

WestminsterResearch

<http://www.westminster.ac.uk/westminsterresearch>

The space between: Defining the place for community radio

Hallett, L.

This is an electronic version of a PhD thesis awarded by the University of Westminster.
© Mr Lawrie Hallett, 2015.

The WestminsterResearch online digital archive at the University of Westminster aims to make the research output of the University available to a wider audience. Copyright and Moral Rights remain with the authors and/or copyright owners.

Whilst further distribution of specific materials from within this archive is forbidden, you may freely distribute the URL of WestminsterResearch: (<http://westminsterresearch.wmin.ac.uk/>).

In case of abuse or copyright appearing without permission e-mail repository@westminster.ac.uk

**THE SPACE BETWEEN
DEFINING THE PLACE
FOR COMMUNITY RADIO**

LAWRIE HALLETT

A thesis submitted in partial fulfilment of the
requirements of the University of Westminster
for the degree of Doctor of Philosophy

October 2015

ABSTRACT

This thesis examines the emergence of Community Radio in the United Kingdom. It places the sector within an historical context dominated by the BBC and strongly influenced by the subsequent arrival of commercial radio broadcasting. Understanding this historical context, which includes consideration of the role played by unlicensed 'pirate' radio operators, is, in the opinion of the author, a critical prerequisite necessary for assessing how and why current Community Radio practice has developed in the way it has.

Primary research for this thesis includes a variety of semi-structured interviews with campaigners, practitioners and regulators and, whilst primarily focused on the emergence of the Community Radio sector within the British context, it does not ignore wider international perspectives. Recognising that, well before Community Radio began to emerge in the UK, much of the early conceptual development of the sector took place in other jurisdictions, the author also draws upon a number of international sources, including some primary research in the Republic of Ireland, Norway and the United States of America.

The influence of two key factors, those of regulation and technology, are central to this research, the author arguing that these in particular have helped define (and constrain) the current position and future opportunities available to Community Radio within the United Kingdom. Legislation and regulation may have defined clear, and in some instances unique, operational objectives for British Community Radio, but when defining such objectives they have also had to take into account limited broadcast spectrum availability, constraining the scope and scale of the sector as a result.

Beyond a consideration of the historical and of present day practice, this thesis also looks towards the future, examining current developments in digital broadcasting which offer the potential to counter such current capacity constraints and provide opportunities for additional community-based services in future.

CONTENTS

Abstract	ii
Contents	iii
List of Tables	iv
Accompanying Materials	v
Acknowledgements	vi
Author's Declaration	vii
Chapter 1: A Brief History of Radio Broadcasting	1
Chapters 2: The Arrival of Community Radio	44
Chapter 3: Theories, Practices (and Policies) of Community Radio	97
Chapter 4: Methodology	129
Chapter 5: Regulation in the Community Radio Sector	148
Chapter 6: Transmission in the Community Radio Sector	189
Chapter 7: Conclusions	223
Appendices:	
(i) AMARC Europe Charter	
(ii) Previously published materials	
Glossary	
References	
Bibliography	

LIST OF TABLES

Table 1.1	Key Elements of Broadcast Regulation	p. 24
-----------	--------------------------------------	-------

ACCOMPANYING MATERIALS

Appendix (i)

- AMARC - Community Radio Charter for Europe.

Appendix (ii)

- Previously published papers by the author, referred to in this thesis:
- **Hallett, Lawrie** (2009). Community Radio Regulation - A Collaborative Model. Paper presented at the International Association of Media & Communication Research (IAMCR) Conference. Mexico, July 2009.
- **Hallett, Lawrie** (2009). The Space Between: Making Room for Community Radio. In Gordon, Janey (Editor), *Notions of Community*, p.p. 33-58 (inclusive).
- **Hallett, Lawrie** (2010). Community Radio In Transition - The Challenge Of Digital Migration. In O'Neill et al. (Editors), *Digital Radio in Europe, Technologies, Industries and Cultures*, p.p. 175-191 (inclusive).
- **Hallett, Lawrie & Wilson, Deborah** (2010). Community Radio: Collaboration & Regulation. Paper presented at the Media Communication & Cultural Studies Association (MeCCSA) Conference. London, January 2010.
- **Hallett, Lawrie & Arne Hintz** (2010). Digital Broadcasting - Challenges And Opportunities For European Community Radio Broadcasters. Journal Article: *Telematics and Informatics* (Volume 27, Issue 2, p.p. 151-161). Amsterdam: Elsevier Publishing BV.
- **Hallett, Lawrie** (2014). Democratising Digital Audio Broadcasting. Paper presented by the author at the International Association for Media and Communications Research (IAMCR) Conference). Hyderabad, India, July 2014.
- **Hallett, Lawrie** (2015). UK Small Scale DAB Trials Move to Next Phase. Magazine Article: *Radio World International*, August 2015.

