *entire* cost of reception. By July of 1982, the project cost to start NPR Plus had swollen from \$700,000 to \$1.7 million, with stations expected to make up the difference. NPR management believed it could make NPR Plus work if 150 to 200 member stations participated (McCauley, 2005).

The third part of the plan called for the creation of a separate, for-profit arm of NPR called “NPR Ventures”. NPR Ventures proposed partnerships with various corporations who were interested in using the excess available channel capacity on the public radio satellite system. NPR had previously established partnerships with Muzak, Liberty Mutual Broadcasting,

and NBC to lease channel space on its satellite system and sought to create more partnerships, hoping to branch into paging and high-speed data transmission services (Ledbetter, 1997; McCauley, 2005).

Project Independence was put into place near the end of 1982 and NPR management was so confident of its success that it actually went to the CPB and asked for *cuts* in its annual budget. NPR projected it would need to take in no more than \$4.7 million of CPB funding by 1988 under the plan and even considered denying all federal funding by that time (McCauley, 2005).

Almost immediately after the implementation of Project Independence NPR faced a massive budget crisis. By March of 1983 NPR was operating at a deficit of \$2.8 million, which had grown to \$5.8 million by mid-April and was projected to increase to \$9.1 million by June. In the end, NPR was staring at a \$6.4 million deficit for fiscal year 1983 (Wolf, 1984; McCauley, 2005).

In order to continue operations NPR received a \$7 million loan from the CPB under the conditions that Mankiewicz resign from his post and that immediate organizational restructuring take place. In addition, the CPB demanded that member stations guarantee the loan package while a panel of CPB-appointed trustees oversaw NPR's satellite equipment until the loan was repaid. Other financial aid came with the forgiving of over \$600,000 of debt by the CPB and through on-air fundraising efforts (McCauley, 2005).

By the fall of 1983 Congress was comfortable enough to approve a bill that would increase CPB funding of NPR beginning in 1985. Congressional approval came with a high price however as the bill contained a last-minute rider that kept NPR under heavy scrutiny and stipulated the CPB would not be allowed to continue funding NPR unless it developed "sound

budgetary practices” and made financial records continuously accessible (McCauley, 2005, p. 70). Only when NPR could show financial stability on a continuous basis would the stipulation be lifted. As a result government funding to NPR was cut back by more than a third, to just over \$17.5 million in 1984, which led to a 30 percent reduction in staff (Ledbetter, 1997).

Ultimately NPR was able to get out of debt through restructuring, staff reductions, cost-cutting measures, and fundraising and donations. In retrospect, Project Independence failed primarily due to mismanagement and miscommunication. McCauley and Wolf document several key oversights by NPR, ranging from the appointment of a new Vice President of Development just six weeks before the start of the 1983 fiscal year, to basing revenue income on targets rather than committed grants. Additionally NPR spent \$865,000 in fiscal year 1983 on startup expenses for NPR Ventures alone, while NPR Plus cost the network over \$860,000, taking in only \$295,000. Only 101 member stations signed up for the NPR Plus service. Another critical oversight was NPR’s failure to abide by the Public Radio Act of 1981, which required FCC approval before private interests could be allowed to use any open channel space on the public satellite system (McCauley, 2005; Wolf, 1984; Kiger, 2001).

The financial crisis that came as a result of Project Independence was significant mainly because it ushered in a new paradigm regarding fundraising at NPR. The early 1980s saw the creation of an almost “Perfect Storm”, where a combination of government cutbacks, deregulation of fundraising rules, and plain economic survival created a new environment with reliance on funding sources shifting dramatically. Since the mid 1980s CPB funding has been distributed directly to local stations, which then pay membership dues and program fees to NPR. Both NPR and local stations generate the majority of their revenue from private donations and corporate underwriting (Kamenetz, 2009).

In addition to accepting more funding from private sources and relying more on enhanced underwriting, in 1985 NPR also changed its fee structure regarding the programs it offered to member stations. NPR “unbundled” its programs and began charging member stations based on the programs they chose to air and the size of the market they served. This helped small market member stations save money since they paid only for the programs they wanted, and it helped NPR because it gave them a strategic advantage over the pricing of their programs. It was not uncommon for stations in larger markets to pay anywhere from eleven to fifteen percent more for a program than stations in smaller markets (Kiger, 2001). The pricing logic was based on the value that NPR and member stations put on the programs and on the general notion that stations in larger markets reached larger audiences and were therefore able to afford higher prices for programs.

While NPR and its member stations have enjoyed tremendous growth over the past 38 years, one area of contention that has always remained is how funding influences content. As will be discussed in more detail later, although NPR may be more able to avoid government pressure on its funding, it has discovered another form of pressure based on its market-driven philosophies regarding programming and content. The market-driven pressure, while not perceived to be quite as nefarious as government-driven pressure, still imposes limitations by creating an environment where programming caters to the most profitable audience, thus leaving minority and underserved audiences behind. In order to better address this issue in more detail, it is important to take stock of NPR as it stands today.

NPR today

Since 1971 NPR has grown into the largest public radio network in the United States with 860 member stations that serve an audience of over 27 million listeners per week (National

Public Radio, 2009). In addition to maintaining its presence in broadcasting, the network has branched into online and digital media. The NPR website allows users to listen to live program streams from over 300 member stations as well as download content, listen to podcasts, participate in interactive games and polls, and shop for NPR merchandise. In 2008, NPR launched an online archive source that provides users with over 250,000 stories and programs dating back to 1996 (Goodman, 2009). NPR programming can be heard on Sirius satellite radio and accessed online through iTunes as well as through mobile web and phone services. NPR has also embraced HD Radio technology with over 475 member stations using it as of this writing (NPR Labs launches CPB-funded study on power increase for HD Radio, 2009).

In addition to *All Things Considered* and *Morning Edition*, NPR offers member stations several other popular programs including *Talk of the Nation*, *Wait Wait... Don't Tell Me*, and *From the Top*. NPR provides local “inserts” in many of its national programs, where member stations can broadcast short local news updates or underwriting announcements between program segments. NPR still provides a 24-hour program stream via satellite that includes news and entertainment for local stations and offers a 24-hour service called “Tomorrow Radio”, which is used specifically by stations for their HD Radio channels. Member stations using Tomorrow Radio can choose music content ranging from classical, jazz, folk, “electronica”, and Adult Album Alternative (AAA) on their HD digital channels (Graves, 2004; NPR’s Tomorrow Radio initiative brings multicasting to digital radio, 2005).

Since its initial government appropriation of \$260,000 in 1970, NPR has grown into a multi-million dollar enterprise. For fiscal year 2008 NPR generated over \$161 million in revenue, of which \$67 million came from membership dues and program fees with \$62 million coming from underwriting and foundation grants and gifts (National Public Radio, 2008;

Kamenetz, 2009). Foundations such as the Pew Charitable Trust, the Robert Wood Johnson Foundation, the Ewing Marion Kaufmann Foundation and the John D. and Catherine T. MacArthur Foundation have been regular underwriters on NPR since the 1980s. The amount of funding these and other foundations provide is significant. In 2007, The Doris Duke Charitable Foundation, the Ford Foundation, and the Iraq-Afghanistan Deployment Impact Fund each donated over \$1 million to NPR (National Public Radio, 2009a). In 2003, NPR received a record \$14 million grant from the John D. and Catherine T. MacArthur Foundation for endowment support and news and public affairs programming (National Public Radio, 2003).

NPR divides its audience into “core” listeners and “fringe” listeners. Core listeners spend more than 70% of their listening time with public radio while Fringe listeners use public radio less than 30% of the time. NPR audience researchers use a Values and Lifestyles rubric to determine the psychographics of their desired listening audience. NPR’s most coveted audience is referred to as the “Actualizer-Fulfilled”, which describes persons with a “take charge” attitude who have a sense of responsibility, “a thirst for knowledge”, and an overall satisfaction with their lives (McCauley, 2002, p. 70). Actualizer-Fulfilleds make up only 4% of the overall adult population, but are a large portion of NPR’s core audience. NPR’s core listener is also well educated (over 70% hold advanced degrees), male (53%), middle-aged (mid-40s to late 60s), and financially stable (46% of NPR families bring in \$75,000 a year, while the average annual income of core listening families is over \$100,000) (McCauley, 2002; Rendall, 2002, October 4; Ahrens, 2001). A 1998 poll by the Pew Research Center found that 45% of senior-executive branch officials in the federal government and 62% of presidential appointees listen to NPR on a regular basis. Eighty percent of NPR listeners make donations during the course of the year, and 16% of listeners give more than \$200 each (Kiger, 2001).

NPR and its member stations provide content that appeals to this audience since it tends to be more financially stable and is more willing to donate to public radio (Ahrens, 2001; Rendall, 2002). Jay Kernis, former Senior Vice President of Programming at NPR, has stated that NPR's programming strategy is to attract the greatest number of Actualizer-Fulfilleds as possible and that the best way to do so is to provide mainstream, "safe" programming such as *Morning Edition*, *Car Talk*, *Fresh Air*, and *A Prairie Home Companion*, as opposed to "fringe" programs such as classical music or jazz (Cappello, 2002, April 20).

In regard to content, NPR and its member stations have always faced criticism from all perspectives. Conservative critics often deride public broadcasting for its "liberal bias" that they feel excludes right-wing opinions (Berlau, 2003; Auletta, 2004), while left-wing critics argue that public broadcasting focuses too much on appealing to a mainstream, conservative audience and not providing enough for minority or marginalized audiences (Morse, 1990; Cockburn, 1998; Barsamian, 1998; Goodman, 2009; Ledbetter, 1997). Regardless of one's political perspective, the fact is that public radio has constantly been criticized for the content it does or does not provide.

This overview provides just a snapshot of the NPR empire and how it has grown over the years. The rest of this chapter takes a look at how the financial motive and niche programming strategy has steered NPR from its founding tenets and caused it to look away from localism.

What's Wrong With NPR?

