STRUCTURALLY UNSOUND:

THE CHANGING STATE OF LOCAL TELEVISION

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The centralized structure of ownership of the local television industry in the United States today has resulted from a combination of regulatory and market pressures. This dissertation analyzes the ways in which centralizing tendencies in ownership structure have been accompanied by the centralization of operations. As station groups add more stations and seek to operate the stations they already own in an ever more profitable manner, changed industrial practices are vitally important because they have direct effects upon the product of those stations, especially local television news.

In analyzing such centralizing tendencies, the project focuses not only on centralization of ownership and operation, but on two further factors as well: changing interpretations of the "public interest" and the development of technologies for local television stations. Changing interpretations of the "public interest" provision of regulatory law permitted and encouraged station groups to grow larger, redefining the structure of the local television industry, even in the times of heaviest restriction. In terms of technological development, after a brief period of equipment designed simply to get product on the air, television equipment developers followed a consistent guiding principle of staff reduction and job simplification which aided this momentum

towards centralization. The combination of changing ownership structures, shifts in understandings of "public interest," and new technologies has resulted in new business models built around invoking economies of scale, including centralcasting and multi-channel operation.

These new business models have dramatically altered the program product of local television stations, especially local news. News programming, which initially entered broadcasting in response to the regulatory mandate that broadcasters serve the public in return for free access to the public airwaves, has been transformed into a primary source of local station revenue. This commodified version of news programming is the logical result of practices begun in newspapers and continued in radio broadcasting. The news product of local stations is an area of vital concern in the present day media environment, as the quantity of news on the air increases without a corresponding increase in newsroom resources, jeopardizing the quality and veracity of those news programs.

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PREFACE

I am deeply indebted to the many individuals who have worked over the past several years to push me towards completion of this task, and to keep me balanced during the process. I have profound respect and appreciation for the members of my dissertation committee for their individual accomplishments and their efforts on my behalf since my return to higher education. Dissertation Director Carol Stabile's merciless editing, unflagging support and mentoring, and ability to stay positive and encouraging in the face of my all-too-frequent lacks – of arguments, correct spelling, proper grammar, or any sort of logic or predictability at all – are directly responsible for my completion of this project. I started the marathon, but Carol was the one who dragged me over the line when I would have faltered. Jonathan Sterne has demonstrated by example that it's possible to be an academic and still rock, and has been a constant source of inspiration for my writing and teaching. Pete Simonson has greatly influenced both my study habits (we have to read HOW many pages?) and my teaching style, and to the extent that I am any good at either, I owe a great deal to his efforts. Finally, Rob Bellamy set me on the right road at the outset of this project by invoking the words "Structure, Conduct and Performance," and his research has broadened my perspective on the field of television studies and improved this project as a result.

The support I have received over the course of my education from family and friends has been limitless. My parents, Paula and Pete, never stopped believing in my success for an instant,

even when I doubted, and the support of the rest of the Baggerman and Milchuck clans has been phenomenal. Heather Fisher has been my frequent confidant and constant reality check, and my stalwart companion and true friend since we crossed the threshold at the University of Pittsburgh. Todd France is the only person crazy enough (so far) to claim my friendship for as long as he has, and has preserved my sanity on any number of occasions. Finally, Laurel Gleason has been the best friend, partner, proofreader, and supplier of perspective and happiness that I can imagine. Without her constant efforts, reassurance, and unconditional love I'd still be trying – and failing – to get words on paper.

There are neither words nor treasures enough to reward you all for your efforts on my behalf. So I'll leave it at this: Thank you.

INTRODUCTION: ECONOMICS, STRUCTURE, PRACTICE, AND PRODUCT

> Academics are quick to suggest that television affects society, politics, psychology, but rarely remember that the medium is itself an effect of human actions. We explore how people do things *with* television – they "read" or interpret it, use it, manipulate it, find gratification in it – but rarely think of television as itself something that people *do*. We find it hard to remember that radio and television are not fixed objects to which people react; they are themselves collective human actions. (Streeter 1996, 5)

It is doubtful that the narrowness of vision which Thomas Streeter illustrates above exists solely in the efforts of academics. In the United States, television is an almost universal source of entertainment, news, controversy, and contradiction, much of which inaccurately accepts the fundamental neutrality of the medium as a given. While endless debate abounds over the liberal or conservative bias present in programming, particularly television news, as supporters of CNN or Fox News battle over the "rightness" of their chosen network, the debate fails to reveal, and indeed often obscures, the true allegiance of television broadcasting: loyalty to the bottom line.

Members of the audience at home understand that commercials allow them to watch television programs for free, but are likely less aware that the commercial nature of broadcasting converts them into a commodity and sells them to the advertisers. The same sleight of hand influences discourse critical of the media, which in many cases attempts to critique content without looking deeper to discover the economics which underlie that content. It is in this fashion that the economics of local television, particularly local television news, are hidden in the debates over bias and the distraction offered by the eye-candy tactics of local television news

and news promotion, which substitute visual appeal and the comfort of the news family for content serving the public interest.

When these economic influences upon local television news are explicitly addressed, as in the outstanding *State of the News Media* reports,T[1] the focus is primarily on the profit or lack thereof generated by news broadcasts, or on the general trend towards providing stories which will "hook and hold" an audience. It would be highly inaccurate to say that these are not useful and valid examinations of the interaction between news and economics, because they contribute in significant ways to our understanding of the industry; however, they do not reveal the whole picture.

Hal Himmelstein reveals the broader scope of this interaction in his book on television myth. Emphasizing the need for critical scholars to consider the impact of journalists' work routines, Himmelstein observes that the industry places

> an increased reliance on the packaged press release, news conference, public speech, and "photo-opportunity" – routinely covered stories, often of questionable news value, whose principal value to the news organization is their low cost and easy availability. (1994, 248)

The relation of the larger economic picture to the changing workflow of the newsroom is a valuable focus of observation, connecting economic factors to journalistic practice and thence to the resulting product of local news.[2]

The causal triumvirate of economics conditioning practice conditioning product is a useful tool for analysis, but still forms an incomplete picture. The image is finished with the addition of structure into the mix, conditioned by economics and in turn conditioning practice and product. That structure is determined by economics is well documented in most modern day

[1] The 2005 report is located at this web address: http://www.stateofthemedia.org/2005/index.asp.
[2] Of course this is not a novel occurrence, as the use of these predictable news sources has been a part of newsgathering for over a century. However, it is a useful reminder of the impact of these cost saving measures.

industries, as the desire to implement economies of scale results in both growth and new complementary structural arrangements. The second part of the model, structure conditioning practice, is a fundamental component of another well-respected analytical tool, the Industrial Organization Model.

The IO model is an economic assessment tool which examines the relationship between market structure, the conduct of firms in the market, and the resulting performance of those firms (S-C-P). The model had been used in media analysis in two ways prior to 1995, for structure-only analysis and for more robust examination which included the other measures. In the latter case, analysts have often equated performance with the fulfillment of the public interest obligations of broadcasters, but the results have been less compelling than in the first mode of application (Wirth and Bloch 1995, 16, 19-21, 24).[3] Since Wirth and Bloch's 1995 review, the model has been employed in useful analyses of broadcast concentration and competition in cable and satellite television, and in small media markets, both of which focused primarily on the structural component.[4]

The broader application of the IO model has received criticism for its efforts to append social factors to an economic tool. By conflating the quantitative evaluation of market performance with less concrete and circumscribed measures of performance, such as freedom of speech or diversity of opinion, some media scholars have arrived at conclusions not supported by the workings of the model. Notably, these conclusions are based on two suspect premises: audience demand for public interest performance measures and the willingness of media firms to

[3] For an excellent look at media research which has employed the IO model, see Michael O. Wirth and Harry Bloch, "Industrial Organization Theory and Media Industry Analysis," *The Journal of Media Economics* 8, no. 2 (1995).
[4] See Sylvia M. Chan-Olmsted, "Theorizing Multichannel Media Economics: An Exploration of a Group--Industry Strategic Competition Model," *The Journal of Media Economics* 10, no. 1 (1997). and Benjamin J. Bates, "Concentration in Local Television Markets," *Journal of Media Economics* 6, no. 3 (1993).

compete for audience share by providing such programming. The former premise is not guaranteed, and the latter has been proven untrustworthy under the self-regulating market concept at the heart of the present day deregulated broadcast industry (Fu 2003, 275-278).

Eileen Meehan addressed the difficulty of equating the commercial success of the industry with the quality of the industry product almost two decades prior to Wirth and Bloch's review in her argument for a blended approach to television study. Claiming that both industrial and cultural studies of television failed to completely address its unique nature, Meehan instead proposed a model which embraced both economic and social considerations by examining each topic through the lenses of political economy and cultural studies (1986, 448-449, 455).[5] In 1999, Meehan reiterated the differences between these two approaches in an analysis of their differing perspectives on the resistance model, which positions media artifacts as texts to be interpreted through dominant, alternative, or oppositional ideologies. Where pure cultural studies saw a fantastic opportunity for audience participation and identification, pure political economy viewed the model as yet one more effort to sell audiences to advertisers with the illusion of such participation and identification. Meehan again called for a blended approach to television study as a result (1999, 149-151, 160-162).

Attempting its own blend, this project attempts to synthesize these approaches into a different analytical perspective. Himmelstein's connection of practice to product is compelling, and forms the last part of the analytical chain. The relationship of market structure to firm conduct in the IO Model can be logically reduced to a replicate relationship between structure

[5] Meehan offered five analytic categories for use in this blended approach: "manufacture/creation, commodity/artifact, ideology/culture, consumption/interpretation, [and] audience/publics." Eileen Meehan, "Conceptualizing Culture as Commodity: The Problem of Television," *Critical Studies in Mass Communication* 3 (1986): 455.

and conduct (practice) within station groups, forming the middle part of the chain.[6] Finally, the clear economic determinism at the heart of structural concerns across these perspectives provides the top end of the chain: economics condition structure, which conditions practice, which conditions the cultural news product of the stations. The model, and the project as a whole, seeks to supplement existing perspectives on the news product of local television stations, and by doing so reduce the divide between studies assessing local television content and studies which examine industrial organization. By overlooking industrial context, much content-focused research ignores a potential causal agent, and inasmuch as the authors hope to universalize their results, the absence of industrial context indicates an important gap.[7]

Economic determinism is not a new framework from which to examine either the overall media industry or the specific field of television news. The centralization of the media industry has long been an area of study for critics and scholars concerned with the public interest aspects of broadcasting. “The media system, in democratic theory,” Robert McChesney writes, “was charged with providing information equally so that even poor citizens would have the capacity to be effective citizens, despite their unequal access to resources” (2004, 22). The dichotomy between the democratic purpose of the mass media and its function as profit-making enterprise is a question of paramount importance for political economists.

In a broad sense, studies in the political economic tradition have four characteristics: they involve social change and history to uncover the dynamics of capitalism, they approach each investigation holistically with an eye to the overall social picture, they focus on both analyzing

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[6] An example of a similar approach can be found in David Demers, "Revisiting Corporate Newspaper Structure and Profit Making," *The Journal of Media Economics* 11, no. 2 (1998). See pages 25-28 in particular.

[7] That is not to say that such studies are invalid, as long as they resist a universalizing move. However, trying to make a comprehensive statement about the content of the medium without considering the economics behind that content would indeed be invalid.

the economic system and pointing out policy problems and moral issues that it creates, and finally, they involve an element of praxis, an attempt to effect social change (Wasko 2004, 310). Political economy of communications, specifically, examines the structure and institutions of the mass media with an eye towards their inherent ideologies, which clearly resonates with the service/profit dichotomy. There are four main foci within that tradition: conglomeration, deregulation and commercialism, the impact of changing technologies on the media, and globalization and cultural imperialism (Casey 2002, 163-165). This project fits within the first three investigative areas of political economic communication study, which puts it in conversation with a great deal of mass media research in the last quarter century.

In addition to McChesney's extensive body of work addressing the political economy of the media and its implications for the public interest, both domestic and global, there are many other noteworthy examples of research that share these concerns. Ben Bagdikian's *The Media Monopoly* is highly critical of media ownership structure in the present day, equating media power with political power and emphasizing the danger of placing so much of that power in the hands of so few profit-driven corporations:

> Today, [the] political variety among the mainstream media has disappeared. As the country enters the twenty-first century, the news and analyses of progressive ideas and groups are close to absent in the major media. Similarly absent is commentary on the dangers of this political one-sidedness to American democracy (2000, xvi).

As the title of his work suggests, Bagdikian sees the root cause of the media's lack of attention to the democratic needs of this country as a structural problem caused by the fundamental economics of the industry and abetted by the policy of deregulation and its complete reliance on the marketplace as a regulatory agent. Dennis Mazzocco is even more emphatic in *Networks of*

Power: Corporate TV's Threat to Democracy, detailing the primary structural danger of the current system:

> As the gatekeeper of "truth" in our media-driven society, corporate media conglomerates have the extraordinary power to marginalize dissident voices and discredit political opponents who may threaten their bottom line…. In helping to "manufacture consent," concentrated media ownership continues to provide elite business interests with an awesome state propaganda apparatus for citizen thought control (1994, 141).

These works by McChesney, Bagdikian, and Mazzocco all focus their critiques on the top level of the media hierarchy, the conglomerates and the networks. [8] This is typical of much of the work that examines the political economy of the mass media: because the stakes are so high, the majority of research and criticism addresses the largest players. This project addresses a less common object of study, examining the industry at the next level of ownership, the non-network station group and the local station. This is an important area of investigation, because operational changes at this level directly impact the product of the stations, including news and public service programming, which has strong implications for the communities they serve.

A valuable perspective on the causes and effects of structural change in the mass media is offered in Susan Douglas' history of radio, *Inventing American Broadcasting.* Detailing the formative years of the radio industry through intertwined narratives of technology, society, and economics, she charts the rise of the medium and its representation to the public during that time. Douglas describes the development of the industry at the hands of two realities, the "processes of centralization and institutionalization – private, rarely seen, often incremental and amorphous, and extraordinarily powerful," and the "mediation of those processes in the press" (Douglas 1987, xx). Much of that first reality is as true in the broadcast industry today as it was during the

[8] In the most recent edition of *The Media Monopoly*, Bagdikian refers to these conglomerates as the "Big Six," and bemoans the fact that there are only six corporations that provide the majority of the media we consume.

time that Douglas profiled; the processes of centralization are still often private, rarely seen, and extraordinarily powerful. Technology plays a major role in Douglas' analysis, acting as prerequisite in some cases and as limitation in others. This project draws from Douglas' approach and offers a similar analysis applied to the impact of television technology on the structure and practices of the industry.

Perhaps the loudest voice speaking directly to consumerism and policy belongs to Thomas Streeter's *Selling the Air*. He makes the argument that American television is best described as "corporate liberal," a product of social and political choices which privilege the commercial nature of the industry over other concerns (Streeter 1996, 6). The impact of these social and political choices upon industry structure is important to any analysis of local television, because these structures constrain and condition the practices and products of television stations, especially local television news. Regulatory policy has also had direct effects on news product, requiring or encouraging certain kinds of content. This project will analyze both the direct and indirect effects of policy on the product of local television stations.

It is the purpose of this work to continue the efforts of these authors, looking not at the macro level where their gaze generally rests, but instead at the station group and the local television station. The same centralizing trend that these authors find in the top strata of the industry has occurred no less commonly or dramatically at this lower level, especially in the decades since the first efforts towards deregulation in 1979 and in the aftermath of the Telecommunications Act of 1996. Ownership changes in broadcasting during this latter period have been many and varied, but always with a centralizing force as single-station ownership dissipated under the tide of buyouts generated by the loosening of ownership restrictions. As these stations centralized, they changed as well; a station operates one way when it is a solo

entity, another way when part of a small station group, and yet another way when part of a larger station group. These changes in operation as stations become increasingly centralized are at the core of this project, as are the resulting changes in broadcast product.

In addition to relaxing ownership restrictions in broadcast television, the 1996 Telecommunications Act also instigated technological upheaval in the television industry by requiring each station to surrender its NTSC broadcast license and transition fully to digital broadcasting by 2006, a date which has since slipped to at least 2008. The impending expense of these transitions accomplished two things. First, those entities who owned a small number of stations were faced with an upgrade they might not have the capital to make, which gave them motivation to sell their stations to larger station groups. Second, with the guaranteed need to buy a whole set of new equipment for the transition to digital, station groups looked for technologies that would allow them centralize their operations as much as possible, reducing the need for duplicate staff, equipment, and efforts at their stations. This combination of the externally imposed need for capital investment and the desire to increase economic efficiency set the stage for innovative new models of centralization to emerge.

Changing structure and changing technology have contributed to changing practices in station operation. These changes in practice span all of the departments of a local television station, but most importantly affect the on-air operation and the news department. In the case of the former, technological and structural change have provoked dramatic alterations of workflow and staffing, and in some cases have resulted in the complete elimination of the on-air functions at the local station in favor of centralized program delivery. News departments have seen the most radical change, as television news has transformed from a burden carried by broadcasters in fulfillment of their public interest obligations to a source of limited revenue, and later into a

product generating a majority of the profit and brand identity of many local television stations. In a desire to increase that profit, the news departments of local television stations have been home to many changes in practice which have altered the content of their news products.

This project seeks to address three primary issues which correspond to the three categories of political economy studies described previously. The first of these issues concerns structure. The project will detail various organizational structures used by station groups and the operational changes that these structures have encouraged. Inherent in this examination are discussions of centralization of both operations and management, as well as general cooperation among the stations in the groups. It will also examine the overall centralization of structure on an industry-wide basis.

The second issue concerns the levels of cooperation between policy and industry. The policy critiques offered by McChesney, Bagdikian, Mazzocco, and Streeter are comprehensive, and offer a starting point for analyzing the same issues at the level of non-network station groups. A discussion of commercialism is essential to this investigation, as the profit orientation behind the new business models is ultimately responsible for changes in the product of the stations; this project will examine the economic causes behind the creation and adoption of those new models. Included in this question of commercialism is the ever-present antagonism between public service and profit motive; at issue is whether the changes in structure and resulting changes in content are enhancing or damaging the stations' ability to live up to the standard of 'public interest, convenience, and necessity.' Both Thomas Streeter and Erik Barnouw,[9] among others, have discussed this issue explicitly in their work, coming to the general conclusion that

[9] Barnouw's 3-volume history of broadcasting is extraordinarily useful in understanding the historical trajectory of the competition between service and profit. Erik Barnouw, *A Tower in Babel*, vol. 1, *A History of Broadcasting in the United States* (New York: Oxford University Press, 1966).

historically the profit motive has always been paramount, and the service component a distant secondary concern. This project will attempt to build upon their work in that area, examining the impact of changing structures and operations upon the ideal of public service at the local station level.

The third issue concerns the role of technology in the changing structure and practice of the television industry. Television in particular is a medium that has experienced revolutionary changes in operational practices with each major technological innovation, practices which have directly influenced the product of those stations. The transition from black and white to color television, the implementation of satellite transmission for content distribution, the ENG camera, remote trucks capable of sending live signals back to the station by satellite and microwave, the development of digital television formats, the adaptation of satellite videophones for use in news coverage; the litany of industry-changing innovations seems endless. This project ultimately contends that technologies developed for the broadcast industry have followed a guiding principle of economic efficiency and centralization which have contributed to parallel developments in the structural component of the industry.

This project echoes Douglas' intertwined narratives approach in *Inventing American Broadcasting*, applying the four factors of economics, structure, policy and commercialism, and technology to a new narrative describing the path traveled by local television into the present day. Also similar to Douglas' work, which draws upon press reports about radio broadcasting to provide another view on the new medium, this project incorporates multiple perspectives, juxtaposing academic work and official sources with information drawn from industry trade magazines such as *Broadcasting* and *Television Magazine* and organizational newsletters, such as the *RTNDA Communicator* from the Radio and Television News Directors Association.

Ideally, theory and analysis from an academic perspective combined with the industry's perspective represented in these sources should provide a unique view of the changing structures, practices, and products of the industry.

Chapter One offers a historical perspective on the relationships among ownership, organizational structure, and the practice of journalism. Beginning with the earliest "news" publications in the United States, the chapter addresses the flow of ownership structure, organizational practices, and journalistic convention through the newspaper, radio, and television industries. The chapter pays special attention to the larger social and economic trends which influenced changes in journalistic practice, and offers examples of structures and practices that emerged during the development of the broadcast industry. The chapter also introduces the exemplar station groups for this project, which will be used in a limited case-study approach. Each of the groups, Hearst-Argyle, Sinclair Broadcasting, and Cox Broadcasting, is notable for some structure or practice which illuminates larger trends in the television industry, and offers a concrete example of the causes and effects of such structures and practices.

Chapter Two analyzes changes in regulatory policy and their impact upon industry structure, practice, and product. The chapter offers a comprehensive discussion of broadcast policy as it applies to tension between ownership and the public interest, and details the changing nature of such policy in the face of broad social and industrial change. Of particular importance is the changing interpretation of the public interest, which has been a pivotal part of broadcast policy since the earliest regulation of the industry in 1910. The chapter demonstrates the recursive influence that regulators and the industry have had on one another, and examines the shift away from the trustee model toward a marketplace model which began in 1979 and continues into the present day. Finally, the chapter details the contribution of broadcast policy to

the continued centralizing momentum present in the structural development of the television broadcast industry.

Chapter Three analyzes the role of technology in both permitting and encouraging centralization of ownership and operation in the television industry. The chapter posits that technological innovation in television was constrained by two factors, guiding principles which pushed towards economic efficiency and a cultural need to fit the new medium into the existing media environment. The chapter demonstrates the interaction between this cultural positioning, the equipment developed for the new medium, and the changes in structure and practice permitted, inspired, or required by the new inventions and innovations. The chapter continues work begun in Chapter One, detailing the impact of new technology on the practices and products of television news. Finally, the chapter examines the specific technical choices made by the exemplar groups and their impact on the practices and products of their stations.

Chapter Four examines the specific economic conditions of the industry that encouraged or permitted certain structural innovations. Economic efficiency in service of the free market concept is demonstrated as the primary driving force of the industry, exemplified by sharing of resources, centralizing of operation, and economies of scale in program creation. The chapter incorporates discussions of station valuation and the economics of station buying, selling, and trafficking as factors in the centralizing momentum. This chapter also profiles specific structural choices and their effects on station operation and organization, including LMAs, duopolies, and multi-channel operation, again touching upon the choices of the exemplar groups.

The conclusion builds upon the preceding chapters to determine how changes in structure and practice have impacted the news product of local television stations, changing it over time from a burden broadcasters carried in the interest of the public into a cash generating

powerhouse that defines the identity of many local television stations. It illustrates the changing profitability of news, addresses the change in local television market structure from oligopolistic competition to monopolistic competition, and examines the relationship between the changing nature of news and issues of structure. Finally, the conclusion analyzes specific models of news efficiency and their influence on the product of news itself, with a particular emphasis on Sinclair Broadcasting's News Central model of local news.

Overall, this project describes the emergent reality of local television under deregulation and describes the many steps taken by the industry along the way. This reality is constrained in significant ways by the structures which have developed in response to the dual goals of cutting costs and increasing revenues, and the practices which have evolved under those structures. In the best case scenario, this project provides perspective for critics and consumers alike to use in examining the medium, allowing for a vision of content as molded by issues of economics and structure. At a minimum, this project adds valuable industry perspective to academic understandings of broadcast history, which is itself a useful undertaking. In either scenario, the project offers a view of broadcasting as seen through a different lens, and in doing so contributes to greater understanding of the ever-changing face of local television.

1.0 A BRIEF HISTORY OF OWNERSHIP STRUCTURE AND JOURNALISTIC PRACTICE IN THE UNITED STATES

> The free press is the mother of all our liberties and of our progress under liberty.
>
> An editor is someone who separates the wheat from the chaff and then prints the chaff.

Attempting to define the role of the press in the United States is at best an effort beset on all sides by contradictions. The two quotes above, attributed to Adlai E. Stevenson Jr., illustrate this slippery nature.[10] The press walks the line between servant of the public interest, with responsibilities and protections afforded by the Constitution, and free enterprise, charged with the goal of endlessly increasing profits in service to its owners and shareholders. These divergent demands upon our press have resulted in a cavalcade of debate, regulation, and deregulation which has affected the way that media businesses operate, cooperate, and conglomerate.

"All the news that's fit to print," declared the masthead of the 1896 *New York Times*, carefully avoiding any issue of what "news" or "fit" might entail. In practice, the determination of newsworthiness has always been conditioned by two important factors: social conditions and business concerns. Since the earliest days of U.S. newspapers, these two influences have molded the practice of journalism and the resulting news product; often embracing the chaff over the wheat in deference to the bottom line. Economic concerns, in particular, have had a

[10] The second quote is also often attributed to Elbert Hubbard.

transformative influence on journalistic practice in many ways, as the form and substance of news content has been changed in order to draw in more readers and to cut costs as dramatically as possible, often resulting in new organizational arrangements created with the express purpose of incorporating various economies of scale.

This chapter will present a brief history of journalism practice as related to the social conditions and business environs that influenced its development. Throughout this discussion, special attention will be paid to changing organizational structures within and across media industries, demonstrating their momentum in a common direction. This drift towards centralization was a key factor in the development of media institutions, and contributed greatly to changes in journalism and the resulting product in newspapers, radio news broadcasts, and television news broadcasts.

The chapter is broken into sections dealing with print news from its humble beginnings in 1690 to 1936, radio broadcasting between 1920 and 1952, and television broadcasting between 1945 and 1980. The first section will address the development of newspaper publishing in the United States, detailing the alterations in journalistic practice and organizational structure which occurred as society underwent dramatic changes in the 1800s, with a special focus on the commercialization of news and the changes in practice that resulted from it. The second section will describe the moment of change caused by the emergence of radio broadcasting in 1920, focusing especially upon the transfer of journalistic practice and organizational structure from the old medium to the new. The third section offers a similar analysis of the moment of change between radio broadcasting and television broadcasting between 1945 and the start of deregulation. Each section will describe the many ways that organizational structure and journalistic practice influence one another, as well as showing how each new medium builds

upon the foundations of those which preceded it. The chapter will conclude with a final section charting the organizational development and history of Hearst-Argyle Television, Cox Broadcasting, and Sinclair Broadcasting, the exemplar groups for this project.

1.1 THE PREHISTORY AND DEVELOPMENT OF PRINT NEWS, 1690-1936

The start of print news in the United States can be traced to Benjamin Harris' publication of *Publick Occurrences, Both Forreign and Domestick*, in 1690 Boston. At the time, New England readers could get papers and books from the visiting trade ships, and religious tracts were the sole product of the local press. Harris formulated a new plan to capture the attention of the local audience: publish local news and happenings, and give 'the truth' about domestic matters, which he considered to be lacking in coverage imported from England. The inaugural issue offended the authorities, and the paper was banned; however, Harris' plan survived and became the formula for the early press in the United States (Williams 2002, 3-4).

By the time of the Revolutionary War, the party press era had begun, as newspapers and editors were persuaded by the various political parties to print their perspective about the direction that the new republic should take; in return, party leaders gave the publishers contracts to print government documents. These papers were funded by a combination of subscriptions, individual purchases, party subsidies, and an increasing dependence on advertising dollars. This combination of politicization and commercialization changed the press dramatically as new papers were created and existing newspapers were co-opted by the parties (1993, 50-51). The party press reached its height between 1824 and 1837 as Andrew Jackson, after losing the presidential election in 1824, employed the press to great effect in winning the election four

years later.[11] Jackson awarded government positions to around 50 journalists during his time in the White House (Risley 2002, 14-16).[12]

Coexisting with the party press, which counted on political support and funding for its continued existence, was the commercial press, which garnered the majority of its subscriptions from business owners. The commercial press primarily included advertisements and bulletins of shipping news. The commercial press and the party press were similar in several respects: subscription was their main method of distribution; they were relatively expensive at six cents per copy; and they directed their appeal to the interests and needs of the elites (Schudson 1978, 15-16).

In 1833, a powerful new model of the press took shape in Benjamin Day's print shop in New York City, and the transition away from the party press began. An outbreak of cholera had driven the affluent from the city, and to supplement his lagging printing business Day founded the *Sun*, selling the daily for a penny per issue and distributing it via newsboys rather than annual subscriptions (Williams 2002, 6-7). The development of Day's penny press was the result of the confluence of a number of long-developing trends. John Nerone describes the moment as the completion of a shift from newspaper as an artisanal craft to newspaper publishing as an industry. He includes increased reliance on advertising, the trend towards job specialization

[11] Jackson won the popular vote in 1824, but failed to gain the requisite number of electoral votes, resulting in his defeat. Convinced that he had lost in part because he did not have a newspaper in Washington supporting him, Jackson arranged for the introduction of the *United States Telegraph* in 1826. Paul Starr, *The Creation of the Media: Political Origins of Modern Communications* (New York: Basic Books, 2004), 93.

[12] Williams further claims that the party press played a major role in the development of the nation by involving ordinary people in the political process of their country. Julie Hedgepeth Williams, "The Purposes of Journalism," in *American Journalism: History, Principles, Practices*, ed. W. David Sloan and Lisa Mullikin Parcell (Jefferson, NC: McFarland & Company, Inc., 2002), 6. While it is certainly true that the party press enabled a wider dissemination of political thought, the party press was still directed at a certain group of people – those with the wealth to afford a subscription - and thus the involvement of "ordinary people" fails to ring true.

which gave rise to the reporter, and technological improvements as major components of this shift (Nerone 1987, 397).

This new model both dramatically altered the future course of the business of newspaper publishing and created the basis for the modern day conception of news. Previous publications had focused on two principal topics designed to appeal to specific subscriber bases: politics and commerce. Abandoning both elite appeal and subsidy from the political parties, the penny press publishers desired broad circulation to support their advertising revenues, and thus needed content with wider appeal than the previous models. Such content included local politics, police and court news, and stories from the streets, which required the services of reporters to acquire. One of Day's first decisions was to hire George Wisner away from another paper. Wisner, who had covered court news previously, attended the daily police court and wrote stories about the ordinary people who found themselves there (Williams 2002, 6-7). Michael Schudson writes that this new content reflected the multifaceted social life of the time, rather than the narrow elite focus of previous newspaper incarnations. Unlike previous news content, which was largely reprinted stories from other sources and editorials provided by the publisher, the penny press sought out new information to fill its pages each day, often printing entire transcripts of trials or political speeches. As a business model, the penny press had transformed newspapers from a product which sold a service to the elites into a vehicle to provide an audience-product to an advertiser-consumer (Schudson 1978, 22-25). [13]

The commercialization of the news that crystallized with the *Sun* in New York expanded across the country at a measured pace through newspaper startups. At the same time, newspaper

[13] The penny press also marked the first steps towards a new journalistic convention, objectivity. The publishers attempted to reach their new audiences by differentiating themselves from the partisan press, focusing on reporting facts allegedly without any bias. For more information see: David T.Z. Mindich, *Just the Facts: How "Objectivity" Came to Define American Journalism* (New York: New York University Press, 1998).

publishers started to realize the benefits of forming networks or chains, although these structural arrangements would not be completely embraced until the end of the 1800s. These benefits included the ability to fund a new publication while it carved out a market, the ability to support struggling newspapers, sharing equipment between different papers that were near one another, and even joint operating agreements with competing papers to share equipment, facilities, and distribution (McPherson 2002, 118). One early example of joint agreement was cooperative newsgathering. New technologies such as the telegraph in 1844 offered faster methods of transmitting news, but they were always expensive; nonetheless, no editor wanted to get scooped by the competition, so they paid the price. Two years after Samuel Morse's first telegraph line was run, another line was built to connect Albany and Buffalo in early 1846. By the time the line reached Buffalo, newspaper editors along the route had hired an agent to stay in Albany and feed information to every newspaper on the line. In 1849, six daily newspapers in New York City formed the Associated Press to share information, eventually including affiliates across the country; in the mid-1850s they leveraged their group power to secure favorable telegraph transmission rates (Schwarzlose 2002, 154-155). This example is interesting in two ways. First, from a journalistic standpoint, the location of a bureau in the state capital is a precursor to similar developments in the media which followed, and is consistent with the penny press' focus on locations where news happened. Second, from an organizational standpoint, this is one of the early examples of group economics influencing news content, as the economies of scale made regional and national news less expensive to acquire.

The shift to an industrialized model, of which these cooperatives were part, was one indication of an overall social change which occurred between 1820 and 1890 and entered the newspaper industry through the vehicle of the penny press. In part, the new model resulted from

a transfer of the practices and ideals common to the newly industrialized factories to the business of the press, which included the adoption of new technologies, standardization of workflow and product, and specialization of worker tasks (Peterson 1981, 22), a set of practices notably similar to those Nerone describes in relation to the birth of the penny press. The half-century following the birth of the penny press would see technological advances in communications such as the telegraph (1844) and the transatlantic cable (1858-1866) permit faster newsgathering, and advances in typesetting, the electrically driven press (1837), the rotary press (1843), and photoengraving (1870s) would enable the production of more papers in less time. In addition, the desire for efficiency resulted in a standardization of style and content in papers nationwide, which was reinforced by the creation of professional associations for journalists, who were considered professional by virtue of conforming to these styles (Peterson 1981, 23-26).

Another impact of industrialization on the newspaper industry was the institutional change during the second half of the century from ownership by individuals and partnerships to corporations, and eventually to industry leaders who were integrated vertically, horizontally, or as conglomerates (Smythe 1985, 3-4). These structures lent themselves to the increased specialization of the industrial model, and resulted in the creation of a managerial class and individual divisions for them to manage. In U.S. newspapers, these were generally news, production, distribution, advertising, and accounting (Baldasty 1992, 82). In addition, as the ideology of the factory took hold, the seeds of a centralizing movement designed to promote economies of scale were planted.

Svennik Hoyer, a Norwegian press analyst, offers important insight into the industrialization and operation of the newspaper industry. Hoyer suggests that all newspaper industries progress through three different phases. In the first phase, which encompasses the

earlier part of the century and has already been described, newspapers are introduced into urban centers. The second phase of the U.S. newspaper industry occurred in the second half of the 19th century, characterized by rapid expansion and an increasing specialization of product to target niche audiences. The final phase of the industry is its inevitable concentration (Kaplan 1995).

These latter two phases bear further scrutiny. The expansion of newspapers across the country that marked the second phase was in large part inspired by the economic model of commercial journalism which started in the penny press. The effort to attract a wide audience as newspapers expanded was tempered by the business concerns faced by any startup, and so even in the era of aggressive expansion after the end of the Civil War, efforts towards economic efficiency in reporting and production were an integral part of every newspaper's plans. These efforts to reduce and control costs directly impacted both business operations and the content of the newspapers. Gerald Baldasty describes the situation: "the constant pursuit of profits created working conditions that often sacrificed accuracy and quality for economy, while encouraging fabrication and sensationalism." In addition, newspapers offered a "cafeterialike approach to news" that often ignored important issues in favor of commercially beneficial ones. Finally, by the end of the century the commercial ideal embraced by the penny press had achieved complete dominance as an economic model, along with its particular vision of news. In practice, the bottom-line focused tactics of late 19th century newspapers resulted in low pay for reporters, driving those with experience out of the business; in addition, bonuses were paid for "sensational or exclusive stories," which encouraged lying and exaggerating (Baldasty 1993, 99-101).

The content of newspapers was further shaped by the publishers' need to fill an increasing number of pages cheaply and expeditiously. This need ushered in the development of the "patent inside." This product was a conceptual descendant of the commercial press which

existed before the penny press, and filled its pages mainly with stories and bulletins clipped from other newspapers. Newspaper unions, which were in effect the first newspaper syndicates, created half-finished newspapers filled with previously reported stories, and sold them to small newspaper operations nationwide. The key to the success of the patent insides was twofold: an economy of scale which benefited seller and buyer, and a news product specifically tailored with profit in mind, rendered uncompromisingly uncontroversial so as not to offend any potential reader. The patent inside provided newspapers started during this time of rapid expansion with an inexpensive source of content to use while building their subscriber base and newsgathering operations. In another attempt to fill in the blank spaces between advertisements as economically as possible, newspapers drew upon the beat system, which is still an important convention of journalism in the present day. The beat system drew already prepared materials from places where news was plentiful, such as hospitals or police stations (Baldasty 1993, 101-104). The usefulness of such a system had been shown in the early part of the century, and during the rapid expansion phase it became a vital part of the cost-reduced newsgathering of newspapers nationwide.

The market specialization that Hoyer maintains accompanies the rapid expansion during any newspaper industry's second phase was started by one of the Scripps newspapers, the *Detroit Evening News.* Under the ownership of James E. Scripps in 1873, the *News* introduced a new type of journalism to the market which appealed to the public and translated into economic expansion (Kaplan 1995). This new journalism was motivated by three business factors: increasing concentration and competition within markets, the rising costs of running a newspaper, and the fear of retaliation against its new papers as they entered into established markets. Scripps responded to these challenges by establishing very different newspapers from

those already in the market, by aggressive cost cutting, and by trying to stay small and obscure so as not to provoke the market leaders (Baldasty 1999, 5). These decisions would eventually lead to changes not only in journalistic practice, but in organizational structures as well, as an examination of challenges and solutions demonstrates.

There was a dramatic increase in competition in the newspaper industry between 1880 and World War I, as the number of daily papers tripled and publishers fought for every advertiser and every reader. Newspapers increased dramatically in page count as well, requiring more raw materials and more staff paychecks to fill the pages. In addition, many newspapers ran expensive contests to lure readers to their publication. As a result, existing publications were extremely aggressive towards new entrants, and attempted to block them by denying them AP access, by offering advertisers lower rates if they would avoid the new papers, or by the use of long term subscriptions or discounted subscriptions. Scripps' solution was an elegant one: rather than meet these competitors head-on and try to take away their readership, his newspapers would instead look to reach an untapped market.

Scripps commissioned research studies of the markets his newspapers hoped to enter, and used that information to found newspapers which appealed to currently unsupported readership. The resulting newspapers shared several characteristics: "working class content and advocacy; photographs, illustrations, cartoons and news features...; sports news; and politics." His papers appealed to the working class by covering topics of interest to them and by specifically supporting labor unions both in the pages of the paper and with jobs in the organization. Scripps believed the working class was underserved democratically and was an as yet untapped source of advertising dollars (Baldasty 1999, 5-7). The effort to garner the attention of the working class in Detroit was echoed a decade later in New York City, as William Randolph Hearst's purchase of

the *New York Journal* sparked conflict with Joseph Pulitzer's *New York World.* The competing penny papers initially tried different paths to victory, with the *World* attempting to appeal to workers on the front page and intellectuals on the editorial page and the *Journal* embracing mass appeal with sensational stories on the front page, worker-friendly editorials, halftone color photographs, and the introduction of comic strips. One of those strips, the "Yellow Kid" by Richard Outcault, was printed in halftone color as well, and indirectly inspired the derisive moniker "Yellow Journalism" for the mass-appeal practices employed by the *New York Journal* (Tebbel 1969, 199-201).[14] The two newspapers became even more competitive with the outbreak of the Spanish-American War, when "Pulitzer and Hearst concocted a series of news stories, editorials, pictures and headlines which constituted the most depressing display of unabashed jingoism in the history of American journalism."[15] Eventually Pulitzer ceded the mass appeal audience to Hearst and remade the *New York World* into what he called a "liberal, democratic organ" (Tebbel 1969, 202, 205). In point of fact, both Pulitzer and Hearst had embraced political coverage when it suited their bottom lines, so this was more of a positioning statement than any watershed moment.

Having created a niche market, Scripps, like its industry predecessors, endeavored to meet the demands of that market in the most economically efficient manner. In addition to hiring untrained reporters and reducing the size of its newspapers to half that of a typical paper, Scripps experimented with new methods of newsgathering, forms of content, and organizational

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[14] There's some argument about the direct influence of the cartoon on the name, which was first used three months after the start of the cartoon. It is attributed to Evin Wardman's *New York Press,* and Wardman had been experimenting with other phrases, including "nude journalism" to describe Hearst's mass-appeal tactics. The two events are close enough, though, that one could consider that the cartoon had an influence. W. Joseph Campbell, *Yellow Journalism: Puncturing the Myths, Defining the Legacies* (Westport, CT: Praeger, 2001).

[15] Hearst was often accused of starting or escalating the conflict, based on his pre-war telegram to a staff artist in Cuba, which said "You furnish the pictures and I'll furnish the war." Hearst was also been charged with conspiring to blow up the *Maine* in Havana harbor. John William Tebbel, *The Compact History of the American Newspaper* (New York: Hawthorn Books, 1969), 202.

structures including the first newspaper chain. The Scripps-McCrae League of Newspapers was officially founded in 1895. It differed from previous multi-newspaper operations in several ways: it was the first to have one person oversee the operations of the entire group; it had a corporate structure that ensured its newspapers would be treated as a unit; and by virtue of this corporate structure, the newspapers in the group would be able to survive the deaths of their founders (McPherson 2002, 118).

Even before the official creation of the chain, Scripps newspapers worked cooperatively to overcome the rising costs of publishing, sharing some short articles in 1880 and thereafter. In 1902, Scripps formalized this sharing among the chain newspapers by creating the centralized Newspaper Enterprise Association. The NEA produced anything and everything that could be distributed to more than one paper, including cartoons, photographs, illustrations, and news features focusing on the major players in the news, a resource the competition lacked. Use of the NEA cut the per-column cost of content from $6.40 to 50 cents for the Scripps papers. To ensure this economy of scale, Scripps insisted that NEA material account for 25-35% of every issue's non-advertising content; in many cases, the papers averaged 59%. Scripps also formed his own telegraph news service called the United Press Association to avoid the AP issue in markets he entered, which resulted in a coverage bias toward cities in which Scripps owned newspapers (Baldasty 1999, 8-10). This creation of a centralized source for content is a perfect preview of some of the economic and newsgathering models which developed in local television broadcasting during the latter part of the 20th century.

The third challenge that new entrants faced during the expansion was the frequent retaliation of existing papers in the market against them. Scripps' response was to keep his papers big enough to generate profits but small enough to appear unthreatening, again opting to

evade competition as they entered the market. By using NEA content and cutting costs as much as possible, these papers were able to maintain a low profile and avoid taking significant advertising away from the larger papers and drawing their notice. However, by trying to avoid retaliation, the Scripps papers, once established, were locked into the weakest position in the market, which left them excessively vulnerable to being eliminated altogether. To mitigate this risk, Scripps newspapers entered into "combinations" in several cases, coordinating "advertising rates, subscription rates, newspaper pricing, and bids on government printing" (Adams 2002, 416).

The first example of coordinated subscription pricing by a Scripps newspaper was in 1895 with the Pulitzer-owned *Post Dispatch* in St. Louis. Based on the success of that experiment, Scripps worked towards a subscription rate arrangement in Detroit in 1902 as well (Adams 1996, 198; Adams 2002, 418-419). In another example of creative cooperation, five St. Louis papers, including Scripps' *St. Louis Chronicle,* colluded in 1897 to wrest a government printing contract away from the market-leading *Journal.* Three of the papers submitted prearranged bids, ensuring that the *Republic* would present the lowest bid, while the two non-bidding papers printed negative stories about the *Journal*. These derogatory reports planted the seed of doubt, and the five conspirators were successful in dealing a serious financial blow to the market leader. Scripps made another government printing related deal in San Francisco, withdrawing from competition in return for increased advertising from companies associated with one of the other papers. Another combination was born in 1897 Cincinnati, where Scripps-McRae and Taft ran competing afternoon papers. The two companies agreed to arrange a trust in which each would gain from the other's increasing profits, and thus would cease actively working against one another; they would still maintain complete separate editorial stances and

decision making. By virtue of owning several papers, Scripps was able to take successful combination strategies developed in one market and replicate them across the entire chain, and by 1900, all of the Scripps McRae dailies were involved in combinations (Adams 1996, 196; Adams 2002, 419-421).

The third phase of the newspaper industry began around 1902, as publications failed or consolidated, often with the aid of external investment. Concentration was also abetted by drastically increased newspaper start-up costs, which effectively eliminated the likelihood of new entrants into a market. Advertisers also shifted monies towards the leaders of a market, recognizing that the economies of scale which would result from concentration would also result in lower advertising costs (Kaplan 1995). Both Scripps-McRae and Hearst embraced the notion of consolidation during the first two decades of the 20th century. These companies, along with supermarket magnate Frank Munsey, acquired newspapers with an eye to cutting costs, merging them with existing newspapers, or simply buying them out to eliminate competition. Munsey was notable for buying the *New York Globe* in 1923 for the sole purpose of killing it and taking its Associated Press membership, having killed and consolidated papers during the preceding two decades at an impressive rate. This move towards centralization of ownership across the industry is demonstrated by an increasing number of newspaper chains. Between 1910 and 1920, the number of newspaper chains rose from 13 to 31. In addition, chain ownership of daily newspapers rose dramatically between 1910 and 1930, from 2.8% to 16% (McPherson 2002, 118-119).

The atmosphere of cost cutting and concentration which existed during the first two decades of the 20th century impacted the Scripps newspapers in a significant way. Editors who had been conditioned to rely upon the relatively low cost stories generated by the NEA failed to

generate much in the way of local coverage, which further weakened the Scripps papers' positions in their markets as competition increased. This weakened position left the papers vulnerable to further slippage as radio broadcasting began to displace newspapers as the source for non-local content (Adams and Baldasty 2001, 526-528). Between 1928 and 1933, 50 daily newspapers and 1,000 weeklies ceased publication, as circulation and advertising were affected by the Depression and the increasing encroachment of radio broadcasting as an advertising vehicle (Adams 1997).

Scripps responded to these market forces with a new cost-cutting tactic, the Joint Operating Agreement, a logical extension of its earlier combinations. The first JOA was formed between Scripps' *Albuquerque Tribune* and the independent *Albuquerque Journal* in 1933 to combat the financial woes of the Depression. A new shared corporation was formed to handle business, advertising, circulation and printing for both papers, which kept separate editorial and news staffs. Each company received a predetermined portion of the net profits of the shared corporation (Adams 1996, 195-196). In 1936, the Scripps *Herald-Post* and Dorrance Roderick's *El Paso Times* entered into a similar arrangement, printing both papers from the same equipment, and in the following years Scripps implemented JOAs in Nashville and Evansville (Adams 1997). The JOA was the clear conceptual precursor to many of the organizational structures of present-day media industries.