ACKNOWLEDGEMENTS

This thesis is dedicated to my parents, Barbara and Geoff Hallett. I would not have been able to complete it without the constant love, help and support of Aurogeeta Das.

At the University of Westminster, I would like to thank my Director of Studies, Steven Barnett, and my Second Supervisors, David Hendy and latterly, Paul Dwyer. At the University of Bedfordshire, I would also like to thank Alexis Weedon, Gavin Stewart and, especially, Janey Gordon.

This PhD thesis could not have been completed without the support of my previous colleagues at Ofcom, in particular Soo Williams and Peter Davies who gave me plenty to think about in relation to regulation, and Rashid Mustapha who championed the cause of small-scale DAB there. Martin Spencer at Audessence also deserves a special mention.

I am also grateful to those that provided primary research materials for this thesis, in particular the various interviewees and all the others who gave freely of their time and knowledge. The staff and volunteers at Future Projects and Future Radio in Norwich deserve a particular mention here.

Finally, I would like to thank my various other relatives, friends and colleagues, too numerous to mention, for all their various help and support in relation to this project.

Lawrie Hallett
October 2015.

AUTHOR'S DECLARATION

I declare that all the material contained in this thesis is my own work.

Note:

*Where materials from jointly authored papers are drawn upon,
only the sections written by me are used.*

Word Count: 73,286.

CHAPTER ONE:

A Brief History of Radio Broadcasting

Some elements of this chapter are taken or adapted from the author's contribution: "The Space Between: Making Room for Community Radio" in Gordon (Editor) Notions of Community, 2009: 33-58 (inclusive).

Introduction

This PhD is about Community Radio, its characteristics, ideals and objectives. The primary focus of this research is on two key factors, both of which impact upon the operation of such services; namely, the role that is played by technology and the effects of regulation. As this thesis will show, in part because of the distinctive nature of the Community Radio sector and in part because of wider external factors, such influences are particularly relevant to its successful operation, development and sustainability.

Before examining these twin themes of technology and regulation in more detail, an historical context is required within which to 'frame' the emergence of Community Radio. Setting out the relevant historical background also helps begin the process of defining what is meant by the term Community Radio: how it differs from other forms of radio broadcasting, in terms of what it seeks to do, and in relation to the processes through which it seeks to achieve such outcomes. This first chapter exploring the broad history of broadcast radio development since the early years of the twentieth century is followed by a second, which, in more detail, examines and contextualises the emergence of Community Radio as a 'third tier' of radio broadcasting.

First however, a brief note about terminology. Whilst many parts of the world might be comfortable with the term 'community' as it relates to broadcast radio or to wider media, there exists a plethora of other options. Often near synonyms (although not exactly so), these include well known terms such as alternative media, participatory media and citizens' media, as well as perhaps more niche terms, including activist media, autonomous media, tactical media, independent media, the list goes on.... Hugh Chignell notes just how difficult the term is to define:

Unfortunately, stating that it is radio specifically designed to meet the needs of the community will not do. Mainstream radio may also claim to meet those needs and may indeed be right. Similarly, 'small-scale', 'alternative' and 'socially beneficial' do not define community radio as these can also be characteristics of commercial and public service radio...

It follows that attempting a really convincing definition of what has become one of the most interesting and rewarding areas of study within radio is beset with problems. It seems however, to be generally agreed that community radio stations place a priority on their relationship with an identified community and attempt to satisfy the perceived social and cultural needs of that group (Chignell, 2009: 119).

The point here is that, not only can the term Community Radio mean somewhat different things to different people, but also that it is not universally accepted as the norm. However, it is perhaps the most accepted term in relation to the specific medium of radio, and, on that basis, it is the term that will be used here. Although this thesis focuses on the regulation of radio broadcasting and on technologies used for its delivery, some of its underlying arguments may also, to a greater or lesser extent, be applicable to other platforms as well. The notion of the term 'community' is itself explored in more detail later in this thesis.

Community radio is an outsider: a relative latecomer to the increasingly complex world of broadcasting. The so-called 'third-tier' of radio is now firmly established in many jurisdictions, but where does it fit in the wider broadcast media ecology? In particular, how and why is it subject to specific regulation, and what might the implications be of particular changes in broadcast and broadcast related technologies? By comparison with public service and commercial broadcasting, community radio is a relatively recent phenomenon. As such, it has typically had to find its place within an established media

landscape. Its ability to exist at all is, this thesis will argue, due, at least in part, to changes in regulatory outlooks and advances in radio broadcasting technologies.