While on the surface NPR has done an admirable job of becoming a leader in listenership and funding, it has unfortunately come to rely too much on market-driven practices at the expense of localism. The continued focus on profit margins has led NPR and its member stations to neglect the local audiences they serve and creates an environment where member

stations come to rely heavily on network programming. Following a market-driven model of programming similar to NPR's, member stations focus their programming efforts on obtaining content that appeals to the most profitable listening audience. Nieckarz (2002) found that programming decisions made at the station level were tailored to satisfy a conglomerated, single audience rather than a variety of groups. When a particular station in Nieckarz' study was considering changing its "checkerboard" schedule to a "safer" offering of mainstream, network programs, the station manager noted:

... what we (the radio station) try to do is have variety that has cogent appeal. We can have a lot of different things as long as it appeals to the same type of listener because building audience loyalty, getting the same time spent listening in hours per week as high as you can, that really is a predictor of fundraising success. ... why have a radio station if you aren't garnering the maximum number of people that you can? (Nieckarz, 2002, p. 216-217).

According to Nieckarz this statement "suggests that they (NPR member stations) are not really concerned with serving a diverse group of people, but 'the same type of listener'" (p. 217), which refers to how much "donating power" the listener has and explains why programs that appeal to minority or fringe groups are often excluded. Broadcast time used during the day for network programs takes away time that could be used for locally produced programs that reflect and serve the needs of the local listening audience. In sum, the market-driven approach of program selection used by member stations ignores those local groups that are less profitable than others and takes away airtime from locally produced programs.

As a result of continuous government pressure and an added pressure not to offend or upset private donors, topics on NPR programs tend to be less controversial and more centrist in appeal. Much has been written about the "baggage" that comes with funding from government and corporate sources (Ledbetter, 1997; Hanson, 1999; Barsamian, 2001; Nieckarz, 2002). Quite

often news stories critical of corporate or government malfeasance will be ignored by public radio, or watered down to the point that any wrongdoing is glossed over. Conflicts of interest in regard to content and funding are often not acknowledged and as a result, rather than broadcast content that might offend or inflict the ire of sponsors, NPR has softened its coverage of controversial issues or eliminated that coverage altogether (Ledbetter, 1997; Barsamian, 2001).

This has a direct tie to underwriting, in that as corporate donations have increased so has the airtime given to these corporations. As briefly mentioned above, this not only takes away valuable airtime during the broadcast day but it also takes away much of the independence of member stations and the network, particularly in journalism and public affairs programming (Barsamian, 2001). An example is NPR's acceptance of underwriting from Waste Management, Inc. in the mid-1990s that promoted the company as "providing comprehensive waste services worldwide", while at the same time donating money specifically for news stories covering environmental issues. While this may not seem like much of an issue on the surface, it becomes relevant considering that Waste Management has been fined the most of any corporation in the history of the Environmental Protection Agency (which NPR failed to mention on the air). In this instance Waste Management was using NPR as a public relations vehicle with NPR accepting the funding and looking the other way (Husseini, 1994). The market-driven emphasis is reflected in NPR's current mission statement:

The mission of NPR is to work in partnership with member stations to create a more informed public – one challenged and invigorated by a deeper understanding and appreciation of events, ideas and cultures. To accomplish our mission, we produce, acquire, and distribute programming that meets the highest standards of public service in journalism and cultural expression; we represent our members in matters of their mutual interest; and we provide satellite interconnection for the entire public radio system (National Public Radio, 2009b).

Compared to NPR's founding mission statement, which strived to "regard the individual differences among men with respect and joy" and "celebrate the human experience as infinitely varied" while encouraging "a sense of active constructive participation", the current document reads more like a sales pitch than a mission statement.

Even Garrison Keillor, venerable host of *A Prairie Home Companion*, has criticized NPR, specifically calling news coverage on *All Things Considered* news coverage "soft" and questioning the network's obligation to providing meaningful content to local audiences:

To ignore (the Republican party's actions in Congress) and to do little audio documentaries about old ballplayers and celebrate Paul Robeson's birthday and do a documentary on maple syruping in Vermont is just perverse (Barsamian, 1998, p. 10)

While public radio caters more to corporate pressure, government influence has not disappeared. One of the more notable instances of the government influencing NPR programming was the controversy surrounding Mumia Abu-Jamal, a prisoner on death row in Pennsylvania for the 1982 shooting of a Philadelphia police officer. In 1994, NPR came to an agreement with Abu-Jamal to produce a series of commentaries ranging from prison reform to the death penalty. The agreement was finalized under the condition that Abu-Jamal would not use the series as a platform to discuss his specific case. One week before the scheduled debut of Abu-Jamal's commentaries, NPR caved to pressure from the Fraternal Order of Police and Kansas Senator Bob Dole, and never aired the series (Ledbetter, 1997; Hussein, 1994; Hanson, 1999). Dole blasted NPR for planning to put Abu-Jamal on the air and warned that "closer oversight by the Congress would be one way to prevent mistakes from going on the air" (Hussein, 1994, p. 27). Ledbetter (1997) believes the event was a galvanizing moment for NPR:

The Abu-Jamal cancellation was a sterling parable for the new, mature NPR. At the time when NPR cancelled his commentaries, Abu-Jamal had done a great deal

of radio work heard on Pacifica stations, which – despite Pacifica’s taxpayer subsidy – prompted little more than local Philadelphia protest. Through some unexplained media-political alchemy, those same commentaries became unacceptable when their potential audience was six million (*All Things Considered*) listeners (Ledbetter, 1997; p. 135)

While not directly tied to funding, the Abu-Jamal case clearly exposes the pressure that the federal government can still exert on NPR programming and is an instance where even just the threat of government dissatisfaction hinders NPR’s ability to present alternative, diverse, and controversial programming. Presenting Abu-Jamal’s series may have provided an opportunity for communities to continue Abu-Jamal’s dialogue on a local level and discuss a range of issues, from the death penalty, to prison reform, to African-American forms of expression. Due to pressure and threats from the government in this specific case however, NPR missed this opportunity.

In the modern public radio environment there is very little difference between purchasing a good or service and donating to a public radio station. In much the same way that the sale of a product demonstrates its popularity or demand, donations help influence and reinforce the programming decisions made on a local station. For example, a large number of donations to a public station that are earmarked in support of classical music tells station management that classical music is popular, which will more than likely cause it to become a mainstay on that station. Similarly, a large number of station fees paid to NPR for a specific program tells the network that the particular show is popular and will therefore remain available to the station as long as the financial support is there. An important factor to consider however, is that under this paradigm a program does not necessarily become a mainstay because of its general popularity but because it is the most popular program among those who donate money to the station or network. From the audience perspective, those who enjoy classical music or *All Things*

Considered will make donations to the station to show their support and insure these programs remain on the air. Those who enjoy jazz or *This American Life* however, and either do not meet the core listening criteria or have the disposable income to make a donation are less likely to have their input considered in the eyes of a station or network programmer. In this sense the public is viewed as consumers, with pledges and donations working much like purchases; those who can afford to pay for goods and services (in this case a program or music format) usually get what they want, while those who cannot afford it are not catered to or served.

McChesney (1997) places the blame for all of this on a combination of the economic structure of non-commercial broadcasting and the influence tied to its funding. The lack of stable, non-partisan funding has created a system where stations are forced to turn to other areas for financing, including commercial interests. This has allowed corporate and commercial ideologies to seep into the culture of public broadcasting by making NPR stations “commercial enterprises, and ... (giving) the large corporations that dominate its subsidy tremendous influence over public broadcasting content, in a manner that violates the fundamental principles of public broadcasting” (McChesney, 1997, p. 41). For McChesney, economic pressures placed on public radio force it to provide “safe”, mainstream programming that does not run the risk of offending sponsors. The problem however is that relying on mainstream programming does not provide an outlet for minority and “fringe” perspectives to be expressed, which goes against the founding ideologies and purposes of public broadcasting.

This market-based approach flies directly against the concept of public radio in that only a specific portion of the public, rather than multiple publics, is served. This harms localism and ultimately the democratic appeal of radio itself. As stated throughout this dissertation, radio is the most democratic form of mass media, based on its universality, its relative low cost of

transmission and reception, and its inherent ability to serve local audiences. These advantages that make radio unique also lend themselves to radio's potential to serve a range of various local interests. Public radio was charged with the responsibility and duty to use these qualities to do more than just appeal to the most profitable audience. The programming philosophy that NPR and its member stations have followed since the 1980s simply mimic the commercial, for-profit strategy of serving a niche audience. This goes against the founding principles of NPR that were expressed by Siemering in NPR's early days.

On one hand NPR and its member stations must be able to provide alternative local programming to underserved audiences without the fear of government or corporate funding pressure. On the other, member stations and the network must remain financially healthy just to be able to provide programming. The current system of targeting the most profitable audience however, opposes all that public broadcasting stands for. As a result of this situation, several significant questions emerge; how can public radio provide content that serves minority and fringe audiences, yet at the same time broadcast content that appeals to a narrow, yet profitable audience? In addition, how can public radio stations broadcast controversial, provocative programming that probably falls out of the mainstream, without incurring the political or financial wrath of government or corporate interests?

The answer to these concerns lies in HD Radio technology, which allows stations to provide multiple streams of content where previously only one could exist. HD Radio gives stations the opportunity to provide multiple platforms for the expression of alternative content, while at the same time allowing them to continue to provide more profitable programming.

HD Radio can be a positive force for localism however, only if it is coupled with the original intent and purpose of NPR as expressed by Siemering (1970). The technology cannot

simply be used as another outlet for mainstream, “safe” programming, since doing so would only continue the trend of appealing to a niche audience.

Chapter Three

TOWARD A NEW OPERATIONALIZATION OF BROADCAST LOCALISM

This chapter provides an examination of the conceptualization of broadcast localism and briefly examines its legislative and regulatory history. Although there are two guiding perspectives and sufficient legal regulation to help direct localism policy, a clear, practical operationalization of the term has yet to be created. The historical inability to clearly implement broadcast localism has led to a variety of applications that have been mostly ineffective and have led to ever-increasing confusion and ambiguity. This chapter will establish the need for a clearer definition, as well as a new operationalization of localism based on access. This new method of achieving localism is critical to the policy recommendation proposal presented in chapter four.

Broadcast Localism In The United States

As stated previously, broadcast radio is not only the least expensive and most democratic form of mass media, it is also considered the most locally oriented (McChesney, 2001). Due primarily to their technical limitations and the manner in which they are licensed in the United States, radio stations are expected to serve communities and audiences that live within their limited broadcast coverage area with locally oriented information and entertainment programming (FCC, 1934).