From this brief history of print news, it is clear to see the impact that changing business practices had on both the content and organizational structure of the newspaper publishing industry. The 1833 development of a journalism focused on creating an audience to sell to advertisers resulted in the creation of practices designed to reliably fill the pages of the newspaper with a new kind of news drawn from the social life of the market. The influence of

practices spawned by the industrial revolution contributed to a consistent institutional drift towards centralization, which expressed itself in early cooperatives and the eventual development of larger organizational structures including corporate ownership and newspaper chains. These structures were influential on newspaper content, as group owners instituted economies of scale resulting in standardization of content in many areas. Finally, this desire for cost savings via economies of scale resulted in the development of Joint Operating Agreements and the eventual dominance of chain ownership as companies purchased competing papers to downsize, merge, or eliminate. These same business models and practices would become vital parts of the burgeoning broadcasting industry as well, where the centralizing momentum started on the pages of the *Sun* would continue with broadcasts sent over the airwaves.

1.2 NEWS ON THE AIR: RADIO BROADCASTING, 1920-1952

The emergence of radio broadcasting simultaneously presented both threat and opportunity for newspaper publishers. As this duality sought a resolution, increasing numbers of radio stations fell under the control of newspaper publishers, and the practices and structures of the existing medium drastically influenced the development of the new. The years between 1920 and 1950 were pivotal in the development of broadcast organizational structure, broadcast news practices, and broadcast programming. As this section demonstrates, it was during this time that the centralization of ownership and operation and the commercialization of news content which had begun with newspapers were transferred to the new medium.

KDKA radio, generally considered to be the United States' first commercial radio station, owes its groundbreaking existence in part to a September 1920 newspaper advertisement. A

Pittsburgh department store, Joseph Horne Company, advertised a radio program by amateur Frank Conrad in hopes of increasing its sales of radio sets. [16] Shortly thereafter, Westinghouse financed Conrad's efforts in an effort to increase demand for its line of radio sets, officially establishing radio station KDKA with an on-air target date set to coincide with the presidential election on November 2 (Sterling and Kittross 1978, 59). The KDKA story is interesting in terms of both ownership and news.

On the ownership front, KDKA was one of many early radio operations initiated in the hope of achieving some indirect benefit for the owner, as opposed to a desire for direct profits from the station. In KDKA's case, Westinghouse had just released a new line of $125 radio receivers and wanted both to publicize its sets and offer entertainment to those who might purchase them (Brown 1998, 132). RCA and General Electric acquired stations for the same reason, and AT&T also entered the industry in an effort to secure a profitable position in the new medium for telephony (Sterling and Kittross 1978, 62, 66). In 1922, however, AT&T broke from this model of indirect benefits and began to sell airtime on WEAF in New York City, the first step toward the current commercial system of broadcasting in the United States (Croteau and Hoynes 2001, 51-52).

By May of 1922, there were 99 licensed radio stations. Individuals and businesses alike leapt at the opportunity to break into the new medium, leading to a unique distribution of station ownership. Newspaper owners were among the first to take action, seeing the new medium as a

[16] Conrad, an engineer for Westinghouse, started his station in 1916. During the war, he continued to broadcast a station from his home as part of his job designing equipment for the navy. He relaunched his station, 8XK, between June and August 1919, and began playing music on October 17, 1919. The music drew an audience, leading to song requests and eventually leading to the newspaper advertisement. Christopher H. Sterling and John M. Kittross, *Stay Tuned: A Concise History of American Broadcasting* (Belmont, Calif.: Wadsworth Pub. Co., 1978), 59.

way to augment their current offerings.[17] Department stores, following the success of Joseph Horne Company, started their own stations to promote radio set sales. Colleges and universities started stations "either for instructional purposes or because radio technology was a hot topic in the curriculum." Finally, churches, religious organizations, municipalities, and hobbyists rounded out the ownership spectrum (Douglas 1987, 32-33).[18] As with the second phase of the newspaper industry, the early days of radio were market by rapid expansion, which led to this broad diversity of ownership.

One of the first newspaper publishers to be interested in the new medium was James E. Scripps. In 1902, he helped to fund Thomas E. Clark's radio experiments in Detroit; eighteen years later, his son William E. Scripps would turn to Clark for assistance in starting amateur station 8MK, which would eventually become WWJ Radio (Barnouw 1966, 4-5, 61-62). WWJ is another example of a station started for indirect benefits; in this case, the station was started primarily to promote and sell more subscriptions to Scripps' *Detroit News* (Brown 1998, 132). As radio was developing during the 1920s, the relationship between radio stations and newspapers was often cooperative rather than competitive, as neither party saw radio news as a serious challenge to newspaper dominance. Newspapers were in a good position to use these stations for cross promotion, receiving on air advertisements in return for glowing reviews of radio broadcasts in the next day's paper and a schedule of upcoming programs. In addition, the

[17] Newspapers owned 12.6% of all radio stations in 1922. Christopher H. Sterling, *Electronic Media: A Guide to Trends in Broadcasting and Newer Technologies, 1920-1983* (New York: Praeger Publishers, 1984), 50.
[18] By January 1923, 72 educational institutions, 69 newspapers, 29 department stores, and 12 religious organizations, among others, held licenses Barnouw, *A Tower in Babel*, 4.

use of radio news bulletins acted as teasers to draw readers to the next issue of the newspaper (Barnouw 1966, 105, 132, 138).[19]

The early broadcasts of KDKA and 8MK are also interesting in terms of news. On August 31, 1920, 8MK radio broadcast election results gathered by the Scripps newspaper to a potential audience of 50 other radio operators and an estimated 500 listeners. Both 8MK and KDKA broadcast presidential election results on November 2nd of that year, in cooperation with the newsgathering operations of local newspapers the *Detroit News* and the *Pittsburgh Post* (Barnouw 1966, 63-64; McPherson 2002, 120). This latter moment of cooperation between the media represented the confluence of two kinds of radio news, broadcasts drawn from newspapers and special event broadcasts.

Most often, radio news coverage in the 1920s consisted primarily of brief reports acquired from the daily newspaper to fill the time between phonograph records or other dead air, generally less than a minute long. The partnership between the stations and the newspapers for the election broadcasts is typical of this arrangement. The other occasion where news regularly found a home on the airwaves was during notable events. Since the early experiments with the medium, broadcasters had used important occasions to demonstrate their technology, and this continued as the medium grew. One of Lee De Forest's first broadcasts was of a famous tenor at the Metropolitan Opera, and he later transmitted a review of the Wilson-Hughes election results in 1916, echoed by the efforts of 8MK and KDKA in 1920.[20] Special event coverage continued

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[19] News programming was a part of radio broadcasting almost from its inception. Beginning sometime between 1909 and 1912, news headlines were a part of "Doc" Herrold's weekly programs from his College of Engineering in San Jose, CA. Harrold J. Power started an experimental station in 1915 which also carried news bulletins. In 1917, 9XM in Madison began sending out weather forecasts in Morse code, replacing them with voice broadcasts 4 years later. Ibid., 34, 36, 61.

[20] Lee H. De Forest was America's "most important early radio pioneer." Between 1902 and 1906 De Forest acquired more than 30 patents for radio technologies, and would gather more than two hundred in his lifetime. George H. Douglas, *The Early Days of Radio Broadcasting* (Jefferson, N.C.: McFarland, 1987), 7-8.

through the first half of the 1920s, as 200,000 listeners experienced the Dempsey-Carpentier fight in 1921, with the number of listeners rising to 10 million for the announcement of Calvin Coolidge's election in 1924; his inauguration was broadcast by 26 stations in 1925 (Brown 1998, 132-133).

Competition for airspace was often fierce among the diverse spread of radio operators, and eventually resulted in interference across the dial. This interference led to emergency legislation: the Federal Radio Act of 1927, which established the Federal Radio Commission as the regulatory body with jurisdiction over the medium.[21] The Act, which will be described more fully in the next chapter, was the impetus for two important industry-wide changes, one in ownership and one in news. In enforcing the Act, the Commission pushed many low-power broadcasters off the air and allowed the remaining stations to increase transmitter power to overcome frequency competition. Additionally, the need for better broadcasting equipment created by the government's more restrictive regulation of the industry resulted in the stations owned by hobbyists and small businesses being forced off the air or acquired by larger companies. Many of these larger companies which could afford to invest in radio also owned newspapers, and the number of newspaper-owned radio stations grew from approximately 5% of all stations in the mid-1920s to 13% by 1933 (Sterling and Kittross 1978, 104-105). This regulatory response to the interference problem marks the beginning of the centralization phase in radio broadcasting, as large businesses including newspapers began to expand their media holdings with new stations or the acquisition of poorly performing or lower powered stations forced to abandon their licenses.

[21] Interference was the catalyst, but was not the only cause for the legislation.

The Federal Radio Act of 1927 also required local stations to provide several hours per day of public interest programming, which resulted in increased airtime for local news on many radio stations. The following year, the Smith-Hoover presidential race was widely covered and a desire for regular news programming began to spread; Lincoln, NE station KFAB started two news broadcasts daily that year, and two years later KMPC Beverly Hills, CA devoted three 15 minute periods a day to radio news. These programs were made possible with the assistance of local newspapers, who still failed to see the new medium as a threat in news dissemination (Brown 1998, 133).

Radio carried other big news events during the rest of the decade; in 1925 Chicago's WGN broadcast the Scopes trial and in 1927 many stations relayed news about Charles Lindbergh's flight. In 1930 regularly scheduled radio news began on the networks with "Lowell Thomas and the News" on NBC and H.V. Kaltenborn's thrice weekly news reports on CBS (Larson 2002, 277; Sterling and Kittross 1978, 122). The following year, CBS blended news and drama in *The March of Time*, which reenacted the biggest news stories of the week for the listening audience and cross-promoted *Time* magazine. Erik Barnouw suggests that the success of this show may have been a pivotal factor in an increase of tension between newspapers and radio; even as advertising dollars were moving from newspapers to radio, the networks were still using the newspapers and wire services for their news content, not yet having their own newsgathering operations (Barnouw 1966, 277-278).

Gary W. Larson writes that there were five important periods of "quickening" in broadcast journalism brought on by the conjunction of technology, content, and politics. These periods of quickening each had an influence in both the amount of news being broadcast and the organizational and ownership structures of radio broadcasting. The first begins in 1922 and

extends to 1938; the second covers the years between 1939 and the end of WWII in 1945; and the third is comprised of the years between 1945 and 1960. Larson's periods of quickening serve as a useful organizational schema for examining the changing state of broadcast journalism. [22]

The first period begins with the Associated Press' 1922 declaration that its service was not to be used by any broadcast outlets. Although other wire services at the time did not follow suit, the decision served as an impetus for many broadcasters to begin their own newsgathering efforts (Larson 2002, 277).[23] Tension mounted between newspapers and radio stations for the next decade, and finally boiled over in 1932. Early that year the Associated Press again denied the NBC and CBS radio networks access to its facilities, and they responded by using their own newsgathering crews and carrying the 1932 political conventions live. In September of that year, radio listeners were treated to the broadcast of another news event, as William Beebe spoke though a microphone from a vehicle submerged 2,200 feet in the Atlantic Ocean. These live events contributed to a new emphasis on radio news that expressed itself in increased regular news programming as well; suddenly many newspapers started to believe that radio was a competitor, rather than a partner (Larson 2002, 136).

It was in this environment that broadcast reformers made their move, as the *Ventura Free Press* anti-radio campaign, fronted by H. O. Davis, attempted to enlist newspapers in opposition to radio, fanning the flames of competition. This campaign would result in a number of organizational changes in radio broadcasting as commercial broadcasters worked against the reform movement, attempting to mollify the newspapers and deflect the reformers in three ways.

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[22] Larson's other two moments of quickening are the later switch to FM (and the resulting audience segmentation) and the combination of deregulation and satellite delivery of programming to radio stations, neither of which is within the scope of this project.

[23] Newspaper owned stations in particular were generally unconcerned with this declaration, as they had newsgathering routines in place already.

First, commercial broadcasters claimed that radio was generating new advertising dollars, rather than taking them away from newspapers. Second, commercial broadcasters positioned themselves as members of "the press." By doing so, they played upon newspapers' own desires for free speech and operation unencumbered by excessive regulation, undercutting the reformers' call for more government intervention in broadcasting. Finally, the networks encouraged newspaper investment in radio stations, citing statistics which showed increased profits for newspaper-owned stations with network affiliations and claiming that in many cases these profits could keep struggling newspapers afloat. Newspaper owners intensified their efforts to acquire interests in stations, and where 139 stations had newspaper investors in 1931, a 1932 estimate saw that number increase by 100 (McChesney 1993, 167-169).[24]

While these efforts by the broadcasters made a difference, they were not a panacea, and the battle between radio stations and newspapers continued. Radio news again showed its value on February 15, 1933, bringing listeners breaking news of the assassination attempt on President Roosevelt's life long before newspapers could get the story out to the public and again sparking conflict (Larson 2002, 136). The Associated Press announced further restrictions on broadcast use of its product, but that effort was diminished when the United Press and International News Service failed to do the same. In April 1933, the American News Publishers Association agreed to discontinue selling news to the radio networks, and the American Press Association ceased printing radio listings and schedules. CBS responded by starting its own newsgathering operation, the Columbia News Service, and NBC signed a contract with an alternate wire service. The ongoing battles culminated in negotiations at the Biltmore Hotel in New York in

[24] As McChesney laments in his definitive work on the subject, the reformers would eventually be defeated by the machinations of commercial broadcasters, and the commercial system of broadcasting would be made law in the Federal Communications Act of 1934. The 1934 Act is more fully discussed in chapter two.

December 1933 (Brown 1998, 136-137). Two days of meetings among representatives from the wire services, the networks, and newspaper publishers resulted in the "Biltmore Agreement:" the networks could air two five-minute news broadcasts per day, one in the morning after 9:30 am and one in the evening after 9:00 pm; they could only use copy from the established wire services; no breaking news or updates could be broadcast; commercial sponsorship of the newscasts was not allowed; and finally, listeners must be encouraged to look to their local newspapers for the latest news (Larson 2002, 278).

Larson claims that this agreement "[molded] the future of broadcast journalism for both radio and television" in several ways. First, the decision positioned the newspaper as a news medium, and radio as an entertainment medium. Second, independents (stations without a network affiliation) who made up about 75% of the market at that time rejected the agreement, opting instead to do their own newsgathering.[25] It also led NBC and CBS to recast their news broadcasts as "commentary" to allow for sponsorship, which changed the style of delivery from simply reporting the news to interpreting it, inviting the anchors' personalities to become part of the broadcast. As newspapers continued to buy radio stations and existing stations found ways around the issue, first the UP and INS and then finally the AP gave in and lifted their bans in 1939 (Larson 2002, 278-279). The radio environment had changed dramatically from the beginning to the end of Larson's first period of quickening. The 1927 Act had prompted the concentration of ownership in the industry, and the 1934 Act had established the commercial

[25] Regional newsgathering networks sprung up to provide news to radio, including the Yankee Network of New England, The Radio News Service of America, and The American Broadcasting News Association. Many stations also had access to the Radio News Association, which provided news only to broadcasters. Robert J. Brown, *Manipulating the Ether: The Power of Broadcast Radio in Thirties America* (Jefferson, NC: McFarland & Company, Inc., 1998), 137. The United Press, the International News Service, and Transradio Press Service were also available to radio broadcasters in the mid 1930s. The Associated Press allowed newspaper-owned stations to use its product in 1939, and started a separate radio wire in 1941. Sterling and Kittross, *Stay Tuned: A Concise History of American Broadcasting*, 175.

nature of the medium. The Biltmore Agreement recast radio as an entertainment medium, and compelled broadcasters to switch to a commentary model of news which emphasized the personality of the commentator and by doing so deemphasized the substantive news content of the broadcasts, all in the name of sponsorship. The commodification of news which had allowed the profitable expansion of the newspaper industry was, by the close of Larson's first period of quickening, an important factor in the new medium as well.

If Larson's first moment of quickening is characterized by the battle between newspaper and radio, the second period of quickening is characterized by a dramatic increase in the importance of radio news and the continued drift towards centralized ownership. Newspaper owners continued to be interested in acquiring radio stations as increased coverage of news events on radio was shown to have a direct correlation with increased sales of newspapers covering those same events, suggesting that perhaps the two media could exist in partnership. An American News Publishers Association meeting in 1940 focused on ways that newspaper owners could profit from radio, and of the 829 stations licensed that year after the meeting, newspaper owners accounted for full or partial ownership of 275. In addition, increased access to content made news programming more attractive, and the number of local stations carrying news grew from 325 in 1936 to 843 in 1941, with network coverage improving as well (Brown 1998, 138).

Larson locates his second period of quickening in this time of increasing news, beginning with H.V. Kaltenborn's 85 reports over 18 days on the Munich Crisis in 1938 and lasting until the end of WWII in 1945. A country generally acclimated to radio as an information source through coverage of big events and Roosevelt's fireside chats naturally turned to radio for news about the situation in Europe. Each of the networks provided "roundup" programs, and the prominence of the anchors who hosted them grew with each report, enhancing the focus on

personality that had begun with the switch from headlines to commentary (Larson 2002, 279-280). As wartime shortages of paper hindered publishers of newspapers and magazines, radio also benefited from increased advertising. In addition, the immediacy of radio, established over a decade and a half of scooping newspapers with reports of the biggest stories, was appealing to a nation greatly concerned with happenings overseas (Sterling and Kittross 1978, 239). During this period several broadcast radio news practices/conventions which would continue into television were cemented, including the importance of live coverage, the importance of immediacy in relating the news (as compared to newspapers), and the importance of broadcast personalities as an element of news coverage.[26]

Increasing cross-ownership of newspapers and radio stations, while arguably good for the companies' bottom lines, resulted in a moment of worry on the part of the federal regulators. By 1940, newspaper companies owned over 30% of the radio stations on air, many of them in the same markets as the company's papers, and almost 25% of FM construction permits. In 1941, a Federal Communications Commission[27] concerned about diversity in media markets called for an investigation into cross-ownership and multiple-ownership, freezing newspaper applications for FM stations. Three years later, the Commission decided not to create an official rule regarding newspaper and radio cross ownership, and the stage was set for increased cross-media investment when the economic demands of WWII were no longer a hindrance (Sterling and Kittross 1978, 191-192, 238).

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[26] The acceptance of personality-driven news commentary resulted in an increase from six to twenty network commentators between 1933 and 1939, and made the individual who was delivering the news a vital component in news practice from then on. William A. Wood, *Electronic Journalism* (New York: Columbia University Press, 1967), 11.

[27] The Federal Radio Commission was replaced by the Federal Communications Commission in the Communications Act of 1934.

The third moment of quickening that Larson discusses covers the postwar period until 1960. Once again major changes in ownership structures and news practices were on hand for radio broadcasting, and for the emerging broadcast television service. The combination of a rebounding economy and new technical standards for AM radio caused a boom in AM and FM radio stations after the war, with the overall number of stations tripling between 1947 and 1952, including an increase of 453 local AM radio stations between 1945 and 1950. Ownership diversity didn't increase at the same pace, however, and by 1949, 85% of FM stations were owned by AM licensees, often in the same town, and newspaper owners held the licenses of about 33% of FM stations. One of the reasons for this lack of diversity in new ownership was the considerable expense of starting a new station, which increased the risk for those without ready capital and prior experience in broadcasting; as Sterling and Kitross put it, "FM radio and television were being built on the profits of AM radio."[28] This lack of ownership diversity in turn led to a reduction in the number of FM stations after 1949. Because many AM/FM combos carried identical programming on both stations, the lack of original programming on the new FM stations failed to provide an incentive for consumers to purchase the new technology. As a result, advertisers were also reluctant to embrace FM broadcasting (Sterling and Kittross 1978, 249, 253-255, 260).

There were some companies other than newspaper owners who possessed the requisite capital and were willing to accept the risks of entering radio broadcasting at this time. One of the biggest non-newspaper names in early radio groups was "the Storer Stations," owned by J. Harold Ryan and George Storer. The company began by owning filling stations, and expanded into radio, among other businesses. The Storer group made a practice of buying and selling

[28] And, at the same time, on the profits of newspapers whose owners also held broadcast licenses.

stations, constantly trading up to better properties while racking up capital gains, which were taxed at a lower rate than operational profits. Another powerful station group in early radio was "the Richards stations," started by an automobile dealer who purchased three radio stations located in Detroit, Cleveland, and Hollywood (Barnouw 1968, 220-221). These groups, along with others, would eventually force the FCC to revisit the issues of concentration both within and across media as the number of stations controlled by groups increased. In 1929, only 3.3% of stations were group owned; by 1939, that number had risen to 14.3% and would continue to rise (Sterling 1984, 57).

Radio news changed as well during Larson's third period, as some of the most important network radio news personalities moved to television, including Edward R. Murrow. The loss of its best talent to the new medium required radio news to change in order to remain competitive, and technology developed during WWII made such a change possible. Radio journalism used new high-quality audiotape to record the voices of newsmakers, and played them back to their listeners. At the network level, audiotape made it possible for the networks to provide newsfeeds to their affiliates for use in local broadcasts.[29] New technology also made it easier to broadcast from remote locations with ease, giving radio the advantage over television when covering live events or breaking news (Larson 2002, 280-281). Nonetheless, as the next section will show, radio was soon to lose its place as the dominant broadcast source for news.

The development of radio broadcasting was deeply influenced by the ownership structures and operational practices of the newspaper industry. The centralization of ownership

[29] One of the earliest uses of audiotape for delayed playback is attributed to Bing Crosby, who had seen tape recorders during his USO tours in WWII. Tired of doing separate live broadcasts for the east and west coasts each evening, he arranged to record his early show and play the recording back later for the west coast. Since NBC had a "no recordings" policy in effect, Crosby moved his show to CBS. Allegedly, Crosby's motivation to employ the new technology had a great deal to do with his desire to spend more time golfing. Sterling and Kittross, *Stay Tuned: A Concise History of American Broadcasting*, 251.

and operation which had begun in the earlier medium was quickly embraced in the new one as well. In addition, the commodified nature of news which began in the penny press also transferred into radio, spurred by regulation requiring broadcasters to fill a certain portion of their schedules with public service programs. Even as radio evolved, the newspaper industry continued to play a role through its ownership of broadcast stations, and the business structures and practices instituted by newspaper chains became part of the radio industry as well. Both of these media would have further impact on the emerging system of television broadcasting.

1.3 NEWS IN THE TELEVISION AGE, 1945-1980

> Television is visual. Radio is aural. This stark polarity is true, but profoundly misleading. It gets in the way of a proper understanding of television's past. It blinds us to the many things that hold these two media together – not least that radio's history between the 1920s and the early 1950s established very many of the defining structures and practices of the television era (Hendy 2003, 4).

The preceding two sections have established the historical basis for the development and growth of television broadcasting by tracing the development of both organizational structures and news practices from the early days of newspaper publishing through the era in which radio broadcasting achieved dominance. As the passage above indicates and this section will demonstrate, these organizational and operational elements which were fine tuned in radio broadcasting passed almost wholly unchanged into the new medium of television.

In 1945, only six TV stations were on the air, in New York, Washington, Schenectady, Chicago, Philadelphia, and Los Angeles (Sterling and Kittross 1978, 255). As Kittross and Sterling observed, entering the broadcasting business in the years following WWII was undeniably an expensive proposition; however it was far more expensive to become a television

broadcaster than a radio broadcaster. The $15,000 which a broadcaster might spend to fully outfit a small radio station would buy only one camera chain,[30] and to outfit an entire television station might cost upwards of a million dollars. As a result early growth was slow, with six new television stations signing on in 1946, and only four more reaching the airwaves the following year (Inglis 1990, 189). Because of the startup and operating expenses involved, ownership of early television stations was limited to two groups: television equipment manufacturers (Dumont, GE, and RCA) and owners of AM radio stations (Sterling and Kittross 1978, 259).

In a 1947 speech, David Sarnoff encouraged NBC Radio affiliates to start television stations, and whether as a result or by coincidence, 35 stations were added the following year, 47 were added in 1949, and another nine stations added in 1950 brought the total to 107 stations on the air (Inglis 1990, 193). The overall economic climate and operating philosophies that caused newspapers to form combinations and chains and made common and multiple ownership of radio and newspaper outlets a preferred model were at work in this new medium as well: in 1951, of those 107 stations, 49.5% were group-owned (Gelman 1965, 40). Many of these new group owners were cross-media owners, newspaper companies that either already owned AM stations or were breaking into broadcasting with television, and by 1952 newspaper companies had an interest in 45% of the television stations on the air, with a corresponding decline in radio station ownership from 30% in 1940 to 20% in 1952 (Sterling and Kittross 1978, 260).

In part, it was the centralizing momentum of newspaper combinations, radio group ownership, and the economies of scale which they provided that led to similar patterns of organization in television, especially when the owners of these other media invested in the new

[30] A camera chain refers to all of the equipment required to operate one studio camera, and is only a very small part of the expense involved in starting a television station.

one. When combined with the extravagant expenses demanded by the new medium, consolidation seemed an attractive solution.

> Television costs tended to encourage multiple-station ownership, whereby an owner could apply economies of scale to management even if it had only one station in a given region, since television owners often were larger corporations with nationwide interests, whereas radio was generally considered small business (Sterling and Kittross 1978, 260).

Early concerns about conglomeration had been addressed in 1941, when the FCC instituted the duopoly rule, which prevented one AM licensee from operating two AM radio stations in the same market (Sterling and Kittross 1978, 191). This rule, however did not forbid an owner in one medium from owning an outlet in each of the others, and as FM radio and then television became popular, the increase in outlets led to less, rather than more, ownership diversity (Sterling and Kittross 1978, 260). Eventually the FCC would adopt rules to control some issues associated with ownership concentration, but the model of group ownership that existed at the start of the television broadcasting industry would expand and continue unabated into the present day.

The first television station group was the DuMont Broadcasting Company, which owned three stations prior to starting its own network in 1949; both the station group and the network were disbanded 6 years later.[31] Its first television station, WABD in New York, signed on May 2, 1944; its second, WTTG in Washington began operation on January 1, 1947; and its third, WDTV in Pittsburgh, began on January 11, 1949. The second group was Paramount Pictures, and the third was NBC. At the start of 1948, only these three groups owned two or more television stations. When the FCC instituted a licensing freeze on September 29, 1948, there were 108 stations authorized to begin or continue broadcasting, all of which would be on the air

[31] DuMont's first two stations were sold together to the Metromedia Group in 1955. WDTV was sold to Westinghouse and renamed KDKA-TV. Herbert H. Howard, "The Contemporary Status of Television Group Ownership," *Journalism Quarterly* 53 (1976): 399.

four years later when the freeze was lifted. Just less than half of those stations were owned by the nineteen groups which held multiple licenses at the moment of the freeze; of those groups, four were networks (DuMont, NBC, ABC, and CBS) and 15 were independents (Howard 1976, 399-340). [32]

The majority of the stations on the air when the freeze was lifted in 1952 were turning a profit, which made television licenses seem like a good investment. The resulting demand for new licenses created a competitive atmosphere, and FCC policy decisions made at the time favored applications from individual licensees, rather than multi-station groups. Because of this regulatory stance, only six groups held the maximum allowance of five television licenses prior to the FCC's decision to increase the limit to seven in 1954 (Howard 1976, 400).

During the 1950s, station groups increased their purchases of existing stations, avoiding the issue of dealing with competing applications that was required by the FCC when applying for a new license, a tactic which the radio groups had previously employed with much success. There were three categories of multiple-owners present in the 1950s, according to Howard: the networks, radio groups with interests in television, and new companies. These groups sought to improve their positions in several ways during the 1950s and 1960s, demonstrating a constant momentum towards centralization of operations and concentration of ownership. First and foremost, they worked to reach the ownership limit. Second, they sought to own the most valuable stations possible, and engaged in what Howard calls "trading up," selling stations in smaller markets and buying ones in bigger markets. Third, following the examples of newspapers and radio groups before them, the largest station groups began to centralize some management and oversight functions for their stations at corporate headquarters. Some groups

[32] Howard lists Storer Broadcasting Company as the most prominent of the independents, followed by General Teleradio, Crosley, Cox Enterprises, Scripps-Howard, and the *Chicago Tribune.* Ibid.: 400.

also began to produce programs for syndication both within and beyond their stations and create news bureaus for their stations to share. By 1970, it was common for separately owned groups to cooperate in producing programs for syndication, and 13 station groups had Washington news bureaus for their stations (Howard 1976, 401).

Table 1: Media Ownership[33]

Year	Group-Owned (top-100 markets)	Cross-Ownership (top-100 markets)	Maximum owners (number of groups)
1975	71%	22%	4 (7 station limit)
1982	79%	33%	8 (7 station limit)
1989	78.1%	24.7%	5 (12 station limit)
1995	74.5%	22.5%	
1997	81.2%	27.2%	

Table 1 offers a snapshot of the centralizing momentum of the industry between 1975 and 1997, providing percentages of television stations in the top 100 markets which were owned by station groups and of television stations in the top 100 markets whose owners also owned newspapers. It demonstrates an overall increase in ownership concentration during that time period, as well as an increase in cross-ownership, and offers limited evidence of a trend towards maximum ownership. In his 1997 analysis, Howard described the two year period surrounding the Telecommunications Act of 1996 as the most dramatic in terms of consolidation. Between

[33] Sources include the following: 1975: Ibid.: 402-403. 1982: Herbert H. Howard, "An Update on TV Ownership Patterns," *Journalism Quarterly* (1983): 397-399. 1989: Herbert H. Howard, "Group and Cross-Media Ownership of TV Stations: A 1989 Update," *Journalism Quarterly* (1989): 788-791. 1995: Herbert H. Howard, "TV Station Group and Cross-Media Ownership: A 1995 Update," *Journalism & Mass Communication Quarterly* 72, no. 2 (1995): 394, 399. 1997: Herbert H. Howard, "The 1996 Telecommunications Act and TV Station Ownership: 1 Year Later," *Journal of Media Economics* 11, no. 3 (1997): 26-28, 30.. Howard failed to detail maximum ownership during the last two studies, most likely because it had shifted to an audience-reach calculation, instead of a maximum number of stations.

1995 and 1997, 40 existing groups were absorbed through mergers and acquisitions, and 20 new groups entered the industry, resulting in a lower number of groups and a higher number of stations per owner. Howard also observed that the number of stations per group increased from 4.3 to 5.5 between 1995 and 1997, the largest jump ever, and that the increase in group ownership of UHF stations during those two years also exceeded previous intervals (Howard 1997, 26-28, 30).

The trend towards centralization and consolidation in television station ownership has been quite pronounced outside the top 100 markets as well. Christopher H. Sterling provides yearly summaries of group ownership by percentage of the total number of commercial broadcast stations: 53.1% of stations were group owned in 1950, 40.1% in 1955, 48.9% in 1960, 54.5% in 1965, 57.4% in 1975, 68.9% in 1980, and a whopping 73.3% in 1983 (1984, 60). As the preceding paragraphs have demonstrated, the dominant paradigm for television ownership has always been group ownership. As the new medium was built upon the knowledge developed in a century of newspaper and radio broadcast operations, the economies of scale offered by such a structural arrangement made it the logical choice. The extreme expense of operating a television station, when compared with radio and newspapers, only reinforced the need to run stations as efficiently as possible. Thus did the structural arrangements from the earlier media, including group ownership, cooperative efforts, and joint operating agreements move into television broadcasting.

The same transfer process occurred in television news, which “grew from its audio predecessor and profited in many ways from what had been learned the hard way by the first of the electronic media” (Wood 1967, #13). William Wood suggests that television borrowed three kinds of news programming from radio: special events, regularly scheduled programs, and in-

depth news programs and documentaries. The earliest television broadcasts were mainly of special events, echoing the early days of radio. These events included commemorations of the end of WWII, the 1945 Macy's Thanksgiving Day Parade, a UN Security Council meeting in 1946, President Truman's address to Congress the following year, and the first television broadcast from the White House also in 1947 (Wood 1967, 14-15). Again following the path that radio had blazed, television networks broadcast the 1948 political conventions via airborne relays from coast to coast, and estimates claim viewership by more than 10 million people (Wood 1967, 15).

The success of event programs proved that there was a potentially large audience for televised news. NBC had been experimenting with regular news since 1945, and in 1947 contracted with Jerry Fairbanks Productions to provide newsreels for broadcasts, switching to Fox Movietone a year later. CBS signed a similar contract with Telenews, another newsreel provider. Outsourcing the picture portion of the news was most economically expedient as the networks experimented; later they would develop their own news-film departments (Barnouw 1970, 41). By 1949 the networks offered several regularly scheduled and sponsored news programs, some of which had existed before, but on a sustaining basis.[34] The installation of a network of cable and microwave connections enabled the entire country to see the network news programs in 1951, and some affiliates began to air local news programs adjacent to the network shows (Wood 1967, 16-17).

The third type of news programming borrowed from radio was the in-depth news special or documentary. The success of the CBS radio documentary series *Hear it Now*, which featured

[34] "A program which does not receive commercial sponsorship or advertising support is known as a sustaining program." Suzanne Williams-Rautiolla, "Sustaining Program," in *The Encyclopedia of Television*, ed. Horace Newcomb (New York: Museum of Television & Radio, 1997).

Edward R. Murrow and Fred Friendly, led to the creation of *See it Now* in the early 1950s and to the defection of those prized personalities from radio to television (Wood 1967, 18). This documentary trend would live on in programs such as *60 Minutes,* and would eventually receive additional airtime with the explosion of network news magazines in the early 1990s.

By 1964, surveys showed that television had moved ahead of newspapers and radio broadcasting as the public's main source for news (Wood 1967, 5). Four years later, WABC in New York revolutionized local television news. Before that time, local news on most television stations was a 15 minute block of a single anchor reciting the news of the day, occasionally complemented by a random piece of film. WABC, at the time a major cash source helping to support the ABC network as a whole, offered a new model for local news which contributed to the expansion of local news broadcasts. "Eyewitness News" on WABC featured field reporters who would cover stories firsthand, with a dramatic increase in the use of images other than the single anchor's talking head during the newscast. In addition, the broadcast featured an anchor team, flashier set design, and exciting music. Eyewitness News netted WABC an additional 500,000 viewers over the next two years and the station was number one in the market in 1972 (Allen 1997, 12-13). This change emphasized both the live nature of television news, via the reporters and the increased use of field footage, and the personality driven element of television news, both practices begun in radio decades before.

In 1971, television station consultants McHugh & Hoffman ran an advertisement in *Broadcasting* with the headline "It's News." The advertisement continued "local television news develops a warm, trusting and dependent relationship between the audience and the station that is essential to success, and it does it on a daily basis." Through news consultants, the Eyewitness News model was disseminated to stations across the country (Baker and Dessart 1998, 128-129).

Although some stations had made money on news programming, prior to this time it was still thought of as primarily a public interest operation by broadcasters. During the 1970s that attitude changed, and station managers realized that they could received substantial profit from newscasts. As a result, local news operations expanded the coverage of their early evening programs and added morning, noon, and late night broadcasts as well (Kaniss 1991, 102).

This financially driven expansion would further cement the nature of news as commodity, and in combination with relaxing regulation and changing ownership structures, would dramatically change the television broadcasting industry. The organizational structures, operational practices, and journalistic conventions developed in newspapers and refined in radio broadcasting would continue to play a major role in television broadcasting as the centralizing momentum impacted the new medium. The continuing story of broadcast television ownership and broadcast television news will be told throughout the rest of this project in various examinations of the way regulation, technology, and economics impacted and were impacted by the industry. But first, three more pieces of historical perspective.

1.4 EXAMINING THE EXEMPLARS

This brief history of the interactions among ownership, organizational structures, economic and social conditions, and the development of news practices has shown that structure matters; it undeniably influences the practices and content of station programming, most importantly of broadcast news. The remainder of this project builds upon this base, examining the other factors which have influenced both structure and practice. Part of this examination is a limited case-study approach, looking closely at the structures and practices of three particular station groups

which represent larger trends in the industry. Before progressing further, it is useful to quickly examine the histories of these groups, which are exemplars for investigating the ways that structure, practice, policy, technology, and economics have interacted in local television broadcasting.

1.4.1 Hearst-Argyle Television

The first of these companies, Hearst-Argyle Television, has the distinction of being the oldest of the four. It is a descendant of the original Hearst publishing company, started by its namesake, William Randolph Hearst. Hearst is legendary in the media business, and his company serves as a perfect example of growth, integration, and concentration of ownership. In 1887, Hearst started his media operations as the proprietor of the *San Francisco Chronicle.* By 1913, Hearst owned 6 newspapers, in Boston, San Francisco, New York, Los Angeles, Atlanta, and San Francisco. He spent the next two and a half decades buying, selling, and merging newspapers, ending up with seventeen in 1940. By 1960, the tally was down to 13 dailies and nine Sunday editions, but it was still enough to lead all newspaper companies in circulation with over four million daily (Tebbel 1969, 239, 242). In addition to the Hearst Corporation's newspaper holdings, the company also owned a syndication company (King Features Syndicate) and a large array of magazines by the time it was ready to move into the broadcast arena (Hearst 2005).

The Hearst Corporation entered broadcasting by acquiring WSOE (later WISN) radio in Milwaukee in 1928. By 1935, the company had added WTAE (Pittsburgh) and WBAL (Baltimore) to its holdings in radio broadcasting. In 1948, Hearst acquired WBAL-TV, the 19th television station in the country, to complement their radio station in the same market. The Hearst Corporation reprised this formula with its other radio holdings in the 1950s, launching

WTAE-TV and acquiring WISN-TV (Milwaukee). In the 1980s, the Hearst broadcast division added 3 more television stations: WDTN (Dayton), KMBC (Kansas City), and the nationally recognized WCBV (Boston). In addition, Hearst entered the cable television marketplace in 1984, as a founding partner in the A&E and Lifetime networks. In 1991, Hearst increased its stake in cable television by acquiring a 20% ownership interest in ESPN (Hearst-Argyle 2005b) (Hearst 2005).

1997 was a pivotal year for the Hearst broadcast division. Having added two more television stations previously during the decade, Hearst added another station in 1997, WPBF (West Palm Beach) and then merged with the 8-station Argyle Company to form Hearst-Argyle Television, a publicly traded company with Hearst Corporation as the majority shareholder. After the merger, the pace of station acquisition quickened. In 1998, Hearst-Argyle swapped television stations WDTN-TV and WNAC-TV for KSBW (Monterey-Salinas) and WPTZ/WNNE (Burlington/Plattsburgh), and announced deals to acquire the Pulitzer broadcast group's nine television and five ratio stations, and the Kelly Broadcasting television stations in Sacramento, KCRA-TV and KQCA-TV (under a local marketing agreement). In 1999, those deals were completed (except for the LMA, which was completed the following year), bringing Hearst-Argyle to a total of 26 television and 7 radio stations (Hearst-Argyle 2005b) (Hearst 2005).

Also in 1999, Hearst-Argyle formed a partnership with Internet Broadcasting Systems, acquiring a 30% stake in that company. Internet Broadcasting Systems specializes in creating websites for television stations, and the two companies envisioned creating a network of websites for the Hearst-Argyle properties. Finally, in 2001, Hearst-Argyle, Emmis Communications, and Imes Communications arranged a three-way trade in which Hearst gave up

3 radio stations in Phoenix, exchanging them for WMUR-TV in Manchester (Hearst-Argyle 2005b) (Hearst 2005).

In 2006, Hearst-Argyle Television owns 25 television stations, and manages 3 others, in addition to managing 2 radio stations. It is the largest ABC affiliate group, the second-largest NBC affiliate group, and reaches 18% of U.S. households (Hearst-Argyle 2005a). Hearst-Argyle has long used economies of scale among its stations, in technical purchases, graphic design, and group organization. It will serve in this project as the station group which best represents the practices of television station groups as a whole. While Hearst-Argyle does not use the sorts of innovative models presented by the other two groups, the models it does use are employed by many other players in the industry.

1.4.2 Sinclair Broadcast Group, Inc.

In 1971, Julian Sinclair Smith entered television broadcasting with the first UHF television station in Baltimore, WBFF-TV. The success of this station led his four sons to imagine a station group made up of existing UHF stations, and in 1986 they formed the Sinclair Broadcast Group, buying out their parents' share of the company in 1990. In 1991, the group acquired WPGH-TV in Pittsburgh, and introduced the first local marketing agreement, allowing the group to program an additional station in the same market as one it owned (Sinclair Broadcast Group 2005). The LMA was one of the first steps towards all-out centralization; a chink in the regulatory armor that permitted the de facto operation of two stations in the same market, at a time when owning two stations in the same market was still prohibited by the FCC.

In 1994, Sinclair Broadcast Group acquired four more stations. In 1995, Sinclair went public, and immediately used the capitalization to purchase five more stations in four markets. In

1996, Sinclair became the largest non-network station owner in the U.S. by acquiring River City Broadcasting, bringing the group's total holdings to 28 television stations in 21 markets, and 23 radio stations in 7 markets. In 1998, Sinclair Broadcast Group acquired Heritage, Sullivan Broadcasting, and Max Media, doubling its size (Sinclair Broadcast Group 2005).

On the basis of its success in television broadcasting, Sinclair Broadcast Group diversified in 1999, acquiring an 89% interest in an e-business company and 32% interest in a manufacturer of television transmitters and associated broadcast equipment, Acrodyne Communications, Inc. That same year, Sinclair Broadcast Group divested its radio stations to focus on television (Sinclair Broadcast Group 2005).

Sinclair Broadcast Group believed that the idea of national advertising had run its course, and that future profit rested in attracting advertisers at the local level. Focused on this goal, in 2002 the group launched a local news network, News Central, ostensibly to provide local markets that could not otherwise support news with the means to do so at the lowest cost possible (Sinclair Broadcast Group 2005). It is this news network, in addition to the overall philosophy and operations of the group, that makes Sinclair Broadcast group especially interesting in terms of this study, as it is a unique model of local television ownership and operation.

1.4.3 Cox Television

The third of these companies, Cox Television, is a subsidiary of Cox Enterprises, Inc., which has holdings in television, radio, cable, newspapers, and automobile auctions. James M. Cox, once a school teacher and at the time a newspaper reporter, borrowed money from family and friends in 1898 and used it to purchase the *Dayton Evening News*. In 1934, after three terms as the

governor of Ohio and an unsuccessful bid to become the democratic presidential nominee, Cox entered broadcasting with the establishment of WHIO radio in Dayton. Five years later, Cox acquired the *Atlanta Journal* newspaper and its radio station, WSB-AM. In 1948, Cox added a television station and another radio station to its broadcast holdings, WSB-TV and WSB-FM in Atlanta.

The beginnings of WSB-TV are a superlative example of the way in which television broadcasting was built upon the foundations of radio and newspapers in circumstances of cross-media ownership. The technology of the new medium was a challenge, but Cox had to look no further than its own radio operations to staff the new television station. With technical and management crews already familiar with broadcast technology, the company had an advantage in implementing its television operation. The *Atlanta Journal* wasn't forgotten either; it began a "T-day countdown" on its front page for the 29 days prior to the station's debut. Cox also partnered with a local department store, Rich's, giving a preview of the new television service via closed-circuit on the third floor bridge of their downtown store. The *Atlanta Journal* followed those previews with reviews of the programming shown during them, hearkening back to similar practices for co-owned newspaper and radio stations. The *Journal* also benefited from heavy advertising for television receivers by local appliance stores. In this way, all of the Cox media holdings in Atlanta cooperated and benefited from the launch of WSB-TV (Carter 1997, 82-86).

Cox Enterprises entered the cable business in 1962, purchasing systems in Pennsylvania, California, Oregon, and Washington, and two years later integrated the Cox newspapers when Cox Broadcasting went public. The cable business expanded dramatically in 1994 through partnerships with Sprint, TCI, and Comcast, and a year later Cox Cable merged with Times Mirror's cable systems, giving Cox Communications, Inc. access to over 3 million homes via

cable. In 1996, Cox Radio went public, and acquired New City the following year, adding 12 FM and 6 AM stations to its holdings. Currently, Cox Radio owns, operates, or services 78 radio stations, and Cox Television owns 15 television stations, among them the NBC affiliates that form a cluster around the Pittsburgh television market. The company still has newspaper holdings as well, amounting to 17 daily papers and 25 non-daily (Cox 2005). Cox Broadcasting offers a unique model because of its regional clustering philosophy, which tends towards a higher degree of localism than many other group strategies.

2.0 BROADCAST OWNERSHIP, GOVERNMENTAL REGULATION, THE PURSUIT OF PROFIT, AND THE PUBLIC INTEREST

> With commercial broadcasting, the person who pays for the broadcast of a program is the advertiser. It follows that the programs broadcast are those which maximize the profits to be derived from advertising. The market for broadcast programs is one from which the consumer is barred: what he would pay plays no part in the determination of programs. The result is that some sectors of the public feel that they are not being catered for. The FCC is uneasily aware that all is not well. And so it has exhorted the businessmen to act in the public interest and, incidentally, against their own. It seems clear that in this case the highest motive was not the strongest (Coase 1966, 446).

The dual nature of broadcasting – part business, part servant of the public interest – has placed it in a unique position in regard to governmental intervention, as R.H. Coase so eloquently described. The broadcaster will, of course, attempt to make as much money as possible, that being the role of businessperson in a free market economy. The Federal Communications Commission, in attempting to oversee broadcasting through the lens of the (deliberately) ill-defined "public interest," is influenced by politics present and past, and is further limited in the policies it can set by the very commercial nature of the medium it is attempting to regulate (Coase 1966, 441-442).[35] These influences on regulation and regulation's influence on the structure and practices of the industry in turn are the focus of this chapter.

[35] Coase, an academic economist, continues: "The task of charting a sensible future for the broadcasting industry is not one which can be left to the industry, which has its own interests to protect. It cannot be left to the Federal Communications Commission, which cannot conceive of any future which is not essentially a repetition of the past.