Operationally, the Community Radio sector might best be described as a shoal of small fish in a very large media pond. To continue the analogy, it is also a shoal that tends to swim against the increasingly market-orientated tide of modern-day media. Deliberately small in scale, but increasingly large in number; each Community Radio station is as unique as the community it is set up to serve.

The result of this diversity of approach is a broadcast radio sector of considerable breadth; there really is no such thing as a typical Community Radio service. That said, there is a remarkable degree of commonality between individual Community Radio stations. Not only within a given jurisdiction, but also around the world, across the sector as a whole, there is general agreement as to the core elements of what constitutes a genuine Community Radio service.

This thesis examines the nature and role of Community Radio, exploring how the effects of technological change and regulatory frameworks impact upon the effectiveness of its delivery and its ability to achieve its stated objectives.

This chapter of the thesis is split into a number of distinct sections as set out below:

1. Broadcast Radio - The Historical Context

Firstly, this chapter provides an outline of the history of radio broadcasting. It examines both the emergence of radio broadcasting technology and the development of the medium as a cultural phenomenon within modern society.

2. Platform Evolution and Diversification

Secondly, this chapter examines the way in which broadcast radio technologies have developed since the medium first became established. This section explores the evolution of traditional radio broadcasting, both in terms of its increasing capacity and improved performance. It also considers why, despite the emergence of alternative

digital broadcasting platforms and telecommunications-based content delivery systems, the established analogue transmission standards continue to maintain their dominance.

3. Radio, Regulation and Change

Thirdly, the next core issue of this thesis is introduced, namely, the development and implementation of regulatory frameworks as they relate to radio broadcasting. Again, some historical context is provided, beginning with the earliest days of the medium and coming up to date with a consideration of issues such as digitisation and the increasingly porous and ineffective nature of national borders as they relate to the maintenance of broadcasting policy.

4. The Link Between Technology and Regulation

Next, the bi-directional relationship between technology and broadcast radio regulation is explored. This section examines the impact of technological changes upon the nature of broadcast radio regulation as well as the reverse impacts of regulation on the development and implementation of broadcasting technologies.

5. The 'Place' for Community Radio

In the penultimate section of this introductory chapter, prior to its conclusions, Community Radio is positioned within the wider broadcast radio context. The unique nature of Community Radio services is identified, and the notion of three distinct types, or sectors, of radio broadcasting is introduced, with Community Radio taking its place alongside the established duopoly of Public Service Broadcasting (PSB) and commercial broadcasting. The issue and relevance of unlicensed 'pirate', or 'fourth sector' broadcasting activity is also considered.

1. Broadcast Radio - The Historical Context.

Before examining the relatively recent phenomenon of Community Radio broadcasting, it is important to provide something of a wider historical background. How did broadcast radio as a whole evolve, and what were the major factors influencing its development? Although this PhD is not, *per se*, about the history of broadcasting,

providing this context is essential, because an understanding of the wider development of the medium helps to explain the foundations upon which the Community Radio sector has been built and which have, to a certain extent at least, shaped its current existence.

Broadcast Radio has never existed in isolation. More than a technology, it is a social phenomenon that both reflects and influences the society within which it operates. As Western society has changed over the past century, so too has what we mean by the term 'radio'. Specifically in the case of the English language, the term 'radio' as part of the phrase 'broadcast radio', is a somewhat ambivalent one, referring to both the broadcast programme content as well as to the technical platforms (transmission systems and receivers) via which such material is delivered.

The history of broadcast radio is now a relatively long one. Scientific developments, in the late nineteenth and early twentieth centuries, provided prototypes of the required technological platforms. These were effectively commandeered and modified to deliver a new form of long-distance social communication, one that gradually evolved into today's broadcast radio ecology, in all its current diversity of form.

Economic, commercial, social and political factors have all played their part in the evolution of the broadcast radio medium. However, without taking an overtly technologically deterministic perspective, the history of the medium undoubtedly did begin with the emergence of its underlying technology. Especially in the early days, its development was largely one of unplanned, even accidental, incremental evolution. Radio telephony, i.e. one-to-one voice communication, sometimes described at the time as 'narrow-casting', itself a development of earlier wireless telegraphy, was one starting point for broadcast radio. As Hugh G. Aitken points out in his book *The Continuous Wave*, the development of radio broadcasting:

would have been impossible without previous advances ... that had originally been made with quite different objectives in view ... - the

rise of radio broadcasting is a classic example of the unanticipated consequences of technological change (Aitken, 1985: 12).