The FCC authorizes broadcast radio station operation by regulating stations to operate within specific geographic communities of license. This is accomplished by assigning the frequency locations and power outputs of every station within a broadcast area (FCC, 2009a; Davie & Upshaw, 2006). Generally speaking, the frequency location and power output determine how far a station's signal will cover a local geographic area. Conditions such as local terrain and other stations operating within the area will also affect how far a station's signal

travels. Broadcast localism has historically concerned itself with how well and how often licensed broadcast stations provide content that is relevant to the lives of the communities that exist within the contours of a station's broadcast coverage area (Napoli, 2001).

Part of the problem of developing localism regulation has been the difficulty of crafting a clear, workable application for the term. While it can be argued that a general agreement on the concepts and rationales of localism as presented in the first chapter have been achieved, there has been a general confusion and vagueness regarding how to enable, or "achieve" localism. Since the federal government began regulating radio stations in the early part of the 20th century there have been several attempts at operationalizing the concept but a standard, workable method for policy-makers to apply has never been developed. Before proposing a new method of achieving localism however, it is important to demonstrate the vagueness and confusion that has surrounded the term.

The Vagueness Of Defining Localism

The FCC's most recent involvement with localism was last year with the release of the *Report on Broadcast Localism and Notice of Proposed Rulemaking*, which discussed the responses generated by a series of nationwide town hall style meetings that took place from 2003 through 2007 (FCC, 2008). At these meetings, FCC commissioners sought input from members of the general public including local broadcasters, activist groups, civic and religious leaders, and artists and musicians, regarding the effectiveness of broadcasting to provide locally relevant content (McConnell, 2004; FCC, 2008). While debate over the issue went on, critics and supporters of broadcast practices used the term "localism" freely, even though no clear definition was produced. In its report the FCC noted the overall confusion held by the public in regard to defining the term consistently, even though it referred to localism itself in such vague terms as,

“the cornerstone of American broadcasting” (FCC, 2008, p. 4) and a “central obligation of every broadcast licensee” (FCC, 2008, p. 93).

These descriptions of broadcast localism are ineffective at best, particularly if they are intended as a means of determining how broadcasters “achieve” localism. This vagueness surrounding broadcast localism is nothing new however, as Section 307 of the 1934 Communications Act requires the FCC to make “such distribution of licenses, frequencies, hours of operation, and of power among the several States and communities as to provide a fair, efficient, and equitable distribution of radio service to each of the same” (FCC, 1934, p. 145). While this is the seminal clause of the Act that established the requirement of stations to be licensed to local communities and serve them with local programming, it did not provide clear or workable definitions of what constituted local programming, nor did it provide any suggestions of how this could be achieved (Napoli, 2001). Similarly, more contemporary attempts at defining and operationalizing localism have produced vague results:

- Localism is providing programming “that cannot be heard anywhere else” (J. Paluzzi, personal communication, July 12, 2003)
- Localism is “the key factor in the success of terrestrial radio” (Stull, 2003)
- Local programming (and hence programming that serves localism) is “not network(ed)... not duplicated.” (G. Craven, personal communication, June 20, 2003)
- Localism is “... reflected in local ownership, local decision-making, local accountability, and locally derived approaches to meeting local community need” (Corporation for Public Broadcasting, 2004, p. 14-15)

For policymaking to be successful and effective, clear and concise definitions of terminology are necessary (Napoli, 2001). Agreement by policymakers on the principles and concepts of a topic help lead to the creation of standards, which must exist before successful policymaking can take place. Standards can range from terminology, to application methods, to

the measurement of results and outcomes, and they are usually determined by the industry or entity being regulated. A policymaking body uses the agreed-upon standards to establish the criteria needed for the practical application of legislation in order to address specific public problems or issues. A lack of clear-cut, workable definitions not only causes confusion but also creates an environment that is ruled by interfering political ideologies, which tend to overemphasize some perspectives and opinions while neglecting or trivializing others (Anderson, 1992; Napoli, 2001). Agreed-upon standards usually come from “finite and bounded set(s) of classic principles” that are intrinsic to the industry being regulated (Anderson, 1992, p. 390). For the broadcasting industry, these “classic principles” have historically included the First Amendment, the public interest, the marketplace of ideas, diversity, competition, universal service, and localism (Napoli, 2001). At issue here is the inability to create clear, concise localism standards based on these principles. While it may be difficult to develop agreed-upon concepts of communications principles, it is important to at least attempt to do so. More attempts at defining terms and concepts can help push toward conclusive, working standards and solutions (Chaffee, 1991; Napoli, 2001).

Based on a combination of the concepts and rationales of localism presented in chapter one, for the purposes of this dissertation and its proposal, localism is defined as *the ability to serve the informational, political, and cultural needs and interests of the community to which a broadcast station is licensed.*

While this definition encompasses the concepts and rationales of localism, it also falls into the same trap as previous definitive attempts, by not providing a means of operationalizing or “achieving” it. The purpose of this proposal however is not to find a better way of defining broadcast localism; instead it seeks to find a better way of implementing it. The characteristics

of a new implementation of localism, based on public radio stations and HD Radio technology, are provided in more detail at the end of this chapter. In order to develop a better operationalization of localism however it is important to examine several previous attempts at regulating and legislating it. Doing so provides a broader understanding of the problems and issues that have constantly faced localism regulation and enforcement, as well as discovering the one fatal flaw that all previous attempts have had.

Attempts To Operationalize Broadcast Localism

Putting the conceptualizations and rationales of localism into practice has often proven to be difficult. Historically the FCC, Congress, and the Supreme Court have debated, ruled, regulated, and legislated broadcast localism from several broad perspectives including the consideration of regional rather than local station licensing, determining the importance of local station autonomy over network regulations, ascertainment of local needs and interests, requiring minimum amounts of local programming, and regulating the physical location of production and broadcast studios. It must be noted that the vast majority of previous attempts at regulating the operationalization of localism have been rescinded after being determined ineffective for a number of reasons. This has only led to more confusion regarding the implementation of localism and heightens the need for a new form to be proposed.

General Order #40

The regulation of broadcast localism finds its roots in a ruling proposed by the FRC in 1928. One of the first regulatory decisions where local service was deemed preferable over regional or national service came with the defeat of General Order #40. This proposal regarding the licensing of radio stations considered dividing the United States into five separate geographic zones, with each zone containing a handful of very high-powered radio stations that would

provide programming on a regional basis (FRC, 1928; Jassem, 1981). The FRC (and later the FCC) settled instead on a licensing plan that would allocate a greater number of lower-powered stations to operate in local communities. The reasoning was that smaller, more localized stations would be better able to serve the needs and interests of smaller communities (Napoli, 2001; Jassem, 1981), and this rationale has been at the core of broadcast localism regulation ever since.

National Broadcasting Company v. United States

While the FRC and FCC enacted the earliest regulations concerning broadcast localism in the 1920s and 1930s, the legality of the relationship between local stations and broadcast networks did not come to the forefront until 1941. That year, the FCC issued its *Report on Chain Broadcasting*, which discussed the results of a three-year study into the relationships between broadcast radio networks and their affiliated stations (FCC, 1941; *National Broadcasting Company v. United States*, 1943).

In its report the FCC found eight abuses by NBC, CBS, and the Mutual Broadcasting Network that directly affected the ability of affiliated stations to provide locally relevant programming for their audiences. These abuses ranged from controlling the advertising rates affiliates could charge national advertisers to the network ownership of high-powered stations in major markets. Of particular importance to localism regulation were the findings that networks had established territorial exclusivity with programming and affiliation exclusivity between stations in a market⁴. The FCC also found that stations had limited rights when it came to

⁴ Territorial exclusivity refers to the denial of a network to provide a program that has been rejected by one of its affiliates to a competing affiliate in the same market. For example, if a CBS affiliate refused to air a CBS network program in that market, the territorial exclusivity clause of network contracts required that no other network affiliated station in the market could carry it. This is similar to affiliation exclusivity, in that competing networks in a market could not offer programming to each other's affiliates. The FCC's report cites the instance of Mutual Broadcasting's inability to provide its coverage of the 1939 World Series to CBS and NBC affiliates in markets where no Mutual affiliate existed. As a result, many areas of the country did not receive coverage of the games (FCC, 1941).

rejecting network programs and that the contractual terms of affiliation were often too long and too difficult to break if a station chose to do so (FCC, 1941; *National Broadcasting Company v. United States*, 1943). In an effort to promote and maintain the ability of local stations to choose the best programming for their audiences, the FCC sought to break up these chain regulations and give stations more autonomy.

The Court agreed with the FCC's assessments and requirements, claiming that the FCC had the authority to regulate network activity that it finds detrimental to the local public interest, and determined that regulating network broadcasting is not a violation of the First Amendment rights of broadcasters (*National Broadcasting Company v. United States*, 1943).

The 1943 NBC ruling is important to the explication and historical development of localism and must be considered for the successful creation of a new operationalization. The ruling firmly established the right of the FCC to implement regulations related to content as well as the technical parameters of station operations and highlighted that the FCC has broad powers to regulate broadcasting in the public interest.

While the NBC ruling was instrumental in establishing the relationship between networks and their affiliated stations, it still contains the one flaw that will be discussed in greater detail at the end of this chapter. Essentially the Court's ruling handed the process of determining the content on local stations from one centralized entity (the networks) to another (station managers and owners). Granted, while moving the program decision-making process from a national entity to a local one is a step in the right direction toward improving localism, it still promotes the paternalistic status quo process where a handful of people determine the content that is most relevant and best suited for the many diverse audiences that live within a station's broadcast area. As will become evident, several other major Supreme Court and FCC decisions have also

inadvertently reinforced this method of local program selection.

The Mandatory Origination Of Content

Attempts to regulate localism have not been exclusive to broadcasting. Several notable attempts have been applied to cable television. One of the first was in 1969, when the FCC required that no cable operator with more than 3,500 subscribers could carry broadcast television signals unless it also operated as a local outlet for cable-casting and provided open local facilities for public production (FCC, 1969; FCC, 1974). The FCC's justification for this regulation was based on its opinion that mandatory origination of programming would assist in the creation of locally oriented content. This in turn would benefit smaller communities and serve the public interest by providing more locally produced, locally relevant content (FCC, 1969; FCC, 1974).