The previous chapter illustrated the many ways in which broad social trends and industry-specific changes affected media ownership and operation, resulting in a consistent centralizing momentum beginning in the newspaper industry and continuing in broadcasting. Chapter One also demonstrated the effect of these changes on the nature of news and journalistic practice, detailing the increasing commodification of news in the penny press and the eventual transfer of those conventions and perspectives into the broadcast media. In describing the historical trajectory of structure and practice in the media, Chapter One illustrated the effects of government regulation on broadcasting without delving deeply into the complex influences which created such regulation; such is the task of this chapter. Unlike in the newspaper industry which preceded it, extensive government regulation has been a key factor in the development of broadcasting, impacting virtually every area of the industry.

The FCC's decision to use the "public interest, convenience, and necessity" as a guide in determining and applying broadcast policy strongly impacted the structure and practices of the industry from the time of its initial articulation in the Radio Act of 1927. At first glance, the terminology seems to be a clear mandate that broadcasters should act in the public interest, subordinating their immediate economic interests as necessary to fulfill this obligation. In reality, however, the "public interest" language has always been a point of contention between regulators and broadcasters, and changing interpretations of the public interest language prompted by these contests have resulted in constantly changing boundaries of structure and practice. It is the ultimate goal of this chapter to demonstrate the influence of these regulations on broadcast ownership, organizational structures, and the programming product of the stations, and by doing

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Who, therefore, is to perform this task? I suggest that it has to be assumed by academic economists." R. H. Coase, "The Economics of Broadcasting and Government Policy," *The American Economic Review* 56, no. 1/2 (1966): 446. While his call to the academic community of economists was apparently unsuccessful, Coase's perspective on the inability of the other two groups to adequately regulate the industry is compelling.

so further illuminate the causes and effects of the economically motivated centralizing momentum at the heart of the industry. In addition, the chapter will demonstrate the steady transformation of broadcast news from an initial emphasis on news as a public service to the current view of news as an extremely valuable source of profit for local television stations, a change which occurred in concert with and partially as a result of the centralizing momentum in ownership and organization.

Broadcast regulation has often had a cascade effect, as even the earliest attempts to control the industry have significantly influenced later efforts towards the same goal, and thus it is important to begin at the beginning by examining the social and industrial conditions which led to the first regulation. This chapter examines the broadcast industry from the inception of wireless telegraphy in the United States to the present state of deregulation, organized into four periods which encompass differing regulatory environments. During each of the periods, decisions were made which impacted both industry structure and practice, and which constrained the possibilities of future decisions. The first period covers the decade following Marconi's arrival in America in 1899, a time of unregulated competition to define the new medium which had a profound impact on the shape that the industry would take. The second period begins with the first official broadcast legislation in 1910 and extends to the chaotic airwaves of 1926. This period was a time of limited regulation, as parties with a stake in the new technology battled for influence and supremacy, and the industry shifted from Marconi's model of point-to-point transmission to the current model of broadcasting. During this period military and corporate primacies were assured and existing regulation proved inappropriate to the new model of broadcasting, resulting in airwaves filled with almost constant interference. The third period stretches from the Radio Act of 1927 until 1978, and represents the time of greatest industry

regulation. Changing interpretations of the public interest conditioned the growth of the industry in important ways during this time span, and the new addition of television to the broadcasting industry created challenges aplenty for regulators. The centralizing momentum present in radio broadcasting shifted to the new medium during this period as regulators applied existing constraints to the new technology. Finally, the fourth period is comprised of the years since 1979, which ushered in attempts to update the Communications Act of 1934 in response to new technologies and perspectives and dramatically changed the nature of broadcast regulation, eventually leading to almost complete deregulation of the industry. In each of these sections, the chapter will describe the regulatory environment, the evolving understanding of broadcasting in the public interest, the industry's recursive influence on the regulatory process, and the effects of these factors on ownership and organizational structure, practice, and the program product of local television stations.

2.1 WIRELESS TELEGRAPHY AND THE BATTLE FOR THE AIRWAVES: 1899-1909

"If there ever was a period when radio was truly free and unfettered, when it resembled the utopia suggested by the rhetoric of today's free marketeers, it was during radio's first decade" writes Thomas Streeter in his critique of U.S. communications policy, *Selling the Air* (1996, 63). The story of broadcast regulation in the United States begins during this time period, two decades before the technology fully emerged to take center stage in 1920. Streeter describes the time as one in which four different groups each espoused its own vision of what the medium

could be and fought for the right to mold wireless to its benefit. These four groups were the amateurs and hobbyists, the inventor-entrepreneurs, the military, and the corporations (Streeter 1996, 63-64).

Although this first period is devoid of official regulation, the demand for such regulation emerges through the competitive actions of these four groups during this period. By the end of the first decade of wireless telegraphy, the technology was a growing part of the newspaper industry, the military had seized the primary position of influence upon the industry, and the boundaries for the battles over structure which would occur shortly thereafter were set. Early indications of the centralizing momentum in the new industry can be seen in the efforts to establish order in the chaos of early wireless, generally by consolidating control of wireless transmitters in the hands of the military and the commercial interests. In addition, it is during this period that the basis for wireless as a commercial enterprise was established.

Marconi's invention of the wireless telegraph publicly debuted in America at the behest of the *New York Herald*, which contracted with Marconi to transmit results from the America's Cup Yacht Races in October 1899 and by doing so initiated a new standard for speedy newsgathering by publishers (Douglas 1987, 8-9). Marconi's vision of wireless telegraphy was of a commercial system which would supplement the existing wired infrastructure, and his company focused its efforts during this decade on spanning the Atlantic Ocean with its transmissions. The initial success of the new technology resulted in new inventor/entrepreneurs entering the field between 1899 and 1905, each attempting to refine and improve upon Marconi's invention through their own vision of the industry. Two significant examples are Reginald Fessenden and Lee De Forest. Fessenden worked to create quick profits for his company by creating connections between major metropolitan areas and selling equipment to whoever would

buy. Fessenden was instrumental in helping to design an alternator which would become an important part of the later industry as his company competed with Marconi to transmit across the Atlantic Ocean. Lee De Forest traded on patriotism in his competition with Marconi, raising an issue which would become an important one in the following decade, and became a popular icon associated with the new technology that he helped to popularize (Douglas 1987, 66-67, 85-91, 94-98).

The U.S. navy was understandably interested in this new technology as a means to communicate among ships and shore stations from the moment it was first demonstrated, and began its own investigations in 1901 after failing to negotiate an acceptable contract with Marconi. The military's concern with wireless grew in response to the Russo-Japanese War in 1904, and suddenly "the issues of who had priority in the airwaves, how respective spheres could be delineated, and how commercial stations could be prevented from interfering with government stations became pressing" (Douglas 1987, 111, 114, 123).

President Roosevelt created the Interdepartmental Board of Wireless Telegraphy in June of 1904 to address these issues. In a report submitted two months later, the Board made three recommendations. First, it called for the creation of a radio telegraph system covering both coasts and the Panama Canal. Second, while specifically stating its support for private enterprise, the Board recommended that commercial stations should not be built where they might interfere with those of the military, a first step towards the military's eventual position of power in the new industry. The Board's third recommendation was that the Department of Commerce and Labor be given the right to license all commercial radio telegraph stations. The latter two recommendations were rejected by Congress, but the board's initial recommendation for a coastal network of wireless telegraph stations system did not fall under Congressional purview.

The navy saw the benefits of such a system, and spent much of the decade pitting wireless manufacturers against one another as it implemented its own coastal network of wireless stations (Douglas 1987, 124-126). The creation of this coastal system satisfied the navy's strategic objectives, but failed to address another concern. The navy worried about the larger economic picture, in which the protection of U.S. business interests played a vital role. As the initial development of wireless was by a company under foreign ownership, the navy had reason to aggressively work to expand its influence upon and control over wireless (Streeter 1996, 68-69).

Amateurs complicated the regulatory picture by strongly embracing wireless technology. Young men were encouraged by the social atmosphere to accept machinery in general, and specifically exhorted by media coverage to build their own wireless sets utilizing the newly discovered, cheap, and effective silicon crystals (Douglas 1987, 189, 196). In addition, the hobbyists embraced the unstructured nature of the airwaves, finding opportunities for communication, organization, and enjoyment in the same randomness of broadcasting that the other groups despised (Streeter 1996, 64). Amateur operators proliferated, causing further interference with existing "legitimate" stations and eventually leading to a battle for supremacy between the navy and the amateurs; by 1909, amateur broadcasters outnumbered commercial and navy stations by a ratio of 4 to1 (Douglas 1987, 207).

Where the amateurs found enjoyment and the military sought security, the entrepreneurs and corporations were interested in profiting from the new medium. During this time period, the Marconi Company was the primary corporate player, as most of the established communications corporations had significant investments in wired communications technologies. Marconi's corporate approach focused on providing a service to businesses and governments which

complemented, rather than threatened, the existing wired corporations (Streeter 1996, 71-73).[36] Marconi's institutionally-focused approach contributed to the social definition of the new medium by marginalizing the hobbyists, a bias which would eventually become part of regulatory policy. The newly developing industry was also influenced by the many inventors and entrepreneurs who worked to advance wireless technology in hopes of profiting through sales of the products they created. Their contribution to the melee was a viewpoint that most highly prized unencumbered competition, the only foreseeable route to undercutting the dominance of the corporations (Streeter 1996, 66).

The years between Marconi's 1899 introduction of wireless telegraphy in the U.S. and 1909 are significant to a discussion of broadcast regulation for three reasons. First, during this time period the bias towards commercial use of the new medium were sown by the efforts of the entrepreneurs and the Marconi Company. Second, the military's efforts to build a coastal system of stations allowed it to take a dominant position in the debates over the new technology, which would be a pivotal factor during the next time period. Finally, the public battles between various inventors trying to popularize their new innovations and the amateurs' enthusiastic embrace of the new medium resulted in an increasing number of signals being transmitted, a situation which would quickly become problematic. In the next decade, Marconi's commercial interests, the navy's military and political-economic interests, the entrepreneurs, and the amateur operators who considered themselves the owners of the airwaves continued to conflict, inspiring official legislation that would begin to define the nature of the broadcasting industry.

[36] Marconi envisioned his technology as one which would fill in the gaps where wired technology had no access, such as communications among ships and shore stations.

2.2 REGULATING WIRELESS, THE EMERGENCE OF BROADCASTING, AND CHAOS ON THE AIR: 1910-1926

At the start of this second time period, Marconi's original model of wireless as point to point communication for governmental, military, or commercial purposes was the dominant perspective, and one that had attracted little regulatory control. By the end of this timeframe, the industry was dramatically altered from its humble beginnings, and the importance of this newly emergent version of wireless was recognized in governmental concerns over broadcasting in the "public interest." The intervening years were a time of great change which dramatically influenced the regulatory environment of the industry in several ways. First, key concepts were established which would dramatically influence the Radio Act of 1927, providing the new industry with an identity somewhere between the unbridled commercialism of newspapers and the public interest circumscribed commercialism of a public utility. Second, during this time period, expanded use of the airwaves and changing industry practices would create a situation demanding the new legislation. Third, decisions were made favoring the corporate and commercial interests which contributed to continued centralization of ownership and operation and which instilled a clear pro-corporate bias to the industry. Finally, debate over broadcasting in the public interest indicated the growing importance of news broadcasting on the new medium, favoring its use as a sustaining program to entice the public to purchase receivers and as a way for stations to connect to their communities.

The unrestricted nature of both the airwaves and the industry during the first decade of wireless had contributed greatly to advances in technology and to innovative uses of the new medium. At the beginning of this second time period, Congress was faced with regulatory issues: rampant interference in the spectrum and how to distribute access to it, and the increased safety

of ships at sea that wireless could provide.[37] It addressed the latter first, in the Wireless Ship Act passed on June 24, 1910. The Act mandated that any ship carrying 50 or more persons and traveling more than 200 miles have a wireless radio and operator (Douglas 1987, 218-220). This earliest piece of legislation was perhaps the purest of all broadcast regulation efforts in terms of serving the public interest, being relatively unencumbered by the commercial concerns that would influence later legislation. It also represents the first moment of explicit connection between wireless telegraphy and the public good, a connection which would live on in regulation to follow.

Congress' actions only addressed one part of the problem, however. The plan to address safety concerns by requiring every ship to have a wireless radio stood to exacerbate the interference problem by adding new signals to the ether, a situation Congress was forced to address in the aftermath of the 1912 *Titanic* disaster. After colliding with an iceberg, the rapidly sinking *Titanic* radioed for help; although there were several ships in the vicinity, only one received the signal. It was common practice for ships to have only one wireless operator, who worked a 12 to 16 hour shift. While that operator slept, the wireless set was left unmonitored; such was the case on the *California*, only twenty miles away from the *Titanic*. In the hours immediately after the distress call, the airwaves were so jammed with inquires about the accident that official sources were unable to communicate, and a false message of hope was generated by the partial reception of two unrelated transmissions. The lack of shipboard radio vigilance and the uncontrolled interference demanded action (Douglas 1987, 226-229).

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[37] A 1909 collision between the *Republic*, which had a radio, and the *Florida*, which did not, added emphasis to radio's use for safety at sea; a distress call saved the lives of 1200 people. Susan J. Douglas, *Inventing American Broadcasting, 1899-1922*, *Johns Hopkins Studies in the History of Technology* (Baltimore: Johns Hopkins University Press, 1987), 219.

The Radio Act of 1912, Congress' response to the *Titanic*, instituted immediate changes for wireless telegraphy and had pronounced implications for the burgeoning broadcast industry. It required the licensing of operators, gave distress calls priority, partitioned the spectrum giving amateurs the least beneficial portion, and established the authority of the Secretary of Commerce and Labor to regulate the industry. The implementation of these provisions illustrates several important ideas that the Act made part of the new industry: the airwaves were a form of communal property, the commercial and military institutions had priority in their use, a license to use the airwaves did not imply ownership of them, and the government was the arbiter of rights to the airwaves (Douglas 1987, 234, 236-237). The Radio Act also effectively diminished both the entrepreneurs' and the amateurs' further influence on the course of the industry, instead encouraging the cooperation of the government, the military, and the Marconi Company to lead the way (Streeter 1996, 79).

Beyond simply serving as the regulatory guideline for broadcasting for the next decade and a half, the Radio Act of 1912 was important as a conceptual touchstone for later legislation. Most importantly, the Act legislatively established the nature of the airwaves for the first time. The situation in the United States was unique. Wireless in Europe was either state run or heavily regulated by the government, a possibility eliminated by a decade's worth of virtually unrestricted wireless activity in the United States. During that decade Lee De Forest had successfully created a commercial wireless network to rival the navy's, raising questions about the nature of broadcasting and the spectrum it used (Kruse 2002, 661, 703). In a military setting, the spectrum could be nationalized into government property. A commercial setting instead demanded a definition of the spectrum and of relevant property rights in order to ward off problems of interference. The Radio Act of 1912 offered such a definition, albeit in limited form.

The prioritizing of users established that the government could, indeed, make decisions about who would use the airwaves, defining them as a public property under government supervision. The choice of the Secretary of Commerce as the party responsible for such supervision is indicative as well of the government's acknowledgement of the commercial potential of the industry. Just as the Wireless Ship Act foreshadowed the public interest component of broadcast legislation, this Act previewed the issues of property and scarcity which would later combine with a commitment to localism to form the basis for ownership regulations.

During World War I, the military exercised its priority on the airwaves, purchasing many commercial stations and thereby increasing its hold over the industry. In addition, the navy made several improvements in wireless technology during this time. When peace returned, the navy attempted to gain permanent control over the wireless industry. Government ownership was quickly rejected (being anathema to a free market ideology), but the only apparent alternative was to permit the Marconi Company to take over the industry, allowing a foreign owned company access to the navy's technological accomplishments of the preceding years. The navy rejected that path, and instead encouraged the formation of a domestic wireless company: the Radio Corporation of America (Douglas 1987, 278, 281-284).

The creation of RCA in 1919 resulted from a timely conjunction of commercial and governmental need. Before the war, General Electric had developed an alternator that significantly increased the abilities of wireless broadcasting. Marconi's attempts to arrange a contract with G.E. for the units were halted during the war, and at its conclusion G.E. was discouraged from selling to Marconi by both the Navy and the government. Instead, American Marconi agreed to disband and was reformed under General Electric's ownership as RCA. The new corporation's privileged position with the government and the military, by virtue of their

involvement in its creation, would allow it to exert heavy influence on radio and television broadcasting, as well as the regulations by which it was bound (Douglas 1987, 285-286, 288). This influence helped to propel the industry to the commercial and corporate environment which persists into the present day, and reinforced the power structure placing commercial and corporate interests ahead of those of amateurs, educators, and other non-commercial users.

Wartime use of wireless technology resulted in a cadre of operators whose interest in the medium continued into the latter part of the decade, returning the amateurs to greater involvement in the industry, but still in a subordinate position. These operators took to the airwaves enthusiastically but randomly, and by 1922 the airwaves were jammed with the signals of 576 stations, illustrating the necessity for additional control. The basis for this control would come from the regulatory precedents of the 1910 and 1912 Acts, which had addressed both technical necessity and the public good (Streeter 1996, 91). Secretary of Commerce Herbert Hoover, who held the post from 1921 to 1928 and was responsible for overseeing the wireless industry during that time, had a unique conception of "the public" which would directly influence broadcast regulation. Hoover believed that the free enterprise system was paramount, and the public was one part of a triumvirate of balanced forces which made up that system, with capital and labor holding equal importance. He further perceived that the public required constant attention in order to preserve the balance among the three. This need combined with another emerging notion, the idea that consumerism might be the most effective way to keep the public fully immersed in the free enterprise system. "The public, in other words, was a body of potential consumers and the public interest lay in the cultivation of a consumer society" (Streeter 1996, 42-46). Hoover's belief in the free market and resultant desire for a consumer society to preserve the necessary balancing of interests would be reflected in the legislation to come.

Hoover hosted the first of four annual Radio Conferences in 1922, inviting broadcasters to share in the effort to find answers to the numerous challenges of the radio industry. In his address, Hoover claimed that the broadcasters were using a national asset, and as such the public interest was an inherent factor in the industry (Krattenmaker 1998, 7). Attendees at the first conference apparently concurred, resolving that radio was "a public utility" which should be regulated by the government "in the public interest" (Kahn 1963, 98).[38] The battles of the preceding decades which resulted in the primacy of military, governmental, and corporate control no doubt contributed to this conceptual connection between radio and existing public utilities. In addition, this language clearly evidences the influence of the public interest concerns of the 1910 Wireless Ship Act and the property considerations present in the Radio Act of 1912.

The "public interest" language used at the First National Radio Conference initially appeared in an Illinois railroad regulation, and was intended to protect farmers and others shipping their goods by rail (a "public utility") from "monopolistic abuses." The regulation also benefited the railroads; while it did negatively affect their revenues in some markets, it also blocked the entry of competitors in others, guaranteeing overall profitability (Kanazawa and Noll 1994, 24). The question of what exactly constituted a public utility was a long standing one. At the time of the radio conferences, public utilities were considered to be "natural monopolies" due to the high cost of capital investment. There was also a sense that, as monopolies, they needed to be regulated for the economic protection of the consumer (Nowotny 1989, 13). Generally, two criteria had to be met before a business would be made subject to direct governmental regulation. First, the service had to be a necessity. Second, either an "extortionate price or a harmfully

[38] However, because only 22 broadcasters attended this conference, it would be unfair to say this was necessarily a dominant view among broadcasters. Kenneth Creech, *Electronic Media Law and Regulation*, Third ed. (Boston: Focal Press, 2000), 51.

inferior standard of service" had to be involved. In practice, businesses defined as public utilities also tended to have two other things in common: large numbers of the public had to deal with the firm, and the supplier held a position of power relative to the consumer (Dugger 1989, 29-30). Participants at the First National Radio Conference held that radio broadcasting displayed these four characteristics. The new medium was clearly going to be a necessity, and the potential for substandard programming was a concern. In addition, radio broadcasters would interact with large publics, and by virtue of the broadcasting model, would have an inherently stronger position than their consumers because of the reach of their messages. These factors contributed to an interpretation of broadcasting as a public utility, which by definition required regulation in the public interest.

The public interest theory contends that regulation "exists as a way for government to protect consumers from the potential abuses inherent in natural monopolies… while at the same time taking advantage of their monopoly economies of scale and integration" (Barkovich 1989, 41). While broadcasting was clearly different from many other public utilities by virtue of not having direct economic interaction with its listeners, the public interest notion certainly applied to an even greater extent by virtue of the potential influence of the messages carried over the airwaves to large listening publics. In any case, whether broadcasting lived up the definition of a true public utility or not, the spirit behind the regulation of public utilities would also underpin the government's regulatory stance towards broadcasting.

At the Third National Radio Conference in 1924, Hoover again expressed his belief that radio was a public utility which must act in the public interest. Later that year, Hoover responded to demands that he limit the number of stations in a given area by stating that such a limit should be determined by the service needs of the market, a standard used in regulating public utilities.

The specific language Hoover used in describing this standard was "public convenience and necessity." At the Fourth National Radio Conference in 1925, Hoover expanded upon this theme, again defining the ether as public property and specifying that it must be used for public benefit, that "public good must overbalance private desire." The conference as a whole had backpedaled from equating radio with a public utility, however, asserting that although the principle of public benefit was sound, it did not require the new medium to be subject to the myriad of regulatory restrictions placed on public utilities (Kahn 1963, 99).[39] Ultimately, the National Radio Conferences helped to position broadcasting as a commercial industry which should operate in the public interest in a fashion similar to a public utility, and such provisions became part of regulation during the next time period.

As Hoover and the broadcasters debated the merits and responsibilities of the new medium, amateur operators and commercial stations fought for position in the increasingly cluttered airwaves. The Radio Act of 1912 was intended to regulate a very different kind of radio industry, and its provisions were ill suited to address the growing pains of commercial broadcast radio, Hoover's efforts notwithstanding. The earlier legislation preserved the spectrum from private ownership but failed to recognize an economic truth of wireless: the spectrum itself was a scarce commodity. A 1921 decision by the D.C. Supreme Court in *Hoover v. Intercity Radio Company* "in effect declared that anyone had the right to ask for and obtain a license from the Secretary of Commerce." Having discovered this power, the number of applicants increased dramatically. Hoover, nonetheless, frequently defied the decision and continued to discourage applicants and deny licenses in an effort to maintain some control over the industry (Minasian 1969, 395-396).

[39] Over 400 broadcasters attended this conference, which may in part account for the change in perspective. Ibid.

In 1925, scarcity was again an issue when Zenith Corporation was granted a license for WJAZ radio. WJAZ was required to share a frequency with other stations, at the time a common practice intended to reduce interference. Dissatisfied with the 2 hours per week that WJAZ was allotted, Zenith applied for a shift in frequency, was denied, and proceeded to make the switch anyway. The parties appeared before the Illinois Federal District Court in 1926, which in *United States vs. Zenith Corporation* ruled that the Commerce Department had no authority to create regulations for radio broadcasting because its powers were limited solely to enforcing the mandates set forth in the previous Radio Act (Creech 2000, 52-53), reinforcing the decision in *Intercity Radio Company*. The airwaves exploded into anarchy as a result of the new ruling. During the six months after the decision, 200 new stations signed on and the existing stations migrated to new frequencies and power allocations as they saw fit, turning the airwaves into a cacophony of interfering broadcasts (Krattenmaker 1998, 9). The ironic practical result of the decisions in *Intercity* and *Zenith* was the exacerbation of the scarcity problem which would eventually lead to the sort of increased regulation that much of the industry was trying to avoid.

At the close of this time period, several important decisions had already been made about the new industry. The historical treatment of public utilities, required to serve in the public interest, had been made a part of the conceptual framework of broadcasting. This served two purposes. First, it gave a degree of governmental control over the new industry which would not have been justified otherwise. Second, it positioned the industry as a commercial enterprise, a legacy of the corporate influence which had been present in the industry's beginnings and dominant in its later stages. The decision to treat the spectrum as a public property was also decided by this time, and the government was securely positioned as the decision maker in its allocation. The battle between the four groups involved at the start of the industry had been

resolved in favor of the military and the corporations. Finally, it had become clear that the spectrum was a scarce resource, increasing the stakes involved in those decisions and reinforcing the need for concern about the public interest. On these pillars – public interest, commercialism, and the spectrum as scarce public resource – would be built the legislation that would oversee the next 50 years of radio and television broadcasting.

2.3 REGULATING BROADCASTING IN THE PUBLIC INTEREST: 1927-1978

The third time period begins with the Radio Act of 1927 and extends to a point just before the advent of broadcast deregulation. This timeframe encompasses the development of radio broadcasting into a fully commercial industry and the development and growth of television broadcasting as well. It is also the period when the regulatory restrictions on broadcasting were most pronounced. Because it is such a large expanse of time, this section is divided into three sub-periods, each of which is significant in its own way. During the first, 1927-1939, regulation was introduced which would fundamentally define the medium for almost 70 years, the initial interpretation of the "public interest" was made, and concerns over the structure of the industry and diversity of ownership began to emerge. Also, the expectation of broadcasters to act as public trustees was enhanced with the specific adoption of the Fairness Doctrine. During the second sub-period, 1940-1959, the corporate bias of the industry was challenged by regulators concerned that broadcasters were not fully living up to their public interest commitments, and additional restraints on ownership were initiated. Several reports released during this time period addressed issues at the intersection of ownership, public interest, and the public service obligations of broadcasters. The final sub-period, 1960-1978 is simultaneously a time of great

regulatory concern over public interest in the industry and great concern over the commercial aspects of the industry, illustrating the continued tension between these two industry mandates.

The time period as a whole demonstrates the continuing trend towards centralization of ownership in support of broadcasters' profits. This centralization occurred as a result of changing interpretations of the public interest and its relationship to the commercial nature of the industry, and increased as the time period advanced. The time period further shows an increasing emphasis on public service activities by broadcasters as a condition of license renewals, and specific expectations that these activities should be both local and frequent, requirements which were particularly well suited for local news broadcasts to fulfill. Finally, the actions of the FCC during this time period emphasize its hopes that the industry would act as a public trustee, even as the industry itself failed to fully embrace that role. Just as the previous time period began with one model of broadcasting and ended with a radically different industry, this time period offers similar industry change resulting from the increasing centralization of ownership and the emerging view of news as both license renewal guarantor and profit producer.

2.3.1 Decisive Regulation and Emerging Technology: 1927-1939

During the first sub-period, regulation appropriate to the new form of broadcasting was passed in the Radio Act of 1927, drawing upon both previous legislation and Hoover's National Radio Conferences. Between 1927 and 1934 reformers and corporations waged a pivotal battle to define the new medium, and while the commercial system of broadcasting was affirmed in the Communications Act of 1934, regulatory policy was specific in its expectation that commercial broadcasters act as public servants in return for their commercial opportunity. These commercial interests were further advanced by technical decisions which worked against the amateurs.

Important changes to the "public interest" interpretation which impacted structure, practice, and product were made during this time period as well, expanding that standard to include issues of localism and fairness. The years between 1934 and 1939 were significant in regulators' growing concern about both multiple- and cross-ownership, inspired by broad social trends including Roosevelt's New Deal. It was also during this last part of the sub-period that the new technology of television was making its way through the regulatory labyrinth towards an acceptable technical standard. In addition to creating the regulatory environment which would define television broadcasting, this time period is important for its strong embrace of the public interest responsibilities of broadcasters.

The Radio Act of 1927 was Congress' response to the regulatory vacuum created by *Zenith.* The new law established the five-person Federal Radio Commission, and was intended as a temporary measure;[40] its impact would be anything but temporary. Incorporating Hoover's comments from the Fourth National Radio Conference, the new law formalized the "public interest, convenience, and necessity" language drawn from public utility regulation as the standard for issuing broadcast licenses (Creech 2000, 53). The Act also continued the practice of issuing broadcast licenses free of charge (Krattenmaker 1998, 10). This decision reinforced Hoover's belief that the public interest was only one part of the free enterprise model, balanced with profit concerns. It also perpetuated the corporate bias that had been part of the industry since its early days by allowing corporate commercial interests the benefit of cost-free access to the airwaves.

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[40] The Act had a life span of a single year, which Congress renewed for each of the next 6 years. If Congress had failed to renew the Act, it would have resulted in the Secretary of Commerce again taking control of radio regulation. Erwin G. Krasnow, Lawrence D. Longley, and Herbert A. Terry, *The Politics of Broadcast Regulation* (New York: St. Martin's Press, 1982), 14.

Raymond Williams observes that broadcasting in the United States is unique in part because its regulatory structure solidified only after the manufacturers of equipment had gained a great deal of power, and had in effect created "the public" to be served. This resulted in a constant and uneasy effort to integrate the idea of a non-market public interest into an inherently market-driven institution (1974, 29). This uneasiness is expressed in the deliberate decision to leave the parameters of the public interest standard undefined. Where the 1912 Act specifically restricted the Department of Commerce's authority to enforcing existing regulation, the 1927 Act allowed regulatory flexibility in the form of this connotative uncertainty (Krasnow, et al. 1982, 17). At the First National Radio Conference, Hoover had blazed the trail for this particular form of regulation by invoking the public utility discussion and focusing on three factors which neatly align with the three primary themes of this chapter: who would broadcast (ownership), under what circumstances (in the public interest), and with what kind of programming (broadcasters' obligations). This third factor was unique to the new medium, and the legislation was deliberately written to allow the commission to change its expectations for broadcasters along with the changing interpretation of the public interest (Krattenmaker 1998, 13).

In an effort to further address the massive interference which had compelled the passage of the Radio Act of 1927, the FRC reassigned 94% of broadcast stations on the basis of "technical equipment, adequate finances, experienced personnel, and the ability to operate without interruption" in November 1928 (Krattenmaker 1998, 15-16). The reassignment worked directly to the benefit of the commercial interests in broadcasting, as they were the ones with the best equipment, the most money, the most experience, and the most potential for uninterrupted operation. Disguised as a simple exercise of technical necessity, the move resulted in many smaller stations losing their licenses or being assigned to less desirable frequencies (Streeter

1996, 99-100). The FRC then turned its attention to programming issues, with an ever-present concern about its actions being viewed as censorship. Its early decisions revolved around providing useful programming to the majority of the public[41] (Krattenmaker 1998, 17-18).

Both the reassignments and the public interest programming decisions reflect a concern with the functioning of broadcasting as a system, rather than the privileges of individual owners, which dovetails nicely with Hoover's overarching concern with supporting free enterprise. This system focus expressed itself in much of the decision making and legislation which followed, and had a strong influence on the choice of a commercial mode for the new medium. Hoover saw advertising as an essential component of radio broadcasting, because "it served the needs of the system, and thus the public interest" (Streeter 1996, 101). Another example of this system focus can be found in the 1928 renewal of the Radio Act. As a result of the yearly renewal process, Congress was able to expand or contract the FRC's authority and autonomy with each renewal, and in 1928 it added a geographical constraint through the "Davis Amendment." The new requirement called for a balanced distribution of stations across five geographic regions, setting a precedent for localism that influenced much of the legislation that followed (Krasnow, et al. 1982, 14), particularly the Communications Act of 1934.[42] The localism principle established by

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[41] The FRC quickly castigated the stations that were only playing phonograph records as not serving their publics properly. They also rejected stations affiliated with certain groups such as the socialists and the Chicago Federation of Labor, claiming that the scarcity of spectrum meant that every station had to serve all listeners. In other decisions, the FRC denied renewal to Rev. Bob Shuler, a station owner accused of using his station for personal attacks on others; and to John R. Brinkley, "the goat gland doctor," whose practice of diagnosing illnesses from letters sent by listeners and prescribing his own brand of medications to cure them resulted in the simultaneous loss of his medical license and his radio license. Thomas G. Krattenmaker, *Telecommunications Law and Policy*, Second ed. (Durham: Carolina Academic Press, 1998), 16-18..

[42] The five regions were defined in the 1927 Act, which specified that only one commissioner could come from each zone. "Zone One encompassed New England and the upper tip of the Middle Atlantic states, including the District of Columbia, Puerto Rico, and the Virgin Islands. The second zone included the upper Middle Atlantic states west to Michigan and Kentucky. The third zone encompassed the South, and the fourth and fifth zones the Great Plains and the West, respectively." John R. Bittner, *Broadcast Law and Regulation* (Englewood Cliffs, N.J.: Prentice-Hall, 1982), 14-15.

the Amendment would be a major factor in succeeding decisions about both ownership and the responsibilities of broadcasters to provide public service to their communities.

In 1929, the FRC added an important new public interest obligation for broadcast licensees. The Fairness Doctrine demanded that broadcasters provide programming dealing with important social issues, and that they do so with fair regard for all sides of the issue. In a statement denying the renewal of a broadcaster's license on the grounds of unfair editorializing, the FRC specified that the "public interest requires ample play for the free and fair competition of opposing views" in any discussion of public questions (Brainard 2004, 28). The FRC's decision in this case is a strong statement of its expectations for broadcasting in the public interest, even before the advent of regular news programming.

The period between 1927 and 1934 is one that has been painstaking covered by media historian Robert McChesney.[43] During this period, battles between the reform movement and the corporate broadcasters were intense, with the future of the medium at stake. Although the reformers put up a valiant effort to turn broadcasting away from a commercially dominated system and into one which would be expressly focused on education and public service, they were ultimately undermined and defeated by commercial broadcasters. The Communications Act of 1934 officially codified broadcasting in the United States as an advertising-based commercial system.

The 1934 Act itself was a response to a missive from President Franklin D. Roosevelt, who proposed the creation of a new agency, the Federal Communications Commission. The FCC

Each state within a zone "was entitled to facilities on the basis of the ratio which its population bore to the population of the zone." The FCC set up a unit quota system on the basis of power and hours of operation. The Amendment was later repealed. Herman S. Hettinger and William A. Porter, "Radio Regulation: A Case Study in Basic Policy Conflicts," *Annals of the American Academy of Political and Social Science* 221 (1942): 125-126.

[43] See Robert Waterman McChesney, *Telecommunications, Mass Media, and Democracy: The Battle for the Control of U.S. Broadcasting, 1928-1935* (New York: Oxford University Press, 1993).

would have all of the powers of the FRC it would replace, but would be an independent agency, rather than a part of the Department of Commerce (Bittner 1982, 20).[44] The Communications Act of 1934 continued unchanged most of the policies from the 1927 Act, and again deliberately failed to define the "public interest, convenience and necessity" that it reasserted as a regulatory standard. The Act did set out specific requirements for the FCC in regards to service and technology which amounted to a favorable view on competition in the communications industry, continuing Hoover's work of a decade earlier. In doing so, the Act juxtaposed notions of competition with notions of the public interest, a duo of ideals which would be referenced repeatedly as regulators restricted or empowered broadcasters (Corn-Revere and Carveth 2004, 52-53). Competition itself as a benefit to the public interest was further reinforced in one of the new provisions of the 1934 Act. The 1927 Act authorized license renewals whenever the Commission felt it was in the public interest to do so, with little further qualification. This language changed in the 1934 Act, adding the requirement that the same considerations would now be given to renewals as were given to new license applications, which allowed for comparative hearings between applicants at both initial application and renewal application (Geller 1975, 472-473).

Another item which passed almost wholly from the 1927 Act to the 1934 Act was the FCC's "local service objective." Initially expressed in the 1928 Davis Amendment, it was reaffirmed in modified form in the 1934 Act, calling for "equality of radio broadcasting service" among each of the states and the District of Colombia, rather than the previous five broad geographic regions (Noll, et al. 1973, 99). The localism provision was initially based upon the

[44] "The change to a separate independent agency also resolved the dilemma that had plagued regulation under the FRC, in that an agency of 'Commerce' had been charged with administering issues which were inherently part of the free speech-free press clause of the First Amendment to the Constitution." Bittner, *Broadcast Law and Regulation*, 20.

technological arrangement of stations, the locations of which had to be carefully calculated to avoid interference. Its use was much the same in this Act, but redirected from equity among regions to equity among the states. The localism principle which began as a technological question would eventually become one of the key factors used by regulators to decide whether or not a station was acting in the public interest.

The Communications Act of 1934 embraced and strengthened the key regulatory themes which predated it. The obligation of licensees to act in the "public interest, convenience and necessity" in order to receive a license was affirmed, and the broadcasters who failed to do so now found their license in jeopardy from competing applicants. The specific public interest obligation placed upon broadcasters to provide fair coverage of important issues was perpetuated and the principle of localism which would eventually be a component of this public interest obligation was itself reinforced. Finally, that Act continued to acknowledge the fundamental truth of spectrum scarcity throughout all of these expectations, limiting ownership to those licensees willing to give back to the public for the privilege of using the airwaves.

The culmination of these principles led the newly formed FCC to envision the broadcasters as "public trustees," and its job as regulator to make sure that the broadcasters lived up to that designation. A public trustee is generally recognized as one who "has a special duty to subordinate one's own interest to those of a wider public good," and a broadcaster is acting as a public trustee "when it sacrifices its financial welfare to the interests of the viewing and listening public" (Krattenmaker 1998, 147). The principle of broadcasters as public trustees would influence a great deal of legislation to follow, and would eventually become a pivotal point of contention between regulators and broadcasters.

After 1935, the New Deal mindset was evidenced in broadcast regulators, who found themselves newly concerned with issues of the business of broadcasting in general and monopoly in particular. The growth of the industry combined with the emerging technologies of television and FM spurred the FCC into a series of hearings addressing those technologies, allocation, monopoly, and both multiple- and cross-ownership of broadcast outlets (Hettinger and Porter 1942, 127). Congress was also concerned about the issue of cross-ownership between newspapers and radio stations. A House Bill to amend the Communications Act of 1934 was introduced in early 1937 with the goal of completely eliminating newspaper interests in broadcasting.[45] Otha D. Wearin, the author of the bill, described the rationale for this separation:

> In the past we have been vitally concerned over the freedom of the press, and in the future the problem of freedom of the individual to do his own thinking without the interference of monopolistic control of the agencies upon which he bases his conclusions in that thinking will unquestionably be equally vital. It would be an unfortunate thing for the American people, or for any section of them, to be handicapped through having the agencies of dissemination of public opinion in the control of a single individual or organization. It should be the duty of the Federal government to guarantee the average individual safety from the danger of monopolistic control of public opinion (Wearin and Kirchhofer 1938, 301).

Wearin suggested that the initial response to this argument would be that curtailing newspaper ownership of broadcast stations is a violation of free speech. He rebutted this argument, citing the fact that newspaper owners would still have their own medium in which to exercise that right. He ended his argument with the statement "Of all the monopolies the world has ever known none could be as bad as a monopoly of public opinion in the hands of any existing agency of news dissemination" (Wearin and Kirchhofer 1938, 301-304). While the bill never became law, and cross-ownership was never banned, the concern about monopoly ownership of the

[45] HR-3892, introduced on January 28, 1937.

media and its potential influence on the public service expectations of broadcasters under the "trustee" model would influence FCC regulations regarding ownership for some time.

Although Wearin was concerned about newspapers, an even bigger challenge for those who would ban cross-ownership was in the experimental stage, and the FCC was paying close attention. According to Garth Jowett's history of the initial presentation of television, government regulators faced three important television-related tasks in the 1930s: deciding what bandwidths and frequencies television should use, adopting standards for licensing the stations, and regulating the service provided to the public. Until these technical and programming issues were resolved, regulators were unwilling to allow the new medium to advance (1994, 126). With respect to the latter two tasks, it was only logical that the FCC should extend the rules for radio broadcasting virtually unchanged into television, and the Commission did just that. Technical standards for television, however, were another matter entirely, and the regulators held back on allowing the new medium to emerge until they were happy with its technical provisions. This exercise of restraint was a clear effort to avoid the uncertainties that plagued the early days of unregulated radio.

The development of television technical standards occurred over the course of a decade. In 1930, Vladimir Zworykin was placed in charge of a new research group which combined the best and brightest from RCA, General Electric, and Westinghouse at RCA's facilities in Camden, New Jersey. Beginning with a rudimentary set of equipment which could render a mere 60 scan lines of resolution, by 1939 the group had developed technology offering 441 scan lines. RCA celebrated its technology with a demonstration at the New York World's Fair, and proposed its model of television to the FCC for consideration as the industry standard (Head, et al. 1994, 52-53). However, defining television standards was not to be so easily achieved. Both Philco and

DuMont rejected one of the basic technologies that RCA had embraced, and the FCC was unwilling to move ahead without an industry in technological accord. The FCC again followed precedent set in radio, giving RCA preferential treatment by allowing it to broadcast on a limited basis in 1940 even though standards had not yet been defined, setting off a chorus of monopoly-related criticism (Jowett 1994, 127-128).[46]

The caveat to RCA's permission to broadcast was that it must inform the public that the broadcasts were experimental and that sets purchased during this time might be incompatible with future standards, which did little to stimulate receiver sales. Eventually the industry agreed to work together, and the National Television System Committee of the Radio Manufacturers Association recommended a set of television broadcast standards to the FCC. The NTSC standard was accepted on May 3, 1941 and the FCC set July 1, 1941 as the beginning date for commercial television, with 10 stations licensed to broadcast. However, the burgeoning industry came to a screeching halt on May 12, 1942, when the War Production Board halted further expansion during wartime (Jowett 1994, 128).

The new medium was categorized in FCC Annual Reports of the time as a subset of Radio Broadcasting, a clear sign of the Commission's perspective on the new technology: pictures delivered by radio. This positioning also made television broadcasters subject to the same rules as radio broadcasters, including operating in the public interest, adhering to the Commission's specific requirement to provide public interest programming on their stations, and the regulators' growing concern about diversity of ownership. Although it would be several years

[46] Just as RCA had been awarded a leadership position in radio by virtue of its ownership, it was once again given a leadership place in television. However, in this case RCA was no longer simply an equipment manufacturer, it was also the owner of the NBC broadcast network, through its parent company General Electric. This made the stakes somewhat higher.

before television would fully develop, the expectation was clear that television broadcasters, too, would be considered public trustees.

The first sub-period of this timeframe is a vibrant example of regulation for the benefit of commercial and corporate interests, but with a strong concern over the obligations of broadcasters as public trustees, which created a constant and often contentious tug of war between the ideals of service and free market economics. These obligations were most clearly expressed in the adoption of the Fairness Doctrine and the localism principles of the Davis Amendment and Communications Act of 1934. This sub-period is also highly significant in the early indications of the Commission's growing concern with multiple- and cross-ownership, which would constrain industry structure until deregulation. Finally, the sub-period is significant in its conceptual transfer of regulation for radio broadcasting unchanged into television broadcasting.

2.3.2 Localism, Ownership, Service, and the Public Interest: 1940-1959

The second sub-period is marked by an increased level of FCC concern over broadcast ownership and broadcasters' efforts to provide service to their communities. The former concern was expressed in restrictive regulation on multiple- and cross-ownership of media properties including the duopoly rule, the AVCO rule, further embrace of the localism principle, the application of antitrust statutes to the broadcast industry, and anti-trafficking efforts. The *Report on Chain Broadcasting* and the *Barrow Report* were pivotal publications informing these structural limitations. However, just as regulation constraining public utilities in the past also protected their profitability, the new regulations established certain permissible levels of multiple- and cross-ownership, which contributed to the overall centralization of the industry and

illustrated the uneasy tension between commercial and public interest concerns on the part of the regulators. Part of this tension was introduced by the expense involved in entering television broadcasting which limited the new medium to those with the resources to meet the initial investment and ensuing potential for loss in the early days of television.

The latter FCC concern was expressed in its continuing commitment to the Fairness Doctrine and in the release of the "Blue Book," which included a new level of expectations for broadcasters to live up to their promises of activity in the public interest. In addition, a new FCC vision of the industry further incorporated localness within the "public interest" definition, adding a service dimension to the existing technical and structural provisions. This placed further obligations upon broadcasters to focus on their communities and helped to position local news as a key component in the broadcasters' public interest efforts.

During the first half of the 1940s, the FCC was comprised largely of commissioners with prior experience in public utilities. Apparently drawing upon this background, the FCC instituted decisions which impacted the economics of broadcasting both in 1941 and in 1944; prior to this point, direct economic regulation had generally been avoided (Kahn 1963, 102). In a television-specific restriction, the FCC in 1941 limited the total number of stations that could be owned by one entity to three. That same year the FCC published the *Report on Chain Broadcasting*, the culmination of a three-year investigation into efforts by NBC and CBS to stifle radio broadcast competition. The *Report* recommended that the networks' practice of placing their affiliates under restrictive contracts be discontinued, and also recommended that no single owner be allowed to possess more than one network, and the FCC pursued these recommendations. In 1943, the inevitable lawsuit was resolved by the Supreme Court in the FCC's favor, and NBC

was forced to divest itself of its second network, which became ABC (Streeter 1996, 169-170). [47] The *Report* was also concerned with the emerging conglomerate and corporate nature of broadcasting, which "accentuated non-responsibility of broadcast licensees" on two counts: that broadcasting was a "sideline" to the main business, and that the nature of corporate ownership made it subject to rapid change ("Conflicts of Interest" 1969, 891).[48] It was the Commission's stance that neither of these factors made for adequate public service to a broadcaster's community.

Perhaps inspired by the research which produced the *Report on Chain Broadcasting,* or perhaps out of a general desire to reduce the power of the broadcast networks, a further restriction on ownership was adopted on November 23, 1943. The new regulation specified that no single entity could own two stations in the same primary service area, unless it could be proved that "public interest, convenience and necessity [would] be served through such multiple ownership situation" (FCC 1943, IV(6)). As a result, the networks were forced to sell radio stations engaged in duopolies in several markets. This duopoly rule also effectively prohibited cross-ownership of broadcast outlets within a market.

The legal decision that forced the split of NBC's Red and Blue Networks also incorporated the antitrust laws into the concept of the "public interest."[49] In the *Report on Chain Broadcasting,* the FCC had previously written that the Sherman Act should apply to broadcasting: "This Commission, although not charged with the duty of enforcing that law

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[47] This decision addressed the two arguments advanced by an unrelated radio network, the Mutual Broadcasting System, which objected to the exclusionary affiliate contracts and NBC's ownership of two networks. Mutual operated in a very different fashion than the traditional networks, a "semi-co-operative" which owned no stations and instead was a grouping of affiliates who shared programming among themselves. Hettinger and Porter, "Radio Regulation: A Case Study in Basic Policy Conflicts," 128-129.