The FCC abolished this rule in 1974, questioning whether mandatory local program origination was an appropriate means of promoting localism and benefiting smaller communities (FCC, 1974). Local cable operators also cited several hardships with providing mandatory content, ranging from expensive production costs to lack of interest among the population to produce content.

The reasoning for the abolishment of the 1969 mandatory origination rule is symptomatic of the demise of many localism regulations over the years. Quite often localism regulation has been enacted only to be abolished after a short time. Generally speaking the main reason for the consistent sudden elimination of localism rules is that the FCC does not question their veracity and validity until after they have been enacted. This constant, quick rescinding of rules shortly after their release has also contributed to the confusion and ambiguity regarding localism regulation (Napoli, 2001).

One notable finding from the FCC's inquiry in 1974 was that although many cable

operators opposed mandatory originated programming, they did favor the creation and regulation of open access channels on cable systems. Many cable operators found that access channels were much easier to manage and did a better job of encouraging and accommodating local public production (FCC, 1974).

Ascertainment

Beginning in 1971, the FCC attempted to promote broadcast localism by requiring stations to ascertain the needs and interests of their local communities (FCC, 1971). Ascertainment regulation required broadcast stations to establish and maintain contact with local organizations and individuals, and survey them on a regular basis in order to identify the local problems and issues of interest that could be addressed through local media expression (FCC, 1971; Fowler & Brenner, 1982). Ascertainment was intended to be used as a tool for stations to measure and recognize the issues of importance that local communities faced and provide programming that addressed those issues (FCC, 1981; FCC, 1984).

The FCC eliminated ascertainment requirements in 1981, determining that market forces should be the main arbiter of ascertaining relevant local issues and interests (FCC, 1981). The FCC's rationale was that stations would do a better job of responding to the needs and interests of the local community if competition in the marketplace was used as an incentive to provide locally relevant programming (FCC, 1981). The Commission also stated that ascertainment requirements created hardships on broadcasters by requiring them to spend time and resources on discovering the needs of the local community (FCC, 1981). The FCC estimated that ascertainment cost broadcast stations over 66,000 work hours annually (FCC, 1984).

Percentage Of Programming

In 1976, the FCC took a more quantitative approach in regulating localism by requiring

broadcast television stations to provide at least five percent of their airtime to local programming, five percent to informational programming such as news or public affairs, or ten percent of their total airtime toward non-entertainment programming (FCC, 1976; FCC, 1984). Similar to previous localism regulations, the FCC's rationale for this rule was the belief that requiring local programming would result in the coverage and expression of more locally relevant content.

The FCC eliminated the program percentage requirement in 1984, when an empirical study showed that most stations already produced over five percent of local programming to begin with (FCC, 1984), and that the 1976 rules had little, if any significant impact on the amount of news and public affairs programming provided by stations. Additionally, the FCC determined that local marketplace forces would be a better determinant in regard to how much local programming should be produced and provided on local stations (FCC, 1984).

At this point it is important to note the impact of broadcast deregulation and how the reliance on market forces affected localism regulation and practice. Starting in the late 1970s and running throughout the 1980s, a wave of government deregulation swept over the FCC on the general premise that market forces were the best way to determine the needs and interests of the public (Fowler & Brenner, 1982; McChesney, 1997, 1999). As a result, many requirements of broadcasters and cable operators, including localism regulations, record-keeping, and underwriting guidelines for public stations were either relaxed or eliminated altogether. This emphasis on the marketplace model of regulation admittedly hurt localism efforts to provide content that appealed to the diverse audiences that generally lived within a station's broadcast area. The end results for radio broadcasting were similar to the cost cutting and programming measures that were discussed in chapter one. With a heightened focus on the marketplace

broadcasters were encouraged to provide content that appealed primarily to the most profitable audiences while ignoring the needs and interests of others in the listening or viewing area (McChesney, 1997, 1999). As such, while the marketplace model of regulation may have lifted several hardships for broadcasters and cable operators it has not been enough to insure that the diverse needs and interests of local audiences will be met.

Studio Location

A final example of broadcast localism regulation to consider is the FCC's 1986 requirement that every AM, FM, and broadcast television station had to maintain a production and broadcast studio within the principal community that it was licensed to serve. This regulation was put into place in an effort to "assure that stations fulfill their local service obligations" (FCC, 1987). The rules also required that more than fifty percent of a station's non-network local programming had to originate from its main studio or from remote points located within the community of license. Similar to earlier principles behind station licensing, the FCC believed that more locally oriented and locally relevant content would be produced if stations were required to maintain facilities within their licensed community. Having local studios would also create opportunities for interaction between broadcasters and members of the public to help determine the needs and interests of the audience and create responsive programming (FCC, 1987).

These rules were rescinded and relaxed soon after however, as the FCC did not see any causal effects between the origination of programming and the serving of local needs and interests (FCC, 1987). The Commission also determined that with the advent of remote broadcast technology such as microwave relays and broadcast translators, local stations could still serve audiences with their studios located outside of the contours of their local broadcast

signal (FCC, 1987).

The FCC also questioned whether the accessibility of a main studio to the general public actually increased the interaction between the public and the broadcaster, and whether a station's main studio was critical enough in regard to the production of the majority of a station's programming. As a result, in 1987 the fifty percent program origination rule was eliminated while the main studio requirement was relaxed so that the only requirement remaining is that a station's main broadcast studio must operate within the contours of its licensed broadcast radius (FCC, 1987).

A New Operationalization Of Broadcast Localism

These previous attempts at regulating broadcast localism have all been ineffective in regard to their implementation. While their intentions are commendable, their implementation leaves much to be desired. Each ruling and regulation listed above attempted to regulate localism through a paternalistic, "top-down" mode in which a centralized authority figure such as the FCC or local station management was expected to either discover the needs and interests of locally diverse listening audiences, already know what they were, or just guess. This approach is highly paternalistic since it places the onus on regulators and station managers to determine what content is best suited to serve the community's needs. The FCC practically admitted this concept in 1981:

(the) chief concern (of localism) has always been that issues of importance to the community *will be discovered by broadcasters* and will be addressed in programming so that the informed public opinion, necessary to the functioning of a democracy, will be possible (emphasis added) (FCC, 1981 at paragraph 34)

Requiring such a feat has already been regarded as a hardship by broadcasters and the FCC, and

is reflected in the constant adjustments and outright revocations of previous regulatory attempts.

In order to reduce the reliance on this paternalistic form of localism and avoid the constant “do overs” associated with its regulation, it is necessary to provide a new operationalization of broadcast localism that centers on opportunities for local citizens to participate in the production and dissemination of content. Doing so ensures that issues of local interest are expressed and that station managers and the government are not the sole arbiters of determining what constitutes local content.

In order for this new operationalization to succeed however, it must rely on two factors. First and foremost, broadcast localism regulation must consider the local communities that exist within the geographic area that stations serve. That is, broadcast stations must focus first on meeting the needs of the communities that exist within their licensed broadcast radius as determined by the FCC. This requirement is necessary due to the inherent nature of radio technology as well as the FCC’s licensing methods in regard to assigning a station’s frequency and power output. Simply put, broadcast radio stations are licensed and currently designed to transmit material to surrounding local areas and should therefore focus on the public groups that live within them.

Second, the key to fostering localism is to avoid relying **solely** on station management to determine the information and entertainment needs of the community. The current approach makes it less likely that minority and unorthodox perspectives and opinions will be heard. If citizens are provided with **direct access** to the airwaves, the full range of community needs and concerns are more likely to be expressed. Therefore, in order for broadcast localism regulation to truly be successful it must also require stations to provide open access to their studios and facilities for interested local citizens to produce content, similar to the conditions required by

PEG legislation that regulates cable television access channels.

A new operationalization of localism is based primarily on meeting the needs and interests of citizens living within the licensed broadcast area of the radio station. In addition, it relies on local citizen access to the airwaves to best determine locally relevant content rather than the historic “top down” paternalistic model. Obviously this operationalization hinges on the ability to provide access not only to the airwaves, but also to the facilities needed for production and broadcast.

This application of access to localism is tailored primarily toward public radio stations using HD Radio technology. In order for it to be successfully implemented however, public stations must consider a return to the founding operating principles of public broadcasting expressed in the Public Broadcasting Act of 1967, and discussed in the previous chapter. Applying the founding principles to a public station’s HD Radio channel provides a return to the concept of “serving the underserved” and makes the implementation of open access for the expression of locally relevant content much easier.

It is important to note that prior to the development of HD Radio technology, implementing the operationalization of localism in this manner would not have been possible. HD Radio, with its ability to provide multiple channel streams where previously only one could exist, offers public radio stations the opportunity to serve the goals, concepts, and regulations of localism in a much better and practical manner.

Additionally, for this new implementation of localism to be effective, Congress will have to amend the Public Broadcasting Act to encourage the voluntary participation of public stations to provide open access to one of their HD Radio digital channels as well as the production and

broadcast facilities needed for local public production. Congress must also attach a funding condition in any amendment it provides which reduces or eliminates CPB funding for stations that choose not to participate in this proposal. Stations that do participate will keep and maintain their funding and may see it increase in order to help defray the costs associated with providing public access to studios and production equipment.

A new operationalization of broadcast localism with public access at its core provides opportunities for the creation and dissemination of locally produced, locally-relevant content that can have a positive impact on the informational, political, and cultural needs and interests of local audiences. In addition, this new implementation removes the paternalistic, “top down” model of achieving localism by not requiring a small handful of individuals to determine what programming is best for a wide variety of listeners. Broadcast localism based on open public access gives the people the opportunities to create and provide the content that best serves their needs and interests. Again, at the center of this new implementation of localism is access. The next chapter addresses several legal issues surrounding access to consider whether it is constitutionally permissible to require public radio stations using HD Radio technology to set aside a portion of their digital spectrum for public access. Following that discussion, the full proposal to facilitate voluntary participation will be presented.

Chapter Four

ACCESS THEORY AND THE CONSTITUTIONALITY OF PUBLIC ACCESS: A NEW OPERATIONALIZATION OF BROADCAST LOCALISM

As mentioned in chapter one, the growth and demise of the public sphere is attributed to the infusion of business and corporate interests starting in the 18th century (Habermas, 1962; Dewey, 1927; Calhoun, 1997; Fraser, 1997). This led to the loss of the “general, objective topic of interest” among members of the public and eventually the accepted idea that individuals should be treated as consumers first and citizens second (Calhoun, 1997; Fraser, 1997; Habermas, 1962). For Dewey the concept of the local, robust, participatory public was also replaced with consumer interests and ideology. Dewey saw the public as fragmented and scattered, in part due to the commercialization of the public, but also in part by changes in communications technology that removed localism from the lives of citizens (Dewey, 1927; Campbell, 1998). As a result, the public has become “confused” and “bewildered” (Dewey, 1927, p. 116). Due to the multitude of information options available to choose from, Dewey’s solution to the problem of the public’s confusion was to use the tools of mass communication as a means of expressing shared experiences in the hope that doing so would allow for the greater exchange of local information, which would eventually lead to the creation of the “Great Community” (Dewey, 1927, p. 142).

The best way to enable Dewey’s solution and provide an environment where the local public has the opportunity to present its shared experiences is through public access to local broadcast media, and specifically radio. Unfortunately the mass media industry, with its constant focus on maximizing profit, has consistently denied access to the public.

Chapter three presented a new application of broadcast localism specifically for public stations employing HD Radio technology. The new operationalization included public access as a critical component to its successful implementation and use. This chapter examines the characteristics of public access as well as previous attempts to legislate it, and is done in order to obtain a better understanding of it and provide future options so that the new operationalization of localism can reach its greatest potential. The purpose of this chapter is to further convince the reader that encouraging public radio stations to set aside a portion of their HD Radio spectrum for open public access is beneficial to the sustaining of a democratic polity and that such a proposal does not infringe on the constitutional rights of a radio station.

Access Theory

The analysis of public access requires an examination of access theory. Access theory questions the First Amendment rights that broadcasters claim in regard to their control and supervision of the airwaves. According to Barron (1967), a legal paradox exists where the First Amendment protects the public from government censorship of expression yet offers no protection from corporate or private censorship, such as that found in the private ownership of broadcasting outlets. Barron argues that this form of censorship – one that is enabled through the private stewardship of public property – tends to favor the expression of comfortable, familiar speech and topics, while restricting or denying the expression of “unorthodox” perspectives and viewpoints (Barron, 1967, p. 1641).

Barron notes that over time the mass media have successfully developed a First Amendment defense against providing access to alternative viewpoints, stating, “the first amendment guarantees our (private broadcasters’) freedom to do as we choose with our media. Thus the constitutional imperative of free expression becomes a rationale for repressing

competing ideas” (Barron, 1967, p. 1642, emphases added). In other words, broadcasters take the approach that the First Amendment not only protects their freedom *of* expression, but also protects their freedom *from* expression (Barron, 1967). As a result the variety of opinions and information presented becomes more narrow and restricted:

... the opinion vacuum is filled with the least controversial and bland ideas. Whatever is stale and accepted in the status quo is readily discussed and thereby reinforced and revitalized (Barron, 1967, p. 1646-1647)

For Barron, “the idea (of) restraining the hand of government is quite useless in assuring free speech if a restraint on access is effectively secured by private groups” (Barron, 1967, p. 1656).

Barron called on the Supreme Court to reinterpret the First Amendment so that broadcasters would be required to provide access to citizens. It is important to note that Barron wasn’t calling for the government to force citizen participation. Instead, his call upon the government was to force broadcasters to allow citizen participation (Barron, 1967). This call was made in the hope that alternative viewpoints and expressions would at least have the opportunity to be broadcast. Barron’s argument was that as stewards of public property (in this case the broadcast spectrum) broadcasters had the responsibility not only to provide alternative and diverse content, but to also provide access for broadcast of public productions (Barron, 1967).

In regard to content, it is important to note that access theory is not concerned with what is being expressed unless it is malicious in intent, patently false, and/or inflammatory to the point of creating physical harm (Barron, 1967). What access theory requires is simply the *opportunity* for ordinary citizens and groups to obtain access to the tools and vehicles needed for expression through the local broadcast media.

The First Amendment to the Constitution severely restricts the government’s ability to interfere with the speech rights of private entities. As discussed more fully in the remainder of

this chapter however, the Supreme Court has held that the unique characteristics of broadcasting justify a more lenient standard of review when determining the constitutionality of broadcast regulations. As explained below, courts have consistently held that various content and access rules can be imposed on broadcasters to ensure they fulfill their public interest mandate.

In regard to public access in broadcasting there have been several Supreme Court rulings that enable the government to require broadcasters and cable operators to provide public access to production facilities and the airwaves. These proceedings not only address the issue of providing literal access to citizens, they also address how content transmitted on public access channels can be regulated. The discussion of public access legality in this chapter looks at two Supreme Court rulings that address both literal access to the broadcast media, as well as how content may be regulated.

The Regulation Of Access And Content

Red Lion Broadcasting v. Federal Communications Commission

The *Red Lion* case stemmed from a radio broadcast by the Reverend Billy James Hargis on a station in Red Lion, Pennsylvania in 1964. During the broadcast Hargis discussed the 1964 presidential campaign and reviewed a book by Fred Cook titled, *Goldwater – Extremist on the Right*. Hargis disagreed with the premise of Cook's book and delivered a monologue questioning Cook's talent and integrity as well as his loyalty to the United States (*Red Lion Broadcasting v. Federal Communications Commission*, 1969; Barron, 1973). Station management denied Cook's requests for an opportunity to respond to Hargis' comments. The FCC issued an order requiring the station to provide Cook with free time for a reply, which the station immediately appealed on the grounds that if Cook wanted the opportunity to respond he

would have to pay for it (Barron, 1973). Ultimately the conflict made its way to the Supreme Court which ruled that the Fairness Doctrine and the personal attack rules in place at the time were constitutional, and that Cook had the right to respond to Hargis' comments on the air (*Red Lion Broadcasting v. Federal Communications Commission*, 1969).

The *Red Lion* ruling is relevant to the proposal in this dissertation, in that it gives the FCC the authority to require broadcast stations to provide access to the public. Broadcasters cannot deny access simply because they want to. The Court ruled that the rights of the listening and viewing public were more important than the rights of the broadcaster, primarily due to the broadcaster's control over the scarce resources used for public expression (*Red Lion Broadcasting v. Federal Communications Commission*, 1969; Barron, 1973).

Turner Broadcasting System v. Federal Communications Commission

In 1992 Congress passed the *Cable Television Consumer Protection and Competition Act*, which required cable television systems to reserve a portion of their channel lineup for the transmission of local commercial and public stations (*Cable Television Consumer Protection and Competition Act*, 1992; *Turner Broadcasting System v Federal Communications Commission*, 1994). Cable operators challenged the constitutionality of the requirement on the grounds that it was a content-based regulation, restricting their ability to choose the programming they provided on their systems, and as such merited strict scrutiny (*Turner Broadcasting System v. Federal Communications Commission*, 1994). The Supreme Court rejected this argument, claiming that the regulations did not intrude on the editorial control of cable operators and were therefore content-neutral and did not merit strict scrutiny (*Turner Broadcasting System v. Federal Communications Commission*, 1994).

This ruling is relevant to the proposal discussed in this dissertation because it gave the government the right to mandate the carriage of programming on privately owned networks. The Act's specific requirement (reserving a portion of available channel space for the transmission of local broadcast stations) is not unconstitutional because it does not regulate the content being transmitted on the cable channels. The Act's requirement simply mandates that cable operators must carry the programming of local broadcast television stations, regardless of the content provided. This is a critical condition for the proposal presented later in this chapter, as it would require public radio stations to set aside a portion of their HD Radio bandwidth for the carriage of locally produced content.

Critiques Of Public Access

The results of these rulings are necessary to consider for this proposal in that they remind broadcasters that the government has the legal right to mandate and regulate not only the public's ability to obtain access to the airwaves, but also to what may and may not be said. The *Red Lion* decision alone is enough to require broadcasters to provide access to the public, while *Turner* requires cable outlets to carry broadcast content with no ability to censor it. These two rulings can be applied to public radio stations using HD Radio technology to make them provide open access to the public, without censoring or editing the content on that channel.

There are two other issues to consider if public access is to be required on public stations. The first centers around the practical concern of providing access not only to the broadcast spectrum, but to the production equipment needed to broadcast content. Under the proposal in this dissertation, a page from early PEG regulation (FCC, 1969) that required cable operators to provide public access to media production facilities and equipment is used. A very viable concern is how public stations would be able to provide this equipment.

Another issue lies with the “takings clause” portion of the Fifth Amendment to the U.S. Constitution. The takings clause is a provision of the amendment, which states “private property [shall not] be taken for public use, without just compensation”. While the Fifth Amendment applies to federal activities, the 14th Amendment protects seizure of property from state and local governments (Funk, 2005). There are two requirements that the government must meet in order to exercise this power of eminent domain. First, the property to be acquired must be designated for “public use”. Second, the government must pay “just compensation” to the owner of the property that is taken (Funk, 2005).

The takings clause could become an issue for broadcasters if one considers the private ownership structure of public commodities, including the broadcast spectrum. The FCC and Congress however, have long agreed that the airwaves are public property (FCC, 1934) and that broadcast networks and stations are simply charged with the stewardship of that spectrum in a manner that best serves the public. In addition, with the ability of HD Radio to produce many channels for broadcast, stations arguably will have an abundance of space available to not only provide public access but also continue to operate their main station signal as they always have. As such, the takings clause loses some of its merit in regard to spectrum space when it is applied to stations using HD Radio technology.

Where the takings clause may be a concern is in providing the physical equipment necessary for the public to broadcast, including production equipment such as microphones, CD players, on-air consoles and studio facilities. It is the position of this proposal that public stations should not have to give up any of the physical facilities they need to broadcast for the creation and operation of a digital public access channel. Federal funding from the CPB and

other sources may be obtained by public stations to help pay for the costs of building and maintaining production equipment for citizen access and production.

How Can Public Access Benefit Public Radio Stations?