[48] Charging the broadcasting industry with being overly corporate was a clear indication of the unique anti-corporate bias present among the Commissioners at the time. As this chapter shows, corporate intervention in broadcasting was both permitted and encouraged by the government in most cases.

[49] *National Broadcasting Company v. United States*, 319 U.S. 190 (1943).

should administer its regulatory powers with respect to broadcasting in the light of the purposes which the Sherman Act was designed to achieve." The court decision in the NBC case propelled Congress to reinforce the authority of the FCC to act in cases of potential antitrust excesses, specifying that even if the broadcaster was violating an antitrust statute, the FCC still had jurisdiction to revoke their license (Gilbert 1950, 1347).

In 1944, the FCC made took two additional actions impacting ownership. The first resulted indirectly from the hearings subsequent to the 1941 *Report on Chain Broadcasting*. While declining to adopt any specific rule, the Commission stated that "it does not intend in granting licenses in the public interest to permit concentration of control in the hands of the few to the exclusion of the many who may be equally well qualified to render such public service as is required of a licensee" (FCC 1944, I(12)). Additionally, the Commission relaxed its television ownership restrictions, allowing a single entity to own up to five television stations. Although these may seem like contradictory decisions, the commissioners must not have considered five-station ownership to be concentration of a worrisome sort, since that limit was already allowed in radio; this was just one more example of the Commission equating the two media in regulatory terms. The statement against concentration remained a powerful one, and clearly reflected the Commission's belief in the trustee model of broadcasting.

Beyond its interest in ownership, the FCC was also highly concerned with the broadcasters' commitment to the public interest during this time period. In March 1945, FCC Chairman Paul A. Porter addressed broadcasters for the first time, informing them that the existing practice of virtually automatic license renewal was over. In the future, he declared, renewals would only be granted to broadcasters whose actions matched the promises made at the previous time of application (Meyer 1962a, 197). On March 7th of the following year the FCC

released a report resulting from this statement, *Public Service Responsibility of Broadcast Licensees*, commonly known as the "Blue Book" for its chromatic binding. The Blue Book was a compilation of the previous year's investigations into promises and performance, and it noted that many broadcasters were failing to live up to their commitments. The report detailed four specific instances where the FCC felt the broadcasters were endangering the public interest (Meyer 1962a, 199-200).

The FCC's first concern was the airing of sustaining programs, of which news was a major component. Sustaining programs, the Commission held, were the "balance wheel" by which the public service nature of the station could offset programming decisions made for commercial gain.[50] The second contentious issue was a lack of local live programming, hearkening back to the FCC's emphasis on localism. The FCC provided statistics which showed that many stations lacked the staff to fully serve their local community, and instead spent most of their on-air time clearing network programs. One particular noteworthy statistic was the average ratio of 4 salespersons to 3 writers at local stations. The third issue the FCC chose to spotlight was a failure to address issues of local importance. Although the FCC declined to specify rules for local coverage, they declared that "adequate" airtime must be given and that the amount of time devoted would be a factor in license renewal. Finally, the FCC expressed its displeasure with the state of advertising. While specifically giving its support to advertising as the basis for broadcasting, the Commission complained about the way in which it was being carried out, noting everything from the number of commercials in a given time period to the lack of

[50] The FCC enumerated five functions of sustaining programs: (1) to give the station or network a means to achieve a balanced interpretation of public needs; (2) to provide programs that wouldn't receive sponsorship; (3) to provide programs for minority tastes; (4) to provide programs devoted to the needs of non-profit organizations; and (5) to provide for experimentation with new forms of programming. Richard J. Meyer, "The Blue Book," *Journal of Broadcasting* 6, no. 3 (1962): 201.

transition between program content and advertising content. The FCC called for the industry to self-regulate, but reiterated that a failure to improve upon these four issues would be looked upon negatively at license renewal time (Meyer 1962a, 201-204). Although the Blue Book was a report, not legislation or official regulation, it gave broadcasters, future regulators, and future legislators valuable information regarding the parameters of the elusive "public interest" in broadcasting, and again offered broadcasters a reason to make local news a regular part of their broadcast schedule.

A small initial response to the Blue Book snowballed, and by the following month broadcasters were loudly critical of the FCC's report, claiming everything from subtle censorship to outright federal takeover of the airwaves (Meyer 1962b, 295-296). Ultimately, the Blue Book resulted in at least two positive changes by the industry: the radio documentary was created shortly after the report as a response to the questions of localism, and the NAB issued a stronger code for radio self-regulation in 1948. Beyond that, however, the dire consequences predicted for license renewals in the Blue Book never materialized, and it was quickly categorized by the industry "as a dead letter" (Meyer 1962b, 308-310). It is illustrative, however, of a growing concern that the balance of the industry might be actively tipping away from service and towards profit, a concern which would continue until deregulation imposed a marketplace model on service issues as well.

The FCC also extended its public interest concerns to station transfers in 1945, adopting another form of economic regulation that would be known as the "AVCO Rule." That year, Powel Crosley Jr. sold his radio businesses, which included AM and FM licenses, to the Aviation Corporation for $22 million. The FCC was split 4-3 in its approval of the transfer, and subsequently created a new policy regarding station transfers (Miller 2003, 24-25). The new

policy instituted a competitive system, requiring public notice of the intent to transfer a station so that other interested parties could also apply to purchase the station. A hearing would be held to determine which party would best serve the public interest, and thus receive the license transfer.[51] The commission rescinded the rule four years later, believing that it did more harm than good ("Station Transfers" 1957, 153). However, this early effort to restrict station trafficking would inspire later regulation to accomplish the same goal.

Interference issues again plagued the broadcasting industry in 1948, requiring the FCC to cease granting licenses and "freeze" the expansion of the industry. A 1945 plan which geographically arranged television stations required a minimum 150 mile separation between stations using a given channel assignment. Due to "tropospheric bending of radio waves," this separation was inadequate, and the Commission estimated anew that separation of 220 miles would be necessary. This lowered the number of potential stations at a time of increasing demand for licenses, and endangered the theory of localism that was part of the Commission's interpretation of serving the public interest. To address this, in 1949 the FCC began hearings on expanding into a new range of the spectrum for additional Ultra-High Frequency television stations (FCC 1950, IV(2)).

The influences which resulted in the *Blue Book* could again be felt in 1949 when the FCC restated its commitment to the Fairness Doctrine. The Commission observed that in a democracy, the public interest demanded that citizens be exposed to all sides of controversial issues, and thus broadcasters were required both to make sure that controversial issues were addressed on their stations, and that all sides were represented (Krattenmaker and Jr. 1985, 153).

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[51] The objectives were to " (1)[secure] the best qualified persons as broadcast licensees, (2) [prevent] undue concentration of radio facilities, and (3) [encourage] open competition among qualified persons desiring to operate radio facilities." "Station Transfers - a Problem in Regulation," *Journal of Broadcasting* 1, no. 2 (1957): 153.

This recommitment to the principles of the Doctrine reinforced the FCC's overall position that the broadcasters were required to act affirmatively in interests of their local publics.

In its 1950 Annual Report, the FCC neatly summarized its regulatory position. First, the Commission no longer considered that broadcasting might be a public utility, and thus was largely unconcerned with the day to day operation of broadcast stations. Instead, it claimed responsibility over allocating spectrum in accordance with the laws created by Congress and over the licensing of broadcast stations. In the latter category, the report again specifies that "because radio channels are limited and are a part of the public domain, it is important that they be entrusted to licensees who have a high sense of public responsibility," and will act in the public interest (FCC 1950, IV(1)). Two years later, the FCC acceded to the broadcasters' request to drop the comparative renewal policy that had been added in the 1934 Act. The Commission specified that although renewals would not be treated the same as new applications, they would still be closely examined for proof of operation in the public interest (Geller 1975, 473-475).

By this time, the 1934 debut of the "local service objective" had been incorporated into a new FCC vision of the industry that positioned locally-owned television stations in as many communities as possible, providing valuable public interest programming on local issues. Three policies were the result of this vision: the reservation of VHF channels in small markets which did not yet have stations, the development of UHF broadcasting to increase the number of channels available, and a growing concern over the ownership of television stations (Noll, et al. 1973, 100). During the licensing freeze, the FCC had considered the relative merits of a regional system and a local system. The regional system would create fewer stations at higher power, which would offer consumers reception of up to 7 VHF stations in most markets. The local system would reduce stations' power, but thereby allow more communities to have their own

station. The Commission decided that localism was the better route to public service (Noll, et al. 1973, 101). The second of these policies led to the 1952 Sixth Report and Order. This mandate lifted the licensing freeze and assigned 70 new UHF channels to complement the existing 12 VHF channels, permitting the increased localism that the FCC desired. In addition, the Order created a new class of television stations called "non-commercial educational" and assigned exclusive channels for them in 242 communities, 80 VHF and 162 UHF (18th report 1952 V(1)).

But with more local stations came increased concerns about ownership, leading to the adoption of regulations to limit common ownership of broadcast facilities on November 7, 1953. Single entities were now limited to seven each of AM and FM radio stations, and the five television station limit was maintained. The following year, the rule was amended to allow for up to seven television stations per owner, but only five could be VHF and none of the stations could share market coverage. While making this legislation, the FCC admitted that group owners were an important part of the industry, and thus reached for a balanced approach of limited multiple-ownership. This decision encouraged groups to expand to become maximum owners and at the same time restricted them to a set number (Howard 1976, 400). Several groups were in a good position to take advantage of the new rulings, and the networks and large station groups such as Capital Cities, Cox, Metromedia, Gaylord, and Taft were able to lead the industry during this period (Czech-Beckerman 1991, 23-24; Sherman 1995, 170).

In a 1954 article, Harvey J. Levin expressed his own concern about ownership across media. At the time, 19% of AM stations, 33% of FM stations, and 37% of television stations were newspaper-affiliated, and the movie industry owned 20 television stations and seemed likely to acquire more. Levin offered a trinity of concerns resulting from cross-ownership. First, he worried that fewer independent owners would lead to less diversity of viewpoints in

programming, especially in news coverage. Second, Levin considered the possibility that the partisan proclivities present in newspapers would pass into the news broadcasts of their co-owned broadcast outlets, and that diversity in non-news programming would be reduced by the connection between movie studios and their co-owned stations. The first two concerns led to the third: a reduced diversity of viewpoints did not adequately fulfill the needs of the democratic process. After additional analysis, Levin concluded that the FCC's existing restrictions on cross-ownership made sense, and in fact should be extended to restrain cross-ownership by movie studios as well (1954, 62-63, 79).

By 1956, the issue of station transfers again became an important part of concerns about ownership and the public interest. A *Broadcasting-Telecasting* article tallied 1,085 requests for station transfers by the end of June, with over $100 million in stations traded by the end of the year. The public interest conflict arose around the uncertainty of criteria for deciding to permit or deny transfers. On the one hand, competition was a fundamental part of the industry, and increasing the value of a station in order to sell it would arguably entail serving the public more effectively than other stations in the market. On the other hand, a license application won by one entity with seemingly excellent public service potential could be immediately transferred to another entity with far less potential. At the time, transfers were held to a lower standard of investigation than were license applications ("Station Transfers" 1957, 146-153). This issue would resurface in the 1958 Carroll Doctrine, a discussion of which follows.

Echoing the 1941 *Report on Chain Broadcasting* which investigated networks and competition in the radio industry, the FCC instigated a similar report on network television in 1955. During the preparation of the report, Roscoe L. Barrow issued a 1957 memorandum highly critical of concentration of control, predicting an industry future in which the localism principle

was abandoned. In that memorandum, Barrow reiterated the three principles that formed the foundation of broadcast regulation: the public interest, the "local institution concept," and the need for diversity of ownership, and offered statistics proving that both localism and diversity were on the decline ("Multiple Ownership and Television" 1957).[52] The following year, the *Barrow Report* was released. Unlike the 1941 *Report* that expressed its concern with concentration of power in network hands and forced NBC to divest its second network and its duopolies, Barrow's effort failed to address the structural factors which empowered the television networks and instead maintained that a competitive environment did in fact exist. The *Barrow Report* inspired no further action on the part of the FCC (Streeter 1996, 170-171).[53]

In 1958, a U.S. Circuit Court of Appeals offered a decision in *Carroll Broadcasting Company v. FCC & West Georgia Broadcasting Company* which addressed both economics and the public interest. At issue was Carroll Broadcasting's protest that by granting a new license to a competing radio station 12 miles from Carroll's existing station, Carroll would lose the ability to adequately serve the public because of the loss of income to the new station. In a move resonant with public utility regulation, the court decided that the FCC must consider issues of economic injury to existing stations when deciding whether or not to grant a new broadcast license (Kahn 1963, 103).[54] This allowed existing stations to challenge the license applications of new stations

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[52] Assistant Attorney General Victor R. Hansen authored an article in 1957 discussing the topic of network power as well, pertaining to the interaction between networks and multiple-owners of televisions stations. Hansen claimed that the networks unfairly privileged group owners. One example he offered was of station groups who were able to obtain preference in network affiliations and in feature film purchases over single station owners (Hansen 1957, 581-582). Multiple owners often received better compensation deals from the networks in return for clearing their programs than independently owned stations did (Celler 1957, 565).

[53] The report did recommend that ownership regulations be expanded to forbid a single entity from having more than three VHF stations in the top 25 markets. Group owners unsurprisingly took offense, arguing that group ownership permitted the financing of local programming on stations that could otherwise not afford it, and that lessons learned from running one station could be applied to all the stations in the group. "Multiple Owners Hit Barrow Logic," *Broadcasting*, 24 March 1958.

[54] This decision was a radical reversal from a decision only a year earlier by the FCC in the *Southeastern Enterprises* case. In that ruling, the FCC denied that it had the authority to consider the economic impact of new

on economic grounds; if they could make a legitimate case, the issue would be brought to a hearing before the Commission. Ultimately, the "Carroll Doctrine" resulted in delays and added expenses, as the Commission never denied a license application because of it, although it stayed on the books for thirty years (Corn-Revere and Carveth 2004, 56). The Carroll Doctrine demonstrated the divided perspective of the FCC as it sought to balance the competing factors of profitability and the public interest. The argument in *Carroll* linking the two elements foreshadowed both future arguments by broadcasters and future regulatory decisions.

In 1959, Levin again looked at the issue of cross-ownership in the media. He identified two benefits that could be gained by diversifying ownership. The first benefit involved avoiding three specific abuses of power. The first abuse of power was the larger company stifling the growth of the electronic media to protect previous investments in their other media holdings. Levin offers Paramount Pictures' policies restricting its stars and films from appearing in broadcast media as an example. The second abuse of power was the use of a joint operation for bargaining purposes, which would undercut competition in the market. His example was a court case where the *Kansas City Star* was found guilty of violating the Sherman Act by barring advertisers who failed to purchase advertising space in its newspaper from advertising on its AM and FM stations. Levin's third concern, previously expressed in his 1954 study mentioned earlier, was the potential for partisan content to move from a company's newspaper to its broadcast outlets (Levin 1959, 1108-1112).

The second benefit to diverse ownership Levin identified was an increased diversity of opinion and outlook. Cross-ownership would result in more media outlets carrying the same

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stations entering a specific market, because "Congress intended broadcasting to be a field of free competition and gave the regulatory agency no power to mitigate its effects." "Economic Injury in FCC Licensing: The Public Interest Ignored," *The Yale Law Journal* 67, no. 1 (1957): 137-138.

perspective; while seeming to be multiple voices in agreement, in fact they would be just one voice. Diversity of ownership would also allow for more possibilities to avoid unconscious bias in one direction or another, because there would be more owners and thus more chances for difference among them. After examining several potential arguments for economic disadvantage arising from separate ownership and finding none of them valid, Levin reiterated his call for stronger regulation in an effort to diminish cross-media ownership (Levin 1959, 1112-1121).

The span of years which makes up this second sub-period was home to extensive action by the FCC to influence the economics of the broadcasting industry through restrictions on ownership. In addition, the FCC repeatedly made efforts to ensure that broadcasters were living up to their public interest responsibilities, including repeated application of the Fairness Doctrine. The tension between commercial interests and the public interest was constant throughout this period, and regulators charted a swerving course which at times favored each of these contradictory desires. As a result, even as the FCC expressed concern with ownership it permitted centralization as limitations were either relaxed or lightly enforced. The FCC's efforts through the Blue Book to enhance the local service aspect of television broadcasting were well-intentioned, but ultimately failed to stand up to industry complaint, demonstrating the recursive nature of the relationship between broadcasters and regulators. Although the trustee model was still at the heart of a great deal of regulation, the lack of enforcement of that model was an indication of the growing focus on the commercial side of the industry by broadcasters and regulators alike.

2.3.3 The Last Bastion of Restrictive Regulation: 1960-1978

The last sub-period in this section includes the most stringent efforts by the FCC to restrict structural changes which were potentially adverse to the public interest, such as station trafficking and multiple- and cross- ownership, as well as a newly increased concern with conglomerate ownership. During this time the FCC also worked to enhance structural arrangements which would benefit the public interest, reaffirming its commitment to localism by protecting the new UHF stations which were integral to the local model of broadcasting. The FCC also made specific efforts during this time to connect assessment of the stations' public interest efforts to their license renewals. The "public interest" standard was also further refined during this time period, but generally in ways that protected broadcasters from competition or permitted them to decide what that standard might mean in their particular community, a major change from earlier interpretations. Exceptions to that trend included the FCC's continued support of the Fairness Doctrine and its first-time declaration of specific guidelines for broadcasters' efforts in the public interest. This latter exception was of vital importance, as it directly equated news broadcasting with public service at a time when such broadcasts were being recognized for their profitability by those in the industry.

On July 19, 1960, former FCC Commissioner Charles King derided the "public interest, convenience or necessity" language as invalid for lack of definability. In a 1961 response, Commissioner Frederick W. Ford offered an analysis of the language. Historically, the "public interest" was used as a scope-defining term in laws which transferred regulatory powers from legislators to agencies. It was employed for this purpose in the Radio Act of 1927, and the public interest criteria by which to judge station owners was "represented by service to the listener," as stated during the Fourth Radio Conference. This was significant because it specified that private

interests were not the defining trait of the industry, but instead the industry was answerable to the public good. Ford summarized the public interest as defined through legislation as providing technically acceptable signals carrying socially useful content. Then, referring to the FCC's 1960 Report and Statement of Policy, Ford suggested that the burden of public interest was now where it belonged, in the hands of the broadcaster: "the public interest is what the *licensee* says it is; *provided* – and this is the key – provided that his judgment is the result of a reasonable and *bona fide* effort to ascertain the program interests and needs of the area he is licensed to serve" (Ford 1961, 205-209, 214-216). Ford's comments were right in line with the FCC's vision of localism, even as he displaced some of the FCC's responsibilities for oversight into the broadcasters' hands.

Another key component of the localism vision was the proliferation of UHF television, a commitment the FCC reaffirmed with the UHF television impact policy instituted in 1960. A conceptual descendent of the Carroll Doctrine, this policy shared the goal of protecting existing stations from competition, in this case UHF stations from VHF applications in the markets they served. The FCC believed that the technical superiority of the VHF stations offered them an undue advantage, and it applied this protective policy numerous times (Corn-Revere and Carveth 2004, 56-57).[55]

In 1962, the FCC enhanced its protection of the public interest against station trafficking with the passage of the "3-year rule," which mandated a hearing before approval could be given for the transfer of any station sold within three years of its purchase. In its rationale the FCC

[55] Both the Carroll Doctrine and the UHF television impact policy were abandoned in 1988 due to the changed media marketplace in which new stations frequently drew new advertising dollars rather than stealing them from competing stations. Robert Corn-Revere and Rod Carveth, "Economics and Media Regulation," in *Media Economics: Theory and Practice*, ed. Alison Alexander, et al. (Mahwah, NJ: Lawrence Erlbaum Associates, 2004), 56-57.

characterized short-term ownership as detrimental to community service, which benefited from longer tenures of involvement by owners in the communities they served ("FCC's 3-Year Rule" 1962). Further concerns about ownership led to a notice of proposed rule-making limiting multiple-ownership in June 1965. This was the first such legislation since 1954, and the FCC immediately put its provisions into effect on an interim basis. The new rules limited group ownership to a total of three television stations in the top-50 markets, only two of which could be VHF, but did not impact owners who exceeded that limit at the time of the notice. In effect, this gave the 19 station groups who possessed more than two VHF stations at the time a privileged ownership position.[56] The FCC hoped to increase the diversity of ownership in the top-50 markets through this action, dismayed at statistics which showed that in the 8 years previous, 26 new top-50 VHF stations were added, with a corresponding increase of only 3 separate owners and a decrease from 55 to 45 in the number of single-station owners of top-50 VHF stations ("Ban on Bigness" 1965, 50). In 1968, the Commission abandoned this proposed legislation and rescinded the interim rules on a 4-3 vote, but specified that applicants would need a “compelling public-interest showing” in order to acquire more than the abandoned limit. The decision not to pursue the legislation resulted in part from increased diversity of ownership among top-50 UHF stations during the intervening years ("Brakes Eased" 1968).

A 1968 application for the transfer of WFMT-FM to WGN Continental Broadcasting inspired the FCC to again modify its ownership rules in the public interest. At the time, WGN Continental owned WGN-AM and WGN-TV in Chicago, and was itself owned by the publisher of the *Chicago Tribune* and the *Chicago American*. The FCC balked at adding another station to

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[56] The 19 groups and their top-50 market station count: RKO, Storer (5 VHF, 1 UHF); ABC, CBS, NBC, Cox, Taft, Westinghouse (5 VHF); Newhouse (4 VHF, 1 UHF); Capital Cities, Crosley, Metromedia (4 VHF); Triangle (3 VHF, 1 UHF); Corinthian, Chris-Craft, Hearst, Scripps-Howard, Time-Life, WKY (3 VHF). "FCC Issues Its Ban on Bigness," *Broadcasting*, 28 June 1965, 50-51.

WGN's lineup in the Chicago market, but felt that it could not in good faith apply a new standard only to this sale; clearly it was time to change the rules ("New Way" 1968, 23). The "one to a market" rule was introduced in 1968 and modified in 1971. It prohibited the ownership of more than one broadcast outlet in the same market, but again was not retroactive, so owners were not forced to sell if they exceeded the limit at the time of the rule's adoption (Sherman 1995, 171).

The FCC revisited conglomeration at the end of the 1960s, a topic it had addressed in the 1941 *Report on Chain Broadcasting,* giving notice in February 1969 that it was concerned about conglomerate ownership influencing the objectivity of news programming. As early as 1965, journalists had observed that television broadcasts were happy to report on instances of lawbreaking by unions or individuals, but unlikely to report on corporate misdeeds. The FCC shared this worry in its consideration of the merger between ABC and ITT, and was specifically concerned that the commercial activities of ITT might influence news reporting, news commentary, or public affairs programming on the network and the network's owned stations. Nevertheless, the majority of the commissioners approved the merger, believing that ABC would be more competitive with the other networks with the addition of ITT's resources, and thus better able to serve the public interest ("Conflicts of Interest" 1969, 881, 888-889).

In his dissent, Commissioner Robert T. Bartley cut to the heart of the issue. He claimed that the merger risked having the "broadcast operations becoming a public relations tool of, and image builder for the corporate conglomerate, [paying] little attention to the local needs of the public which the broadcast operations are charged with serving." He was further concerned that these influences might be difficult to detect because of the multiplicity of divisions within the conglomerate, and such concern would lead to a new study of conglomerates in the following

decade ("Conflicts of Interest" 1969, 889). Ultimately, the merger was abandoned by ITT and ABC despite having won FCC approval.

In 1969 the FCC made a decision which sent shockwaves through the broadcasting industry. Boston television station WHDH faced a renewal hearing before the FCC in January of that year, and the Commissioners voted 3 to 1 to deny the station continued operation. Instead, they reassigned the license to a competing applicant, Boston Broadcasting, Inc. One of the main reasons for this decision was the Commission's desire to promote ownership diversity among the media, because the previous license holder, the Boston Herald-Traveler Corporation, also owned newspapers and an AM/FM combination in Boston ("$3 Billion" 1969). That same year, the FCC's commitment to diversity of opinion was upheld in a case challenging the constitutionality of the Fairness Doctrine. *Red Lion Broadcasting Company v. FCC* involved a demand for equal time on Pennsylvania radio station WGCB to answer a personal attack made by Reverend Billy James Hargis. The FCC considered the situation a violation of the Fairness Doctrine, and ruled in favor of complainant Fred J. Cook (Krattenmaker 1998, 151). On appeal, the D.C. Circuit Court upheld the FCC's ruling. The court stated that the rights of the viewers and listeners, not those of the broadcasters, were paramount, and because broadcasters had access to a publicly owned channel which ordinary citizens did not, the Fairness Doctrine requiring such access was indeed constitutional (Sterling and Kittross 1978, 427).

At the start of the 1970s, and after a great deal of regulatory concern over ownership in the previous decade, the "rule of sevens" instituted in 1953 was the law for multiple ownership, permitting each owner to possess seven AM, seven FM, and seven television stations, only five of which could be VHF. The 1943 duopoly rule further prevented a single entity from owning two of the same type of station in a single market. Finally, the one-to-a-market rule instituted in

1968 and amended in 1971 prohibited cross-ownership of broadcast stations within a market (Levin 1970, 792).

The theories behind these restrictions on group ownership are well summarized by Harvey Levin. The FCC considered that groups have advantages over single station owners in three areas: gaining network affiliations, bargaining for better economic arrangements with the networks, and bargaining for better economic terms with film companies and national advertisers. These advantages resulted in increased group ownership in leading markets and in the industry in general, subverting the FCC's desired locally-focused system (Levin 1970, 793). In addition, the 1970 FCC membership was specifically concerned with consolidation of power in two areas of broadcasting: the networks, who were responsible for 95% of prime time programming, and multi-media owners who, by virtue of holdings in multiple channels of communication, could potentially wield impressive political and economic influence ("Major Moves" 1970).

In 1970, the Commission again balanced ownership and public interest issues as it revisited and reinstated the comparative renewal process. The FCC specified that a station which managed just enough public service during a license period to receive a renewal when there was not a competing applicant would find itself in dire straits if a viable competitor entered the picture. The Commission informed the broadcasters that they were in control of their own destiny, echoing sentiments similar to those expressed during the 1960s: strong public service would preserve the license against challengers; weak public service put the renewal in jeopardy with or without a competitor's involvement. In a follow-up to the policy statement, the FCC offered broadcasters some guidelines for appropriate public service, with the caveat that they were not definitive. These proposed guidelines included: local programming for 10-15% of the

day, including 10-15% of primetime (defined as 6pm to 11pm); news for 8-10% of the network affiliate's program day including 8-10% in primetime for VHF stations, and 5% of the day and of primetime for UHF stations; and public affairs programming accounting for 3-5% of the broadcast day including 3% in primetime. The high end of the percentages applied to stations with revenues above $5 million, with the low end applying to stations below $1 million; unprofitable stations were excluded (Geller 1975, 483-486). That same year, Commissioner Kenneth A. Cox made a point of informing broadcasters that the airing of 30 and 60 second public service announcements was inadequate service to the public, regardless of the broadcasters' public relations campaign to the contrary. Cox specified that these short messages amounted to minimal service, and that consideration of news and public-affairs programming would likely be a vital part of license renewal proceedings in the future ("FCC's Cox Plays a Familiar Record" 1970).[57]

Also in 1970, the FCC undertook to study conglomerate ownership of broadcast stations after the results of a pilot study of six groups resulted in serious questions about that structure. [58] The FCC developed questionnaires for a larger study which addressed several issues relating to the relationship between conglomerates and their broadcast subsidiaries: did conglomerates require their suppliers to buy advertising on their owned stations, were there safeguards in place

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[57] In 1964, the television broadcasting industry embraced a public relations campaign designed to show its commitment to public service. That year, the industry announced the results of the first-ever attempt at numerically measuring on-air public service announcements. Broadcast Advertisers Reports found that all local television stations combined carried 3.6 million public service announcements per year, for an average of 6,350 per local station. The ratio of paid spots to PSAs was roughly 5 to 1. Broadcasters estimated each PSA was valued at $100 "A Census of TV Public Service," *Broadcasting*, 6 April 1964.. Broadcasters continue to trumpet the value of "donated" time to the present day.

[58] The six groups were chosen as a representative sample. Avco, Chris-Craft, and Fuqua were chosen for their substantial and diverse non-broadcast interests. Cox and E.W. Scripps were chosen for their interests in cable television and newspapers. Finally, Travelers Insurance Company represented companies with non-diverse interests other than broadcasting. "A Different Tack on Conglomerates?" *Broadcasting*, 2 February 1970. The study covered 1966-1969 activities, during which time both Avco and E.W. Scripps apparently engaged in practices the FC found questionable. "What Triggered Conglomerate Probe," *Broadcasting*, 17 August 1970.

to prevent editorial influence by the conglomerate on news coverage, and did the conglomerate financially support the broadcast subsidiary. On the last matter, the pilot study revealed that subsidiary broadcast stations were profitable and in fact contributed more to the conglomerate than other subsidiaries ("FCC Seeks More" 1971). During the five years that followed, the FCC investigated 37 conglomerates, but ultimately decided that where ownership was concerned, conglomerates were no different than any other corporate owners and required no specific restrictions ("Conglomerate Study" 1975).

The guidelines to measure the “public interest” actions of broadcast stations were revised in 1976, taking the form of a percentage calculation for all commercial TV stations (except for independent UHF stations) called the 5-5-10 rule in 59 FCC 2d 491. The new rule required the stations to fill 5% of their schedule with informational programming, 5% with local programming, and with 10% total non-entertainment programming (Wollert and Wirth 1982, 159-160). A longintudinal study covering 1973-1978 showed that stations were exceeding these requirements, providing 14.5% of their schedule with news and public affairs programs, 9.5% of their schedules with local programs, and 24.2% of their schedules with non-entertainment programs (Wollert and Wirth 1982, 159).

This final sub-period completes the era including the heaviest regulation of the broadcasting industry. The entire period between 1927 and 1978 was replete with examples of the centralizing momentum of the industry and an emphasis on local public interest programming that encouraged the proliferation of local news, first as sustaining programming and later as a source of profitable public service. The ever-changing definition of the “public interest” provided both restriction and opportunity for broadcasters in the form of changing regulation on structure and practice, particularly in the last sub-period when the FCC looked to

the broadcasters for input on how they could best serve their communities. The concern shown by regulators for the commercial needs of the broadcasters in the third sub-period was a sign of things to come, as the subsequent time period would emphasize the marketplace model in place of the existing public trustee model. Early warnings of this change were present in an April 1975 speech to the National Cable Television Association by President Ford, in which he expressed concern with industry "overregulation." Following that speech, Ford planned meetings with the FCC, FTC, and others to "request suggestions for de-regulation" of various industries ("De-regulation" 1975). By 1979, *Media Decisions* happily trumpeted, "They're changing the rules of the game!" The article claimed that with the impending deregulation broadcasters could expect, among other things, an end to most provisions of the Fairness Doctrine and "the end of the public trustee concept of broadcasting" ("They're Changing" 1979, 59-60).

2.4 1979-PRESENT: DEREGULATION, TELECOMMUNICATION, AND CONSOLIDATION

> In this context [the communications industry] what does deregulation mean? It means an expansion of business privilege – and a reduction of obligations to the public…. Deregulation – even more than regulation – is a licence (sic) for oligopolists to ride rough-shod over the mass….
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> If these ground rules had been operative in the 1940s and 1950s, NBC would not have been forced to sell the network which became ABC, local radio and TV stations would have been dominated in program terms by the networks, the innovation of color TV would have been deferred from the 1950s to the 1980s, and ITT would have bought up ABC (Smythe 1985, 13-14).

The final time period this chapter examines is the era of deregulation which extends into the present day. This era is characterized by the vision of free-market economics as the force which constrains broadcasters, on the principle that those who provide the best service in the "public interest" will most interest the public, and thus will garner greater profits. In many media activist circles, deregulation is considered to be a switch from using government regulation to ensure the broadcasters are giving the public what they need to run their democracy to instead giving the public what they allegedly "want." As a result of this new vision of "the public interest, convenience, and necessity," the era of deregulation is characterized by an almost complete relaxation of expectations for public service on the part of broadcasters and of restrictions on ownership. These relaxations have led in turn to an accelerated trend of industry centralization of ownership and operation and a concurrent shift away from programming which serves the public and towards programming which sells audiences to advertisers, including a shift of perspective in news content towards that end.

There were three important moments of deregulation between 1979 and 1996, according to Lori Brainard's *Television: The Limits of Deregulation.* A first unsuccessful attempt was made in 1979, a substantially more effective attempt in the 1980s, and the complete undoing of most regulatory restrictions was accomplished in 1996 and thereafter (Brainard 2004, 53-54). Each of these moments requires further address. The first serious effort to deregulate the broadcast industry began with Representative Lionel Van Deerlin's call for Congress to completely rewrite the 1934 Communications Act in 1976. After three years of research, Van Deerlin offered up the Communications Act of 1979. In the belief that the expansion of cable television would both foster competition and resolve the scarcity problem, the bill attempted to replace what Van Deerlin considered to be governmental restrictions on speech (direct involvement with program

content) with economic intervention designed to promote programming diversity. The bill federalized regulation of cable, limited multiple ownership of broadcast television stations to seven, and by making license terms indefinite after 10 years invoked a property system for the airwaves which regulators had avoided since the beginning of the industry. It also required broadcasters to pay a spectrum fee and cable providers to pay broadcasters for retransmission consent. Ultimately, widespread objections painted the bill as relaxing regulation too much and it was quietly done away with (Brainard 2004, 55-60).

Brainard's second important moment of deregulation began when Ronald Reagan took the oath of office as President. Reagan's presidency was marked by a deep faith in the free market, a desire to reduce bureaucracy wherever possible, and a strategy of appointing individuals who shared these beliefs to key positions. One of the agencies Reagan targeted was the FCC, and in 1981 he appointed Mark Fowler as chairman of the Commission. Fowler's personal and philosophical loyalty to the President who appointed him immediately put him at odds with Congress. Congress envisioned the FCC as regulators, and Fowler was determined to be a deregulator (Devins 1993, 149-150). Fowler's first step was to re-imagine television broadcasters not as public trustees, but rather as marketplace participants. In that vision, broadcasters would be forced by the market to give the public what it wanted. Fowler made alterations in a number of areas relevant to television broadcasting during his tenure, including governmental filing requirements, duration of licenses, program content, advertising, station trading, multiple-ownership, and the issue of the Fairness Doctrine (Brainard 2004, 61-62).

In the first area, Fowler's FCC eliminated the broadcast financial reporting requirement and reduced the paperwork necessary for license renewals to a postcard, among other changes. The Commission estimated that by doing so, it reduced 33.5 million hours of broadcasters'

paperwork to about six million hours ("The Bittersweet Chairmanship" 1985, 39). The FCC also extended television station license terms in 1981 from three years to five, further reducing administrative overhead for both broadcasters and Commissioners. In 1985, the Commission dropped the public service guidelines for amounts of non-entertainment programming, and that same year eliminated restrictions on the amount of advertising time allowed in programming (Sterling 1997). In 1986, broadcasters argued that the FCC's rules regarding children's television infringed upon their first amendment rights. The FCC agreed, and repealed the rules over the protests of public interest groups (Brainard 2004, 70). Also, the FCC facilitated easier station trading with the repeal of the 3-year rule regarding station sales in 1982, allowing companies to once again apply for transfer of ownership after owning a property for less than 3 years without facing a mandatory hearing. The FCC also eliminated its anti-trafficking policy which had looked upon frequent station trading with displeasure ("A Not-So-Rosy Evaluation" 1989).

Perhaps the most dramatic and potentially damaging developments, however, were in the areas of fairness and ownership. In May of 1984, the FCC announced its intent to reassess the Fairness Doctrine, a move which quickly irritated Congress. The following year the FCC released the *Fairness Report*, which stopped short of demanding a repeal of the doctrine. It did, however, criticize the Fairness Doctrine as both unnecessary and detrimental. The *Report* contended that since scarcity was no longer an issue, the "public trustee" responsibilities of broadcasters no longer applied. Further, it claimed that the Fairness Doctrine actually restricted the discussion of important issues for fear of stirring up controversy. When the D.C. Circuit Court declined to rule on the 1986 *Meredith* case and remanded it to the FCC to determine the

constitutionality of the Doctrine, the FCC happily informed Congress of its new mandate.[59] In June of 1987, Congress passed legislation to codify the Fairness Doctrine, but was unable to get the measure past Reagan, who trumpeted first amendment protection in his disdain for the Doctrine. One of the first important acts of Reagan's pick to succeed Fowler, Chairman Dennis Patrick, was to abolish the Fairness Doctrine on August 4, 1987 (Devins 1993, 155, 159-161).

Also in 1984, the FCC announced that the television ownership cap was soon to be eliminated. The cap had begun in 1941 with the rule of threes, increased with the rule of sevens, and during a six year transitional period lasting until 1990 would permit maximum ownership of 12 television stations; after that, all restrictions would end. Congress failed to agree, and passed legislation blocking the FCC. Ultimately, a new law was passed assessing ownership as a percentage of the total national television audience, setting the cap at 25% with a concurrent maximum of 12 television stations. UHF stations were discounted, considered to reach only half of the available audience in a market (Benjamin 2004, 446).[60] Minority ownership was also specifically encouraged: groups could own up to 14 stations if at least two were 51% minority controlled, and the percentage cap would be raised to 30% as long as the extra 5% was made up of minority controlled stations (Brainard 2004, 69).

The third moment of deregulation, according to Brainard, began with President Clinton's signing of the Telecommunications Act of 1996. FCC Chairman Reed Hundt saw the role of the FCC as "[guaranteeing] that necessary public benefits from communications are distributed

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[59] The Commission was crafty. When Meredith Corporation challenged a 1984 FCC finding that it had violated the Fairness Doctrine, it invoked the *Fairness Report* and asked the FCC to repeal the Doctrine as unconstitutional. The FCC claimed Meredith had no standing to protest. The D.C. Circuit court then gave the FCC what it wanted in the first place, the mandate to decide on the constitutionality of the fairness doctrine. Neal Devins, "Congress, the FCC, and the Search for the Public Trustee," *Law and Contemporary Problems* 56, no. 4 (1993): 158.

[60] This was not the first time that the percentage model was considered by the FCC. In 1964, an FCC staffer offered a proposal which would permit owners to possess broadcast stations and newspapers which reached 25% of the total U.S. population. "Cutbacks in Group Ownership?" *Broadcasting*, 21 September 1964, 42.

fairly and easily." The preferred method was to let free market competition produce that result, but when that failed the FCC was ready to employ "proactive social policies structured to be sustainable in a competitive environment" (Aufderheide 1999, 81). In practice, the proactive social policies have generally failed to materialize, and free market competition has been the defining form of industry control since the signing of the Act.

The Telecommunications Act had several provisions of note for television broadcasters. First, license terms were extended to eight years. Second, broadcasters were given additional spectrum to develop high-definition television and other services free of charge as long as their use was in the "public interest." Using the new spectrum for pay services entailed a fee paid to the FCC. Third, the Act did away with the maximum number of stations policy, replacing it with a newly raised 35% cap on access to the national audience. Fourth, it instituted a ratings system for television programming. Finally, it specifically applied the public interest standard to new digital technologies (Brainard 2004, 80-81). Three years later, the FCC again relaxed ownership restrictions, introducing new duopoly rules for television ownership, one of which allowed a single owner to possess two television stations in the same market as long as one was not in the top four by audience share and there were "eight independent TV 'voices' after the merger" (Ozanich and Wirth 2004, 79). By January 2002, 95 combos were operating including 75 were duopolies, and the FCC was ready to relax the rules even more. In January 2002, LIN Television and Media General received government approval to acquire duopolies in markets "too small to pass regulators' general test for station combos," the first such approval given to markets where less than eight independent voices would remain (McConnell 2002). Duopolies were particularly beneficial to station groups for economic reasons, but also in terms of ownership levels, because

two stations reaching the same audience in a market do not increase the percentage of ownership considered by the ownership percentage cap (McConnell, et al. 2001).

At the turn of the century, debate was fierce over the possibility of again raising the ownership cap to 45% of the national audience; only this time, the broadcasters were battling among themselves as well. The networks lobbied Congress and the FCC to raise the limit, while the National Association of Broadcasters preferred maintaining the 35% limit. Many affiliates felt that the networks would be too powerful if they were permitted to own more stations (Albiniak 1999). Fox Television forced a decision on the issue two years later.

In 2002, a D.C. Circuit Court instructed the FCC to revisit the national television station ownership rule as a result of *Fox Television Stations, Inc. v. FCC*, claiming that it could find no connection between the rule and the public interest. The FCC took that opportunity to revisit all of its ownership regulations, and in June 2003, issued new rules which loosened ownership restrictions across the television broadcasting industry. The new rules permitted some cross-ownership among media; continued to ban mergers among the top four networks; increased the maximum number of television stations per owner per market, allowing 2 in markets with 17 or fewer stations and 3 in markets with 18 or more stations;[61] and raised the maximum percentage of the nation's audience that a single group's owned stations could reach from 35% to 45%. During the hearings before the ruling, this last provision generated more than 750,000 comments advising the FCC not to proceed. When it made the ruling anyway, Congress rescinded the increase, codified the cap at 35%, later raised it to 39% to appease Fox and CBS which were

[61] In spring 2003, the FCC approved broadcast ownership rules to allow new TV duopolies in over 70 markets, including medium and small markets, where they had previously been disallowed. Triopolies, or ownership of three television stations, would be allowed in six of the largest markets. Cross-ownership of local television stations with local newspapers would be greatly relaxed, and the number of markets in which cross-ownership was allowed would increase from 46 to 60. Mark K. Miller, "On Hold: Rankings Change Little as Regulatory Uncertainty Keeps Station Trading in Neutral," *Broadcasting & Cable*, 19 April 2004.

both above 37% ownership, and removed the FCC's power to raise it again (Benjamin 2004, 440, 447-448).

And so goes the era of deregulation. The combination of free-market ideology and a corporate-privilege bias have created an industry characterized by concentration of control and ownership in the hands of a steadily shrinking number of groups. The three major themes of this chapter – the public interest, broadcasters' public service responsibilities, and restrictions of ownership – have been generally subordinated to the rule of the market. Even the public interest obligations the broadcasters initially accepted in return for free digital broadcast spectrum allocations are largely ignored as group owners examine datacasting and multi-channel operation schemes to increase their profit margins, rather than providing the high-definition service that Congress intended; we'll address these topics in the next two chapters.

So why does all of this matter? What's the connection between ownership, regulation, and the public interest? Isn't the market an adequate vehicle for regulating the industry? These questions are well addressed in a 2004 study by Michael Yan and Philip M. Napoli. These researchers collected a random sample of programming from 285 television stations, and used the results to examine the connection between commercial status, ownership, and local public affairs programming. Excluding news from consideration as public affairs, the authors found that only 41% of the commercial stations aired any local public affairs programs during the two week sample, while 11% of the commercial stations aired neither local nor national public affairs programs.[62] Using regression analysis, the study further examined the impact of station ownership by one of the "big four" networks on the quantity of local public affairs programming.

[62] Of the public television stations included in the survey, roughly 90% aired local public affairs programming during this timeframe (47 of 52). Michael Yan and Philip. M. Napoli, "Market Structure, Station Ownership, and Local Public Affairs Programming on Local Broadcast Television," in *Telecommunications Policy Research Conference* (Arlington, VA: 2004), 11.

The study concluded: (1) there is a small positive effect of local ownership on the quantity of local programming; (2) ownership by one of the big four negatively affected the amount of local programming carried; and (3) that the expected local service benefits afforded by duopolies' economies of scale have not translated into expanded local public affairs coverage (Yan and Napoli 2004, 11, 14-16).

The importance of these factors in determining the current state of local broadcasting cannot be ignored. Regulatory decisions regarding ownership have been instrumental in molding the current structure of the local television broadcasting industry, on an ever-loosening trajectory of restriction. These ownership decisions, in turn, have consistently been influenced by the changing FCC definitions of the "public interest" and the changing expectations for broadcasters' public service efforts which resulted, leading to both an increase in the quantity of news and a potential decrease in its quality as the service aspect is subordinated to the profit aspect. Ultimately, the relationship between the commercial nature of the broadcast industry and the public interest expectations placed upon those participating in it seems to boil down to a question asked in the 1920s: what should broadcasters have to remit to the public in exchange for using the public property of the electromagnetic spectrum for their own financial gain? The answer then was for broadcasters to take up the mantle of public trustee and exchange public service, especially through news and public interest programming, for the right to profit. Imagine that position as one extreme of a pendulum. Throughout the first century of broadcasting, that pendulum moved through its arc as regulators reinterpreted what the public interest meant, as broadcasters pushed their public service commitment to its most economically effective and limited boundary, and as the FCC expanded and contracted ownership regulations to satisfy its changing perspective. Now, near the other extreme of the pendulum's arc, the question can be

asked again: what must the broadcasters offer to the public for their use of the spectrum? Given the shift of the industry from social regulation to economic regulation, the answer to that question seems to have been left in the hands of the broadcasters. As Coase observed, the FCC has once again "exhorted the businessmen to act in the public interest and, incidentally, against their own" (Coase 1966, 446). As Yan and Napoli show, as yet they have mostly failed to do so.

3.0 THE ROLE OF TECHNOLOGY IN THE CENTRALIZATION AND CONSOLIDATION OF LOCAL TELEVISION BROADCASTING

> "It is no longer possible for studies simply to regard the technology of television as a given, whose institutional implications are self-evident and whose applications do not require independent investigation" (Corner 1999, 16).