The most basic way that access can be applied to localism is to provide a conduit for expression by local groups and citizens. For radio, this has historically either been impossible or only applicable on a small scale. In many broadcasting markets there has simply been no available spectrum space for the development or creation of a station that could provide open public access. With HD Radio the problem of spectrum scarcity is solved. As will be discussed in further detail in the next chapter, HD Radio allows for the creation of several extra broadcast channels, the number of which depend on the amount of space the licensee wishes to use for each service. The technology creates a tremendous opportunity for the dissemination of a variety of local perspectives, information, and entertainment.

HD Radio gives public radio stations the opportunity to renew their commitment to serving the diverse needs of their local public. Providing a public access platform would allow for the presentation of viewpoints that may have historically been ignored or underrepresented in a local listening area, which would help public stations in their return to the spirit of public interest as expressed in the Public Broadcasting Act of 1967 (PBPB, 1999; Siemering, 1970).

Additionally, public radio benefits from a combination of access theory and HD Radio by using it as a means of marketing itself as a unique niche service provider. Allowing local access provides a station with a remarkable public relations angle that could be used to promote all of the station's other activities within the listening area. This in turn could lead to increased listenership and an increase in local listener donations and underwriting.

A Proposal For Public Radio To Provide Public Access

The rulings previously mentioned in this chapter have been, and still are, relevant to issues of public access. At the very least the Court has given the government the jurisdiction to require public access on broadcast and cable outlets, and even allow it to go as far as regulating the content provided by these outlets. As a result, proposing that Congress amend the Public Broadcasting Act of 1967 to *require* public radio stations to provide public access to local citizens on an available HD Radio channel is not out of the question in regard to passing constitutional muster.

The proposal in this dissertation does not go that far however. Instead, it calls for Congress to amend the Public Broadcasting Act to make federal funding to public radio stations using HD Radio technology conditional upon their participation in providing public access on a portion of their digital spectrum. Stations that choose to provide public access on their HD Radio channel must set aside at least 24 kps of digital bandwidth for open access and production. In addition, stations must provide the production facilities and studios necessary for broadcasting on the open access channel. Stations that choose to participate will continue to receive CPB funding and if necessary, will be eligible to receive additional government assistance to help defray the costs associated with providing access to studios and production equipment. Stations using HD Radio technology that choose not to participate will have their CPB funding either reduced or eliminated.

The plausibility of attaching federal funding to participation in this proposal is not out of the question. *United States v. American Library Association* (2003) provides a precedent in which the conditions regarding the receiving of government funding can be attached to compliance with federal rules and regulations. In this particular case, public libraries that

refused to install filtering software on their internet computers under stipulations set forth in the Children's Internet Privacy Act (CIPA) were threatened with the loss of financial assistance from funding programs such as the E-rate program and federal grant programs supervised by the Library Services and Technology Act. The American Library Association argued that the CIPA requirement was a violation of the First Amendment, in regard to the ability of libraries to provide patrons with access to constitutionally protected speech. The Court disagreed, stating that the CIPA stipulations had clear guidelines meant to block the access of pornographic material on library computers, which did not violate the First Amendment rights of libraries to provide access to protected speech, or the rights of computer users in libraries to access other forms of protected speech. In addition the Court claimed that when the federal government appropriates public funds for public entities it is entitled to define the entity's limits and restrict funding if it feels its regulations are not being abided to (*United States v. American Library Association*, 2003).

The decision handed down in the *American Library* case reaffirmed the right of the government to impose conditions on federal funding while making content-based decisions regarding what speech to make available to the public. Applying the *American Library* ruling to this proposal does not impose a speech restriction on public radio stations, since the primary broadcast channel and any additional digital broadcast channels would not be affected; stations would be able to continue programming those channels as they saw fit.

Although the Courts have ruled that the government may require broadcasters to provide access, it is believed that such a measure would be a draconian step and would harbor ill will between the government and public broadcasters. Instead, Congress should amend the Public Broadcasting Act in a way that invites participation from stations using HD Radio technology

and tie a financial incentive into participation. While attaching conditional funding to participation may be seen as a punitive form of regulation it should also be promoted as a proactive form of legislation, in that stations that participate will continue to receive CPB funding as well as additional funding to help with the costs of running public studio facilities.

It is important to reiterate that the funding aspect of this proposal is tied to voluntary participation, and not on the content (provided or not provided) on the digital public access channel. The goal of the proposal is to provide an open platform for public access and expression in order to better operationalize the concepts and rationales of localism using HD Radio technology. This proposal is content-neutral and therefore would have to pass only rational scrutiny.

Specifically in regard to content, Congress should legislate that public stations may not be allowed to edit or censor content on their digital public channel unless it runs afoul of current broadcast obscenity or indecency guidelines. The spirit of this provision comes from some of the earliest PEG regulation, which prohibited cable operators from censoring speech on their public access channels (FCC, 1969). The inability to censor content supports the concepts and rationales of localism as mentioned previously, by providing an outlet for locally oriented programming that at times may be alternative or “unorthodox”.

In sum then, the overall proposal made in this dissertation calls upon Congress to amend the Public Broadcasting Act to provide conditional funding incentives to public radio stations using HD Radio technology to use at least 24 kps of bandwidth on their digital frequency for open public access and use. Stations choosing to participate will continue to receive funding from the CPB and other federal sources and may even have their funding increased to help defray the costs of providing access. While providing access to the airwaves is important,

stations that participate must also provide public access to broadcasting studio facilities and equipment so that locally relevant content may be produced. Stations using HD Radio technology that choose not to participate will have their CPB funding either reduced or eliminated, although they will continue to be able to secure funding from other sources as they always have. Participating stations may not censor or edit content on the digital public channel unless it violates current FCC standards regarding obscene or indecent speech. The intent of the proposal is to foster and develop a new form of broadcast localism based on public access, that does a more adequate job of meeting the needs and interests of local communities than current methods of implementing localism do.

In order for this proposal to be effective it must have the practical and physical ability to be enacted. The final chapter of this dissertation discusses how HD Radio technology is able to provide multiple channels within a station's frequency. It also looks briefly at the history of PEG regulation in order to consider the legal issues regarding the provision of access, while regarding how some characteristics of PEG access can be applied to public radio.

Chapter Five

HD RADIO AND PEG ANALYSIS

After considering the theoretical concepts of localism and access as presented in the previous chapters, it is necessary to consider how they can best be put into practice. This chapter provides a brief review of HD Radio technology and offers some suggestions for its use in providing multiple streams of content. This chapter concludes with a brief examination of regulation that has pertained to PEG channels on cable television systems. It is argued that in certain instances PEG regulations can be used to legally require public radio stations to provide a public access platform on a portion of their HD Radio signal.

The Development Of HD Radio

Prodded by the development and implementation of high definition television, satellite technology, and competing DAB technologies such as Eureka 147, terrestrial radio broadcasters in the United States began considering the creation of their own DAB system in the late 1980s. In 1990, in order to implement and foster a terrestrial DAB system for broadcasters, the FCC determined that experimentation with both the Eureka 147 system and an alternative DAB system had to be conducted before a final regulatory decision could be made (FCC, 2002).

In 1991 CBS, Gannett, and Westinghouse Electric Corporation formed USA Digital Radio (USADR) in order to develop an alternative DAB system for American radio. The key requirement demanded by American broadcasters was that any working DAB system must operate within the current AM and FM bands.

USADR developed prototypes of its DAB system in seven cities from 1992 to 1995 and demonstrated that a digital signal could be broadcast at the same time and on the same FM or AM frequency as an analog signal, with minimal interference (USADR, 1998). During this

period pressure within the radio industry to develop and implement some form of digital broadcasting began to swell. Terrestrial radio broadcasting would be the last form of electronic media to convert to a digital delivery system and the industry realized that if changes were not made a drop-off in listenership would occur, significantly harming the industry. Many radio broadcasters as well as the FCC believed that DAB of any type was “not only a technical opportunity, but... a competitive necessity” (FCC, 2002).

In the mid-1990s, the NRSC, an industry group formed by the NAB and the CEA formed a DAB subcommittee to study the issue of competing technologies (FCC, 2002; Lockett, 2004). In collaboration with CEMA, the subcommittee began a six-year study in 1992 to determine the feasibility and effectiveness of nine different DAB technologies, including Eureka 147 and the USADR system. In its 1998 final report CEMA claimed that Eureka 147 was the only system that provided the acoustic quality that listeners would approve of (Consumer Electronics Association, 1998). CEMA claimed that the USADR system (referred to in the report as In Band On Channel, or IBOC) was deficient in several areas including poor audio performance, and incompatibility with existing analog systems. Although Eureka 147 outperformed IBOC in the 1990s, many broadcasters continued to support it and pressed for further experimentation and development (Consumer Electronics Association, 1998; FCC, 2002). The main selling point for further research with IBOC was that it relied on using the current AM and FM bands.

In 1998 USADR discussed its rationale for the development and implementation of its IBOC DAB system in a petition for rulemaking delivered to the FCC. USADR stressed the importance of a system that would not only be free of multipath interference while providing better quality audio (the standard benefits of any form of DAB), but also argued for a system that would not disrupt consumer use patterns in order for “the continuation of the current structure of

radio in the United States” to exist (USADR, 1998). USADR expressed concern that Eureka 147 might confuse listeners because of the changes in spectrum location that would be necessary. USADR also brought to the FCC’s attention that the private sector had no “viable mechanism” to insure the smooth development to a standard DAB system, and called on the FCC to set regulation that would settle on one standard as soon as possible. It urged the FCC to create an environment where a system could be created that would be as similar as possible to the AM and FM spectrum standards already in place (USADR, 1998).

In August of 2000, USADR merged with Lucent Digital Radio to form the iBiquity Digital Corporation. iBiquity continued to conduct IBOC testing through 2001 and was able to develop a more dependable system that improved audio fidelity and did not experience multipath interference. The NRSC DAB subcommittee released its final report in December of 2001, and concluded that the FCC should approve IBOC as the DAB standard in the United States (FCC, 2002). The FCC followed suit and on October 11, 2002, announced its approval of IBOC as the DAB standard (FCC, 2002; Lockett, 2004). As of this writing, over 1,900 radio stations are broadcasting with IBOC technology (iBiquity Digital Corporation – Find a Station, 2009).

Since patenting its system, iBiquity has become the sole proprietor of IBOC transmission and reception technology in the United States (FCC, 2002; Lockett, 2004). In 2002, iBiquity changed the name of its DAB system from IBOC to “HD Radio”, arguably for marketing and advertising purposes. Financial investment partners of iBiquity include J.P. Morgan and New Venture, along with manufacturing partners such as Ford Motors, Texas Instruments and Harris Corporation. In 2003, Kenwood Corporation reached an agreement with iBiquity to produce the first generation of commercial IBOC tuners and receivers to be used in radio stations. In the areas of programming and content, iBiquity secured partnerships with Citadel, Clear Channel,

Cumulus, Radio One, Viacom and ABC Radio (Schumacher, 2003). By April, 2008, over 340 of Clear Channel's stations were broadcasting an HD Radio signal (Clear Channel, 2008).

Technical Characteristics

HD Radio utilizes the current AM and FM broadcast bands used in the United States (530 kHz to 1710 kHz and 88 MHz to 108 MHz, respectively). When a station is licensed to operate by the FCC, it receives permission to broadcast on a specific frequency (for example, 88.9 FM or 610 AM). HD Radio technology allows a station to digitize a portion of its licensed frequency.

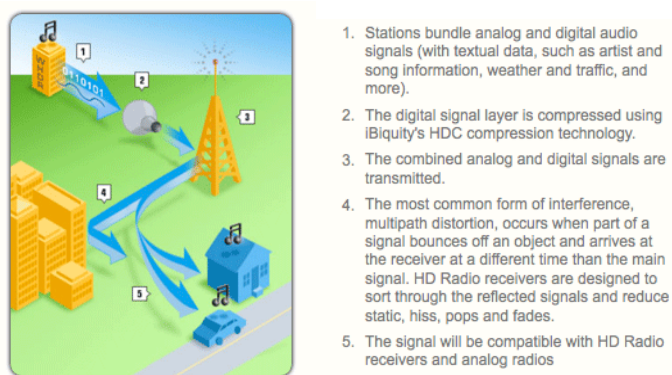
Although HD Radio can be used by both FM and AM broadcasters, the technical information and the proposal presented in this chapter focus on FM use, frankly because it is difficult to find technical information on AM HD Radio signal processing in industrial and academic documents. Documentation from iBiquity and other industrial sources focuses strictly on FM signal processing and applications, leaving AM out of consideration and discussion. The inattention to AM HD Radio is arguably tied into the technical problems associated with AM sky wave propagation and interference issues. AM HD Radio broadcasting is restricted to daytime operations at this time and at local sundown any AM station using HD Radio technology must switch off its digital equipment and return to analog broadcasting due to interference issues (Lockett, 2004). Until this issue can be resolved, it may be impractical to apply the suggestions made in this chapter to AM HD Radio simply because the current technical issues cause AM HD Radio to operate inconsistently at this point. Once these issues have been resolved however, it will become necessary to consider ways in which public AM stations may be able to provide public access for improved local use.

The Hybrid Mode

The most commonly used method of HD Radio broadcasting is the “hybrid” mode, which allows stations to broadcast a digital and analog signal at the same time within the same frequency space. In the hybrid mode a listener’s HD Radio receiver automatically switches from a station’s analog to digital signal as receiving conditions warrant. A listener tuned in to a station’s analog signal with an HD Radio receiver will not lose the signal or experience static and interference because the receiver is designed to “roll over” and automatically receive the same content from the digital signal when necessary (iBiquity Digital, 2003; Lockett, 2004).

There are three advantages of using the hybrid mode. The first, as previously mentioned, is that multipath interference is greatly reduced. Multipath interference occurs when part of a radio signal is reflected by a solid object and arrives at a receiver at a different time than the rest of the signal. This has been a constant problem for radio broadcasting over the years and the hybrid mode greatly assists in eliminating this issue. iBiquity’s hybrid process is displayed in figure 5.1.

Figure 5.1 – iBiquity Digital’s graphic illustration of the reduction in multipath interference using HD Radio



Source: iBiquity Digital Corporation – *How Does It Work?*

(http://www.ibiquity.com/hd_radio/hdradio_how_does_it_work)

The second advantage of the hybrid process is that the analog and digital listening experiences take place at the same frequency location that listeners are accustomed to. Listeners are still able to tune in to the same frequency of their favorite station as they always have and are not be forced to search elsewhere on the dial. This is arguably what USADR was referring to when it asked the FCC to approve of a DAB system that would help maintain the current structure of radio in the United States (USADR, 1998). In addition, listeners who do not yet have HD Radio receivers are still able to tune in to a station's analog signal as they always have, at the same frequency and with no loss of service.

The third advantage is that the hybrid mode gives broadcasters the ability to provide multiple channels on their digitized spectrum space that can be used to broadcast different content than what is found on their analog signal. Providing different programs on separate channels within the same frequency space is referred to as "multicasting", and was in practice by over 200 stations nationwide by April 2006 (iBiquity Digital Corporation – Find a station, 2009). In addition to the examples mentioned in chapter one, other multicasting stations include WZZO in Allentown, Pennsylvania which, currently broadcasts AOR on its analog and digital hybrid channels with comedy programming on a separate digital frequency. WLTI in Pittsburgh currently broadcasts two digital signals in addition to its analog signal (Classic Rock and Urban Adult Contemporary on the digital channels and Soft Rock on the analog signal) (iBiquity Digital Corporation – Find a station, 2009). Several radio networks also provide programming services to provide content for multicasting stations. As mentioned in chapter two, NPR offers a service called "Tomorrow Radio" for its member stations which provides preformatted material suitable for broadcast on digital channels, including classical music, jazz, electronica, folk, and

Adult Album Alternative (AAA) (Lockett, 2004; NPR's Tomorrow Radio initiative brings multicasting to digital radio, 2005).

Beyond the hybrid mode, it is also possible for stations to use HD Radio in a full digitization mode. This is simply digitizing the entire swath of licensed frequency bandwidth. With full digitization however, the only way for listeners to hear any content is to purchase a digital receiver since standard analog receivers are not able to tune in to digital frequencies. Currently there is no federal or corporate mandate requiring stations to adopt HD Radio technology, nor is there a current push to completely digitize the AM and FM broadcast spectrum. The decision to implement HD Radio technology is being left in the hands of individual stations and their owners.

The number of digital channels made available by HD Radio depends on the amount of available bandwidth and the format or type of programming a station chooses to broadcast. A standard analog FM frequency has a bandwidth of approximately 150 kilobits per second (kps), with stations able to use up to 96 kps for digital broadcasting purposes (Lucent Digital Radio, 2002; K. Evans, personal communication, May 2, 2005).

When a frequency is digitized the bandwidth can be "sliced" into any sizes the station chooses. The amount of bandwidth used is determined by the type of content it will carry. Generally, music needs more bandwidth in order to maintain acoustic fidelity and integrity. Moderate-to-high fidelity content such as classical music, rock, country and other standards requires 24 to 48 kps of space for adequate reproduction (48 kps is considered "CD quality", while 24 kps is regarded as "FM quality"). Other formats, such as news and talk, do not require as much bandwidth due to their lower acoustic requirements. As a result these "spoken word" formats can be digitally transmitted with as little as 12 to 24 kps of bandwidth. Below 12 kps the

quality of the audio broadcast degrades significantly however, and begins to sound “crunchy” and similar to a low-quality telephone call. As such, stations are suggested to provide at least 12 kps of bandwidth for a reliable digital hybrid signal (Lockett, 2004; K. Evans, personal communication, May 2, 2005).

Stations that use 48 kps of their available digital bandwidth for hybrid broadcasting will still have 48 kps remaining to do with as they choose. There are at least four hypothetical scenarios for multicasting in the hybrid mode using the remaining 48 kps of available bandwidth:

Table 5.1: One hybrid channel and one CD-quality digital channel

Licensed frequency (150 kps)		
Analog signal	48 kps (for hybrid broadcasting)	48 kps (one channel for multicasting at CD-quality)

In this example two program channels (one hybrid signal and one CD-quality digital channel) could operate where previously only one existed. This is similar to the practice used at WZZO FM.

Table 5.2: One hybrid channel and two FM-quality digital channels

Licensed frequency (150 kps)			
Analog signal	48 kps (for hybrid broadcasting)	24 kps (one channel for multicasting at FM-quality)	24 kps (one channel for multicasting at FM-quality)

Here, three program channels (one hybrid and two FM-quality channels) would be available where previously only one existed. This is similar to the method used at WLTJ-FM.

Table 5.3: One hybrid channel, one FM-quality digital channel, and two AM/Talk quality digital channels

Licensed frequency (150 kps)				
Analog signal	48 kps (for hybrid broadcasting)	24 kps (one channel for multicasting at FM-quality)	12 kps (one channel for multicasting at “AM/Talk-quality”)	12 kps (one channel for multicasting at “AM/Talk-quality”)

In this scenario, four program channels (one hybrid channel, one FM-quality channel and two “AM/Talk quality” channels) could operate where previously only one existed.

Table 5.4: One hybrid channel and four AM/Talk quality digital channels

Licensed frequency (150 kps)					
Analog signal	48 kps (for hybrid broadcasting)	12 kps (one channel for multicasting at “AM/Talk-quality”)	12 kps (one channel for multicasting at “AM/Talk-quality”)	12 kps (one channel for multicasting at “AM/Talk-quality”)	12 kps (one channel for multicasting at “AM/Talk-quality”)

Finally, in this example five program channels (one hybrid and four “AM/Talk quality” channels) could operate where previously only one existed. Stations in this example would have four digital channels capable of delivering talk format content that could range from sports, to talk programming, to news.

It is also possible for a station to divide the 48 kps of bandwidth space used for the digital portion of hybrid broadcasting. Dividing that portion into two 24 kps signals for example, would create another music channel while still allowing the station to transmit an FM-quality hybrid digital signal. If full digitization on the FM band is ever achieved, a station choosing to provide

all talk content could theoretically provide 12 separate channels within its licensed spectrum space.

Technically speaking HD Radio provides stations with an opportunity to increase the number of channels they can provide for programming. The technology facilitates the new approach to localism discussed previously in that it provides the technical ability to provide another broadcast outlet that can be used for access by local citizens and groups.