As Chapter One demonstrated, the development of the television industry has been marked by a constant trend towards centralization, as broadcast ownership and organizational structures have condensed from a relatively large number of small owners operating stations independently into a small number of relatively large owners operating interconnected stations. Chapter Two analyzed one of the main contributing factors to the centralizing motion: changing governmental regulation of the industry which attempted and often failed to balance the public interest with the free market commercial system of broadcasting. This chapter examines another determining factor in the centralization of ownership and operation, the technologies upon which the industry rests. As Corner observes, too often the importance of technology is underestimated, considered simply a tool rather than a vital component. Many of the organizational structures that exist in the industry today are possible only because of the development of technologies to serve them; the technologies are not always a cause, but are most certainly a prerequisite. The overall purpose of this chapter is to describe the historical trajectory of technological invention and innovation in television broadcasting and to chart the consequent/concurrent changes in the structures and practices of the industry.

As a preface to a more detailed discussion, the chapter first addresses the nature of technology and technological innovation, and several models of causality and social interaction that are vital to any discussion of technology in an effort to establish the conceptual foundation for the chapter, a theory of economic "guiding principles" embodied by television technologies. Second, the chapter examines television broadcasting technology during the early days of the industry, providing a basis to understand later technological development and illustrating the manner in which the new medium was forced to fit into the cultural understanding of radio broadcasting, especially in the transfer of news practices from radio to television broadcasting. Third, the chapter describes three sets of "centralizing technologies" which dramatically influenced the development of television broadcasting between 1941 and 1988. Finally, the chapter examines television technology from 1988 to the present day and shows how technological development and "convergence" have made possible many of the shifts in ownership structure which were finally allowed by changing regulation of television broadcasting and catalyzed by the impending shift to digital television. Throughout these sections, the chapter contends that technologies designed under the guiding principle of economic efficiency have dramatically changed both structure and practice, especially in the area of television news. The chapter concludes by examining the three exemplar station groups for specific examples of how technological choices have contributed to the centralization of operations within and among their stations.

3.1 TECHNOLOGY, THE BROADCAST FACTORY, AND ECONOMIC GUIDING PRINCIPLES

Prior to a discussion of technological development, it is helpful to define technology in the context of this project. It is a word bound together with ideas and ideals that far exceed the simple idea of "machine," which is often considered its synonym. Dallas Smythe offers a definition couched in perfect prose:

> 'Technology' is a myth composed of: capital, science and machines welded together by an ideology and distributed by propaganda which molds public opinion to accept the myth. It is not autonomous and it is endogenous. (Smythe 1985, 15)

Part of that myth is the ongoing drive of capital to wring maximum efficiency from every part in the production chain. Frederick Taylor applied this concept of maximum efficiency to labor and called the result "scientific management," a philosophy which includes a set of practices to exhort the worker to achieve his or her full potential as part of the production process (Redmond and Trager 1998, 41). Technology, as Smythe describes it, has become a word encompassing all of these ideals, but most especially the idea that technology embodied increased productivity, and thus increased profits. The beginnings of this connotation can be found on the factory floor at the start of the industrial revolution.

Karl Marx, in his 1867 work *Capital, Volume I*, discusses the role of machines in newly industrialized factories, and the economic factors that attended this change. Ernest Mandel observes that when talking about machines, Marx proceeds in three simultaneous directions: machines as the main weapon to subordinate labor to capital, machines as the main weapon for increasing the production of surplus-value, and machines as the main weapon for reproducing the industrial 'reserve army of labour;' (1978, 35) for both Mandel and Marx, technology / machinery is synonymous with weapons used by capitalists in their war with workers. Mandel

offers another insight, which is particularly relevant to this chapter: "Inasmuch as production becomes mechanized, it becomes reorganized around machinery. The work rhythm and work content of living labour are subordinated to the mechanical needs of machinery itself" (1978, 34). All of the discussions of television technology are illustrative of this insight, as the industry revamps not only work routines but organizational structures as technological innovation makes these new forms possible.

Using Mandel's observations as a guide, consider Marx's views. First, machines are used to subordinate labor to capital. Marx views the relationship between capital (owners) and labor (workers) as a battle for dominance and control. In an environment where the owner is reliant upon the workers' skills, such as the learned ability to use a certain tool, the worker has a degree of power. When a machine can replace that skill, the power in the worker-owner relationship rests solidly with the owner of the machine (Marx 1867, 494-495).

Second, machines increase the production of surplus-value.[63] As technology improves, surplus value increases, because tasks take less time. "The machine, therefore, is a mechanism that, after being set in motion, performs with its tools the same operations as the worker formerly did with similar tools," Marx writes. It is not, however, a one-to-one ratio: "The number of tools that a machine can bring into play simultaneously is from the outset independent of the organic limitations that confine the tools of the handicraftsman." Where a man could operate only a

[63] Marx distinguishes between two different circular economic models, one in which Commodities are exchanged for Money which is then used to buy Commodities for use (C-M-C), and another in which Money is used to purchase Commodities which are then sold for Money (M-C-M). In the first model, the money moves from person to person; in the second, the money comes back to the initial buyer. In the first model, consumption of the use product is the goal; in the second, the goal is exchange-value. In the process of M-C-M, the goal is to sell the product for more than it cost to acquire, and the difference between the cost paid and the higher price received is surplus-value (Marx 1867, 248-51). Part of that cost is the daily wages of the worker; once the worker has produced enough to cover those wages, the remaining hours in the day are dedicated entirely to the production of surplus value for the owner. Taylor recognized the benefit of surplus value in his theory of scientific management, and included incentive pay for those who exceeded their expected quota of work. James Redmond and Robert Trager, *Balancing on the Wire: The Art of Managing Media Organizations* (Boulder: Coursewise Publishing, 1998), 42.

single-spindle spinning wheel, some of the earliest spinning machines used twelve spindles (Marx 1867, 495). Here again, power shifts away from the worker and towards the owner of the machines.

Third, and briefly, machines produce a "reserve army of labour." Because one machine can replace several workers, the addition of machines to the factory allows a reduction in staff size. When workers are unemployed, they are available to be thrust into the work force whenever capital demands it; they are the soldiers of the reserve army of labour.

Finally, as production becomes mechanized, the workers still involved in the production must reorganize themselves in new ways. This is a key element in any discussion of concentration: new technology brings with it new work patterns. Examples offered by Marx include an increase in women and children in the factories as machines were developed to handle manual tasks and the workers' role became supervisory (1867, 519); the extension of the working day to include additional shifts to make better use of the fixed costs of buildings and machinery (1867, 527-529); and the historical state of labor being specialized with a given tool that might benefit the worker outside the factory, to becoming specialized in the use of a given machine which the worker cannot hope to afford (1867, 547).

Modern examples of Marx's ideas are illustrated in the forthcoming pages, which examine the ways that technology has influenced the television broadcasting industry. Although the local television station and the industrial revolution era factory seem to have little in common at first glance, Marx's observations are as true on the studio floor as they were on the factory floor. The new television machines are technologies in Smythe's sense of the word, embodying a constant drive for more efficiency throughout the production process. This new efficiency allows for operational practices that replace human actions with machine actions, placing power firmly

in the hands of the owners and redirecting former employees into the potential labor pool, while steadily increasing surplus value and profit for the owner.

3.1.1 Social Constructivism and Economic Determinism

In order to understand the role of technology in the development of broadcasting, it is first necessary to examine how broadcast technology itself is developed. Marx's writings adopt a circular perspective towards technological development: social needs call technology into being at the behest of the capitalist, and the new technology acts upon that society in pronounced ways both within and beyond the factory walls. Two important and related questions at the historical heart of technology studies follow this thinking: first, how do technological development and innovation occur, and second, in what ways do technology and society affect one another?

Scholars generally take one of two approaches when addressing the relationship between technology and society. The first approach is that employed by noted scholars Harold Innis and Marshall McLuhan, who suggested that technologies "develop according to an inner logic" or "as a reflex of scientific discovery" and are "impervious to human influence" (Disco and van der Meulen 1998, 4). Aptly named technological determinism, this model has been shown to be lacking by later studies of communications technology, particularly those of Raymond Williams and Brian Winston, who instead promote the notion of social constructivism or cultural determinism.

In the introduction to the 1992 reprint of Williams' *Television: Technology and Cultural Form*, Lynn Spigel describes Williams' research as a "thoroughgoing critique of the relationships among television's technological invention, its innovation as a media institution and textual form, and its connection to social relationships and experiences in modern western

culture" (1992, x). Spigel quotes one of Williams' later works, *The Year 2000*, succinctly summarizing his perspective: "The moment of any new technology… is a moment of choice" (1992, xv); as Spigel indicates, Williams feels that choice is what is lacking in technological determinism. He describes the innovation process as defined by technological determinists thusly: "New technologies are discovered, by an essentially internal process of research and development, which then sets the conditions for social change and progress" (1974, 7). Williams rejects this characterization, and offers his own hypothesis which he claims would "differ from technological determinism in that it would restore *intention* to the process of research and development. The process would be seen… as being looked for and developed with certain purposes and practices already in mind" (1974, 8).

These purposes and practices, Williams proposes, are driven by social need. As an example, he offers the development of radio, which was initially propagated as a means of wireless telegraph transmission for a society that was demanding a more efficient information distribution system[64] (1974, 11). However, not every social need is fulfilled with immediate technological development. Only when you have a "need which corresponds with the priorities of the real decision-making groups" can the necessary investment of resources commence (1974, 13).

Once intention is given its due as the driving force behind research and development, the argument takes shape: "Technologies are shaped by the actions, strategies, and interpretations of

[64] Guglielmo Marconi combined current telegraph technology with Heinrich Hertz' discovery of radio waves, called Hertzian waves at the time, to develop the wireless telegraph. Moving to England in 1896, he formed the Wireless Telegraph and Signal Company, Ltd., with an eye towards selling units to the British navy. An early notable use of the device for news purposes was a "minute-by-minute wireless account of the Kingstown Regatta" for the Dublin *Daily Express*. This market, in combination with the military applications, provided impetus for innovation and expansion of the technology. Barnouw, *A Tower in Babel*, 9-13.

human actors" (Disco and van der Meulen 1998, 4).[65] The theory of social constructivism, as Williams proposes, "investigates how actors organize their perception of existing technologies and how they… develop appropriate technologies"(Disco and van der Meulen 1998, 6), restoring intention to the process of research and development. This departure from technological determinism still fails to suffice for authors Cornelis Disco and Barend van der Meulen, who instead offer a theory called societal constructivism as the correct frame through which to examine technological development.

Societal constructivism differs from *social* constructivism by emphasizing how "perception and action are constrained and enabled by the situations in which actors find themselves or which they have produced as a result of earlier actions." The focus is on what the authors call coordination, the idea that the actors who are developing new technologies are influenced by and are exerting influence upon other actors, pushing towards a collective goal (1998, 7). Although the complete theory is perhaps best suited to wider-ranging inquiries than those this chapter is concerned with, Disco and van der Meulen incorporate a useful structural emphasis in their theory, suggesting that as different companies or individuals develop new technologies their actions constrain the options of the other actors, both relying on and refining through their interaction a common direction for a given technology.

These structural constraints are best expressed through authors Smit, Elzen, and Enserink's application of this theory to an examination of military socio-technical networks. In

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[65] Disco and van der Meulen offer direction toward other critiques of technological determinism. Notable historical authors include Adam Smith, Marx, Engels, and Schumpeter. Contemporary authors include Braverman's *Labor and Monopoly Capitalism (1974),* Noble's *Forces of Production (1984),* Edwards' *Contested Terrain (1979),* Dosi's "Technological paradigms and technological trajectories" (1982), Nelson and Winter's *An Evolutionary Theory of Economic Change (1982),* and Abernathy and Clark's "Innovation: Mapping the Winds of Creative Destruction" (1985). They also mention Mumford's *Technics and Civilization (1963)* and Ellul's *The Technological Society (1964).* Cornelius Disco and Barend van der Meulen, eds., *Getting New Technologies Together* (Berlin: Walter de Gruyter, 1998), 4.

their analysis, they discovered that military technological innovation is governed by "guiding principles," even as the process is fundamentally decentralized through the use of non-military contractors. A guiding principle is "an analytic concept that observers or analysts may use to describe and analyze processes of military technological development." They point out two important characteristics: first, that the guiding principle is shared by actors on different levels and in different organizations, and second that the guiding principles function as a "heuristic for making choices… and a touchstone for their evaluations" (1998, 79). Although their research is accomplished in a military context, the theory of guiding principles can be applied equally well to a set of commercial imperatives, such as the tendency towards centralization in the television ownership arena.

These commercial imperatives are indeed central to the development of technology within a capitalist economic system. Because technical systems are economic enterprises, market competition forces technical change to occur so that the companies involved can continue and/or increase their profit-making. The economic needs of the system drive the changes in technology; innovation is made in service of the ultimate goal of profit, and this economic system is an inherently social construct (MacKenzie and Wajcman 1999, 12-13), providing further bolster to the case against technological determinism.[66] The economic system constricts both development process and resulting technology, as technology is most often the result of extensive and expensive research and design; the truth of this can be found in the myriad of patent, copyright, and intellectual property laws that protect investments in new technologies (Green 2001, 6).

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[66] MacKenzie and Wajcman reference Karl Marx's *Capital Vol. 1* ([1867] 1976, Harmondsworth: Penguin), pages 173-176, in support of this claim. Donald MacKenzie and Judy Wajcman, "Introductory Essay and General Issues," in *The Social Shaping of Technology*, ed. Donald MacKenzie and Judy Wajcman (Philadelphia: Open University Press, 1999), 13.

These arguments, taken together, form the foundation for this chapter. The theories of technological determinism espoused most popularly by Innis and McLuhan are insufficient to explain the path of innovation that has occurred in the equipment used at local television stations. Mike Wayne summarizes the reasons for rejecting this approach in *Marxism and Media Studies:*

> The common feature of technological determinism is that it levers technology, its development, implementation and effects out of the social relations in which they are embedded, thus a) marginalizing or removing the social relations from analysis, and b) ascribing powers and characteristics to technology which are the result of social relations between people, rather than properties intrinsic to things (2003, 40).

Instead, following Williams and Disco, this chapter uses as a starting point the idea that technologies are created within a system of imperatives and guiding principles that determines the direction of technological research, based upon an interaction between societal need and the interest of powerful parties to fulfill those needs. In addition, because of these imperatives, technology is developed with certain "purposes and practices" in mind. This social interaction positions technology as both cause and effect of social change, because even as technologies are created towards a given result, it is still vital to consider the holistic social environment that both permitted and necessitated the achieving of that result (Slack 1984, 15-16).

3.1.2 Discovering the Guiding Principles

There are many avenues that can be explored to discover the purposes and practices guiding technological development, including statements of designers and adopters, news reports, corporate documents, and other similar sources. However, often the most fertile ground for examination is the technology itself. If technology is designed for a specific purpose, rather than being "discovered" during experimentation as the technological determinist would have it, it is reasonable to assume that these purposes, and the assumptions and desires behind them, are

somehow encoded within that finished technology. Bruno Latour addresses this concept in the article “The Sociology of a Door Closer.” Describing the many inherent requirements and needs incumbent upon the technologies of the door and the door closer, he illuminates the ideas embedded in individual technologies in an entertaining and eminently useful manner.

Latour offers several definitions in service of understanding the interplay between human and non-human, and these definitions trace an intricate path towards a theory that can be applied to our analysis of television technology. First, Latour rejects trying to assign “a priori” distinctions between human and nonhuman skills, and instead speaks simply of *scripts,* “scenes or scenarios played by human or nonhuman actors.” The retrieval of the script from a given situation he calls *description,* which is part of the job of the technologist or sociologist – to figure out what is going on and report it in some fashion. Taking the scripts, now apparent because they have been described, and translating them “from one repertoire to a more durable one” Latour refers to as *transcription*, giving the example of taking the script of traffic control and transcribing it from action by a policeman to action by a traffic light (1988, 305-306).

By establishing that certain purposes are encoded into a technology’s design, Latour neatly contradicts the seeming randomness at work in technological determinism. He also suggests that the actions of the nonhumans are intended as replacements for the actions of humans, the corollary of which is that the actions which impelled the development of the technology were addressing a real or imagined need of that society; otherwise, why would the script have existed in the first place to then be transcribed to a nonhuman actor? Latour next defines *prescription* as “whatever a scene presupposes about from its *transcribed* actors and authors (this is very much like “role expectation” in sociology, except that it may be inscribed or

encoded in a machine)."[67] In short, technologies embody ideas about their uses, and their users (1988, 306-307).

Additional support for the idea that technologies embody these ideas, practices, and principles is offered by Langdon Winner's work on what he calls "technological politics," which he posits as a "necessary complement" to theories of social determinism. The benefit of adding this position, he argues, is that it "suggests that we pay attention to the characteristics of technical objects and the meaning of those characteristics" (1980, 28), which is precisely what this chapter attempts to do in regard to television equipment. Winner offers two ways in which technical objects can contain political properties. The first comprises "instances in which the invention, design, or arrangement of a specific technical device or system becomes a way of settling an issue in a particular community." The second includes cases of "inherently political technologies, man-made systems that appear to require, or to be strongly compatible with, particular kinds of political relationships" (1980, 29-30). Winner offers Robert Moses' design of Long Island's parkways to intentionally deny access to those who relied on public transportation – Moses designed the overpasses to be too low for a bus to pass underneath them - as an example of the former possibility (1980, 30-31). For the latter, Winner suggests that in order to function, systems of transportation such as the railroad demanded a new social form in order to operate – a "large-scale centralized, hierarchical organization administered by highly skilled managers" (1980, 35). In this case, the assumption about society is embodied in the technology, because the railroad simply could not operate as intended without the associated social support. These examples prove that assumptions about the users and uses of that technology can be drawn directly from the technology.

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[67] A term used to describe a group's or society's definition of the way a specific role ought to be played. Diana Kendall, Jane Lothian Murray, and Rick Linden, "Sociology in Our Times," (Thomson Nelson, 2004), IIB(1).

This notion that we can look to technology itself as embodying the guiding principles, beliefs, and ideas of the social system that called them into being is the second part of this chapter's foundation. The final step is to unearth the core element which underlies the development of all of the technologies we will examine. There can be little question that technical innovation in the television industry, at least within the capitalist market system of the United States, has always been driven ultimately by the desire of both broadcasters and equipment manufacturers to increase their profit making potential, a key component of the free market ideology which supports the system.

Brian Winston begins *Technologies of Seeing* by joining the chorus in opposition to technological determinism, instead using as inspiration for his analysis a passage from Fernand Brudel which likens the history of technology to alternating processes of acceleration and braking (1996, 1). Winston writes "in the dance of history, society always leads technology," and continues "[t]he state of the market, or better, of society is the crucial factor in enabling the development and diffusion of any communications technology or in hindering it" (1996, 3).

The process of creation and dissemination of communication technologies follows a consistent path. First, existing scientific knowledge (which is socially conditioned) is used to create a prototype device in the real world – a step that Winston calls "ideation." The accelerator which transforms the prototype into an invention is a "supervening social necessity," defined as an external social force or combination of forces which gives direction for using the prototype. Winston suggests that this process explains simultaneous invention, because different scientists are working in response to shared societal needs. Finally, even though the invention exists now in the real world, its dissemination is controlled by the brake of "suppression of radical potential," which prohibits it from being widely used until it can be properly 'fit' into society.

Winston offers as an example of this last step the fact that television as a technology was ready two decades before it became widely available to the public, because it didn't yet 'fit' into the plans of the companies still reaping profits from radio (1996, 4-9). The same brake was applied to the rollout of color television later in the century, and has affected the transition to digital television and HDTV as well.

Winston's description of the process of innovation is the element which completes the base theory for this chapter's analysis. In summary: this chapter will examine the development of television broadcasting technology from the perspective of social / societal constructivism, incorporating the notion of guiding principles; it will look to technologies themselves for evidence of these principles; and finally, it will remain cognizant of the manufacturers' and broadcasters' overarching social catalyst – the drive for profit – and its influence on the development and dissemination of these technologies.

3.2 TELEVISION BROADCASTING: RADIO WITH PICTURES

> In broadcasting, both in sound radio and later in television, the major investment was in the means of distribution, and was devoted to production only so far as to make the distribution technically possible and then attractive (Williams 1974, 19).

Williams' quote offers two helpful ideas. First, he points to the connection between technological development in radio and television. This section will demonstrate how the latter medium was heavily influenced by the former in both form and content. Second, Williams precisely describes the earliest guiding principles for broadcast television production equipment: the initial equipment was simple, intended only to get programming on the air to entice the public to buy television receivers. Over time, however, those principles changed, as the simple

stuff gave way to new technologies that did the job at higher quality and lower cost, and which in turn gave way to innovations that permitted and provoked industry-wide transformations. The battle to get television broadcasting on the air is illustrative of the economic determinism at the heart of the industry.

In his comprehensive history of the technological development of television, Albert Abramson details the changing technological state of television in the early 20th century.[68] By 1929, the technology was ready to "emerge from the laboratory and take its place in the entertainment industry;" however, the economic depression which began at the end of that year "was to have a profound effect on the fledgling television industry," and the expected emergence failed to occur (1987, 146). Abramson's quotes illustrate two facts which are highly relevant to this chapter. First, the technology is positioned primarily as an entertainment medium from the outset, following the example of radio broadcasting before it. Second, the fact that equipment manufacturers were reluctant to release the new product in an era of challenges to new market growth demonstrates a failure to fulfill Williams' prerequisite interest by a 'real decision making group,' and so Winston's brakes were applied to the new technology because it didn't yet 'fit' into the plans of those companies. This pause in rollout allowed room for further technological development in production, transmission, and reception equipment, further delaying the industry's debut; finally, a decade later, an improved set of technologies was again ready to be delivered to the public.

[68] This chapter relies heavily on Abramson's work because it is the single superlative work on television technology. His two-volume set is culled from industry trades, patent filings, and other inspired sources; the same sources that this chapter would turn to as primary materials as well if Abramson had not done it so ably already. This chapter attempts to categorize and create an alternate narrative using a small portion of his research.

Television standards were the holdup at the end of the 1930s, as Edwin Armstrong and RCA battled over FM radio[69] to the distraction of the FCC, and the major names in television manufacturing – Philco, Dumont, Zenith and RCA – argued over which of their proposed technologies should become the standard.[70] Finally, the official go-ahead was given to the industry in early 1941, using a standard of 525 scan lines and FM audio; however, questions of what to do with the VHF spectrum and the potential for color television remained unaddressed. The rollout was delayed again as the United States joined in World War II (Barnouw 1968, 127-128).

Most electronics manufacturers, including those involved in radio and television, retooled their assembly lines during the first half of the 1940s to produce materials for the war effort. As WWII ended, the need to again retool the lines offered perfect opportunity to convert some of them to manufacture equipment for television broadcasting. This provided the new television industry with its prerequisite supervening social necessity, making profit by selling television receivers, and now that the manufacturers were fully on board and the policy decisions were in place, the new medium was finally a reality for the public at large (Winston 1998, 117-118).

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[69] In yet another example of Winston's "brakes," FM radio was tested successfully in 1933 by Armstrong, who "believed that his friend David Sarnoff, head of RCA, would use the new technology to revolutionize the radio industry." Instead, Sarnoff delayed, suggesting the new technology be tested for television, protecting RCA's AM station investment and television patents. Corn-Revere and Carveth, "Economics and Media Regulation."

[70] Philco television wanted a standard format at 605 scan lines delivered at 24 frames per second, DuMont wanted to use a format of 625 lines at 15 FPS, and Zenith was of the opinion that television simply wasn't ready for the public. During this same period, RCA demonstrated a 30 FPS system for the FCC and indicated it was beginning research into color television as well. Albert Abramson, *The History of Television, 1880 to 1941* (Jefferson, NC: McFarland, 1987), 257.

3.2.1 Fitting In: From Radio to Television

As Williams observed, in the earliest days of the television industry production equipment took a necessary back seat to equipment for television broadcasting and reception.[71] Nonetheless, the choices that were made about the medium at the outset are reflected in even these early versions of television equipment. Winston states that one of the challenges of establishing the new medium was that it needed to "fit into a media system already accommodating live events of all kinds, print, films, and radio" (Winston 1998, 117). The need to find a place in this larger system is embodied in the early technologies. The guiding principles driving technological development during these early days were twofold, and hearken back to Williams' observation: first, get programming on the air as cheaply as possible, and second, help the new medium fit into the social expectations created by radio broadcasting. The decision to emulate the programs and practices of radio broadcasting reduced the economic risks associated with the new medium by providing the audience with familiar types of programming. This content decision constrained technological development in television, and the resulting technologies in turn reinforced existing practices. This process is especially clear in the production and practices of television news, where the earliest decisions of radio news are still evident in present day television broadcasts.

The earliest technologies for transmitting images varied widely in application, from sending still photographs to video telephones.[72] After WWI, the emergence of radio broadcasting

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[71] Only 10,000 sets had been sold by the time WWII began. Erik Barnouw, *The Golden Web*, vol. 2, *A History of Broadcasting in the United States* (New York: Oxford University Press, 1968), 128.

[72] Edouard Belin received a French patent in 1903 for a mechanical scanning system which recorded on film; later, this would become an important piece of his plan to transmit still photographs by wire (Abramson 1987, 24). In 1906, Dieckmann and Glage experimented using a cathode ray tube, a vital piece of television technology, as a tablet to transmit handwritten messages via wire (Abramson 1987, 26). Gustav H. Hoglund, in 1910, created a

led developers to envision wireless television as well,[73] and by 1928 television equipment manufacturers were actively attempting to fit the new medium into the existing media environment that Winston described. In one example of this attempt to 'fit,' the Bell Telephone Laboratories demonstrated "outdoor television" to the press at a sporting event, using a camera that "was portable enough to be taken anywhere" (Abramson 1987, 121). The use of television as a medium for bringing distant events and entertainments to its viewers was an expectation fostered by the uses of radio broadcasting for the same purposes. KDKA radio, for instance, spent much of its early broadcast schedule offering live remote broadcasts from diverse locations such as churches, social clubs, and boxing matches (Barnouw 1966, 71). The ability to offer live coverage of events that take place outside the television studio is a fundamental quality of the medium today, and the expectation that it would be so is indicated by this prototype remote camera. Another event which demonstrates the connection between radio and television occurred on September 11, 1928, at WGY, the GE television station in Schenectady, NY. The station offered a television version of a radio staple, broadcasting live drama for the first time on the new medium. This broadcast utilized 3 cameras, one dedicated to each of the two actors and a third dedicated to close-ups. The director also had a rudimentary video switcher to fade from one camera to another (Abramson 1987, 125-126).

Equipment for this sort of programming improved dramatically in 1936, when the London Television Service created a facility similar in concept to those used today. Multiple

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version of wired television so that people speaking on the phone could also simultaneously see one another (Abramson 1987, 35), and Campbell Swinton published his television plan five years later, which also envisioned the technology as a two party conversation device (Abramson 1987, 43).

[73] The first wireless visual message, a handwritten note, was sent across the Atlantic Ocean in 1921 (Abramson 1987, 51). In 1923, two different successful experiments in sending "television over radio" were accomplished by C.F. Jenkins (Abramson 1987, 60, 65). In 1924, V.K. Zworykin was also pursuing the goal of two-way television (Abramson 1987, 66). By January 1925, AT&T had the technology to send still pictures over telephone wires, and was turning its attention towards television (Abramson 1987, 73).

camera signals were fed to a "fading and monitoring mixer," where sources could be previewed or switched to air. The mixer only allowed for slow transitions between sources, or superimpositions, no instant cuts were possible. Later that year, the live studio was further improved by a patent application which added a pedestal on wheels that permitted the camera to move vertically (Abramson 1987, 230-234). These improvements demonstrate the importance of fitting in to the cultural space occupied by radio broadcasting, as technological innovation in television progressed along the lines previously drawn by the earlier medium, whose schedule was primarily made up of in-studio and remote live programming. An alternative possibility for fitting into the existing environment was for television to follow the model of non-live model offered by film, a major component of the media environment at the time. Although there was limited experimentation with recording television signals on film,[74] equipment manufacturers focused the majority of their efforts upon creating television broadcasting in the image of radio broadcasting.

EMI demonstrated the first television remote truck at the 1937 Television Exhibition in London, again emphasizing both the live and remote qualities that were prized in radio broadcasting. Conceptually, then and now, a remote truck is a television studio of varying complexity on wheels, and EMI's vehicle included three cameras with 1,000 feet of cable, a device to fade between them, and an audio mixer capable of handling six microphones. Another truck provided transmission from the remote location back to the studio. This setup was used in

[74] Early work on color television in 1930 by the Bell Telephone Laboratories used Kodacolor motion picture film to record the three different color channels used by television (red, green, and blue), which were then played back through a special lens to reintegrate the color information. At the time, Dr. Herbert Ives discussed the value of using television as a distribution method for information captured on film. Abramson, *The History of Television, 1880 to 1941,* 158.

July 1937 to telecast Wimbledon, and NBC purchased its first remote unit in December of that same year (Abramson 1987, 237-238, 242).

These developments all occurred before television broadcasting was fully revealed to the public, which may have contributed to the fact that they so closely followed the model of radio broadcasting. Nonetheless, the importance of both live programming and programming from outside the studio continues today, particularly but certainly not exclusively in the realm of television news, and that industry convention can be traced back to these early radio-inspired decisions about technologies and practices.

3.3 TELEVISION BROADCASTING, 1941-1988: CENTRALIZING TECHNOLOGIES AND THE TRANSFORMATION OF TELEVISION NEWS

Technological innovation in the preceding decades combined with the business and programming practices developed in radio broadcasting had set the stage for television broadcasting to take its first halting steps in 1941. Over the next half-century, television would become the most popular source of news and entertainment in the United States. The trajectory of television broadcasting equipment development during this period greatly influenced the organizational structures, work processes, and ultimately the content of the medium. These technologies were defined by economic guiding principles determined by the desire of the companies involved in every stage of the process to achieve the ultimate business goal of constantly increasing profit margins.

Taken as a whole, television technologies changed during this period from their rudimentary beginnings into devices which are conceptually similar or identical to present day

television broadcasting equipment. Between 1941 and 1960, technological innovation was primarily limited to improving existing processes without any major industry-altering changes. The latter part of this time period, between 1961 and 1988, was far more transformative. Major changes in how broadcasters and manufacturers conceived of the industry both compelled and constrained new technologies, which in turn impacted the form and content of the medium, particularly where local news programming was concerned. These changes can be broadly grouped into three different categories of what I describe as "centralizing technologies:" electronic editing, reducing the size and complexity of field production equipment, and station automation. Each of these groups of technologies made possible new modes of production which allowed for cost savings through staff reductions and/or changes in business practices; these new possibilities also lent themselves to a centralizing momentum in station operation and ownership.

As television broadcasting began in earnest after the end of WWII, television equipment manufacturers continued along the same path they had been traveling for two decades, albeit now with more experience behind them. The image orthicon became the industry standard in 1946, a transportable camera featuring a four-lens turret and an electronic viewfinder. The camera could be used in the studio or in the field, offering new broadcasters some flexibility as they took their first steps while still affirming the cultural positioning of the medium as a successor to radio broadcasting's focus on covering news outside the walls of the studio.

Although television broadcasting followed the economic and conceptual path set by radio rather than cinema, this previous incarnation of visual reproduction technology was an important part of the television industry. An early application of film in the new medium was as storage, and in 1947 systems for archiving television broadcasts on film were developed in the U.S. and in England. The most interesting thing about these systems is not how they worked, but rather

why they were called into being. The impetus behind the British system was the realization that important events often happen at times when the majority of viewers aren't available to watch them. As a result, both a film crew and a television crew were sent to important happenings, and film archiving of the television broadcast was developed as a means to eliminate this redundancy. The genesis of the DuMont Laboratories system in the U.S. was the knowledge that broadcast television would follow the network model established by radio broadcasting, requiring a recording technology that would allow the networks to produce a given program only once, and then rebroadcast a recorded version to the later time zones (Abramson 2003, 23-24). The problem of recording television broadcasts grew as the industry expanded and centers of production in New York, Chicago, and Los Angeles became responsible for service in four different time zones. Kinescope film recording was adopted as the standard, but economics dictated the use of a 16mm format which lacked in quality when compared with the live television broadcast. By 1948, NBC, CBS, and DuMont all had permanent recording facilities for their television networks (Abramson 2003, 26-28, 32), but few were satisfied with the quality or expense involved; once again, Williams' and Winston's conditions for changes in technology were fulfilled, and the moment was right for a new technology to enter the market.

By 1950, the tremendous amounts of film necessary for network recording propelled Ampex to research a new technology to reduce recording costs: magnetic videotape. Several other companies, RCA included, joined in the search for a better option, and by 1954 videotape technology had progressed to the point where recorders were nearing broadcast quality at half the material cost of running a Kinescope. By 1956, Ampex had created a machine recorded without quality loss, and the networks immediately placed their orders; the Ampex recorder was first used for broadcast of "Doug Edwards and the News" by CBS on November 30, 1956, launching

what Abramson calls “the Ampex revolution.” Two months later, NBC was regularly using videotape recorded versions of programs for broadcast to the west coast (Abramson 2003, 48, 53-54, 71-77). In 1958, RCA provided upgrades to the Ampex machines that allowed color recording, and “NBC Tape Central” was inaugurated in April of 1958 with 10 videotape recorders, 9 of them color.[75] Work still continued toward recording television on film, however, as film was globally standardized, while video was not. Even so, the economic advantages held by videotape over film would quickly transform the television broadcasting industry (Abramson 2003, 80, 82).[76]

This transformation was accelerated with Ampex’s release of the first videotape editing system in 1958, modeled directly after previous audiotape splicing machines.[77] On November 20, CBS edited 8 hours of taped material to produce a 90 minute broadcast of “The Old Man” (Abramson 2003, 84-85). Two years later, Ampex engineers overcame a synchronization problem, allowing their new videotape recorders to be integrated into a control room setting as playback devices which could be mixed with live camera shots or other tape machines (Abramson 2003, 89), offering new possibilities for news and other live programming to quickly integrate material shot in the field. In 1961, Ampex would extend this discovery to create the

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[75] The motivation for broadcasters to adopt color television was small at this time; by 1959, less than 1% of homes had color televisions. NBC led the way among broadcasters in color television because its parent company, RCA was manufacturing the sets. Sterling and Kittross, *Stay Tuned: A Concise History of American Broadcasting*, 353-354. While the development of new technology often inspires immediate investment on the part of broadcasters, in this case they were unwilling to commit funds when there was no audience available. A similar scenario would play out several decades later as broadcasters shied away from the costly new technologies of high definition television.

[76] These cost savings would eventually influence production in the film industry as well, with the creation of High Definition cameras. Directors George Lucas and Robert Rodriguez were the first to use High Definition Video in place of film for major theatrical releases including *Star Wars Episode II (2002)* and *Once Upon a Time in Mexico (2003)*, respectively. Mike Snider, "The Digital Force Is with Big-Time Directors," *USA Today*, 5 August 2002.

[77] Audiotape editing involved a reel-to-reel setup with a set of playback heads and a small channel for the tape to wind through. When the editor decided on a location to make an edit, they would mark the tape with a grease pencil and then advance it into the channel, where they would physically cut it with a razor blade. Having excised the undesired part, the editor would use adhesive ‘splice tape’ to rejoin the audio tape. This is how the first videotape editing was accomplished as well.

first electronic videotape editor, revolutionizing videotape editing and eventually film editing as well. The new system allowed for seamless additions of scenes from other sources, whether camera or videotape, at any point in a given recording; thus, commercials could be added after a program was recorded, or additional "takes" of a given scene could be inserted to cover errors (Abramson 2003, 95).

The combination of these factors allowed the people in charge of network news to have a change of heart away from film as the primary format for newsgathering, instead adopting videotape. The new model was called "electronic journalism," and although the technology was first adopted mainly for news, eventually videotape would become the backbone of television broadcasting. The switch at the network level propelled major change at the station level as well, providing opportunities for low cost recording and more efficient editing, both of which would greatly benefit the burgeoning local news operations at television stations nationwide. This new videotape technology was the prerequisite for two of the three technological developments which permitted and promoted the centralization of the industry: electronic editing for news and other programming, and reduced size and complexity of field cameras for newsgathering and production. Videotape also played a role in the widespread adoption of another centralizing technology, station automation.

There were many reasons for the switch to electronic journalism, including a desire to increase the speed with which programming for television made it from acquisition to air and a desire to reduce the direct cost of programming. Another motivation was to reduce the number of people involved in the process and simplify the workflow enough that it became possible to hire less skilled, and thus less costly, labor to handle the job. The trajectory which these three categories of centralizing technologies followed during this time period is highly

indicative of these forces at work, and illustrates the central argument of this chapter, that technological innovations in television follow the economically determined guiding principles of staff reduction and operational efficiency, and in doing so help make possible and desirable centralization in operation and ownership.

3.3.1 Centralizing Technology #1: Electronic editing

Ampex pioneered a revolutionary development in the television industry in 1964 with the release of the first full-color electronic editing system able to rival the quality of film production. Previously, editing involved the physical cutting of film, audiotape, or videotape with a razor and using splicing tape to link different pieces together; the new system required nothing more than a control panel and some videotape recorders (Abramson 2003, 100). Three years later, the Electronic Engineering Company improved on Ampex's technology, creating a videotape timing system called "timecode," which allowed unprecedented precision when starting and stopping videotape machines. Timecode again revolutionized video editing, making possible frame-specific edits and allowing the operator to preview changes before executing them (Abramson 2003, 119-120).[78] Timecode also made possible a major innovation in electronic editing which hearkened back to the machines in Marx's factory.

In 1971, CBS and Memorex proudly presented the first version of the CMX editor, which would become the industry standard for electronic editing. The CMX-600 used "disc packs" as a

[78] A "frame" in analog video is one complete picture, comprised of two interlaced "fields." There are 30 frames per second. With the advent of timecode, an editor, who a decade previously could only chop at the tape with a razor blade, could now choose from 30 different edit points in each second of video.

storage device,[79] and provided for automatic recording of videotaped material onto the packs and automatic recording of a finished project back to videotape; the system was conceptually identical to the nonlinear editing systems that are the editor's tool of choice today. In between the recording sessions, an editor used a light pen to interact with two CRT monitors, setting edit points indexed by timecode that the system's microcomputers would remember and later use to create the final program. The product came with a staggering price tag, however, requiring an investment of between $250,000 and $500,000.[80] Ultimately, the CMX-600 turned out to be a dismal failure as an editing device; it cost too much to buy and maintain, it was limited to twenty-seven minutes of disc time, the transfer process was lengthy, and to master the final program required between three and six studio VTRs; the ideas behind it, however, cannot be dismissed so easily (Abramson 2003, 136-137, 144, 146).

The concepts embodied in the CMX are excellent examples of how technologies acted to promote centralization in television broadcasting. The CMX editor accomplished two important tasks at the time of its invention, and also foreshadowed another major change in editing to come. First, the CMX editor automated parts of the editing process for the first time. A human editor no longer had to work in real time, waiting while the chosen section of tape was recorded from the playback machine to the record machine; the automated input and output divorced the editor from those parts of the process, shifting the time burden onto the machine. Second, where previously the human editor only controlled two machines, the CMX editor was capable of

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[79] In the March 1974 BM/E, industry leaders claimed "we believe the [video] disk is going to have an important place in broadcasting alongside video-tape, extending the use of recorded visuals into areas that tape is not so well equipped to handle." "The Video Disc: Count on It," *BM/E, Broadcast Management/Engineering*, March 1974, 66. Their belief is founded on the fact that disk technology at the time was both less expensive and of higher quality than videotape.

[80] Strangely, Abramson quotes the unit cost for the CMX-600 differently in three different places. In his initial mention of it, pages 136-137, it costs $250,000. By the next mention on page 144, the cost for the device is $300,000. Finally, when discussing its use at CBS on page 146, he quotes its cost at $500,000. It is possible that the different references are for machines with different memory configurations.

controlling many more at the human editor's request. Both of these seeming improvements follow the path that Marx described in *Capital* insofar as the machinery replaced workers. In addition, this first version of the CMX editing system foreshadowed today's technology in another way beyond its similarity to nonlinear systems. This moment of integration of computer technology into the video production process is the first step along a long path of overlap between computer technology and video production technology which resulted in "convergence" being the most important industry buzzword throughout the late 1980s and early 1990s.

In 1972, Central Dynamics Ltd. announced an editor that used timecode and was designed to interface with a video production switcher called the PEC-102. It used an inexpensive computer to record edit decisions, and automated the final assembly of a program (Abramson 2003, 144), evidencing the same guiding principles as the CMX-600 of a year before. The second generation CMX editor was announced that same year, and released in 1974.The new CMX addressed the cost problems of the earlier model by replacing the disc packs with Sony U-Matic videotape machines and the light pen with a standard keyboard interface. It retained the ability to remember edit decisions and automate the final assembly, preserving the labor savings (Abramson 2003, 144, 156). Represented in these two editors are most of the major components of editing systems developed in the 15 years that followed: three or more machines, a video switcher, usually an audio switcher, and a keyboard/microcomputer combination to control all of the devices and record edit decisions for later automated assembly. What would have taken a whole studio crew to accomplish just a decade earlier could now be performed by just one person choosing edit points and acting as supervisor to the machines; the guiding principles of job concentration and consequent potential for reduction of staff is clear.

By 1974, “professionals involved with both film and tape [agreed] that editing a program on tape [was] now 50% and up cheaper – mainly in the cost of time – than editing the same program on film”("Tape and Film" 1974, 30). Although these editing devices were initially created for and adopted by network operations, an early example of the penetration of electronic journalism into local stations is WBBM-TV in Chicago, which boasted an entirely electronic news operation in October 1977 (Abramson 2003, 177). Although most television stations used fairly primitive (and less capital-intensive) machine-to-machine editing systems, electronic journalism in general was a thrust towards a cheaper and leaner method of television production than had been offered by film equipment.

Having accomplished the goals of reducing production time and the overall cost of editing, edit systems released throughout the rest of this time period were variations on the same themes with some useful additions. The Videola, a new CMX editing system, announced at the 1979 NAB conference allowed editors to record their edit decision list (EDL) to floppy disk for later use, archiving, or for use on a different system (Abramson 2003, 183).[81] In 1984, LucasFilm and CMX marketed the EditDroid, an optical-disk based edit system for film editing which resulted in an EDL (Abramson 2003, 201, 203).[82] A similar system, the Montage Picture Processor, controlled 17 video playback machines, was capable of holding five hours of materials, and resulted in an EDL (Abramson 2003, 203).

At the 1985 NAB conference, the Ampex ACE editing system was unveiled, which used standard interfaces for four machines (Abramson 2003, 207). Two years later, the ACE 200

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[81] Creating a “rough cut” of a program on a lower quality system was often chosen as a cost-effective means of post production, so that the best equipment was only used for finalizing programs. The exportability of an EDL made this possible.

[82] Two years later, *The Patriot* would be the first theatrical release to be completely edited on this machine. Albert Abramson, *The History of Television, 1942 to 2000* (Jefferson, NC: McFarland & Company, Inc., 2003), 215.

would take on-line editing to a new level with its ability to control sixteen devices including VTRs, audio and video switchers, and DVEs, and to generate a 600 line EDL which could be recorded on a portable twenty megabyte disk (Abramson 2003, 220). Out of reach of many television stations, it represented the very pinnacle of editing centralization: one person running sixteen machines. This was definitely a far cry from the early days of television editing, and clearly indicates the guiding principle of economic efficiency through staff reduction at work.

3.3.2 Centralizing Technology #2: Smaller and simpler field cameras and recorders

The partner to electronic editing that fueled the push for electronic journalism was the progressive miniaturization and simplification of field cameras and videotape recorders. In this, too, economics were the most important consideration; not only was videotape less expensive than film and quicker to air, but it eventually required a smaller crew to get the footage back to the station. By 1963, video recorders were small enough to be used in the field, which opened up many new opportunities for field shooting. Technological development in field cameras followed two paths, producing cameras designed to send back live pictures and cameras designed to record material for later broadcast. In both cases, television news was again embracing the practices created in radio news, which prized live coverage and speed in getting material on the air.

The first demonstration of a portable camera combined with a backpack recorder took place at the 1966 NAB convention. The unit held 30 minutes of videotape and weighed in at 23 pounds (Abramson 2003, 111). The design of the backpack recorder signaled that one operator would handle the shooting and recording duties, adhering to the guiding principle of minimizing staff through the use of technology. This particular unit never made it from prototype to

production, but it enshrined the concept of a single-operator camera setup in the equipment that followed.

In 1967, Ampex released a new handheld camera able to run on cable or battery (Abramson 2003, 119-120), perfect for live events. One year later, the major networks debuted new portable cameras for the political conventions, each of which used the current wireless microwave technology to send the signal back to the control room (Abramson 2003, 123). A few years later, in March 1972, Philips Broadcast announced their new camera, which used triaxial cable.[83] Weighing in at one-tenth the heft of the existing technology, it quickly became the standard for those that could afford it, allowing more efficient setup of cameras for live production in the field (Abramson 2003, 141).

One of the first conceptual steps towards electronic journalism in local news began with the startup of television station KDUB in Dubuque, Iowa on July 1, 1972. Station executives decided to maximize their news covering ability and minimize costs by shooting news footage on Super 8 color film instead of the industry standard 16mm film. The cameras were cheaper, the film stock was cheaper, and the news people could each have their own camera due to the decreased costs (Abramson 2003, 143-144). The guiding principles at work in this decision are consistent with the thinking behind development of equipment for electronic journalism: cheaper media and cheaper labor overall, since now each member of the station's news staff could fill the role of both shooter and editor, whereas with limited cameras the editors would be idle until the shooters returned with footage.

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[83] Standard television cable is coaxial, referred to generally as coax. It consists of a thick copper wire surrounded by insulating material, which is surrounded by a metallic foil shield and a rubberized cover. Triax adds another layer of insulation and another shield to the cable, which preserves the signal over longer cable lengths and allows the cable to be less thick.

KDUB was a notable exception at the time. Most local news was still shot on 16mm film cameras, which were less expensive and more widely available than the remote video cameras the networks were experimenting with. In addition, most stations already had the processing and editing equipment for film, while videotape editing stations were not part of the average station's equipment; any editing they did was on the same machines used for program recording and playback to air (Abramson 2003, 148). However, at a NAB conference in March of 1973, Ray Schneider of CBS went on record as saying that videotape was the better choice for newsgathering because it could be put on the air more quickly than film (Abramson 2003, 149). In November 1973 CBS followed words with action, starting up new affiliate KMOX with an all-electronic news operation using new, lightweight cameras from Ikegami. The entire setup including videotape recorders and associated equipment cost $30,000 (Abramson 2003, 152). Professionals at the time crowed "The most significant new development [in electronic news gathering] is the *system* approach." Using a video camera attached to a mobile unit with a microwave link to the station, "the editor watches the news as it comes in, is primed to put it in shape for airing the second he has seen it through – or may be able to air some of it 'live'" ("Tape and Film" 1974, 33).

CBS' network news division had made the switch to electronic journalism by January 1975 using Ikegami cameras and Sony U-Matic portable recorders; NBC and ABC were less impulsive. The technical apparatus still required a two person crew to operate, but offered more flexibility in some cases than film (Abramson 2003, 157). By December of that year, all the CBS Owned and Operated (O&O) stations were using electronic journalism instead of film, and NBC was acknowledging that the ability to use these pictures live from the scene instead of waiting for film processing would cause the whole industry to adopt electronic journalism (Abramson 2003,

161). NBC's perspective is illustrative of the continuing attempt to fit television into the cultural definition of radio; "live" coverage had been a defining characteristic of radio news since its inception. It also shows the economic concern with competition that has always helped to push technological innovation in the United States. A year later, NBC announced its intention to switch completely to electronic journalism, and shortly thereafter the majority of NBC affiliates also adopted electronic journalism, primarily because of economic concerns and the flexibility offered by video for covering live events. In addition, the relative inexpensiveness of videotape production led to its utilization in production of both commercials and long-form documentaries (Abramson 2003, 172-173).

Local television stations followed the networks' lead, and by 1975 many stations were making the change to electronic journalism, due to its increasingly lower cost and its immediacy. One station estimated that four "mini-cam" setups were equivalent in cost to film stock for a year. The immediate usability of videotape allowed stations to shoot stories "almost to air time," eliminating the time lost to film developing. Stations could also now afford to shoot an entire event, such as a press conference, free of the restriction of high-cost film that allowed only short segments of recording (Zusy 1975). Two years later, a survey showed over half of the country's television stations were using electronic news gathering. The use of ENG also changed the way that stations were presenting the news, with an increase in the use of natural sound and of reporter voice-over of images, and of course the ability to broadcast live from the field (Stone 1977).

At the NAB Convention in 1980, Ikegami introduced the "EC-35 electronic cinematography camera," designed as an alternative to the 35mm film camera of which it was a physical duplicate. The camera could accomplish all of its internal setup functions (registration,

black balance, white balance, and gamma tracking) at the touch of a button when shooting a special test pattern. This eliminated the need for trained video engineers to accompany the shooter, and it also narrowed the skills required of the camera operator, both of which reduced the potential costs of fielding video crews. Modern day cameras share this principle, accomplishing these setups either without user intervention or with the touch of a few buttons. At the same show, RCA demonstrated the first charge-coupled device (CCD) camera, which eliminated picture tubes from the camera in favor of an integrated circuit to receive and transform the image into electrical information. This, too, would soon become an industry standard (Abramson 2003, 188).

The 1981 NAB conference was a major turning point for electronic journalism with the debut of the RCA "Hawkeye" camera-recorder (camcorder). A tube-based camera with a recorder attached directly to the back, it used a VHS sized tape in the "M" format, could record for 20 minutes on a cassette, and weighed in at 23 pounds including batteries. Privately introduced at that same conference was Sony's Betacam camcorder, which could record for 20 minutes on each half-inch Betacam cassette, and weighed only 13 pounds including batteries. Finally, Panasonic showed its AUAK-100 camcorder which used a custom recording format and weighed about 22 pounds. Ikegami and Matsushita Electric also unveiled camcorders in the months following the NAB conference (Abramson 2003, 193-194).

In December 1982, CBS engineers were unwilling to commit to a camcorder tape format; however, Corinthian Broadcasting, which ran five CBS affiliated stations, ordered 75 Betacam cameras and 50 Betacam editing systems to be delivered in the following 18 months (Abramson 2003, 198). The Corinthian purchase is notable because it is one of the first examples of a group-wide equipment purchase, which allowed the group to centralize research and decision making

and obtain a quantity discount, all of which are major benefits of group ownership.[84] This is one of the early examples of this tactic at work; many more examples were soon to follow. In any case, Corinthian's choice was a popular one, and by December 1983, Sony claimed to have sold over 1,000 Betacam units worldwide (Abramson 2003, 201).

Not everyone embraced Betacam, however. As late as 1985, the format battles raged on, with CBS supporting Betacam, ABC resisting change with Sony's U-Matic ¾" tape format, and NBC looking for a smaller format, eventually choosing to replace all of its old equipment with M-II format machines in April, 1986(Abramson 2003, 209-210). That same year, Sony demonstrated the new Betacam SP camcorder, which used 3 CCDs and cost under $25,000 (Abramson 2003, 209-210), and in February of 1987, CNN weighed in on Sony's side with the planned purchase of 200 systems. ABC finally gave in three months later when Sony offered them a quantity discount to switch to Betacam (Abramson 2003, 217-219).

The benefit of each of these new formats was size. Smaller tapes made for smaller recorders, and smaller recorders made camcorders feasible. Camcorders, in turn, were simpler for the shooter to use, and made possible smaller crews for news coverage. Leavitt Pope, the President/CEO of New York's WPIX-TV observed:

> When we used film cameras, you might have a three-man crew: a cameraman, a sound man and a man for lighting. When tape came into use, there might be two people – one for the camera and one for the recorder. With Betacam, we have one-person crews. So you either have more coverage with the same number of persons or the same coverage with fewer persons (Jaffe 1987).

The efficiencies in personnel, reduced cost of material, and reduced time to air made electronic journalism a natural choice for stations across the country. This switch to electronic journalism

[84] The practice of buying equipment for multiple stations became the norm at this time, but it wasn't a new idea. Storer Broadcasting made a group buy of the MVR 15 tape recorder as early as 1963, outfitting five stations with the device. "Storer to Distribute Video Tape Recorder," *Broadcasting*, 8 July 1963.

changed the practices in the news departments of television stations, which both allowed for more efficient workflows and changed the ensuing news products of the stations to include a greater proportion of non-studio video. The ability to quickly and easily integrate field footage contributed to the proliferation of the Eyewitness News model described in Chapter One and greatly conditioned the television news practices and conventions of the present day.

3.3.3 Centralizing Technology #3: Station Automation

The arrival of videotape reconfigured operations outside news departments as well. One major opportunity that videotape afforded was automation of the on-air playback systems at television stations. Before videotape, programs were usually either generated live or played back using film projectors which sent their image into a video camera, a system called a telecine.[85] This system was labor intensive, since an operator had to thread the film into the playback system reel by reel. Early videotape machines also used reels and a similarly labor intensive threading system to get the tape to properly traverse the playback heads. Several companies developed an alternative to increase efficiency, mounting the tape reels inside a cassette which would then self-thread when loaded into a tape machine. This opened up a wealth of possibilities, including the camcorders mentioned previously, and addressed the ongoing concern of reducing costs by simplifying jobs and/or eliminating labor.

Stations and manufacturers had experimented with various types of automation before videotape, but market penetration was minimal. In 1958, a mechanical system which used

[85] The telecine was a set of equipment usually comprised of multiple film projectors, a slide projector, a multiplexer (a series of mirrors or prisms that redirect images from several sources to one location) and a special television camera also often also called a telecine (television + cinematography). Herbert Zettl, *Television Production Handbook*, 4th ed. (Belmont: Wadsworth Publishing Company, 1984), 300-302.

metal foil strips taped to program scripts and fed through a reading device allowed for rudimentary control of lighting, cameras, and microphones ("Newest Gear" 1958). Even at this early date, automation focused on cost savings in combination with an effort to increase quality by reducing human errors. In 1959, two companies offered programming automation systems that can be considered the precursors to today's systems. The first, from Visual Communications Corporation, accepted commands from a keyboard, from tape, or from punch cards and held 12 events. The second, from GE, used punched tape to control switching between film, slides, audio tape, and network sources ("Automation for Radio-TV" 1959). One year later, RCA was offering automation in response to increasing operating costs, which had doubled in the previous decade ("Equipment: Automation Spreads" 1960). WKRC-TV in 1960 Cincinnati was home to the $2 million RCA system that used tape with holes punched in it to trigger eight film projectors, four slide projectors, two audio tape machines, two turntables, two remote cameras, and two microphones. The system could handle programming switches for an entire day; "confusion is eliminated and production is improved, using fewer people, according to WKRC-TV" ("An Answer to Costs: Automation" 1960).

Ultimately, it was videotape that provided the momentum for many television stations to accept automation. In December 1969, RCA offered a video cartridge system designed to partially automate the playback and recording of programs at television stations.[86] It had an 18 cassette capacity, and each could hold up to three minutes of recording using the 2-inch tape format (Abramson 2003, 130-131). At the NAB convention in the spring of 1970, Ampex displayed its version of the cart machine, which could automatically play a set of tapes in sequence using two separate playback devices – one cued while the other was playing to air. The

[86] This is another example of television technology following the technology of radio, which was using tape cassettes for automation purposes as early as 1959.

system handled 25 cassettes, each of which could store up to six minutes of material (Abramson 2003, 133). Ampex delivered its first unit to KTEW in Tulsa in July of 1972, and claimed to have orders for the device amounting to $10 million (Abramson 2003, 144). The technology afforded stations the opportunity to automate concurrent with the need and opportunity to switch formats from film to tape; clearly, many stations saw the value of automating since they were in a position to spend on a new format anyway. A similar situation would occur 30 years later as stations contended with another format change, this time from analog to digital.

As “cart” systems improved and proliferated, they added new functionalities allowing for an even higher level of automatic operation. In an advertisement in the April 1974 BM/E, Ampex touted its Automated ACR-25 cassette VTR, claiming it superior because “it can be rolled by the computer on cue, and now it actually can be programmed by the computer” to handle up to 63 events. They close with the statement “no matter how you use it, it saves money, manpower, and mistakes” (Ampex 1974), reiterating the guiding principles of television broadcasting technology. During the next decade, the number of machines and the number of cassettes that each system used increased, and the systems were able to handle both programming and commercial playback. At the 1986 NAB convention, Ampex showed its new AC-225 Digital Cart Spot Player, specifically designed for commercial playback rather than program playback. It could have 265 Betacam cassettes available at a time, each of which could hold up to 20 minutes of programming (Abramson 2003, 210). Commercial playback had always been a labor-intensive effort at television stations, and these cart machines made that a much easier task, allowing the two person team of on-air operator and tape operator to be combined into a single position.

Later modular designs allowed for stations to choose their own tape formats for use with the cart systems, and increasing cassette storage allowed for a full day of programming and commercial breaks to be automated. In these designs, equipment manufacturers consistently followed the guiding principle of labor reduction through mechanization in creating this technology. They also paved the way for a dramatic change in station operations in the decades to come, as cart machines formerly used as standalone islands of automation became the centerpiece of station-wide connected automation.

Another major innovation in station automation occurred just at the close of this time period, on March 7, 1988. Three years earlier, NBC News reached the conclusion that its facilities were far too decentralized, spread out over 15 floors. The proposed solution, which would gather all of their assets together around an on-air news desk, carried a price tag of $7 million, which had to be offset by real cost savings in order to get permission from executives. The department assessed the situation, and realized that "some people add creative value to the news product, while other people merely translate someone else's creative instructions to the technical equipment." By replacing those 'translators' with robotic cameras, the news division would recoup the costs of the renovations and the depreciation of the robotic equipment in three years (Wolzien 1988, 16).

The challenge was that such a thing had never been done before. Automation existed to control some camera movements,[87] but no one had yet made it possible for the camera pedestals to move across the studio floor. Eventually NBC settled upon an "X-Y tracking" concept utilizing a dual track system. The track itself moved left and right, and the camera could move forward and backward on the track. One operator was now able to operate three cameras,

[87] Robotic technology at the time could move the camera itself on pivots horizontally or vertically, could zoom and focus, and could raise the camera up and down.

with 300 preset shots stored for each and joysticks to make small adjustments. In addition to the cost savings achieved by cutting staff, the production crew could program complex camera maneuvers and repeat them flawlessly day after day (Wolzien 1988, 17). In succeeding years, robotic cameras would become an important component in the makeup of local television stations.

These three categories of centralizing technologies, along with the innovations that preceded them, had dramatic influence in the shaping of the television broadcasting industry during its first 48 years. The change from film to videotape, combined with new technologies based upon the new format, provided station owners with copious opportunities to slim down their operations in an effort to increase profits. These opportunities included station automation in both the studio and master control, reduced cost of materials, and opportunities to buy equipment for multiple stations at a time, securing better deals from the manufacturers; in addition, all of this equipment followed the guiding principles of staff reduction and job simplification, positioning the industry for further centralization of operations in the effort to achieve economies of scale and a resulting concentration of ownership in service of the same end.

3.4 TELEVISION EQUIPMENT 1989-1996: STREAMLINING PROCESSES

By 1989, the television broadcasting industry was primed for major organizational change. The first of two factors that would permit this change was the massive influence of computerization on the industry, both in the development of digital technologies and in changing the work processes in both station and newsroom. The second factor was the realization of a landslide of

changes in governmental regulation of the industry which were planted during the 1980s in combination with new technologies that either made new organizational structures possible, or made them more economically effective and desirable. In both cases, the technological developments continued to embody the guiding principles of consolidation and centralization, more dramatically in this time period than in any before.

The choice of 1989 as a breaking point between time periods is in no way accidental. Changing technologies would be both the result of and cause for new ways of thinking which would dramatically alter the structure of the local television industry, and these new conceptions of what broadcasting could be were on deck at this moment in broadcasting history. As a result of these new developments, transformations would occur in both news production operations and on-air programming operations, with changes in one area often permitting or demanding changes in other station departments and operations. The industry was poised for this change in 1989, as many of the core technologies which would contribute to ownership consolidation and centralization of operations were already in place. These technologies included cart machines, traffic computers, newsroom computers, smaller and more durable camcorders, and early versions of computer editing.

Many stations had on-air operations which utilized cart machines for partial automation of both programming and commercials, albeit still with human assistance in the form of a master control operator. Direct communication between computers in a station's traffic department, responsible for creating the daily broadcast log which detailed what programming and commercials aired at what times on the station, and the computer which controlled the cart machine had been a reality for some time, whether by direct connection across a wired network

or indirectly by sneakernet.[88] By 1989, there were cart machines capable of playing back hundreds of commercials and programs in sequence, including two Sony units purchased by CBS which held 1,000 cassettes each. Ampex had sold 20 of its ACR-225 cart system by 1989, and Odetics boasted that it had installed 70 of its 280-cassette cart systems (Abramson 2003, 227). The following year, Ampex released the AMC-225 optional external device controller, capable of controlling up to 10 devices of varying formats from the same playlist as the cart system (Abramson 2003, 233). It is interesting to note that Ampex used the same thinking process in designing this device that it did on its ACE edit system: use computer technology to enable one person to control many machines from a central location, in this case the control screen for the playlist. In practice, this opened up the potential for master control operations, which had formerly mainly automated only commercial playback, to have machines control the entire on-air product of the station.

Computerization exploded into other areas of the station as well during this time period as the expense of computer systems finally lowered to a point where station owners felt they would be a profitable investment. Television stations had dabbled in computerization for many years before widespread acceptance took place. In 1967, H-R Television (an advertising representative) installed computers at their offices and at the stations they represented which automatically contacted one another to transmit messages back and forth ("H-R Stations" 1967). By 1970, Data Communications Corporation was offering its Broadcast Industry Automation System. The BIAS communicated via telephone with a central computer at DCC headquarters and allowed for automation of many traffic functions, with the promise of accounting functions to be added in the near future ("Computer System Shown" 1970).

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[88] In an entertaining bit of broadcast engineer humor, the process of carrying floppy disks between computers is often called the “sneaker network” or “sneakernet.”

Options for computerizing the newsroom were also available for some time before they achieved wide acceptance. A 1978 *RTNDA Communicator* article previewed a new kind of computerized workflow, where reporters would write their stories on "video terminals instead of typewriters," give that information on a floppy disk to a producer who would revise it, and then take a floppy disk to a computerized teleprompter for playback to the news anchor. UPI was already sending information to broadcasters via high-speed terminals at 1,200 words a minute in 1978, up from 60 words just years before, and was working out the details to connect these terminals to the envisioned newsroom system. NBC planned to use computers to handle "news-wires, future files, assignments, storage and retrieval, and even news budgets" ("Newsroom of the Future" 1978). WCVB-TV assistant news director Charles Kravets later bluntly stated the reasoning behind computerizing the newsroom: "Every radio and TV station will eventually save money and eliminate jobs through automation…. Our business is no different from others that are being forced to become more cost efficient and competitive." Kravets goes on to say, however, that quality improvements should be the overriding concern, not cost reductions (Kravets 1991); in most cases, newsrooms were looking to achieve both. Acceptance of the newsroom computer was slow, however. By 1982, Basys had sold three systems in the United States, only one of which was to a local station. Five other companies had placed an aggregate of nine systems at local television stations. One other company claimed to have sold 65 terminals in various arrangements to television, radio, and newspaper newsrooms ("Computerization of Newsrooms" 1982).

CBS News jumped on the newsroom computer bandwagon in 1985 with the purchase of a $1 million NewStar system for its New York and Washington newsrooms, joining 13 stations which already used the system. CBS figured the system would pay for itself in the elimination of

the wire service printers and associated material costs. CNN and NBC had chosen a system from Basys prior to the CBS purchase ("CBS News" 1985), and ABC followed suit in late 1985 with a $500,000 purchase from the company. Both the Basys and NewStar systems were compatible with UPI Telecast, which imported the United Press International wire service directly into the system ("The News" 1985). In September of 1995, 12% of stations claimed to either have computerized newsrooms or to have ordered them, and another 26.8% said they planned to computerize their newsroom in the near future ("Interest Growing" 1985). Over the next decade and a half, both on-air operations and news production operations would change dramatically, building upon these technologies, making new organizational structures and workflows possible.

Television news production equipment was undergoing changes as new technologies emerged with the specific goal of streamlining the news production process in order to produce more news content with fewer people. News departments had been making money for the stations for many years, a situation far removed from the early days of local news when news operations were most likely to be money losers, and the concern now was with increasing that profit potential. New technologies in line with the guiding principle of staff reduction arose in every part of the news production process during this time period, and there was a concurrent and dramatic increase in the amount of local news programming on the air. These new technologies addressed the areas of shooting, editing, playback, integration of various video sources into the workflow, and overall control systems.

The introduction of the camcorder proved even more revolutionary. At the start of this latter time period two specific innovations improved upon camcorder technology. First, CCD technology became the rule for new camcorders, replacing the dated vacuum tube technology of previous cameras (Abramson 2003, 227). CCD technology was an improvement in cost,

durability, and simplicity of setup, and the industry embraced it wholeheartedly. Second, tape formats for field acquisition, studio work, and on-air playback continued to improve in quality and/or shrink in size and cost, offering a variety of options to stations interested in new formats. Most news departments chose cost over quality, shying away from digital technologies in favor of analog upgrades. The most cost-conscious operations looked to new formats by Sony and Panasonic, Hi-8 and S-VHS respectively (Abramson 2003, 227). Although inferior in quality to Betacam SP, many smaller stations found the new formats appealing as a temporary upgrade, allowing them to delay the decision about digital technologies while still improving their newsgathering ability.

Also in 1989, a small company called Avid announced at the SMPTE convention that it had sold 14 edit systems during its two years in the business. The Avid/1 was designed around the Apple computer platform, and foreshadowed things to come. Avid predicted tapeless editing within 2 years (Abramson 2003, 230), and was one of several companies to deliver upon that promise, eventually making it possible for a single operator to run an entire (virtual) control room's worth of equipment on their desktop. Conceptually, the idea of tapeless editing was the logical intersection of many historical trends. As shown in the previous section, edit system manufacturers had been looking for ways to escape the linear videotape environment for some time. The use of optical disks as an intermediate format in many early editors was an effort to automate the input and output processes, and allow the user maximum flexibility and minimal time commitment when editing. Continuing advancements in computing made this a more and more tenable possibility as the quality of video digitized into a computer increased. Research into digital recording onto videotape had been going on for some time as well, and offered the necessary encoding process for creating the digital signal. Finally, editing equipment had almost

always followed the guiding principle of staff reduction, putting more machines in the computer-assisted control of a single individual. These factors, in combination, made tapeless nonlinear editing almost inevitable.

Perhaps the most important happening of 1989, however, was the first ever transmission of digital high-definition television, sent by satellite from Malibu, CA to Tokyo, Japan on April 12 (Abramson 2003, 226). This event flung wide the door of opportunity for the eventual transformation of U.S. broadcasting from analog to digital, and the concurrent opportunity for major structural change as a result. Before advancing beyond 1989 in the technological development of the industry, it is helpful to rewind to the mid-1970s and look at the beginnings of digital and high-definition television.[89]

3.4.1 Digital & High Definition Television

Digital Television made its first inroads in June of 1974, as BBC engineers succeeded in recording color television digitally (Abramson 2003, 156). In September 1978, J.L.E. Baldwin presented a paper on digital television recording using two-inch tape. Additional demonstrations that year included digital recording on one-inch tape (Abramson 2003, 180), and in February 1979 Ampex debuted the first all-digital videotape recorder. The quality displayed by a demonstration tape played on the new machine clearly signaled the future usefulness of digital video recording. One month later, Sony displayed its digital VTR at the NAB conference (Abramson 2003, 181-182). In 1980, Sony demonstrated a new version of their digital video recorder (DVR), suggesting that all such devices should be component recorders, which would

[89] High Definition television is often erroneously equated with Digital Television. In reality there are digital formats which are not high definition, and high definition formats which are not digital.

allow the recorders to be used in NTSC, PAL, or SECAM systems, eliminating the need for manufacturers and purchasers to worry about format issues (Abramson 2003, 187-188). In 1981, the CCIR[90] finally agreed on international standards for digital video equipment, allowing for both component and composite formats (Abramson 2003, 195).

At the 1985 NAB conference, Sony showed its D-1 composite digital videotape format (Abramson 2003, 208). At the SMPTE convention that same year, the first all-digital television production was screened, a four-minute plus music video. The producers claimed significant cost savings over shooting with film (Abramson 2003, 209-210). At the following year's convention, Sony showed a new DVR, claiming it had 312 orders for the machine (Abramson 2003, 210), and in May 1987, Ampex unveiled the D-2 DVTR, which was still composite digital but provided three times the recording capability of D-1 (Abramson 2003, 220). D-2 was the tape format of choice at 1989's NAB convention, as Hitachi showed a studio recorder and Sony offered up both studio and camcorder recorders in the format (Abramson 2003, 226).

As the equipment was being developed, broadcasters naturally became interested in how the new technology might affect their industry. At their request, the FCC began investigating advanced television (ATV) in 1987, establishing the Advisory Committee on Advanced Television Service (ACATS). It was shortly decided that advanced television would be digital television, and broadcasters and manufacturers created the Advanced Television Test Center (ATTC) in 1988 to test digital possibilities (Pescatore 2000).

High-Definition Television officially entered the broadcasters' awareness at the 15th annual SMPTE television conference in 1981, where Japan's NHK Laboratories demonstrated the culmination of twelve and a half years of research: an analog HDTV signal with 1125 scan

[90] Consultative Committee on International Radio.

lines of resolution (Abramson 2003, 180, 192; Inglis 1990, 475). CBS joined forces with NHK the following year for a series of demonstrations utilizing that technology, and would become a loud voice in discussions about the technology (Abramson 2003, 197).

In early 1987, NHK again demonstrated HDTV broadcasting with antennas placed on the WUSA broadcast tower in Washington. Receivers were placed at NAB headquarters, the FCC, and at the U.S. Capitol, and signals were fed in the UHF band and in the DBS band. At the time of the demonstration, Ben Crutchfield of the NAB stated that broadcasters had to preserve the UHF spectrum from distribution or degradation by the FCC so that they would have the necessary bandwidth for HDTV, an early rumble of the storm that would eventually develop over broadcast spectrum for DTV (Abramson 2003, 215-217).

On September 1, 1988, the FCC ruled that any HDTV system must be compatible with NTSC, and by the end of that year there were twenty systems under consideration as a standard (Inglis 1990, 482). The 1989 transmission via satellite was of Japan's MUSE system, which was not NTSC compatible (Inglis 1990, 487); still, it illuminated the intersection of digital technologies and high definition technologies just ahead.

Broadcasters were thus faced with a variety of concerns when it came to equipment purchases and other important business decisions at the start of the new decade. Digital technologies were undergoing rapid change and improvement, and the potential for the industry to move towards high-definition television loomed over every purchase. A representative example of one approach is Providence Journal Broadcasting, which was looking for HDTV solutions for all of their stations at once, rather than requiring the individual stations to figure it out. Other groups were hedging their bets by buying upgradeable equipment for their stations (Rosenthal 1993, 41). In a special advertising supplement on digital television, *Television*

Broadcast happily declared “It is 1993 and we are at the crossroads where technology and opportunity meet” ("The World of Digital" 1993, 31). Although admittedly this was rhetoric with a purpose, it was also a reflection of the truth. Digital technology would provide many opportunities for broadcasters to improve their bottom line during the years to come; it would also present endless challenge, as one article observes: “at any moment in the next 10 years, the costs of converting between analog and digital signals will be a major factor for managers to consider and the optimal configuration of technology to produce the maximum efficiency will change almost daily” (Adamiak, et al. 1995, S6-S7). It was in this environment that convergence of computers and video truly flourished, changing conceptions in news production, on-air programming operations, and overall purchasing and integration of new equipment at stations; in combination, these changes would permit new forms of organization and ownership to occur.

3.4.2 Transforming the news: computers + video = profit

One easy decision to make at the start of the 1990s, however, was to continue automating the news production operation when opportunities arose to do so. Robotic cameras, having seen first life at NBC News, were beginning to trickle down to local markets. The first installations were at large and medium sized stations, where reduction in union salaries returned the cost of the robotics in two or three years (Lambert 1992). KMTV in Omaha, NE purchased its robotic camera heads in 1989, reducing a five person studio crew to three, and breaking even after two years. The station’s news director described the staff reduction as a choice between losing people in the studio and losing reporters on the street (Tobia 1991). By 1991, Vinten Broadcast Incorporated’s Andrew Duncan estimated that of 200 major market stations, 10% had already adopted robotics, a number that could grow to 50% by the end of the following year. He also

stated that the technology was most appealing in big cities where labor costs were high, like St. Louis, where three stations were using robotics (Sanford 1991). A brief article in *Broadcasting* confirmed that CBS had plans to use robotics at the network and local station WCBS by fall of 1991. Prices came down in 1992 as manufacturers began offering piecemeal upgrades, permitting stations to convert camera by camera or function by function (Lambert 1992). A 1994 article stated "some networks and probably even some large market stations are using a single operator to control studio camera video, run the camera robotics, load tapes and handle lighting" (Adamiak, et al. 1994). No statistics are available, but with the clear economic benefit of staff reduction or redistribution, many local stations likely adopted the new technology in the 1990s, and robotic cameras are a component of most modern day automated news production systems.

The most important component of newsroom automation was the nonlinear tapeless editor predicted by Avid in 1989, and delivered two years later. It was important as an individual technology, and equally as important because of the thought processes it represented and provoked. An example of this thinking is found in a 1993 *Television Broadcast* article, which enthused

> Let's step into a fantasy newsroom for a moment. There on a desk is a single workstation that lets you script and edit video – it shows you video, stills, titles, and graphics at the touch of a button. And as long as you're fantasizing, let's say you can use the same workstation to write stories and edit accompanying video as you write, and even (why not?) perform pre-production or traditional post production tasks controlling production machines in other parts of the shop (Murrie 1993b, 29).

The tapeless nonlinear editor was the first step toward fulfilling that fantasy, a process which would eventually affect acquisition and playback technologies as well. The same article goes on to discuss newsroom systems that allowed writers to see video on their desktop. Previously, desktop computer editors were mainly for offline use due to quality issues; however,

ImMix and Avid had achieved on air quality and were offering new products to entice television stations to buy. Avid's NewsCutter system was designed to be used along with their Media Recorder system, which automatically recorded newsfeeds and other video, and the AirPlay playback device (Kaufman 1993a, 1,27); the company advertised that the combination could reduce capital expense, operating and maintenance costs, improve video and audio quality, and reduce on-air errors, resulting in improved viewer satisfaction and higher ratings ("The World of Digital" 1993, #33).

In February 1994, Sony entered the digital editing arena with a Destiny system that used disc-based nonlinear random access editing in order to compete with machines from Avid, ImMix, and Lightworks (Abramson 2003, 248).[91] In that same year, Avid cemented its commitment to controlling the entire news process, acquiring news automation companies BASYS Automation Systems and SofTECH Systems. Avid planned a workstation where a producer would build the rundown, write the stories, and edit together rough cuts of video on the same computer screen, using video stored on a network so that multiple workstations could access it. To complement the system, Avid was working on the CamCutter, a camcorder which would record on a disk, offering faster ingest time into the server environment (McConnell 1994).[92] In April 1995, Avid proudly announced that it had sold over 7,000 units since entering the business in 1987 (Abramson 2003, 253). Also in 1995, Hearst Broadcasting signed a $1.5 million order with Avid Technology to supply three Avid NewsView newsroom automation systems to its TV stations in Kansas City, Baltimore, and Milwaukee (Dickson 1995).

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[91] The ImMix product was primarily a standalone editor. Lightworks' Newsworks editor, on the other hand, was designed from the ground up to interface with the News Maker automation system, made by a different company. Neither product made as much of an impact as Avid. Chris McConnell, "Lightworks Targets News for New Editor," *Broadcasting & Cable*, 27 March 1995.

[92] Avid wasn't the only company working towards tapeless ENG; Ikegami and BTS also announced similar efforts at the 1994 NAB conference. Abramson, *The History of Television, 1942 to 2000*, 248-249.

Nonlinear editors were useful for things other than just news packages. One innovative use was the *Morning Business Report* on WPBT in Miami. The 15 minute show was recorded directly into an ImMIX Videocube, and aired five times during the morning. For each airing, new stories were dropped in as they were fed to the station; the nonlinear environment allowed producers to simply trim times from other stories or to shift them around at will in response to the new material. The show itself aired directly from the VideoCube, eliminating the time involved to dub it to tape (Adamiak, et al. 1995, S4). Eventually, nonlinear editors would find application throughout the station, in promotion, programming, and commercial production departments as a result of their versatility and their cost savings in both time and personnel.

Acquisition technologies changed as well during this time period. Increased quality and recording time combined with decreasing size and cost were the guiding principles in videotape technology. In 1991, a host of manufacturers also showed tapeless recording devices, which used optical disks, offered Betacam quality video and audio, and up to program-length recording time (Abramson 2003, 239). In early 1992, digital videotape formats started to shift away from composite technologies such as D-1 and D-2 to new component technologies: that year Ampex showed a prototype, Panasonic announced its plans for D-5, and Sony previewed the following year's release of Digital Betacam, which had the highly useful advantage of backward compatibility to analog Betacam SP, which was already in use at a large number of facilities (Abramson 2003, 240, 244).[93]

In 1996, Sony's ENG videotape dominance was challenged by Panasonic's new format, DVC-PRO, a composite format which recorded digitally on ¼" cassettes. That year, Panasonic announced the sale of 38 DVCPRO VTRs and 42 DVCPRO camcorders to CNN.

[93] By July of 1994, Sony claimed to have sold over 150 Digital Betacam machines to Turner Broadcasting and the Canadian Broadcasting Corporation. Ibid., 249.

CNNSi chose the competing Betacam SX composite format in October of that year (Abramson 2003, 254), and the format wars continued on three fronts: Disk-based[94], DVC-PRO, and Betacam SX.

3.4.3 Automating the on-air operation

On-air operations increased dramatically in complexity in the early 1990s with the advent of the LMA. Instead of operating one station out of a facility, some broadcasters were operating two, stretching staff and equipment to the limit to achieve an economy of scale on the second station. Cart machine technology adapted quickly to the potential of this new state of affairs. In an 1993 NAB preview article, *Television Broadcast* reviewed the Panasonic Type III M.A.R.C., claiming that it "can handle a two-station output" (Moneta 1993, 32), and pointing the way to the future. Another article from that same year discussing Cart machines and the potential for a switch to disc-based systems featured comments from several manufacturers. One of them, Panasonic, observed

> "Last year [the industry] saw a move toward a multi-station type of environment. Two completely different stations can broadcast out of the same building, sharing the same resources. Instead of a cart machine for each station, there can be a common library system to generate compiled reels of commercials, which would separate into two channels and go to each station."

A Sony representative agreed, saying "typically a commercial multi-cassette system works 15 minutes per hour; obviously, there is room in a [Library Management System] for multiple channels and [to thus] optimize installed machinery" (Murrie 1993b). In an era of multi-channel

[94] Sony, BTS, and Avid / Ikegami were all working towards optical disk recording at this time.

operation, this sort of automated playback allowed economies of scale which made the new organizational forms desirable.

One of the technologies that seemed custom-made for this new level of on-air operation automation was the video server, which quickly found use in news production operations as well. Servers offered a variety of savings and opportunities for broadcasters, including instant access, elimination of jammed tapes, access to the material from multiple locations, flexibility to change the order of playlists, easy upgradeability, increased efficiency, and reduction of capital costs associated with tape machines (Murrie 1993a, 21-22). In August 1994, early adopter CBS announced plans to install a Hewlett-Packard video server at owned and operated WCIX in Miami for on-air playback. The basic model could store six hours of video and audio; fully loaded, it could store 51 hours of material (Abramson 2003, 250). As the cost of recording on disk lessened, stations would turn to server recording more and more, and to the benefits of automation that it entailed, including opportunities for staff reduction, lessened media cost, and increased centralization of operations.

3.4.4 System Solutions with a smile

This entire time period is marked by a change in thinking on the part of some broadcast equipment manufacturers, who began to envision themselves less as developers of independent pieces of equipment and more as designers and providers of “turnkey” broadcast systems ("State of the art" 1989). At the 1989 NAB conference, Sony presented its new focus on systems technology, offering up new switchers, graphics, still stores, and recording devices. Sony’s new position was that customers should buy entire systems from one manufacturer, for two reasons: ease of maintenance and repair, and quantity-based cost savings to the consumer (Abramson

2003, 227). This clear attempt by Sony to increase their market share also made group ownership that much more appealing; other manufacturers would have to follow Sony's lead to stay competitive, and with manufacturers ready to deal when purchases were made in quantity, the economy of scale offered by purchasing equipment for multiple stations at a time could not be denied. At the same time, Sony was positioning itself to be a trusted leader in systems design and implementation in preparation for the moment that switching to digital production equipment became a necessity, rather than simply a choice made for increased quality, for stations across the country eight years later.

Other manufacturers also embraced the systems concept, switching their sales focus from individual items to systems of connected items. Ampex took the first steps towards becoming a systems provider in 1988, when they released their first character generator, the ALEX ("State of the art" 1989). Ampex followed that in 1991 with the ADAPT unit, which permitted existing analog switchers to use digital sources (something very beneficial to stations facing the changeover), envisioning a five year transition phase into digital serial switchers (Abramson 2003, 236) and making a first mark as a potential leader in digital technology. The following year, at April 1992's NAB convention, Ampex announced its own systems approach to component digital technology (Abramson 2003, 241). The system, which included tape machines and cassettes, a post production switcher, edit controller, and digital effects, was released in June (Abramson 2003, 242). Chyron Corporation, manufacturer of graphics equipment, planned a merger with a satellite equipment company, Midwest Communications Corporation, in 1989 to rival Ampex and Sony as a systems provider ("State of the art" 1989).

In the same 1993 special advertising section that housed Avid's effort to become a newsroom system provider with the NewsCutter and Airplay, Sony touted its total systems

approach again, attempting to position itself as a one-stop-shop specifically for the design and installation of digital equipment ("The World of Digital" 1993, 40).[95] For the group owners, who were likely less involved in the day to day decision making for their stations than owners of single stations had been in the past, a one size fits all scenario for purchasing television equipment must have been pretty appealing; at the same time, the discounts being offered by the systems providers for bulk purchases reinforced the benefits of group ownership. In addition, Avid, Sony, and other manufacturers were redefining the relationship of television equipment pieces from individual units to pieces of an overall system, always in service of more efficiency and thus less cost in personnel.

This was a time of dramatic change in the broadcast industry, as new technologies made possible operational decisions that radically altered the workflow in many television news departments, traffic departments, and on-air master controls. However, two major events were about to occur which would again give the television broadcasting industry both reason and opportunity for major changes in organization and operation.

[95] The systems concept continued into the digital-themed SMPTE convention in October 1994. Harris Allied and Avid claimed to have contracts to design all-digital facilities for cable operations. Intel and CNN were working together to bring video to news producers' desktop PCs, so that they could review news feeds without having to go to an edit suite to do it. Northwest Cable News had plans to be completely tapeless, using Avid technology including the Newscutter editor. (Abramson 2003, 250) The systems approach eventually became the norm, whether stations were dealing directly with manufacturers or using "systems integrators" to design and install their new facilities.

3.5 TELEVISION EQUIPMENT 1996-2006: CONVERGENCE, CENTRALIZATION, CONCENTRATION, AND CONSOLIDATION

The first catalyst for change and centralization was the Telecommunications Act of 1996, which loosened restrictions on station ownership and media cross ownership in television, restrictions that would get looser in the years to follow. The second catalyst was the announcement in early 1997 (but expected for some time before that) that the television broadcasting industry would migrate to digital broadcasting in the immediate future, with a planned signoff of analog channels and surrender of the NTSC spectrum by 2006. In combination, these two momentous decisions both required the broadcasters to purchase new equipment and offered them the opportunity to explore new forms of organization permitted by the regulatory relaxation. The equipment manufacturers were aware of these potentials as well, and joined the broadcasters in considering the new possibilities available for station and group operations. This time period is marked by an increase in "systems" selling and group-wide purchasing, a focus on multi-channel operation both within and among stations and markets, the development of a complete solution for newsroom automation, and a change to envisioning video and audio as data to be easily manipulated and shared, the ultimate blend of computers and video. Each of these changes contributed directly to centralization of operations, and also contributed to an environment in which interconnectedness and centralization among group stations was extraordinarily valuable.

With the knowledge of these events just around the corner, at the 1996 NAB Sony reiterated its "total system concept," a plan to "provide each component in the broadcast plant, from acquisition to transmission." Other equipment manufacturers, not wanting to be cut out of the business but not willing to become systems specialists, called for "open systems with interoperable components from several suppliers" (Dickson 1996e, 63). Sony also announced its

first “total digital solution” sale, worth $13 million, to Cox Broadcasting for the digital facility at WSB-TV, Atlanta. The sale included desktop editing in the newsroom via Oracle Newsroom Manager and Sony DNE-1000 nonlinear editors. That same year, Providence Journal Broadcasting made a multi-station purchase from Avid Technology totaling $3.5 million and including 30 NewsCutter systems, AirPlay systems, Media Composers, and NewsView newsroom computer systems (Dickson 1996d).

In April 1997, CBS purchased $24 million worth of DVCPRO equipment to distribute among their 13 owned and operated stations, and NBC purchased roughly the same amount for its O&Os (Abramson 2003, 255) (Dickson 1997a). Benedek Broadcasting followed suit, buying $2 million worth of DVCPRO equipment to upgrade 10 of its 22 stations (Abramson 2003, 255), as did Raycom Media, selecting DVCPRO for its 25 stations in a deal worth up to $8 million (Dickson 1997b). In December of that year, Panasonic released DVCPRO 50 and announced $2.5 million worth of new sales to Sinclair Communications, LIN Television, and Ziff-Davis. Also in 1997, Avid and Ikegami had finalized and released their CamCutter disk based camcorder (Abramson 2003, 255-257). Notable in this rush to digital is the fact that station groups were continuing to buy for multiple stations at once, capitalizing on discounts on the new equipment. This would become the rule for purchasing broadcasting equipment, and would provide one more impetus for groups to grow bigger.

Streamlining the newsroom with new tape formats, some of which could be loaded into editors at faster than real time speeds, nonlinear editing, server playback, and other time and staff saving devices was the first step towards the models of local television broadcasting present today. The combination of technological development and loosening regulation offered other possibilities as well. LMAs continued to be an attractive option for

broadcasters looking for economies of scale, as did acquiring extra channels on local cable systems; in most cases, broadcasters were now thinking about how to use their current investment in capital and personnel to air additional programming and garner those extra advertising dollars. New video server technology was appealing to broadcasters, and one of the prime concerns was the capability for multiple channels of output (Dickson 1996a).

3.5.1 Multi-channel operations

In the analog realm at the time, multi-channel was available through LMAs or additional cable channels acquired through retransmission negotiations. However, the FCC's decision on Digital Television opened up new possibilities, because it did not force the broadcasters to carry high-definition signals, but did provide them with adequate transmission space for HDTV. In the bandwidth allotted for their digital signal, broadcasters discovered they could provide one high definition signal, or up to four separate standard definition signals; in both cases some excess bandwidth was also available for other potential moneymaking opportunities such as datacasting. Station owners and networks faced the challenge of, as one article put it, "how to run those channels without adding personnel; the answer is automation." Cosmos Broadcasting Group, for example, purchased Drake Automation systems for its nine stations in 1998, to be installed over a five-year period in preparation for multicasting (Anderson 1998). The groups now began to think in earnest about centralization and concentration, having finally achieved a high level of efficiency within the station. It was now time to connect that station to others in the group, a task made possible by technologies specifically designed for multi-channel operation.

Early examples include Paramount Stations Group, which combined master controls for two affiliates in 1997, one in West Palm Beach, FL, and one in Miami. West Palm Beach

retained a sales staff, a community relations staff and a small engineering crew. In the two years following this experiment, PSG combined operations in four other markets and predicted programming all their O&O stations from one facility by 2005. USA Broadcasting was following the same strategy. Of concern, however, is the fact that between 1997 and 1999, PSG eliminated local news at all but two of its 17 stations to save money (Schlosser 1999a). This is one of the major challenges in this era of concentration, the balance of the profit motive and the need to program in the public interest; when programming several stations from a central location, it becomes more of a challenge to serve a given community and still satisfy the bottom line, it seems. That same year, the New York Times Broadcast Group planned to open up its centralized master control hub located at WTKR-TV in Norfolk, VA, to its other stations. The $5 million facility was developed in 1995 in response to the impending switch to DTV; as a result, the company was able to reduce master control operators by half, redirecting them to other jobs. The system also reduced errors by 70% (Anderson 1999b).

Tribune Broadcasting made a group deal with Sony for the NewsBase automated newsroom server system for all of its stations in 1999, planning to migrate its stations to the new product at the rate of four or five stations per year over 3 years. “Our long term plan [for increased networking between the stations] is to have certain stations that are key gateways to take in the programming,” says VP of Technology and Engineering Ira Goldstone. “If you have a program that is bought by the whole group, like Friends, right now in most station groups each station takes down Friends and they have to record the show.” Under the new plan, one gateway station would record the show, enter in- and out- time data, and then feed the show and the information to the other stations, again allowing for reduction in manpower at the stations (Anderson 1999d). The notion of group-level purchases of syndicated programs again shows the

power that the station groups were acquiring as their ownership stake increased; more stations, more economies of scale. Fox was thinking along the same technical lines as Tribune, and by April 1999, the Fox Network Center claimed to be running the industry's first fully tapeless master control operation (Abramson 2003, 259).

The model of running several stations from one centralized master control is appropriately referred to as centralcasting. In 1999, USA Television constructed a master control hub to centralcast 4 of its top market stations. Instead of spending $8 million per market on equipment and adding at least 20 engineers per market, the central hub required only one set of equipment and 40 operators. The group planned to build a second facility to handle another five owned stations as they switched to the new program format (Schlosser 1999b). When those "hubbed" stations are geographically proximate, that model of centralcasting is referred to as "clustering." In 1999, The Ackerly group operated its 13 stations in three regional clusters, in a move expected to cut costs and boost profits. The hub station in each cluster held traffic, accounting, creative services, technical operations, and centralcast the other stations. Local markets retained sales, news, and community affairs staffers. To expand upon this plan, Ackerly was looking specifically to acquire stations to expand its clusters. Ackerly management estimated reducing traffic personnel in a cluster from 40 to 10. The subordinate stations were led by a station manager instead of a general manager, in charge of community relations, and local sales managers and news directors reported to superiors at the hub station (Anderson 1999a). Each hub cost an estimated $1-$2 million including hardware and software (Kerschbaumer 2001).

Other specific technologies were developed to assist with the centralization of operations. Tribune was again at the forefront, creating a Web-based control system in 1999 which allowed

"producers at one Tribune location to control cameras, switchers, lighting, tape decks, and video servers at TV stations, newspapers, and news bureaus." Tribune tested the system at WGN Chicago, and planned to install it group-wide by the end of the year (Dickson 1999). Another development in 1999 was Associated Press Broadcast's MOS (Media Object Server) protocol. MOS acted as a bridge between their ENPS newsroom computer system and equipment made by AP's design partners, which included 20 of the biggest manufacturers in the business (Anderson 1999c). This was a strong reply to companies positioning themselves as systems providers, because it allowed stations and resellers to choose the brands they wanted with the knowledge that their newsroom computers could talk to it. It also displays the sort of thought processes that were going on at the manufacturing companies; the focus continued to be on automation and connectivity. The new protocol was an immediate hit: the following year, Raycom, which owned 37 television stations, ordered the ENPS system for all of their stations that carried news (Bowser 2000c).

Raycom's buy was representative of the direction of the industry, as more groups focused on connecting their stations and achieving every economy of scale that they could. In 2000, LIN Television, owners of 10 stations and operators of 4 LMAs, examined a different method of concentration, planning centralized control of video servers located at its various stations, with information transmitted to the server overnight (Bowser 2000b). E.W. Scripps was the black sheep of the station groups, generally letting individual stations decide on their technology; however, even they were working towards centralized storage and archiving, and were also investigating internet applications that would benefit all of the stations in the group (Bowser 2000a).