With the technical capabilities of HD Radio explained, it is important to consider a possible operational framework for the technology to be best used in order to foster public participation. This requires a brief examination of PEG access in the United States and several attempts at its regulation. Doing so creates the potential of applying PEG regulations to the public stations participating with the proposal mentioned in the previous chapter.

PEG Channels And Public Access

Public access finds its roots in the FCC's *Third Report and Order*, issued in 1972. In that order the FCC required cable operators in the top 100 markets to provide channel space for local PEG access. Optimally, each cable operator would provide three separate channels (one for each service) however the FCC agreed that local demand could be used to determine the number of channels made available. At the very least, one channel was required (FCC 1972). The *Third Report and Order* also required cable systems to provide all of the physical equipment necessary for citizen production of content including studio space, cameras, microphones, editing equipment, and more. Studio access was to be provided to anyone who wished to participate on a first-come, first-serve basis (FCC, 1972).

In 1979 PEG regulations were first challenged on their constitutionality, based on the legality of a government organization mandating public access on privately owned cable

systems. In *Federal Communications v. Midwest Video Corporation* (1979), the Supreme Court struck down PEG regulations on the grounds that the FCC had imposed common carrier obligations on cable systems, and that cable operators had no discretion regarding who could use their PEG channels and what could be broadcast on the channels (part of the 1972 Order stated that cable operators could not edit or censor content produced on their PEG channels). This ran against the standard set in the Communications Act of 1934, which stated that a person engaged in broadcasting could not be considered a common carrier. While the FCC rule requiring cable systems to provide PEG access was struck down, the Court ruled that cable operators still had the option of providing public access channels on their systems if they wished to do so (*Federal Communications Commission v. Midwest Video Corporation*, 1979).

In 1984 Congress passed the *Cable Communications Act*, an amendment to the Communications Act of 1934, which addressed the changes needed in legislation to provide for the increasing popularity and growth of cable television. Specifically in regard to PEG access, the 1984 Act gave local municipalities the power to require cable operators to provide PEG channels as part of their franchise agreements (*Cable Communications Policy Act*, 1984). The 1984 Act is similar to the ruling in *National Broadcasting Company v. United States* (1943), in that it gives local entities the power to determine the content provided on their local media outlets. The 1984 Act also made it legal for the government (in this case a local municipality) to require a private company to provide access on its communications system.

In 1992 Congress passed the *Cable Television Consumer Protection and Competition Act*. While dealing primarily with regulating cable pricing and competition, section 10(c) specifically required cable systems to censor sexually explicit content and programming on public access channels (*Cable Television Consumer Protection and Competition Act*, 1992).

While the Supreme Court struck down this provision on First Amendment grounds in 1996 (Jost, 1996; *Denver Area Educational Telecommunications Consortium v. Federal Communications Commission*, 1996), the Court noted that many cable operators had already been engaging in the practice of requesting indemnification from PEG channel users for any costs associated toward the possible defense of prosecution in the event an allegedly obscene program was broadcast (FCC, 1993). In other words, if a third party used a PEG channel to broadcast obscene or sexually explicit content, the cable operator had the right to request compensation from the third party in the event civil or criminal prosecution occurred as a result of the broadcast. This voluntary action between cable operators and access channel users led the Court to rule that this provision of the 1992 Act was unnecessary as well as unconstitutional (*Denver Area Educational Telecommunications Consortium v. Federal Communications Commission*, 1996).

Similarities And Differences Between Peg And Digital Public Radio Access

As mentioned previously, the overall purpose of this dissertation is to provide a proposal that requires public radio stations to provide public access using their HD Radio technology. In order to make such a proposal effective it is advisable to apply some of the characteristics of previous PEG legislation to public radio, while questioning the use of others.

To begin, the proposed use of PEG legislation on public radio stations finds similarities with the 1972 *Third Report and Order* and the 1984 *Cable Communications Act* in regard to the censoring of content. Public radio licensees, much like cable system operators, should not have the authority to censor content on their digital public access channel unless it is deemed obscene or indecent by current legal standards. Government regulation restricts cable operators from censoring or editing material on their PEG channels (FCC, 1972; *Cable Communications Act*,

1984; *Cable Television Consumer Protection and Competition Act*, 1992), and that should also be the case for managers of digital public broadcast channels. The licensee of a public station operating an HD Radio PEG channel should not be allowed to restrict speech on that channel unless it goes against FCC rules regarding broadcast obscenity. It is important to remember that an HD Radio PEG channel still operates as a broadcast channel and is therefore still supervised by broadcasting rules and regulations concerning obscenity and indecency (FCC, 2002). In an effort to protect themselves, licensees of digital public access channels may relegate the broadcast of indecent material to current “safe harbor” hours between 10pm and 6am. Licensees may also take the protective step of requesting indemnification in the form of financial compensation for costs and expenses incurred from prosecution in the event individuals and groups using the digital public channel broadcast obscene, indecent, or libelous material.

Where this proposal differs somewhat from previous PEG legislation is with the 1979 Supreme Court decision that gave cable operators the option to provide public access channels. While the proposal in this dissertation encourages the voluntary provision of a public access channel on a public station’s HD Radio frequency, it does require participating stations to provide all of the necessary access to broadcast facilities as well as the training needed for program production by local citizens and groups.

PEG requirements for cable television provide an excellent blueprint when applied to the creation and application of operational standards for digital public radio access. In order for the proposal presented in this dissertation to be successful, Congress must strongly recommend that the creation and operation of digital public access channels model themselves after the practical applications of PEG regulation, in regard to the provision of access to equipment and the regulation of content.

Concluding Remarks

We have an opportunity in radio to avoid the experience we have had so far with digital television and accord the public interest the high priority it deserves. The additional program streams that are becoming digital reality could be a real boost for localism, competition, and diversity. I hope we will not miss this opportunity to make sure that the American people realize the full benefits of the digital transition. (Copps, 2005, p. 124)

The proposal presented in this dissertation is intended to create and implement a new operationalization of broadcast localism that relies an emphasis of public access. It seeks to require all public radio stations employing HD Radio technology to provide at least 24 kps of digital bandwidth for public access, based on the legislative framework of PEG channel access previously used by cable television stations. Stations will be required to provide physical access to all necessary broadcast equipment and facilities to members of the local general public on a first-come, first-serve basis and will not be allowed to edit or censor programming unless it runs afoul of current obscenity and indecency broadcast regulations. Public stations will be encouraged to provide PEG access on a portion of their HD Radio spectrum or lose funding that comes from the CPB. While these requirements may seem restrictive on the surface it is important to consider that they will only affect a small portion of a station's broadcast frequency, leaving the remaining analog and digital bandwidth to the station to do as they wish.

It is important to note that this proposal does not call for the elimination of NPR or any of the programs it offers. Instead, it seeks to call attention to the lack of local content on public radio stations and offers a solution to help improve their localism efforts through the use of a new broadcasting technology. It seeks to find a "happy medium" in which the market-driven programming currently found on NPR member stations can still exist, while at the same time making room for more localized content that is produced by community members in order to provide exposure for locally relevant content. This "bottom-up" approach to localism will lead

to a greater exchange of ideas and information, which will eventually lead to a better understanding of the diverse needs and characteristics of local areas. This proposal allows for public radio to live up to its name by providing locally relevant content to a variety of listeners and not simply catering to a niche audience in order to obtain more donations and contributions.

This proposal is also made in the spirit of using the democratic qualities of broadcast radio to shape and develop a new form of localism that emphasizes participation and access. Regulating the use of public radio in this way creates an opportunity for local public involvement and participation in regard to the expression and exchange of content that meets the informational, political, and cultural needs and interests of local citizens. Creating opportunities for local participation and inclusion is one of the best ways to help revive the notion of the local public and create an environment where open and inclusive debate and discussion may take place. Public radio is best suited for a proposal such as this due to its original mission and purpose, which were intended to provide an opportunity for the expression of diverse and local voices. The profit motives of commercial radio are not conducive to the creation of public spheres that cater to marginalized and minority audiences. Public radio is also a better fit for this proposal because public funding can come with obligations and requirements from the government. In order for this proposal to be effective however, public radio broadcasters must be willing to return to the founding purposes of public radio and enable them on the digital public access channel. Doing so would insure that all community voices and opinions would have the opportunity for expression.

Radio is still relevant in today's media world and it still has characteristics that make it unique when compared to other forms of media. Radio's relative low cost of production and consumption coupled with its ability to foster inclusion and participation and its inherent ability

to serve the needs of local audiences all add up to a powerful medium that serves the public in a variety of ways. When radio's greatest assets are applied to HD Radio technology, with its technical ability to provide multiple streams of content and information, a new era dawns in the medium's ability to not only serve the local public but to also implement a new *method* of serving the public through open access to its digital channels. This can best be achieved through public radio broadcasting with its founding principles of "serving the underserved" and creating programming that is intended to appeal to as wide and diverse a local audience as possible. Using the example of PEG channels and their commitment to localism and public access, this proposal has a practical template from which to work from.

The proposal in this dissertation is intended not only to provide the public with a broadcast outlet for the expression of locally relevant content, but also to promote the responsible use of such a channel. Radio (and public radio in particular) must avoid using HD Radio technology simply as a means of providing the same mainstream, standardized content that it currently offers on its analog signals. Doing so would be a tremendous waste of the technology's potential.

Providing a locally accessible public channel provides an outlet for the expression of locally relevant content that aids the public in discovering more about itself and the individuals and groups that comprise it. It also provides a mass media outlet that has the potential to instantaneously reach many more people locally than a podcast or Internet radio. Much more than that however, providing such a channel would lead to increased participation and involvement by members of the local listening community. This in turn would lead to a greater exchange of information and entertainment, which in turn would lead to a deeper dialogue taking place between various segments of the local population. When dialogues are opened, the

potential for the development of a stronger, more vibrant public is created, which is one of the founding principles of a strong democracy.

This proposal is meant as a first step in that direction. HD Radio technology provides local public radio stations with a unique opportunity to create an environment where the potential of addressing local issues, exchanging information and cultural material that reflects the interests and needs of local audiences, and creating an open environment for debate and discussion exists. This potential however, will not come to fruition without the active participation of local public broadcasting authorities and citizens, with some government regulation mixed in. This proposal is designed to encourage the involvement of as many of these entities as possible, so that ultimately localism, the public, and democracy can be served.

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