A 2001 article in *Broadcasting & Cable* set forth the thinking behind centralcasting in the digital environment, emphasizing that many station groups were looking into the model because "turning an investment in digital technology into a way to cut operational costs is not only desired, it's a must." In order to accomplish this, "station groups need to look at what areas can be combined without having an impact on the local flavor of their broadcasts," according to Sundance Digital president Robert C. Johnson. For the Ackerly group, the benefit came from making the investment in digital broadcasting technology once, and then using it to centralcast multiple stations (Kerschbaumer 2001). Another example of multi-channel digital efforts in 2001 was WCYB in Bristol, VA. The station was an NBC affiliate which also operated the local WB affiliate, a Paxson channel, and a weather channel in its digital bandwidth. The NBC and WB channels were fully automated; before installation of a $150,000 system it took eight operators to run the NBC affiliate; after, it took two to oversee all four channels (Grotticelli 2001a).

In 2002, other groups followed Ackerly's lead and became centralcasters, including Emmis Communications, which operated a centralcasting hub from Orlando's WKCF which provided programming to three Fox affiliates and one WB affiliate. One of these, WALA, built a new facility without a master control, saving $1 million in capital. Emmis claimed that the benefit was not staff reduction, but improved quality and accuracy since the workload is shifted forward by up to 24 hours (Kerschbaumer 2002c). Network stations employed the model as well, with NBC investing $10 million to create a centralcasting operation with hubs in New York, Los Angeles, and Miami.[96] Each operator was given responsibility for monitoring up to four streams

[96] The Miami hub has 12 operators and spokes in Raleigh, Dallas, Birmingham, AL, and Miami; the New York hub has 17 operators and spokes in Philadelphia, New York, Columbus OH, Providence, Washington, and Hartford CT; The Los Angeles hub has nine operators and spokes in San Diego and Los Angeles.

of programming, and local stations could still override the feed for breaking news (Kerschbaumer 2002a).

Centralcasting and hubbing have become two of the dominant models for multi-channel operation in the present day television broadcasting industry. While these models offer seemingly vital cost savings and efficiencies to station owners, at the same time they jeopardize the fundamental "localness" of television stations. One of the major locations where localness resides is in the news content of these stations, and during this time period news, too, found profit in consolidation.

3.5.2 ParkerVision and Newsroom Automation

The very nature of automation was changing in 2002, according to an article in *Broadcasting & Cable.* "Where automation once meant robotic cameras, it is now best represented by the changing newsroom: automatic graphic systems based on templates, automatic ingesting video servers, and newsroom systems that can control it all," making it possible to merge previously separate jobs into one. The article continues "one of the major things driving automation growth is consolidation, as groups follow the network model of sharing content among stations" (Kerschbaumer 2002b). In 2001, early adopter The Ackerly Group installed 15 of these ParkerVision control systems at 12 of its stations in a $5.5 million deal. As a direct result, short months later WWTI-TV in Watertown, NY raised its weekly total of news programming from 10 half-hours a week to 39. In an article about the deal, ParkerVision President Richard Sisisky enthused "the stations are faced with all of the challenges of transitioning to digital and purchasing a ParkerVision system represented an affordable way to move to a fully digital operation, as opposed to acquiring separate digital production components." Further, he claimed,

"it allows markets the size of Watertown efficiencies and ways to generate more news content and more revenue from additional advertising" (Grotticelli 2001b). Another example of ParkerVision success was a Fox/UPN duopoly in Jacksonville, FL, WAWS/WTEV, which was able to expand its 4pm newscast to an hour while eliminating nine part-time technicians (Whitney 2002). BBBB Gannett employed a part of the ParkerVision system, the CameraMan, which allowed Portland, ME station WCSH to control cameras located at sister station WLBZ, Bangor in a shared newscast (Dickson 2001).

Originally, ParkerVision targeted mainly small market stations with their automated news solution, but in 2002, they expanded their focus with the release of the PVTV News CR4000, a $459, 995 system designed to reduce the live production crew for a newscast down to a single operator (Kerschbaumer 2002d). In an advertisement, ParkerVision claimed to be "changing the economics of TV News – one station at a time" (ParkerVision 2002). Indeed, manufacturers at the time saw three potential areas for automation development: "increased content localization, improved efficiencies, and turnkey systems for smaller stations" (Kerschbaumer 2002e, 30). The ParkerVision product line offered possibilities in all of these areas. It added two layers of keying, 13 additional inputs, and additional audio compression features to earlier models (Whitney 2002b). ParkerVision was apparently doing something right, as the company's video division was purchased by Thompson Broadcast and Media Solutions for $14 million in 2004. Sundance Digital released a competing product designed to interface with a station's current hardware, rather than buying a whole system from top to bottom as in the ParkerVision system. The NewsLink 2.0 was aimed at station owners who wanted to reduce headcount without the capital investment of a whole new system, and was priced at around $40,000 in 2004 (Kerschbaumer 2004a).

The newsroom environment as a whole changed during this time period as well, attempting to meet the challenge of "managing multiple streams of news content," including a stream (or streams, in the case of LMAs or duopolies) for the local market and another stream for other markets within the station group or affiliate network. Newsrooms were expected to create more programming while still cutting budgets, usually by eliminating labor costs (Kerschbaumer 2003b). Interactivity among stations within a group was becoming a key means of cost control, and manufacturers were stepping up with products to assist in that goal. Proximity created the Artbox to solve this specific problem, which takes input from various television graphics systems, automatically uploading them to a central storage location and providing thumbnail graphics to producers. Once selected, the graphics are converted into the new desired format and delivered (Kerschbaumer 2004b). Historically speaking, graphics systems were one of the first locations for automation; as early as 1993, Chyron was offering an "intelligent interface" which would allow script information to be automatically converted into graphics information built upon a template, a function which quickly became standard among graphics devices. In 2002, Liberty Corporation planned to install a graphics system based on templates stored in a centralized server and accessed by its 15 stations. VP of Operations Guy Hempel observed "There are so many things in a TV station that we do 15 times in 15 stations, and we shouldn't have to do that and should be freed to do stuff that is unique locally" (Whitney 2002a). Two years later, Pinnacle systems graphics product manager Caren Anhder observed that automated graphics were key to the new newsroom. "Coupling template-based graphics with a clip system gives graphics novices, such as TV news reporters or producers, the ability to place information in a graphic without changing the look." Newsrooms without such a system would require "four or five artists. Those who have it need only one or two. The goal: More graphics with fewer

graphics personnel" (Kerschbaumer 2004d). Media General followed this trend in 2004, looking closely at centralized graphics operations modeled after NBC and Belo operations. "Centralized graphics facilities are viewed as a way to have a group's best artists working on the most important projects. They also have chance to shape the look of all the stations in the group, not just one facility" (Kerschbaumer 2004e). Economies of scale come into play in equipment purchases, training, and potential staff reductions with the elimination of graphic artists at the individual stations (Whitney 2002a).

3.5.3 Files instead of Footage

A mental shift occurred with the impending switch to digital and the development of so many computer video hybrid technologies: manufacturers and broadcasters began to think of video in terms of files rather than feeds, files which could be stored centrally and moved around in a variety of ways. This new way of thinking was an additional impulse towards centralization, as computer files are connotatively ephemeral, whereas videotape is a physical, relatively immobile format. In 2001 the Pathfire Digital Media Gateway, a system initially developed for NBC's News Channel service,[97] was adopted by Sinclair Broadcast Group to distribute commercials, promotional spots, stock footage, and syndicated programming among its stations. The system uses satellite Internet-Protocol delivery to transfer files to dedicated servers at each station. Sinclair pays a set fee for the system and an additional fee per file sent. Quorom Broadcasting is the other station-group that uses the service, and networks NBC and ABC use it for their newsfeeds. Sinclair sees the biggest benefit to come in syndicated programming, where instead

[97] A newsfeed distributed to NBC affiliates, which prior to this time was sent at regular intervals via satellite.

of 20 people in 20 markets making individual recordings of a given show, the show will simply appear on the server when it is needed for air (Grotticelli 2001c).

Many newsrooms were ready to turn away from videotape as changing workflows in news operations, centered upon the use of servers for editing and playback, demanded new video formats, specifically Sony's XDCAM optical disk and Panasonic's P2 solid-state-memory system. Both formats store video as files, which enables the video to be dragged onto a nonlinear system rather than having to be digitized (Kerschbaumer 2004f). Both products were developed in response to the desire for faster ingest speeds, which had maxed out at 4x real-time. Sony's optical disk is faster, and less expensive than Panasonic's solid-state design; however, the lack of moving parts in the Panasonic system is a definite plus possibly worth the cost up front (Kerschbaumer 2004c). In addition, "The Sony format is expected to allow users in the field to transmit low-res "proxy" video back to a station at up to 30 times real-time speed" giving editors at the station a chance to pre-edit the proxy footage so that only the necessary full quality video needs to be downloaded into the system for the final edit (Kerschbaumer 2003c). ABC stations were also looking at the technology in 2004, since all of their stations edited on nonlinear systems, and all of the stations used tapeless master control facilities (Dickson 2004b).

There can be no question that the ownership and organizational structures present in television broadcasting today were made possible by the technologies developed during the late 1990s and early 2000s, and that those technologies have their roots in earlier decisions made as the industry developed. On-air and newsroom automation have become the standards, and groups now think it terms of many stations instead of one, and multiple channels per station instead of one. Staff reduction is a key desire, and redundancies of any kind are met with technologies following the guiding principle of staff reduction to combine those tasks. Without the technology

to support these goals, such structures would not offer the sorts of economies of scale that make them so appealing; and, of course, without these goals in mind, the technologies themselves would not have been developed. Once again, technology is both cause and effect, making possible many of these news forms of organization and workflows, and in turn being invented specifically to fill those needs in service of continuing profit. Ultimately, since the beginning of the industry broadcast television technology has consistently embodied the guiding principles placed upon it by the economic concerns at the heart of the medium.

3.6 TRACKING THE THREE

This chapter closes with an examination of the three exemplar station groups and the technologies and models they have embraced during the last two decades. Each group has met the demands of changing technologies and economics in a slightly different way, although each has conformed to the guiding principles of centralization and concentration. Sinclair Broadcasting, in particular, has embraced centralization and multi-channel operation in ways that have offered new potentials for the entire industry.

3.6.1 Cox Broadcasting

Cox broadcasting has been early to experiment with new equipment when it became available, but has generally been patient when it comes to large scale purchases or conversions. Affiliate station KAME-TV was one of the few in the country to use video servers as early as 1996 (Dickson 1996b). Also in 1996, Cox agreed to purchase a single $13 million DTV setup from

Sony, to be located at WSB-TV in Atlanta and to be completed by 1998 (Dickson 1996d). Cox added a second digital facility in 1999 at Oakland's KTVU-TV, and planned to convert four more stations in the next year.

In 2001, Cox was looking for ways to link its geographically separate stations, having already combined in-market duopolies and LMAs, specifically solutions for traffic, transmission, and automation. In addition, they were moving slowly on new technology, testing different systems at different stations before making a group commitment (Bowser 2001). In 2002, Cox decided to solve one geographical problem by relocating the studio for KICU in San Jose to the KTVU facility in Oakland. The two stations use separate Grass Valley switchers, and share one as backup; they also use Grass Valley Profile servers for playback ("KICU-TV and KTVU-TV" 2002). The company's switch to digital was being made only as existing technology was in need of replacement. In early 2002, Cox's studios were only 15-20% digital, and as they looked to expand they also continued to look at centralcasting (Wind 2002).

Finally, in 2003, Cox Broadcasting committed to a multiple station solution, making a deal with Avid for newsroom computers for six stations. The company also inked deals for digital transmitters and antennas for all the stations in the group (Kerschbaumer 2003a). The following year, Cox arranged another group buy, acquiring Panasonic's solid state P2 camcorders for seven of its stations ("Cox Favors Solid-state" 2004).

Historically proficient at using its group assets to maximum benefit, Cox broadcasting's most recent effort is to apply the clustering model to its stations surrounding the Pittsburgh market. Early decisions centralized management functions, and it is anticipated that the three stations will centralcast from Pittsburgh and share news content among their departments.

3.6.2 Hearst-Argyle Television

In 1995, Hearst made one of its first group deals, buying Avid NewsView systems for three of its stations (Dickson 1995). Apparently enamored with group purchasing, in 1999 Hearst-Argyle acquired the Associate Press' ENPS newsroom computer system for six of its stations and its Washington news bureau, bringing the total number of Hearst-Argyle stations with the product to 13 (Dickson and Anderson 1999). The following year, the group outfitted seven more stations with DVCPRO, purchasing almost 330 pieces of equipment including camcorders, laptop editors, studio VTRs, and edit controllers to replace older Sony Betacam equipment in the news departments (Dickson 2000).

By 2002, Hearst-Argyle was implementing a centralcasting model at its stations in Boston and Manchester, NH. A central automation computer at WCVB controlled Pinnacle video servers at both locations, with all materials being stored at a central server at WCVB. When needed, the central server would feed commercials and other materials to the Pinnacle server at WMUR in Manchester automatically over a DS-3 network. The advantage, according to Hearst-Argyle execs, is that the stations are in the same region and share the same network affiliation, so many of their practices are identical ("Centralcasting Facility Profile" 2002).

In 2005, Hearst-Argyle upgraded the traffic systems at all 26 of its television stations, providing instant access to group revenue information instantly. Additional enhancements in scheduling and tracking of spots allowed the group to keep better track of available inventory group wide, allowing for more efficient operation (Keefe 2005).

Hearst-Argyle has made a practice of group purchasing, and serves as a representative model for the entire industry when it comes to centralization efforts. Although not a huge risk-

taker, Hearst-Argyle effectively leverages the economies of scale offered by its size whenever possible.

3.6.3 Sinclair Broadcasting, Inc.

Sinclair's response to the possibilities of high definition television was representative of many broadcasters: they saw HDTV as relatively unprofitable, and preferred to consider multicasting in the available spectrum (Dickson 1998). As a group, Sinclair has been quick to see the potential for multichannel programming, and it is no surprise that such a focus extends into the digital plans as well.

Sinclair quickly grasped the possibilities that new technologies afforded for consolidating LMA operations. In 1996, they were the first to purchase the Panasonic DVCPro SmartCart system, a robotic recording and playback system. They used it in conjunction with a Profile video server to combine the operations of WZTV and WXMT in Nashville (Dickson 1996c). One year later, Sinclair worked with Columbine JDS to develop a server based plan to automate the operations of WPGH and WPTT in Pittsburgh. They worked with Columbine to write special master control automation software that controlled a video server and a robotic retrieval system for computer storage tapes. When a spot was needed, the robot would load the appropriate tape and copy the needed file onto the video server for playback. This allowed the stations to keep over 100 hours of media in near-line storage, ready for automatic use (Suydam 1997). Conceptually similar to the WZTV operation, the WPGH setup chose computer storage of files in place of videotape storage of audio and video.

Sinclair shut down news operations at stations in Winston-Salem, Tallahassee, and St. Louis in the years previous to 2002; it reversed that trend in late 2002 when it instituted "News

Central," launching news in 30 markets where its stations were currently without. CEO David Smith:

> We developed a model, using current technology, that reduces or eliminates repetitive efforts and resources that can be produced from a centralized location [at Sinclair Headquarters in Hunt Valley, MD]…. With lower per-station costs, even the smaller markets are able to support a profitable yet high-quality newscast.

The studios and News Central shared a branded look which would ordinarily be out of reach in a smaller market, but is possible through the economy of scale. Sinclair anticipated expanding the service to its stations that already had news (Trigoboff 2002b).

In 2004, Sinclair Broadcasting make a large purchase of Avid news-production gear, including the iNews automation system, Unity server, and NewsCutter nonlinear editor to service seven new news operations and four existing ones (Dickson 2004a). The group also put together a test HD facility at KOVR in Stockton, CA, made up of a small HD server, Miranda Imagestore logo inserter, upconverter, and the ability to switch baseband HD to insert local commercials. 'We're trying to come up with a cost-effective way for stations to air HD commercials,' said Vice President of Engineering and Operations Del Parks (Dickson 2004).

Sinclair effectively leveraged "I.T.-based news production" in the creation of NewsCentral. The benefits of this model are many, according to an advertising supplement in *Broadcasting & Cable*: direct savings in tape stock, equipment maintenance, and labor; less hardware than analog work flows, easy repurposing of materials, and the workers who remain need fewer specialized skills. In the NewsCentral model, local stations gather video and send it via a Wide Area Network to Baltimore, where it is edited and sent back to the stations as finished pieces. Weather segments are prerecorded for each station and fed via WAN to them ahead of air time. Promos, commercials, and other video are distributed the same way throughout the day. Up

to 60% of the newscast is provided from NewsCentral, with the rest produced locally using an identical graphics template. Sinclair estimated it had cut news production costs by 50% ("Cashing In On the News" 2003).

The benefit to Sinclair of conceptualizing video and audio as files is clear, enabling them to move data around between stations at the push of a button in service of either news or programming operations. This, in turn, is what makes the news central model both possible and profitable, centralizing the newsroom operations for a plethora of television stations in one central location. This level of news centralization, when combined with the level of on-air automation and centralization that Sinclair has adopted, serves to make the group one of the most efficiently run organizations in the industry.

4.0 THE ECONOMICS OF CENTRALIZATION AND THE CHANGED STRUCTURE OF LOCAL TELEVISION BROADCASTING

The preceding chapters have described the impact of a multiplicity of changes on the general practices and products of local television stations, specifically targeting the areas of centralization of ownership and operations and the conflicts inherent in the dichotomous relationship of economics and the public interest as expressed in the production of news and public affairs programming. Chapter One demonstrated the historical relationship between changing ownership structures, business practices, and journalistic practices from the earliest days of print news to the advent of television broadcasting. Chapter Two detailed the antagonism between public interest and private ownership in broadcasting and its impact on the structure of television broadcasting, as expressed in the regulation and deregulation of the broadcast media. The technological developments which served to both contribute to centralization of ownership and operation and which directly transformed the practices of television news were elaborated in Chapter Three.

This chapter builds off preceding chapters by examining how the economics of broadcasting and the practices of local television stations have changed in response to the new structural forms resulting from the institutional drift towards centralization, policy decisions, and technological innovation. In doing so, the chapter will analyze two important characteristics of local television broadcasting in the present day. First, the industry is marked by centralization at

the local level as a result of the fundamental economics of the industry, the specific economic motivations of station groups, and changing governmental regulation. Second, this centralized ownership structure has resulted in specific changes in practice at the local level, as group owners take advantage of their size to invoke economies of scale.

4.1 THE ECONOMIC AND REGULATORY ENVIRONMENT OF LOCAL TELEVISION OWNERSHIP

As a prelude to investigating the characteristics described above, it is helpful to briefly review the regulatory concerns, ownership options, and broad economic issues which define local television broadcasting. As discussed in Chapter Two, the regulatory vision of television broadcasting in the United States encompassed a variety of viewpoints that changed with time and circumstance. However, two specific and often contradictory facts remained true from the days of Hoover forward: first, that broadcasting is a commercial medium, where local stations are expected to act in ways that will increase profit margins in an atmosphere of competition appropriate to a free market ideal; and second, that broadcasters use a valuable and scarce public resource, the electromagnetic spectrum, in order to meet their commercial goals, and are in turn expected to offer something of value in exchange for their free rights to the ether. This second fact refers to operation in the constantly reinterpreted “public interest.” This notion of the public interest was refined by the Davis Amendment to the Radio Act of 1927, which initiated a plan to arrange stations geographically to ensure that all local areas were equally served. This localism principle was buttressed by the FCC’s later decision to pursue a local television broadcasting

system comprised of a high number of lower-powered stations instead of a regional system of fewer high-power stations.

In comparative evaluations of license applications, the FCC has used several criteria to differentiate between applicants, although in a generally inconsistent fashion. Among these considerations could again be found the commitment to localism, demonstrated by repeated decisions in favor of applicants headquartered in the market of their desired station and applicants who showed significant involvement in that community (Sherman 1995, 167-169). The FCC's somewhat idealistic notion of locally owned stations providing service to their local communities was embodied in family ownership of television stations during the early days of the medium. Even then such arrangements were rare, and as television broadcasting developed, such models of ownership largely disappeared. Still, importantly, the burden of serving a particular local public has remained a part of the regulatory expectations of broadcast station owners to act in the public interest. The localism that has long underwritten regulatory understandings of the public interest has been subverted in many ways by the new organizational structures that this chapter will describe.

In the modern day media environment, there are three types of television station owners: stand-alone operations, broadcast groups, and multinational conglomerates. The stand-alone operation is usually structured as a corporate entity in order to protect the owners, but operates in a fashion similar to the family-owned stations of the past, confined to a single market and arguably best representing the localism principle. Broadcasting groups are the next layer of ownership, and the variety with which this project is most concerned. These are generally corporations which own many broadcast outlets, and for whom broadcasting is the main line of business. They may also be part of a larger conglomerate as in the case of Hearst-Argyle

Television, which operates as a separate company but is owned wholly by Hearst, Inc. Multinational conglomerates include owners of broadcast networks, which in turn own individual television stations and as a result of their size and resources are often at the forefront of the structural development of the industry (Sherman 1995, 176-181).

Television has long been a profitable enterprise for station owners. Successful businesses generally average between 5% and 10% profit margins; television stations are often able to deliver several times that number. For example, in 1985, a typical station returned 26% on investment. By 1990, that number had dropped to 10%, but stations still generally outperformed the market. The most profitable stations historically were those owned by the networks and by the largest station groups; these stations returned over 40% on investment in 1985 (Sherman 1995). Further evidence of the profit potential of the industry is offered by a 1982 study which examined the profitability of broadcast divisions of conglomerates with non-broadcast holdings. In a study of 32 publicly-traded companies, researchers discovered that the broadcast segment of the conglomerate generated a larger return relative to its assets than that of the corporation as a whole more than 2/3 of the time. Five of these companies (CBS, Chris-Craft, Storer, Taft, and Wometco) had between 2 and 5 times the return expected. Four others (General Tire, Liberty, Outlet, and Westinghouse) received in excess of five times the return that the assets contributed would have been expected to generate. General Tire, notably, invested only 5% of its total assets into its broadcast operations, but the returns from those operations accounted for 30% of the company's total income (Foley and Foley 1982, 677-680).

The demonstrated profitability of television logically inspired station groups to acquire even more stations, and the resulting tensions among regulatory restrictions, public interest expectations, and the pursuit of constant growth and increased profit has created a tangled path

of structural change in local television broadcasting. The end result is an industry which is today marked by extensive concentration of ownership and control in television markets across the United States.

4.2 SPIRALING INWARD: THE CENTRALIZING TREND

The concentration of local television ownership is the result of interactions among station owners and government regulators, and was both permitted and abetted by technological developments and structural changes which allowed for an increasing centralization of operations. To demonstrate how these factors combined to create this level of concentration, this section will detail the basic economics of station structure, purchases, sales and trades; describe the interaction of regulation and valuation and the transactions which result from it; and offer examples to support the claim of centralizing momentum in the industry.

According to Ozanich and Wirth, since the 1960s mergers and acquisitions in the broadcast industry have been influenced by larger economic trends, changes in valuation, and increases in capital available for expansion. Four specific factors have propelled these mergers and acquisitions:

> (1) the growth of the media; (2) significant barriers to entry in many media markets, which increases interest in existing firms with established market share and cash flow; (3) relaxation of ownership limits, which have encouraged investment in the broadcast and cable industries; and (4) tax advantages for buyers. (Albarran and Dimmick 1996, 42)

Continued expansion of television broadcasting has resulted in increased profits, making stations a more attractive investment for those with the means to acquire them. For those without the means, options for financing such as general partnerships, limited partnerships, and public stock

issues have made it easier for both individuals and corporations to acquire stations, although the risks and lessened tax advantages of partnerships have made the corporation the dominant ownership model (Sherman 1995, 175-176).[98] The trend over time to loosen restrictions on multiple- and cross- ownership demonstrated in Chapter Two has also contributed to the growth of groups by both allowing them to expand their holdings and by making it more difficult for smaller groups to compete.

A representative example of this difficulty is Kelly Broadcasting, a family-owned station group whose third generation of owners held two television stations and a Local Marketing Agreement in 1998.[99] In debt from a recent consolidation of ownership, Kelly was suddenly faced with an inability to acquire programming, as large station groups negotiated deals with syndicators for many markets at a time. "We had to get big or get out, and we were not in a position to get big" said Greg Kelly, describing the situation. As a result, the group sold one station and the LMA to Hearst-Argyle Television and the other station to Meredith Broadcasting at a sizeable profit (Higgins 1998).

The increasing size and power of station groups as they rushed to meet each new maximum limit set by the FCC, in combination with the industry's significant barriers to new entry, contributed greatly to the centralizing momentum in ownership of television stations. Statistics drawn from yearly industry indexes illustrate this centralization, as group ownership of commercial television stations increased steadily from 40.1% in 1955 to 73.3% in 1983 (1984,

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[98] Partnerships spread the cost of acquisition over a larger number of individuals, but place the personal assets of those involved at risk. Taxes are assessed at the individual's tax rate. Corporations are legal entities in their own right, protecting the assets of those involved with them, and are ultimately taxed at a lower rate. Another ownership option which is virtually unused in present day television broadcasting is the sole proprietorship, where one individual holds full ownership of the station without the asset protection afforded by a corporation or the benefit of monies from other investors. Barry L. Sherman, *Telecommunications Management: Broadcasting/Cable and the New Technologies* (New York: McGraw-Hill, Inc., 1995), 175-176.

[99] A Local Marketing Agreement is an organizational structure which allows a group to control a station it does not own. This will be explained in greater detail later in the chapter.

60). The process of centralization continued under deregulation as well. In a study tracing shifts in small market media ownership during broadcast deregulation, Todd Chambers examined 52 metropolitan statistical areas, ranking from the 222nd largest such area in the country to the 273rd largest. One of the changes he demonstrated was a comprehensive transition from local ownership to absentee ownership. In 1972, 60 owners accounted for 62 stations in those markets; 43 of them were absentee owners, and 17 were local. Twenty-six years later in 1998, 107 owners accounted for 112 stations; however, the number of local owners had increased by only four to 21, while the number of absentee owners had jumped to 87.[100] As an overall rule, the study found that the number of total media outlets in each market increased during the time period, with an average reduction of one owner per market (Chambers 2003, 48-50, 55).

4.2.1 Buying, Selling, Trafficking, and Valuing Television Stations

Logically, one key component of this centralizing momentum in television station ownership is the actual buying and selling of television stations. This section will examine that process, which includes the participation of station brokers, regulatory issues, and questions of valuation. This section will also demonstrate the impact of regulatory changes on station valuation, and offer perspective on the growing gap between the largest groups and the rest of the industry in demonstration of this centralizing momentum.

There are two potential motives behind an entity's decision to purchase a television station: to profit by operating the station, or to profit by reselling the station. The choice to profit

[100] A more dramatic shift in the same direction occurred in both newspaper ownership and radio ownership during the same time period. Additional statistics: Todd Chambers, "Structural Changes in Small Media Markets," *The Journal of Media Economics* 16, no. 1 (2003): 50.

by operating the station usually involves the expectation of increasing revenues through more efficient operation, which traditionally leads to centralization of operations and its associated economies of scale. The choice to profit by resale is most often an effort to improve the station in the short term, and then take the tax-advantaged capital gain from quickly selling the improved station at a profit. This latter case has been one of special concern for the FCC, which in the early 1960s instituted an "anti-trafficking" rule requiring an owner to possess a station for three years before it could be sold or traded to another owner. The objection to the quick sale of stations was inspired by public interest concerns: companies looking to quickly resell would be less likely to commit to serving their community's needs (Bates 1989, 317).[101] In addition, regulations limiting ownership also served to stem the flow of stations changing hands by reducing the pool of potential buyers.

Whether investing for the long term or attempting to quickly "flip" a station, a crucial factor in the transaction process is determining the value of a given station, a requirement that is often fulfilled by a broker. Station brokers have been part of the business of station transactions since 1946, with duties sometimes including arranging financing, often scouting out potential acquisitions for the station groups they represent, and almost always determining the value of broadcast stations.[102] Prior to the 1960s, brokers generally calculated a sale price by multiplying the annual gross revenue of the station by 2.5, or by estimating a sale price as a multiple of the

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[101] Bates tested this assumption by comparing growth rates of long and short term held television stations for evidence of the short-term holders acting differently. He found no such connection. Benjamin J. Bates, "Deregulation and Station Trafficking," *Journal of Broadcasting & Electronic Media* 33, no. 3 (1989). However, this evidence is far from decisive, as it measures only growth rates and offers no evaluation of the avowed public service efforts by different owners. While illuminative, it is ultimately inconclusive.

[102] The first media brokers were Howard Stark and the partnership of Jim Blackburn and Ray Hamilton. By 1962, Blackburn and Hamilton were the heads of separate brokerage companies and Richard Crisler had started one as well, and these four individuals were responsible for all but one of the broker-assisted sales of television stations in 1960 and 1961, amounting to 18 stations and $62.1 million. All four brokers also acted as middlemen in the sale of radio stations. "The Station Brokers: Middlemen to TV's Millions," *Television Magazine,* April 1962, 76-77, 84.

net profit before taxes. A new formula became the popular choice in the early 1960s, one based upon a multiple of "cash flow," defined as the total of a station's net profit after depreciation and federal income tax, plus the depreciation amount. Even at this early time, however, brokers differed on the amount of the multiple, setting five times cash flow as an ideal, but generally accepting seven times cash flow and acknowledging that 10 times cash flow was the top limit in the early 1960s ("The Station Brokers" 1962, 79).[103]

In addition to this financial formula based on cash flow, there are intangible assets which influence the value and resulting selling price of television stations. Studies by Levin examining television station sales between 1949 and 1970 determined that audience size, television households in the market, station age, and network affiliation were also useful determinants for a station's value. Later studies confirmed that the brokers' initial areas of focus, estimated revenue and cash flow, were also important factors in valuation, and a final study in 1976 concluded that actual revenue figures were more relevant than estimated figures. The last study affirmed two of Levin's earlier beliefs, stating that network affiliation was desirable because it carried reduced risk, and maintained that younger stations were more valuable because their lack of history allowed for easier programming changes (Bates 1988, 6; Marcus 1986, 12).

Changes in FCC regulations altered the environment for station valuation during the first phase of deregulation. In 1982, the FCC changed its anti-trafficking rule, allowing owners who did not receive their license through a comparative hearing process (those who acquired the station from a previous owner, rather than a new application) to sell stations without a minimum

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[103] Even though it is the dominant means by which the industry computes and discusses station valuation, multiples are far from perfect. Benjamin Bates cautions that the use of multiples assumes a great number of things, including consistency in profits over time, which makes this formula somewhat unpredictable. He offers many other approaches to station valuation in addition to multiples. See: Benjamin J. Bates, "Valuation of Media Properties," in *Media Economics: Theory and Practice*, ed. Alison Alexander, James Owers, and Rod Carveth (Hillsdale, NJ: Lawrence Erlbaum Associates, 1993), 106-109.

holding time. Three years later, the FCC relaxed the multiple ownership restrictions as well, eliminating the regional separation of 100 miles between an entity's stations and allowing for ownership up to 12 stations whose combined maximum audience reach could not exceed 25% of the national audience (Krasnow and Shepard 1985, 20).[104] These changes inspired a reexamination of the factors involved in station valuation. Benjamin Bates analyzed station sales between 1973 and 1986 in order to determine whether these policy changes influenced station prices. Bates contradicted one finding of the 1976 study at the outset, predicting that in fact older stations would be more valuable because of dominant channel positions and a "track record" of profitability. He hypothesized that the 1982 FCC decision would increase the supply of stations, leading to a decrease in valuation, whereas the 1985 decision would increase demand and therefore increase prices. His results confirmed his initial beliefs. He noted, however, that investigation over a longer term would probably be necessary to determine the ultimate impact of deregulation on station prices (Bates 1988, 8-10, 18-20).

The fluctuation in the multiple used in station valuation confirms the influence of regulatory decisions on station trading. As Table 1 indicates, Bates' hypotheses about the deregulatory moves in 1982 and 1985 were confirmed by the 2-4 point multiple increase in 1985. Changing multiples also reflected many other industry developments, and a combination of factors accounted for the lowered multiples at the start of the 1990s. First, there was a general economic slowdown. A second factor of concern for broadcasters was the 1989 decision by WPBF-TV to become the first affiliate to pay a network for programming, reversing the economic model of network compensation to stations which dated to the start of network

[104] Audience reach is calculated based on the total number of households in the market, not on the number of households the station generally reaches. In other words, each station is counted as if it has a 100% share of the market's audience.

television. Such compensation generally accounted for 4 to 5% of a station's total revenue. WBPF's arrangement with ABC to pay the network for an affiliation was seen at the time as having the potential to depress multiples in the future (Newcomb 1989). Finally, market encroachment by cable combined with uncertainty over the future profitability of the industry in the face of new technologies combined to hold down multiples through 1993 (Foisie 1993c).

Table 2: Broadcast Multiples By Year

Year	Multiple		Year	Multiple
1983-1984	11-13		1997	14
1985	15		1998	15-18
1986	12-13		1999	13-14
1987	13		2000	13
1988	10-12		2001	12
1989	10-14		2002	12-15
1991 - 1993	8		2003	11-13
1994	8-10		2004	10-14
1995	12-15		2005	14
1996	12-16		2006	13-16

Sources: *Broadcasting, Broadcasting & Cable, Mediaweek* [105]

[105] Table information was taken from several sources. **1983-1985**:"The Method Behind the Multiples," *Broadcasting*, 13 May 1985, 56. 1986-1987: Peter Newcomb, "Negative Ratings," *Forbes*, 6 February 1989. **1988-1989**: "BFM: Taking Care of Business," *Broadcasting*, 17 April 1989, 65. **1991**: Geoffrey Foisie and Matt Stump, "Valuing the Big Three: Telcos Get Bigger.," *Broadcasting*, 19 August 1991, 19. **1992**: "Cosmos Broadcasting

In 1995, multiples rose sharply as demand outpaced supply with the addition of three new national networks, WB, UPN, and Bud Paxson's Infomall television network, which competed for station acquisitions over the succeeding three years (Brown 1998, 34-35; West and McClellan 1995). 1998's multiple increased as existing and prospective group owners responded to the FCC's new duopoly rules. The new regulations allowed one entity to own two stations in a given market as long as two conditions were met. First, only one of the two stations could be in the top 4 stations ranked by total audience share. Second, eight or more "voices" must remain in the market after the purchase, with a "voice" defined as a full power, operational, and independently owned station. The demand for stations was tempered, however, by differing expectations of the benefits of duopoly by potential sellers and buyers. The sellers focused on reduced expenses and increased selling power, and asked for multiples in the 18-20 range in many cases, similar to the multiples received by sellers of duopoly radio stations.

Potential buyers were more conservative, offering 12-13 times cash flow, unwilling to overreach because the specific benefits of the duopoly structure had yet to be proven (Higgins and McClellan 2000, 25). The 15-18 range of multiples indicated by several sales that year holds up as a meeting place for the different viewpoints. Finally, the 2002 upwards tick in multiples is attributable to another relaxation in ownership regulations by the FCC, allowing duopolies in

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Corp. To Sell," *Broadcasting*, 29 June 1992. **1993**: Geoffrey Foisie, "TV Station Logjam Begins to Break," *Broadcasting & Cable*, 26 April 1993. **1994**: Eric Schmuckler, "TV Station Values Continue to Rise," *Mediaweek*, 7 February 1994. **1995**: "Tsp TVs Go for 12 Times Cash Flow," *Broadcasting & Cable*, 24 April 1995, Don West and Steve McClellan, "What's Going on (Interview with Steven Rattner, Part 1)," *Broadcasting & Cable*, 18 September 1995. **1996**: Elizabeth A. Rathbun, "Tribune's Renaissance," *Broadcasting*, 8 July 1996. BBBB **199**7: Sara Brown, "Living Large in 1997," *Broadcasting & Cable*, 3 February 1998, 34-35. **1998**: Sara Brown, "Hearst-Argyle Picks up Pulitzer," *Broadcasting & Cable*, 1 June 1998. **1999**: Elizabeth A. Rathbun, "The King of KRON," *Broadcasting & Cable*, 22 November 1999, 26. **2000**: Elizabeth A. Rathbun, "Liberty Exits Insurance," *Broadcasting & Cable*, 26 June 2000. **2001**: John M. Higgins, "Are TV Values Winding Down?" *Broadcasting & Cable*, 15 October 2001, 30. **2002**: Dan Trigoboff, "Less Is More," *Broadcasting & Cable*, 8 April 2002. AAAA **2003**: John M. Higgins, "Acme's Got No Debt," *Broadcasting & Cable*, 6 January 2003. **2004**: Miller, "On Hold: Rankings Change Little as Regulatory Uncertainty Keeps Station Trading in Neutral." **2005**: John M. Higgins, "Are They Worth It?" *Broadcasting & Cable*, 12 September 2005. **2006**: John M. Higgins, "Nice Price," *Broadcasting & Cable*, 20 February 2006.

some markets where less than eight voices would remain, and in anticipation of additional relaxations due to an FCC review process begun that year.

The changing multiples demonstrate the intricate interaction between regulation and the economics of ownership in television broadcasting. Further, the specific events which cause positive variance point always towards centralization, as each new opportunity for consolidation is met with a corresponding increase in the multiple, indicating a greater demand for stations by those who are not blocked by the many barriers to entry; namely, those station groups who are already in the game.

The centralizing momentum on the whole is perhaps rendered most clear when considering the purchase of entire station groups, rather than single television stations. Howard observed that between 1995 and 1997, 40 existing groups were absorbed through mergers and acquisitions and only 20 new groups entered the industry, resulting in a lower number of groups and a higher number of stations per owner. The newest groups typically only owned a minimal number of stations (1997, 26-27). These mergers and acquisitions consolidated power in the hands of the biggest owners. In 1998, the top 25 station groups owned or controlled 36% of commercial television stations, a 3% increase from 1997 and a dramatic jump from 25% in 1996 (Brown 1998a). Table 2 shows the top 15 station groups in December 2005 and the corresponding mergers and acquisitions of other groups between 1995 and 2005, and also includes ABC's merger with Capital Cities in 1985.

Table 3: Station Groups Buying Station Groups

Group	FCC%	Total%	Group Acquired/ Merged
1 Viacom	38.90	43.35	Westinghouse (1997), UPN (1996)
2 Fox	38.27	44.97	Chris-Craft (2001), New World (1996)
3 NBC Universal	33.99	39.08	Universal (2003), Telemundo (2002)
4 Paxson	31.59	63.18	
5 Tribune	30.24	40.58	Times-Mirror (2000), Renaissance (1997)
6 ABC	23.55	23.79	Capital Cities (1985)
7 Univision	22.88	43.90	USA Broadcasting (2001)
8 Gannett	17.89	18.06	Multimedia (1995)
9 Trinity	17.10	34.20	
10 Hearst-Argyle	16.35	17.67	Pulitzer (1998), Hearst/Argyle Merge (1997)
11 E.W. Scripps	14.14	22.09	
12 Belo Corp.	13.26	13.98	Providence Journal (1996)
13 Sinclair	12.82	22.58	Heritage (1998), MaxMedia (1998), Sullivan (1998)
14 Cox	10.13	10.26	
15 Clear Channel	8.68	12.58	Ackerly (2002)

Source: *Broadcasting & Cable* [106]

The data in the table emphasize the centralizing momentum described by Howard, as station groups maneuvered to become maximum owners under the percentage of audience calculation, as they had with each previous increase in the maximum limit. Of the top 15 groups by audience reach in April 2005, 11 had acquired or merged with other groups to increase their holdings. Of the four others, Scripps and Cox relied on slow growth over time to increase their

[106] The companies are ranked by FCC calculations of their audience coverage, which discounts UHF stations by 50%. The Total % is the Nielsen calculation which does not include this discount, considering UHF stations to have full access to the market via broadcast and cable delivery. The percentages are drawn from: Bill McConnell, "Top 25 Station Groups," *Broadcasting & Cable,* 18 April 2005. The group acquisition information was drawn from a variety of industry trade magazines.

holdings, while Paxson and Trinity relied on strategic purchases of duopolies and undervalued UHF stations which nonetheless accessed their entire markets via cable must-carry regulations. The disparity between the FCC% and the Total% figures for these two groups indicates their extensive UHF holdings.

The preceding analyses of fluctuating valuations which indicate moments of demand and the economic model used by station groups to expand their reach by purchasing other groups are illustrative of the constant trend towards centralization of ownership and the desire of station groups to push towards maximum ownership levels. As they near the maximum levels, many groups engage in "trading up," selling stations which are not part of duopolies or regional clusters to free up space and capital to acquire stations which better enhance their bottom line. Examples in 2006 of this trend included NBC's efforts to sell four stations; Raycom's plans to purchase Liberty Broadcasting and sell 12 of the acquired stations which lie outside the bounds of its regional broadcast model; and Viacom, which has sold former UPN stations in markets where it did not also own a CBS affiliate (Higgins and Romano 2006). The efforts to achieve better strategic positions in order to more fully exploit the possibilities of group ownership points to the next important factor in consolidation, the benefits to be gained by becoming a large group owner of television stations.

4.3 THE MANY BENEFITS OF BIGNESS

Economist Richard E. Caves offers a summary of the economic benefits of "bigness" in *Switching Channels.* Group ownership offers the opportunity for operating economies in management, business tasks, and sales. A second advantage can occur if the group owns several

affiliates of the same network, offering opportunities for increased cooperation as the group embraces the needs of the network. In addition, station groups have been used as the launching platform for several new startup networks. A third advantage arises in the area of programming, as station groups can either use their buying power to increase their leverage with syndicators, or instead produce their own syndicated fare for use on their group stations and for external sale. Finally, station groups can use their size to achieve economies of scale in station operation as well (Caves 2005, 214-218). This section will briefly address each of the first three areas in order to show the many economic advantages which have inspired the industry to achieve new levels of consolidation and centralization, and the resulting changes in practice and organization; station operations will receive a detailed treatment in the section that follows.

Management benefits are similar to those enjoyed by branch operations in other businesses. Centralized planning, corporate oversight, and the opportunity to leverage the knowledge and experiences of other television stations offer the large-group-owned station an advantage over one that is part of a smaller group (Marcus 1986, 11). In a 1974 study on decision making in station groups, researchers Patrick and Howard found that economic decisions were generally made at the corporate level, especially budgeting for operational and capital expenses, although specific purchasing decisions were often a shared responsibility of corporate and station personnel (1974, 467-469). The continued use of centralized planning and centralized control of economics is confirmed in the increased amount of corporate-level equipment purchases across multiple stations detailed in Chapter Three, as station groups leveraged both knowledge and buying power in the selection and purchase of equipment.

An additional example of centralized efficiency is offered by exemplar station group Hearst-Argyle Television. Hearst-Argyle has long been an industry leader in using economies of

scale in innovative ways. One of the most useful examples of this is in Hearst-Argyle's decision to implement a single brand in 1998 for all of its owned stations, distributing new graphics and sound packages across the group. The immediate cost savings achieved by using only one design effort was significant, and later efforts in promotion and improvements on the brand could be easily shared throughout the group with little local customization needed. In 2004, the group embraced this model again, using TAG Creative to develop common materials for its stations; simultaneously, the group investigated centralizing the majority of its graphics storage and production.

Hearst-Argyle was also forward-thinking in its realization that websites would play an increasingly major role in promoting such a brand. In 1999 the group purchased 24% of Internet Broadcasting Systems, and used the partnership to design a common web portal design for all of its stations. Since that time, Hearst-Argyle has used the partnership to develop additional revenue streams which combine broadcasting content and internet delivery.[107]

The second benefit of bigness described by Caves is a privileged relationship with both networks and syndicators. It is no surprise that station groups would tend towards similarity rather than diversity among their stations, and this holds true in regard to network affiliation as well. Eight of the top ten groups in Table 2 are owned by or have an ownership stake in a network operation. Hearst-Argyle, which has no ownership connection with a network, is the largest holder of ABC affiliates and the second largest holder of NBC affiliates. Gannett is the exception to the rule, possessing balanced holdings across the big three networks. For those without an ownership stake in a network, owning large numbers of network affiliates can give a

[107] Other station groups have echoed this strategy, some of whom have contracted IBS to develop the web portion. In some markets, IBS serves both the Hearst-Argyle affiliate as well as competing stations, pointing to the continued oligopolistic nature of the industry as a whole.

group the ability to decide not to clear network programs in cities where its stations are located, affecting the network's coverage and national ad rates. Group owners can use this power in negotiating station compensation, network programming, and program scheduling (Marcus 1986, 11). One notable example of this privileged network relationship existed in the mid-1990s, with Ronald Pearlman's purchase of New World Productions and SCI Television. Initially, Pearlman planned to use the SCI stations as a platform for programs produced by New World. However, in 1994 the entire group simultaneously switched affiliations to Fox in exchange for a $500 million payment and the promise that the network would buy several New World programs (McClellan 1995). At the launch of the United Paramount Network in 1994, Chris-Craft made a similar deal, agreeing to commit all six of its independent stations to affiliations with the new network, supplementing Paramount's four owned-and-operated stations ("Race to Be the Fifth" 1993).

Instead of simple affiliation agreements, some station groups have either created their own networks or acquired partial ownership of networks seeking programming clearance on their stations. The 1994 debut of the WB network provided a representative example of partial ownership, with its deal to use six independent Tribune stations as its broadcast base ("Race to Be the Fifth" 1993). In exchange, Tribune received a 12.5% initial stake in the WB network, with the option to increase that holding to 25% by 1998. In 2006, Tribune owned 22 % of the WB network, and negotiated to trade that ownership stake in exchange for 10-year affiliations for 16 of its stations when the WB and UPN merged into the new CW network (McClellan and West 1996, 22; Romano 2006). A slightly different approach to networking propelled the station group owned by Lowell "Bud" Paxson, co-founder of the Home Shopping Network. Paxson purchased struggling and primarily UHF independent TV stations in order to create a television

network dedicated to infomercials and long-form advertising, demanding must-carry obligations from cable systems to increase the stations' reach (Zier 1995).

Syndicators see station groups as an easy way to clear their programming in multiple markets with a single contract, reducing the difficulty of getting a program on the air in as many markets as possible. Examples of these sorts of deals include Fox Television, which acquired *King of Queens* for all of its owned and operated stations (O&Os) in 2003, and CBS, which did the same thing for its O&O stations in 2002, acquiring the syndicated daily *Who Wants to Be a Millionaire.* A non-network example is again offered by Tribune, which used its group power to make an early buy for *Friends* in syndication two years in advance of its syndication date.

Another advantage of group ownership is the ability to produce programming for use across the group. Tribune Entertainment produced programming for internal use and for the larger syndication market in the mid-1990s, including *Geraldo* and *Soul Train,* which were made economically viable by their guaranteed clearance on the Tribune owned stations (McClellan and West 1996, 22, 24). In 1993, E.W. Scripps followed a similar route, opening Scripps Howard Productions, and five other broadcast groups joined together to form the Partner Stations Network (PSN).[108] Both were formed to produce television programming beyond the resources of their local stations. PSN planned to focus on unscripted shows such as talk, game, reality, and relationship programs (Kaufman 1993b). All of these examples show the benefits afforded by having a guaranteed number of stations willing to clear the programming, which effectively reduces the cost of program creation for each station in the group.

[108] LIN Television, Malrite Communications, Pappas Telecasting Company, Providence Journal Broadcasting, and River City Broadcasting.

4.4 CHANGING STRUCTURES, CHANGING PRACTICES, AND ECONOMIES OF SCALE

The combination of the overall economic operation of the industry which has resulted in an increased frequency of station transactions and the specific economic benefits derived from owning many television stations has fundamentally transformed the structure of the television broadcasting industry. Centralization of ownership in the hands of fewer, larger groups has increased from year to year, and these groups pursue economies of scale in all aspects of their business in an effort to profit from their size, as demonstrated in the previous sections. The place where the station groups achieve the greatest results is in the operation of their local television stations, invoking new structures in an effort to cut costs and increase revenues. These structural changes redefine the way that local television stations operate, and as a result influence the programming that the stations offer.

Structural changes at the station group level are driven by two major efforts: reducing costs by eliminating perceived redundancies or inefficiencies, and achieving greater profits by pursuing sources of revenue complementary to over-the-air broadcasting. In both of these efforts, the ability to leverage the ownership and/or control of multiple stations is a defining factor, and the key to both is operational changes within and among stations to allow for peak operating efficiency. New structures such as Local Marketing Agreements, local stations acquiring “extra” channels on local cable systems, duopolies, centralcasting, hubbing, clustering, and multi-channel operation in the digital environment are all examples of structural opportunities for multi-station owners to invoke cost saving economies of scale and acquire new revenues. Specific models to be examined include two of the three exemplar groups, which provide excellent illustrations of leveraging group ownership and control to achieve new efficiencies.

4.4.1 Local Marketing Agreements

Local broadcasters casting about for an opportunity to both achieve economies of scale and additional streams of revenue found happiness through the use of the LMA.[109] This organizational arrangement entered radio broadcasting in early 1991, allowing for an underperforming station ("A") to lease some or all of its programming time to another station ("B"). Station B then used its personnel to sell and program the time leased from station A. This arrangement allowed station A to cut staff and operating expenses significantly while still making some revenue from the time leased to station B. Station B benefited by adding a new revenue stream at minimal cost due to the use of economies of scale (Sherman 1995, 172). The LMA was quickly embraced by both radio and television broadcasters as a new means by which to profit.

Unquestionably, Sinclair Broadcasting is the company which most effectively leveraged this organizational structure. Sinclair President David Smith described broadcasting in a 1996 interview: "There's nothing complicated about it. The business is consolidating. There are going to be fewer and fewer players. Our objective is to be one of the survivors – period, end of discussion." According to Smith, LMAs "[change] economies of scale in terms of the day-to-day operation. [They] provide us with some purchasing opportunities to buy product cheaper than we would have otherwise." These economies of scale benefit traffic, operations, and engineering departments, according to Smith (Jessell and Rathbun 1996, 28).

Sinclair's first LMA was initiated in September 1991, and consummated three months later. It began with the sale of Pittsburgh independent WPTT to its station manager, who signed

[109] LMAs are variously referred to as "Local Marketing Agreements," "Lease Management Agreements," and "Local Market Agreements," depending on the article or author.

an agreement to carry the Home Shopping Network. Simultaneously, Sinclair purchased WPGH in Pittsburgh, and three months later WPGH signed an agreement to lease 13 hours of programming time a day from WPTT (Foisie 1993a). Two years after initiating their first deal, Sinclair and Edwards (the station manager who purchased WPTT) acted to acquire separate stations from ABRY Communications and Gaylord which would allow them to again partner for LMAs in Milwaukee and Baltimore (Foisie 1993b). By 1995, Sinclair was involved in four LMAs, with its biggest acquisition just around the corner.

Sinclair's decision to merge with River City Broadcasting LP in 1996 was clearly an effort to develop new LMAs. In the deal, Sinclair arranged to acquire the 10 television stations owned by River City one station at a time, allegedly to spread out the cost of the transaction. In markets where both River City and Sinclair held stations, Sinclair sold its holdings to Glencairn, Ltd. to avoid running afoul of the FCC's prohibition against television duopolies. The parties' independence in that transaction was suspect, however, given that majority ownership of Glencairn belonged to the mother of Sinclair's controllers, David Smith and his three brothers. Carolyn C. Smith owned 97% of Glencairn in non-voting interests, which made them non-attributable by FCC standards. Coincidentally, in 1995 Sinclair "acquired options from certain stockholders of Glencairn" to purchase a 97% equity in that company for $5,000 (Rathbun 1996a).

In its 1997 annual report, Sinclair called itself a "consolidator" which "consistently demonstrated [its] ability to combine synergies of revenue and expense, economies of scale and programming leverage to effectively integrate [its] acquisitions and rapidly improve margins"(1998, 4). In that report, Sinclair confirmed its commitment to actively pursuing LMAs whenever possible. In 1999, the year in which the FCC gave the go ahead to limited duopolies in

television, the group operated 25 LMAs which were often referred to by others as “back-door duopolies.”

Sinclair was not the only station group focusing on LMAs, but it was definitely the most aggressive in its pursuit of the additional revenue streams and operating economies that the new structure offered. As the potential for relaxation of duopoly rules appeared on the horizon in the late 1990s, the group continued to pursue stations which would put them in position to convert to duopolies in as many markets as possible.

4.4.2 Extra Cable Channels: Precursor to Multicasting

The FCC’s adoption of the 1992 Cable Act further opened doors for broadcasters to implement centralized operational structures and economies of scale via regulation of the cable industry. Local stations could actively define their relationship to local cable systems by choosing a “must carry” option or a “retransmission consent” option at three year intervals. Selection of the second option required broadcasters and cable systems to negotiate an agreement permitting the cable system to use their signal. In many cases, broadcasters used this negotiation as an opportunity to acquire an “extra” station on the cable system.

A 1993 editorial on the topic offered two reasons for stations to use the additional cable-only channel for news content. First, local news had long been local stations’ best moneymaker. Second, that profit came at a hefty cost, because news operations were expensive to run. The editorial stressed that the cable channel could be used to repurpose existing news content from the main station, effectively spreading the overhead across both outlets and generating profits from each (Merrell 1993). Early adopters of this idea included Multimedia’s WBOR in Knoxville, TN, Jefferson Pilot’s WWBT in Richmond, VA, and Chronicle Publishing’s KRON-

TV in San Francisco. WBOR planned to launch its 24-hour news channel by April 1994, in partnership with Scripps Howard's cable system. KRON planned its 24-hour news channel launch in summer 1994, as did WWBT in partnership with two local cable systems. All three stations expected to start the new cable stations with minimal investment, supplementing their existing equipment and personnel only to the minimum extent necessary (Kurz 1993). This economic model mirrored one which had already been proven valid by CNN's success: take a high-fixed-cost asset (such as a news gathering operation) and use it to produce a great deal of programming; once the system is in place, adding an additional broadcast, whether on the same outlet or an additional one, costs comparatively little (Owen and Wildman 1992, 178).

The first station to actually debut the second channel was Cox Broadcasting's WPXI in Pittsburgh. In partnership with TCI, the Pittsburgh Cable News Channel (PCNC) was launched on January 1, 1994, carried on cable systems with 270,000 combined subscriptions. The cable channel simulcast and rebroadcast all of the local station's news programs, and WPXI produced the market's only 10pm newscast exclusively for PCNC. Planned expansion by 1996 would bring the channel to over 750,000 cable subscribers ("Pioneer Local All-News Channel" 1994).

In 1995 and 1996, just in time for the second round of retransmission decisions, broadcasters were again encouraged to negotiate an additional channel, this time by the WB network. In partnership with stations operated by Benedek, Smith, Retlaw, and several other station groups, the WB put together a package of programming called the WeB that local stations would use to create an LMA-style setup on their local cable systems. Local stations would negotiate the arrangement with their cable systems and sell advertising on the channel, and were further encouraged to provide local programming. The WB network provided its programming as well as syndicated programming to the channels. Under the WeB plan, cable systems received

between 7.5% and 10% of the gross advertising sales, and the network and local station split the balance (McClellan 1997).

These cable channels are significant in several ways. First, they were instituted with either no additional staff or minimal additional staff, both reinforcing the desire for maximum efficiency and setting standards of minimal costs for similar expansions by other groups. Second, this early implementation of multi-channel operation demonstrated the feasibility of such a model and previewed later structural choices for stations. Finally, the emphasis on repurposing of existing content, the choice of news as a profitable form of repurposed programming, and the addition of new revenue streams for the local station would figure strongly in decisions on structure and content from this time forward.

4.4.3 Duopolies

Broadcasters broached the issue of television duopoly as early as 1992, forcing the FCC to weigh the costs and benefits of allowing UHF-UHF and UHF-VHF combinations in some markets. The economic argument for this structure was twofold. First, broadcasters claimed, the fragmentation of audience resulting from cable and satellite television necessitated multiple revenue streams in order to assure profitability; a second station in a given market would provide such assurance. Second, in medium sized markets where the addition of a new independent station wasn't economically viable, the economies of scale afforded by duopoly would allow an owner currently in the market to add one (Flint 1992b, 4). ABRY Communications offered a breakdown of the costs of station operation in the 30th market to prove the benefits of duopoly. In summary:

Table 4: ABRY Communications Duopoly Calculations

Item	One Station	Duopoly
Program License Fees	$2,500,000	$4,500,000
Production & Operations	800,000	1,000,000
Promotion & Advertising	800,000	1,200,000
Sales & Marketing	1,325,000	1,600,000
General & Administration	800,000	1,200,000

Source: (Flint 1992a)

The total expenses associated with one station amounted to $6,225,000, but an owner could operate two stations as a duopoly for only 52% more, offering a substantial cost savings to the broadcaster (Flint 1992a, 23).

In 1999, the FCC made the broadcasters' dream a reality, and as described previously allowed duopolies in any market where at least 8 "voices" would remain. At the time of this ruling, the FCC indicated that LMAs were de facto duopolies, and set a deadline of August 6, 2001 for any LMA established after November 5, 1996 to separate if it violated the new duopoly rule.[110] In January 2002, 95 combos were operating of which 75 were duopolies (McConnell 2002). As a result of the FCC's position on LMAs, many groups moved quickly to convert existing LMAs to duopolies, and started actively trading to acquire duopolies in other markets as well. At the start of 2006, Sinclair had 12 duopolies and 9 LMAs in operation, and was in a protracted legal battle over converting 4 of the LMAs to duopolies, challenging the FCC's "eight voice" test in court (McConnell 2004). One innovative duopoly effort came from Fox Television, which after purchasing the Chris-Craft station group, embarked on a strategy to establish duopolies in markets where it owned regional sports networks. Fox quickly made deals with

[110] Several exemptions were permitted in small markets for buying stations that were in bankruptcy or dark for four months, stations with total-day audience shares below a 4 and no out-of-market buyers interested in owning them, and for construction permits that were not yet built. Bill McConnell, "Duopolies: The Pair Necessities," *Broadcasting & Cable*, 21 January 2002.

Clear Channel and Viacom to establish duopolies in the hopes of being able to produce more locally oriented programming by merging the efforts of the duopoly and the sports network. In addition, Fox negotiated with syndicators to get multiple runs on both duopoly stations to create a cross-platform buy for advertisers (McConnell, et al. 2001, 5). This upset the standard exclusivity rights granted to a station with the purchase of syndicated product, but offered the syndicator larger audience numbers which would increase the sales price of barter spots included in the programs.[111] The duopoly station benefited as well by having access to syndicated content it would have been blocked from due to those exclusivity rights (Ault 2001).

The economies of scale and additional revenue streams offered by LMAs, duopolies, and multicasting with a cable channel influenced ownership trends, programming decisions, workflows and technical operations of local television stations across the country. Moreover, they created an opportunity in which to explore these new avenues of potential profit while refining their practices towards greater efficiency of operations; as Chapter Three demonstrated, these structures were both cause and effect of technical innovations which made those tasks easier. In turn, and combined with another regulatory relaxation, additional new structural arrangements to increase efficiency were rendered both possible and economically viable.

4.4.4 Clusters, Hubs, and Centralcasting

With the elimination of the rule requiring a 100-mile separation between owned stations that accompanied the duopoly legislation in 1999, the door was opened for groups to extend their

[111] Television stations often pay for syndicated programming in two ways, one direct and one indirect. First, stations usually pay a fee to the syndicator to license the program. The indirect payment is in the form of "barter" spots, which are commercials already sold by the syndicator that arrive as part of the program, and which the broadcaster airs as part of the programming. Barter decreases the license fee, but also decreases the available inventory in the program for the broadcaster to sell.

economy of scale efforts beyond the boundaries of a single market. The groups did so by centralcasting, or controlling the programming of stations in multiple markets from a central location. There are two specific kinds of centralcasting, hubbing and clustering, which differ on geographic criteria: a cluster is made up of geographically proximate stations which do not share a market and a hub serves geographically distant stations.

Whichever model is being used, hub or cluster, the ability to operate stations in multiple markets from a central location offers many levels of cost savings. The most obvious savings come from staff reduction. One master control operator can oversee the operation of several stations, given appropriate operations automation. Additional operational savings can be gained from centralized storage of programs and commercials, allowing duplicate tasks such as syndicated program recording and timing to be accomplished only once for all of the stations. Yet another layer of savings is offered by the reduction of capital monies spent on new facilities, which can be built without master control hardware installed. From an operations standpoint, centralcasting exists at the pinnacle of economy of scale savings.

Clustering offers a number of extra benefits, and Cox Broadcasting's Pittsburgh-centered cluster of NBC affiliates is an excellent example.[112] First, the three NBC stations can share a single feed of programming, which in many cases can also include regional commercials, allowing for a reduction in labor costs. Under the hub system, the stations would have to trigger different regional commercials. Second, the cluster also allows the stations to act as news bureaus for one another, offering regional news more relevant to the market than spokes on a hub might provide. Finally, the regional nature of the cluster allows for less expense in

[112] The cluster is made up of three NBC affiliates in three sequential markets, Steubenville, OH; Pittsburgh, PA; and Johnstown, PA. It is interesting to note that, although the various divisions of Cox Enterprises claim independent operation, the cable business of Cox Communications also arranged itself in regional clusters dating back to at least 1996, as shown in its annual reports.

interconnecting the stations, which often can use line of sight microwave technology in place of more expensive fiber.

Centralcasting also acts as a conceptual model for the multicast operations of digital-stations-to-be. As demonstrated in Chapter Three, since 1990 many new digital products have addressed the possibility of multi-channel operation, with automation, disk playback, and video switchers all offering multiple streams of output for the broadcaster. In turn, these technologies helped to frame broadcasters' choices about structure as they considered the benefits of multi-channel operation and the economies of scale it could provide. In 2006, on the cusp of the final switch to digital broadcasting, virtually every station operator is thinking along the lines of partial-day multicasting, providing a multiplex of at least 4 standard-definition channels out of each local station's digital bandwidth. This option offers additional revenue streams, but the challenge is how to accomplish such a task at the lowest cost possible, and centralcasting is the answer for many broadcasters.

Taken as a whole, these examples of new operating and ownership structures which exists across the television broadcasting industry illustrate the second truth of the chapter, that structure changes practice. The implementation of LMAs, acquisition of additional cable channels, and the formation of duopolies have forced changes in workflow as station groups grapple with putting economies of scale in place. LMA operations and cable channels created the need for new and more efficient workflows to utilize the second revenue stream without adding additional expense to the process. The relaxation of the duopoly prohibition took those efforts a step further, allowing station groups to physically and operationally combine television stations within a market. An increased maximum allowance for ownership of stations permitted further economies of scale, this time on a regional basis, as stations consolidated their positions in

various areas, which led to centralcasting hubs and clusters. Finally, all of these set valuable precedents for considering the transition to the multi-channel operation that most stations will employ for their digital stations.[113]

The influence of the increasingly centralized structure of local television broadcasting on operational practices is made most clear as stations approach the switch to digital television and embrace new operational and ownership structures to protect and enhance their profitability. The opportunities available to enhance the public service efforts of local television stations through multicasting are enormous. Theoretically, every local station now has the opportunity to provide four times as much programming at a drastically reduced cost per channel than the single channel it is currently operating, made possible by advances in technology and regulatory relaxation. However, as Coase pointed out in Chapter Two, broadcasters are more likely to act in their own financial interest than on the public's behalf. This truth is evidenced by the immediate use of news on an "extra" channel as inexpensive programming designed to attract and maintain an audience, rather than a public service in exchange for use of the public's airwaves which entails financial sacrifice on the part of the broadcaster.

[113] It is interesting to note that the WB network had planned to acquire "digital affiliates" in markets where they did not already have a broadcast or WeB cable affiliate, using one of the station's multi-channels to carry WB programming. UPN was planning to do the same. The new "CW" network arising from the announced merger of the WB and UPN has not specified its intentions in this regard as of February 2006.

5.0 COMMODIFYING THE PUBLIC INTEREST

> There is no suggestion here that networks or individual stations should operate as philanthropies.... But I can find nothing in the Bill of Rights or the Communications Act that says that they must increase their net profits each year, lest the Republic collapse. -- *Edward R. Murrow*[114]

The previous chapters have detailed the many ways that economics, structure, and practice have changed since the humble beginnings of the broadcast industry. Changing regulations, advancing technology, and increasingly efficient business practices and modes of organization have resulted in dramatic changes in television news. Once primarily used in fulfillment of public interest obligations, broadcast news followed the model of print news before it, becoming increasingly commodified over time.[115] In this final section, the project will illustrate the many changes wrought upon the product of local television news in response to changes in structure, interpretations of the public interest, and emergent technologies.

Harvey Levin states the overarching issue well: “Broadcast regulation has from the very outset sought to sustain a diversified and balanced program service through licensing-allocation policies geared to alter industry structure and conduct” (Levin 1969, 452). The choice to directly regulate the local stations, rather than the networks or other program providers, for instance, has

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[114] Quoted in: Lawrence K. Grossman, "Murrow Said It All in 1958," *Columbia Journalism Review* (2002).
[115] Clearly, news was used as a commodity in the hands of newspaper owners and of radio broadcasters. However, in the earliest days of television, the only reason many local station operators claimed to have newscasts was to fulfill their public service obligations.

effectively placed the burden of "public interest" squarely in the hands of the owners of local stations. However, it has generally not been in the broadcasters' direct economic interest to meet this burden by offering informational programming. In a pure marketplace scenario, there is insufficient demand for such programming, especially that involving public affairs content. The theory of "rational ignorance" suggests that the return on the time invested in consuming public affairs programming is insufficient to motivate the consumer to watch. Other types of information, such as business, consumer, and entertainment information require the consumer to experience it first-hand in order to make use of it. In the case of public affairs information, a general lack of belief in consumers' minds as to their ability to put the information to use restricts their demand for it (Hamilton 1996, 1181).[116] Because of this fact, public affairs coverage is considered a "market failure."[117]

Protracted public affairs programming was therefore largely rejected by broadcasters as a means to meet their public interest obligations, and beginning in the late 1940s many stations turned to local news to fulfill the FCC's expectation for local public interest programming. Local news broadcasts through the 1950s used on-air talent from radio stations, and were generally limited to 15 minutes at six o'clock and 10 minutes at eleven o'clock. There were no network feeds, and the resulting broadcasts were mainly a talking head occasionally supplemented with infrequent pieces of film from a syndicated news service or station photographer. The content was generally compiled from wire service copy, public relations handouts, and press releases.

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[116] This conclusion is the result of a complicated formula: "(Benefit of Candidate A versus Candidate B) x (Increase in probability that voter makes the correct decision) x (Probability vote is decisive) – (Costs of becoming informed)." In short, the consumer feels that their vote doesn't count, and as such, the effort is not worth the cost. Although the formula specifies political activity, I contend it applies equally to important local issues of public concern. James T. Hamilton, "Private Interests in 'Public Interest' Programming: An Economic Assessment of Broadcaster Incentives," *Duke Law Journal* 45, no. 6 (1996): 1182.

[117] Educational programming for children, indecent programming, and violent programming also fall into this category, the latter two because of the potential for children to view them Ibid.: 1184.

The show titles often included the sponsor's name (Kaniss 1991, 102; Marcus 1986, 92). Although sponsorship paid part of the program's costs, news in the 1940s and 1950s was almost universally a drain on station profits.

While this minimal news model was the standard for many years, the space race, beginning with the Soviet Union's successful launch of the Sputnik I orbiter in 1957, instilled a sense of worry in the country that reinforced the importance of information and educational programming in the minds of many government officials and industry leaders. CBS President Frank Stanton noted in two separate 1958 speeches the necessity for increased broadcast journalism efforts to serve the public, an ironic move considering that Stanton played a pivotal role in the economically-based elimination of Edward R. Murrow's *See It Now* that same year. In the first speech, Stanton warned "we must ourselves take a fresh look at the public interest, convenience, and necessity, never forgetting that without devotion to this basic element of our charter, we can become just another industry." In the second, Stanton positioned broadcasters as part of the overall press effort and as a public service, while acknowledging the economic aspects of the arrangement: "no matter how compelling the news may be, there simply is not enough time in a broadcast day to treat in detail the full panorama of news; not if we are to do the other jobs which we must do in order to make possible the fulfillment of our news functions" ("Survival Hinges" 1958, 36-37).

Stanton's comments, whether they were sincere or simply a public relations effort, emphasized two important industry beliefs: news was a kind of public interest programming, and such programming did not pay the bills. Westinghouse Broadcasting was determined to change that arrangement, and began the annual Conference on Local Public Broadcasting in 1957 with the dual purpose of improving public service programming and improving the bottom line in that

category. The third Conference recommended that public service programming in primetime was the best option for increasing revenue and improving stations' image with the public ("How to Make Public Service Pay" 1959). A 1959 study for Corinthian Broadcasting added support for the potential profitability of television news, finding that television news had a stronger impact on its audience than radio or newspapers. The research claimed to be impressed with the size of the television news audience and its interest in television news programming ("Why News" 1959).

In 1959, CBS News became the first "autonomous" network news division, created by the merging of the Public Affairs and News departments of the Programming division. In its 1960 annual report, CBS emphasized the increasing importance and popularity of news programming, as well as its growing potential to draw significant sponsorship (Mickelson 1998, 202). Network news in 1960 had expanded to include morning news programs and a Sunday evening broadcast. By 1961, the combination of President Kennedy's unprecedented availability to the medium and the Cuban crisis had emphasized the value of news programming at the network level, and it would continue to increase through the tumultuous social environment of the 1960s.

Local television news increased in importance along with the networks' efforts. Near the end of 1961, local television stations were expanding the length of some local news broadcasts and adding news broadcasts in other parts of the schedule. These efforts received support from viewers, who watched local news programs in increasing numbers, and from sponsors, who were highly interested in accessing those viewers. The 1963 decision by NBC and CBS to increase their evening broadcasts to 30 minutes from 15 necessitated a matching increase on the part of local television stations, resulting in an hour-long block of evening news. News broadcasts at

10pm also began to appear on independent stations in the first half of the 1960s (Kroeger 1965, 29). Even in this period of increasing news programming, however, regulators were concerned that broadcasters were not living up to their public interest obligations. Newton Minow in 1961 issued his famous statement describing the industry as a "vast wasteland," and urged broadcasters to do better in no uncertain terms: "Gentlemen, your trust accounting with your beneficiaries [the public] is overdue. Never have so few owed so much to so many." Throughout his term as FCC Chairman, Minow championed the efforts of noncommercial broadcasters. He was also responsible for regulation requiring all television sets manufactured after 1962 to have a UHF receiver as well as VHF (Barnouw 1970, 196-201). Minow's concerns would resurface a decade later, but in the meantime, there was profit to be made in news broadcasting.

A 1965 study of 167 stations offered a baseline economic analysis of the local television news industry. According to that study, 56.3% of the stations offered at least 30 minutes of local news adjacent to the network evening news. 59% of stations were making a profit from local news, 21.5% were breaking even, and 19.3% were taking a loss from their news operations. Interviews included in the study indicated that most stations still viewed the news as a public service effort at this time, and approached it as a necessary task imposed by the FCC, accepting that news was generally not expected to pay its own way (Kroeger 1965, 30-31). Broadcasters did recognize, however, that they received less tangible benefits in the form of community goodwill from their news efforts.

Another *Television Magazine* survey in 1966 confirmed the importance of local news: "prestigious, well-sponsored and widely viewed, news appears to have established itself as the bulwark of local programming, and from all indications, it will continue to grow." In 1964, news accounted for 24.9% of the average station's locally produced programming; by the time of the

survey in 1966, it had risen to 38.2% and local news accounted for fully 6.1% of the station's total on-air schedule. 59% of stations included in the survey indicated that news was their highest rated local program (Hornberger 1966, 104, 111). As the 1960s drew to a close, broadcasters were beginning to understand the profit potential of news in larger numbers.

By 1970, FCC concern about the growing trend towards profit instead of service in news broadcasting had returned in force. In a speech to the RTNDA, Commissioner Nicholas Johnson offered his views. "My thesis is a very modest and simple one," Johnson began, continuing

> Management has the power, if it wishes to exercise it, to abuse the use of this medium by serving its own economic interests and the economic interests of its friends; it has the incentive to want to do this; and it has on occasion, done it.

Johnson reinforced the point with a quote from a RTNDA Member. "The television documentary producer must fight… the pressures from advertisers and sales departments. More often than not, he has been fighting a losing battle" ("Johnson Cites News" 1970).

Johnson's concerns notwithstanding, it was during the 1970s that station managers finally and fully realized the profit value of local news. Local programs in general had an advantage over network programming because all of the commercial time belonged to the local station. In addition, news was less expensive to produce than most other forms of local programming. As a result, local stations again expanded the length of existing news programs and added new ones to the schedule in the mornings, noon, evenings, and weekends (Kaniss 1991, 102). This switch to a commodity concept on the part of upper management also resulted in an increased emphasis on the use of news consultants. In 1974, the biggest names in news consulting were Frank N. Magid Associates and McHugh and Hoffman, Inc. A RTNDA survey from that year found that these consultants offered similar advice on several topics designed to increase viewership. First, stations should emphasize interaction between their newscasters, including field reporters.

Second, they should use as many film segments as possible. Third, when not using film, stations must keep stories less than 30 seconds long. Finally, stations should emphasize “news about people” or human interest stories. Notable is the fact that none of these recommendations are of a journalistic variety; the stations were less interested at this time in the public interest aspect of newscasts than their profit potential. This truth is further reflected by the fact that in only 2.5% of the cases did the news director request consulting. The rest of the time, either the station manager or the corporate owner desired input from the consultants (Shelley 1974). The news consultants also embraced the “Eyewitness News” formula and spread it throughout the industry, as described in Chapter One.

News expansion through the 1970s was aided and abetted by the switch to electronic journalism, allowing for faster and more dynamic integration of content from outside the studio. By 1975, 76% of news operations were profitable and 79% of them were expanding, having spent more on news than in the previous year (Stone 1975, 8-9). By 1978, estimates maintained that local news programming was responsible for between 40% and 60% of an average television station’s revenue. Such profitability led to high levels of competition, compelling stations to spend large amounts of money on new sets, new graphics systems and artists, and salaries of their main news anchors, who were often compensated “more in line with entertainers than news presenters” ("Special Report" 1978, 38).

In economic terms, the market for television news was an oligopoly in 1980, as a small number of stations in a given market provided similar product and shared the audience. The oligopoly was preserved by consistently high profits for stations, high barriers to entry, and few innovations in pricing or products. The overall characterization of this time period is one where the stations engaged in cooperation to maximize overall profits, preserving the status quo.

However, the advent of cable and increasing numbers of television stations caused a change by the latter part of the decade to an economic model of monopolistic competition, defined as a large number of outlets producing very similar programming, news in this case (Powers 1990, 37-40).

The addition of new channels by cable or independent station entry, whether or not they were offering news product, drew viewers from the existing stations and upset the cooperative atmosphere. As cable systems and independents prospered, they added news programming and further eroded the audience share of the original stations (Powers 1990, 42-43). Stations responded to this changing economic structure in their market by engaging in product differentiation. They added unique stories, increased reporter live shots, and extended the length of newscasts (Powers 1990, 48-49). In doing so, they embraced a concept of "market-driven journalism."[118]

The majority of the discussion about news in industry trade magazines during the 1980s no longer centered upon journalism or public service issues, except for the rare special issue. Instead, discussions of how to maximize the effectiveness of product sales – eyeballs tuning into the newscast – covered the pages of the trade magazines. This market focus resulted in a massive increase in promotional efforts. As early as 1982, "at virtually all of the more than 600 [network affiliate] stations in the United States, promotion of news has the highest priority…. [T]he station that is number one in news ratings is usually number one in overall ratings and in total dollar revenue" (Minnucci 1991, 156). It was the realization of this fact that prompted such extensive efforts on the parts of news broadcasters to improve the consumer appeal of their programs.

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[118] For an excellent discussion of market-driven journalism, see Brent MacGregor, *Live, Direct, and Biased? Making Television News in the Satellite Age* (New York: St. Marin's Press, 1997).

Achieving market leadership in news was the topic of a 1985 commentary by Group W executive Richard Sabreen, where he spelled out the ramifications of market-driven journalism. “A marketing approach demands that [broadcasters] treat a newscast as a consumer durable good, a commodity that a viewer ‘purchases’ by spending time watching it.” Sabreen recommended specific strategies for positioning a station’s news broadcasts in a way that would both appeal to the viewer and create an identity for the station based around its news product (1985). One year later, Tom Brokaw reinforced the truth of this commodified view of television news, even as he spoke against it:

> [T]he packaging is the final step; it should not be the motivation…. I worry that we have become hostage to these matters, that we are a profession so bedazzled by the technology available, so frantic in our determination to prevail in the short run that we have lost sight of the fundamental reason for our privileged place in this universe ("Broadcast Journalists Ask" 1986, 35).

Market-driven journalism lived on despite Brokaw’s comments, and profit margins continued to rise throughout the decade. In 1983, 83% of stations reported that their news operations were making money or breaking even. Continued expansion was also indicated, with 77% of stations spending more on news that they did a year before (Stone 1983, 20). By 1985, the number of news operations making a profit or breaking even rose to 92% (Stone 1986). Shortly thereafter, the booming business of broadcast television news faced a new challenge as the overall economic climate brought financial concerns to the forefront.

As with many things in television broadcasting, the first indication of the changing landscape was provided by the networks. The costs of their news broadcasting efforts, including documentaries and newsmagazines, amounted to $900 million in 1986. Unfortunately, the corresponding revenues resulted in a $70 million loss. This was not the first year that the network news operations had been in the red, but apparently network executives no longer found

such an arrangement acceptable, and they proceeded to cut costs by increasing efficiency and reducing staff. They also looked for ways to increase income through the development of new revenue streams ("The Shaky Symbiosis" 1987). Local broadcasters faced the same concerns, as the number of stations making money or breaking even with news in 1986 decreased to 89.8%, the first such reduction since the start of Stone's surveys (Stone 1987b, 9). Independents were the hardest hit, and for the first time in decades, the number of full time news employees at independent television stations decreased in 1986, and the industry as a whole reduced news staff the following year by an average of 1.2 full time employees and .6 part time employees (Stone 1987a, 7; Stone 1988, 30). These staff reductions were made easier by new, lightweight field cameras which allowed a single technician to replace the 2-person technical crews of the past.

By 1990, staff sizes had stabilized at levels slightly lower than those in 1986, and news profitability was again on the rise, a trend which would continue to the present day. However, the industry from this time forward was a changed place, where the attitude that privileged newsgathering over financial concerns which existed during the early days of news was abandoned. In its place, market-driven journalism ruled and efficiency became the standard for decisions on personnel, equipment, and news content. In service of this effort towards efficiency, several new practices were introduced, in many cases tied to larger organizational structures.

5.1.1 Local News Efficiencies, Changing Structures, and Changing Content

It would be untrue to say that the desire for efficiency sprang fully formed from the ether during the 1980s, however. Early efforts towards lessening the cost burden for local television news were offered by NBC and CBS in 1958. That year, NBC offered affiliates the rights to record film segments shown on its nightly news program on Kinescope or VTR and reuse the footage

for their own local purposes at a minimal cost, as long as they agreed to broadcast the network program. The network considered extending the recording rights to include its morning and evening news programs as well, and also debated allowing independent stations to purchase the rights. Previously, NBC had delivered film to affiliates via airplane, but that was discontinued due to its prohibitive cost. CBS still offered film to CBS Newsfilm affiliates by airplane delivery, and considered copying NBC's plan and allowing Newsfilm subscribers to record the programs for free ("NBC, CBS to Sell" 1958).

In 1961, the Television Affiliates Corporation was formed by Trans-Lux Corp. TAC planned to review local programs from across the country in an effort to build a library for its affiliate stations to draw from. The programming would be limited to cultural, informational, and educational topics; in other words, perfect fodder for fulfilling the stations' public interest obligations on an inexpensive basis. TAC planned to keep about 17% of the license fees that affiliates would pay, turning the rest over to the stations which produced the programs ("New TV Markets" 1961). The following year, UPI also stepped forward to assist broadcasters with their efforts to serve the public, offering four weekly documentary series. The topics of the 1962 series were varied, but stayed in the realm of news and information. The first detailed the history of Communism, and was produced in cooperation with Storer Broadcasting. The second series addressed a single news story in depth each week, co-produced with 20th Century Fox. The third and fourth series were a standard newsreel and a science news program ("UPI Expands" 1962).

ABC joined the other networks in taking care of its affiliates' news needs in 1964 with the debut of the ABC Daily Electronic Feed. The service allowed ABC affiliates to record a separate feed of programming transmitted via the network signal at 5pm each day ("The Blueprint " 1964). This, and the comparable NBC and CBS feeds, quickly formed the backbone

of local news operations' coverage of non-local events; these feeds continue as video-on-demand for affiliates into the present day.

Station groups were leveraging their size to both cut costs and improve news coverage as news expanded in the mid-1960s. Stations within groups considered one another sister stations, and often shared relevant news information. Network news divisions required a bureau in Washington, and many station groups followed their lead; in 1965, Westinghouse, Time-Life, Storer, and CBS' O&Os (operated independently from the network's news organization) had their own Washington bureaus (Kroeger 1965, 50).

In 1980, the Independent Network News network was started with 30 affiliates. It was both a resource for stations doing local news, which could draw upon the network's news feed, and a twice-daily half hour broadcast comparable to that of the big three networks for those affiliates who did not carry local news ("INN Starts Life" 1980). Another contributor to expansion of local news in the 1980s was the new Cable News Network (CNN), which made its newsfeed available to broadcast stations across the country; also, because the feeds were extensive and high quality, the broadcast networks improved their affiliate newsfeeds in response (Owen and Wildman 1992, 176-177).

The challenging economics of news in the mid-1980s spawned several more resources for broadcasters to use in reducing costs of news coverage. Gannett and Telepictures partnered in 1985 for a half-hour feature program called *Newscope.* Local affiliates were fed all the pieces of the program via satellite, along with scripts and graphics. The local station merely had to provide an anchor team and some production effort. Telepictures also had another offering, the News Information Weekly Service, which distributed feature stories to 125 affiliates via satellite or videotape. Westinghouse Broadcasting was the center of *Newsfeed*, a consortium of 48 stations

in the U.S. and several abroad generating and sharing hard news and sports stories from their markets. Other companies also offered similar feeds to stations willing to pay the price for them ("What's On the Minds" 1983, 58, 62).

Another broadcast partnership formed in 1983, as four stations owned by three different station groups joined together in Florida to form a "KU Collective." The collective was similar to an 11-station partnership started a year earlier by the Hubbard group called Conus. In both cases, the involved stations purchased Satellite News Gathering trucks and downlink equipment for their stations, and agreed to share any important news coming out of their markets. Two years later, the Florida collective had expanded to become the Florida News Network with the addition of three more affiliate stations ("KU Collective in Florida" 1985, 187).

These cost-cutting efforts were a mere shadow of what was to follow in the 1990s and beyond. In a fine example of the shift of news as service to news as commodity, the News Corporation of America launched in Pittsburgh in 1990, offering a turnkey newscast production service to local Sinclair affiliate WPTT under a five-year contract. The group claimed to have 11 other potential affiliates interested nationwide ("The Fragmenting" 1990, 40).[119] Other markets embraced this idea the following year, as many independent stations took their first steps towards an LMA by outsourcing their newscasts to an in-market competitor or by rebroadcasting another station's news program ("More Indies Airing" 1991). With the official debut of the LMA in 1991, even more markets took advantage of the economic benefits of outsourced news.

[119] Station groups also began looking inward for non-news content during the early 1990s. CBS' five owned stations all cleared a program produced by the Los Angeles CBS O&O called Studio 22 in 1990. In addition, the station group had acquired the rights to a British game show called Everybody's Equal and were working out an arrangement to produce it for the group. NBC partnered with Group W to create the short-lived House Party for use on the two groups' affiliates in 1990 as well "CBS Looks to Local Training Ground," *Broadcasting*, 19 November 1990.

Many stations were forced to add news broadcasts in 1995 as a result of the decision by New World Television to switch its stations affiliations to Fox Television, which set of a round of affiliate switching across the industry. Former independents wound up affiliated with the big three, and immediately set to starting up news broadcasts. Fox Television suggested strongly that its affiliates start news operations as well, in preparation for the debut of the cable Fox News channel (Robins 1995). Fox Television would eventually require local news as part of its affiliation agreements. The high costs associated with news startups and ongoing operations resulted in many of these stations searching for cost efficiencies and new revenue opportunities.

In 1998, an unprecedented structural arrangement in the Wilkes-Barre, PA market offered signs of things to come under duopoly. Under a "shared services agreement," CBS affiliate WYOU moved into the facility housing NBC affiliate WBRE. In return for a fee paid by WYOU, WBRE planned to operate both of the stations, sharing facilities, engineering, and staff wherever possible. WBRE installed identical master control and production control equipment for each station, upgraded news sets and built two newsrooms. The stations' owners were quick to clarify that this was not an LMA, because each station maintained separate programming and sales departments. Instead, the owners claimed, the arrangement was the broadcast version of a joint operating agreement in the newspaper industry. The stations claimed that the two newscasts counted as separate voices because they were under the control of separate executive producers, even though both news operations shared a news director (Trigoboff 1998).

Technological innovation combined with economic strain raised the possibility of "one-man-bands" rising into medium and large market television from their birthplace in the smallest markets. Just as the initial development of smaller, lightweight gear allowed stations to reduce technical crews for field shooting from 2 to 1, the reporter/photographer combination reduced the

standard 2 person crew – 1 reporter, 1 technician – to a single person who handled both jobs. A standard element in the smallest news markets, the combined position became more attractive to larger markets with the creation of even smaller cameras (Coffman 2000).

Several networks revisited the cooperative concept in 2000, agreeing to share news feeds to reduce the expense of sending redundant crews to the same events and to increase their ability to access breaking news. ABC, CBS, and Fox agreed to allow the other networks' affiliates to record and use their previously affiliate-only newsfeeds. Affiliates were given the option to sign up for the service in return for waiving their rights to exclusivity outside their market for any video sent to the network. The arrangement was instigated by Fox, which was in a position to gain the most from it as Fox affiliates nationwide struggled with low-rated news startups (McClellan 2000).

The most dramatic moves in news, however, belong to the most aggressive of the three exemplar groups, Sinclair Broadcasting. The group started its first newscasts the same year it started its first LMAs, outsourcing news in Pittsburgh and building its own experimental operation in Baltimore. "We really wanted to do a prototype, to understand what the news business was about, what the cost structures were, what the politics of being in the news business were," explained David Smith. What the organization learned was that news offered dual benefits, higher ratings and improved image in the market (Jessell and Rathbun 1996, 30). In its 2002 annual report, Sinclair detailed its intent to expand local news on its stations. This expansion was predicated on Sinclair's belief that between 25% and 30% of local advertising dollars were earmarked for local news, which resulted in $400 to $500 million of revenue that Sinclair had no access to across its markets without newscasts. However, the group recognized that news was a costly endeavor, and approached the expansion in a spirit of minimal cost and

maximum revenue. As a result, Sinclair News Central (SNC) was born (Sinclair Broadcast Group 2003).

The technologies which made centralcasting possible were at the core of Sinclair's news model. SNC eliminated redundancies by offering national and regional news, sports, and weather from its home facility in Baltimore. As it had done with its Baltimore news experiment a decade before, Sinclair "beta tested" the new model on one station, WSMH-TV in Flint, MI. The success of the experimental station led to expansion into other markets without news product; Sinclair estimated that its methods resulted in a 50% savings over those of other news startups thanks to the centralized model. The company also estimated additional cost savings as it reduced syndicated product in favor of news broadcasts (Sinclair Broadcast Group 2003).

In 2003, Sinclair changed its expansion plans, moving ahead with the news central model in several cities which were already producing newscasts, rather than focusing solely on markets without local news. The company made the change upon realizing that it could effectively improve and expand the length of local broadcasts at minimal cost by applying the SNC model, and immediately doubled the length of existing broadcasts in each city (Trigoboff 2003). In order to make the news seem local even when being centralcast, Sinclair built new sets in its news central stations to match the one at headquarters, and instituted identical graphics across its stations which could be customized during the broadcast at the local level (Bachman 2002). The group also invested in a Washington bureau.

Sinclair's efforts can be viewed as nearing the pinnacle of news commodification and centralization. Economically, there is no question that the model is a brilliant example of cost savings in service of producing a high-profit margin product. However, where the public interest is concerned, the results are less brilliant. Even as the FCC considers "voices" in a market to be a

defining concern in ownership, the News Central model puts one central voice in editorial control of many outlets, amounting to one national voice for all of the Sinclair stations. Hints of this strong editorial position could be found in Sinclair's intent to air the "Stolen Honor" anti-Kerry documentary during the 2004 presidential race, and in "The Point" editorials distributed for air in its various markets. Media Matters examined a prominent SNC segment called "Get This" in late 2004, and discovered it to be explicitly pro-republican and anti-progressive (Sinclair's News Central Provides 2004). Regardless of whether Sinclair happens to be progressive or conservative, the ability to provide a coordinated message in the guise of a local voice is worrisome for those concerned with the public interest in television broadcasting.

Another fitting example of the new reality of local television news is offered by the efforts of NewsProNet, which produces news segments carefully devoid of local references and distributes them to subscribing stations to air as part of their newscasts. In March of 2003, the company's client list included 93 stations, some of them in the country's largest markets ("Canned News " 2003). The company continues to provide content to local stations, accompanied by market research and web-extras in the present day. Although the service could be considered a descendent of the newsfilm companies of days gone by, the very breadth of services offered by the company in an effort to help stations attract viewers proves the point: local television news is a commodity designed to attract an audience to sell to advertisers. This view of the news is what has led to the sacrifice of journalistic endeavor on the altar of structural efficiency and economy of scale.

As much as this chapter and the project as a whole would benefit from a final turn to positivity, a message that everything will be alright, the economic demands of broadcasting in the present day have overrun the public interest concerns of regulators and critics alike. Although

the industry is indeed on the edge of major change in the form of digital broadcasting, it is unlikely that the ability to offer more channels of programming will result in an increase in quality news provided to the public. More likely, given prior experience with multi-channel programming, existing news personnel will be asked to fill more time with the same resources, and the quality will decline as a result. In the *State of the News Media 2006* report, the authors share this position. They describe one of the six major trends in news:

> At many old-media companies, though not all, the decades-long battle at the top between idealists and accountants is now over. The idealists have lost…. An executive at one of the three broadcast networks told senior staff members in a meeting last year that "the ethical anvil has been lifted," meaning the producers could dispense with traditional notions of journalistic propriety. (State of the News Media 2006)

It is fitting that in 2005, George Clooney reminded a portion of the United States that journalism was not always free of idealism, introducing Edward R. Murrow to some who had never heard his name. Sadly, however, the days of crusading journalists like Murrow seem to have passed, replaced by camera-friendly and overly empathetic news personalities like Anderson Cooper. It is also fitting to note that the family tree of this new breed of journalist can be traced back to the Biltmore Agreement, which spurred broadcasters to recast their news as commentary, allowing them to profit in spite of the Agreement.

In his 1958 keynote speech to the Radio and Television News Directors Association, from which the quote that heads this section is drawn, Murrow shared many warnings with broadcasters, after cautioning "this might just do nobody any good." One of those warnings is as true today as when he first said it almost half a century ago:

> Our history will be what we make it. And if there are any historians about fifty or a hundred years from now, and there should be preserved the kinescopes for one week of all three networks, they will there find recorded in black and white, or color, evidence of decadence, escapism and insulation from the realities of the world in which we live. (1958)

Murrow was referring to the programs carried during prime time on the three networks when he made this statement. Ironically, today these words apply equally to local television news, conditioned, controlled, and commodified by the economically determined structures and practices of a profit-hungry industry. If there is hope for local television news, it lies in the hands of today's hard-working old school journalists who still remember the legacy of Murrow, and in the hands of the next generation of broadcast journalists, to reincorporate the true meaning of "the public interest, convenience, and necessity" into local news.

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