Technical advances in wireless telegraphy were a necessary precursor for the creation of broadcast radio, followed by the equally important emergence of radio telephony. However, even with such technological developments in place, it still took some time for the concept of broadcasting itself to emerge, as various experimenters in wireless began to re-evaluate the potential of the new technology they were working with:

Almost accidentally, a small number of these experimenters began to consider whether there were advantages to what seemed to be one of early radio's most annoying attributes – that anyone could eavesdrop – and wondered how it might have a possible benefit. The idea that there might be reasons to seriously engage in "broadcasting" – one person sending out messages to many – started to percolate (Greb & Adams, 2003: 15).

At this point in their development, wireless telegraphy and wireless telephony were still not entirely separate from one another. Thus, perhaps the earliest conception of wireless as a broadcasting medium was in fact the use of marine wireless telegraphy for the transmission of emergency messages. Unlike other forms of wireless telegraphy, ship-to-ship and ship-to-shore emergency messages were intended for general reception; maximising the number of people receiving the message also maximised the chances of its contents being acted upon. (Coe, 1996: 6 & 16-17). The earliest transfer of such activities from the sea to land, what McLuhan called "*the first radio broadcast*" (McLuhan, 1964: 332), was during the Dublin Easter Rising of April 1916:

The leaders of the rising, realising that the British authorities would suppress or distort news of it dispatched by the normal channels decided to send out the information themselves... This was not broadcasting as we know it, for wireless telephony was not yet available and Morse messages were all that could be sent out. But it

was news by wireless, not aimed at any known receiver but sent out broadcast, and that was a new idea in 1916 (Gorham, 1967, quoted in Fisher, 1978: XV).

The earliest developments of wireless telegraphy and telephony were dominated by a combination of professional and amateur scientists, engineers and academics. Whereas the professionals involved tended to work for commercial or military masters with specific pre-defined objectives, amateurs and academics were often more interested in pushing boundaries more generally, following experimental outcomes to see where they might lead, often without having any specific, clearly defined, objective at the outset of their experimentation.

Of course, the separation between the professional and the amateur was not always total, often those with a professional career in the field carried on experimenting in a personal capacity, outside the typically more rigid confines of the day job. It is perhaps not surprising therefore that the first experimental 'broadcast' of speech and music content via radio waves is attributed to one such individual, Canadian, Reginald Aubrey Fessenden (6th October, 1866 – 22nd July, 1932). According to the history books, he made the first broadcast containing both speech and music, from Brant Rock, Massachusetts, on the 24th of December, 1906 (Douglas, 1987: 156).

As it evolved, the new medium embraced the growing opportunities presented by further advances in radio telephony, beginning to adapt and use them in ways rarely envisaged by their original inventors. From the outset, music played its part in the development and sustainability of the medium. David Sarnoff, later the head of the Radio Corporation of America (RCA) and founder of the National Broadcasting Corporation (NBC) in the USA, said, as early as 1916:

I have in mind a plan of development which would make radio a household utility in the same sense as the piano or the phonograph. The idea is to bring music into the home by wireless (Sarnoff, 1916, quoted in Shurick, 1946: 11).

Since the first known 'broadcast' of speech and music by Fessenden had taken place some ten years earlier in 1906, Sarnoff's idea was not exactly new, nor was it unique, as others were having similar ideas at around the same time. However, the increasing emergence of such ideas showed that the new medium of radio broadcasting was already developing, becoming less of a technological curiosity and, instead, showing signs of social relevance and potential economic viability.

A demonstration of this emerging relevance came in 1919 with the first transmission of scheduled and publicised content, material delivered in a form that would certainly be recognised today as a radio broadcast.

... a concert was broadcast from The Hague, organised by two Dutch pioneers, Hanso Henricus Schotanus and Steringa Idzerda. The programme was entitled "Soiree Musicale", and its claim as the first "real" radio broadcast in the world rests on the fact that the time, frequency and content was announced in advance of the broadcast in the press (Street, 2006: 40).

The emergence of proto-radio broadcasting was a truly international phenomenon. Soon after the above transmissions, both Britain and America also become involved in scheduled radio broadcasting. In June 1920, following various informal tests and other broadcasts, Australian opera singer, Dame Nellie Melba, broadcast a thirty-minute concert from the Marconi Long-Wave transmitter near Chelmsford, England. Publicised (and sponsored to the tune of £1,000) by Lord Northcliffe's *Daily Mail*, the broadcast *"was a turning point in the public response to radio. It caught the people's imagination"* (Briggs, 1961: 47).

Across the Atlantic, by November 1920, station KDKA was broadcasting regularly in Pittsburgh, Pennsylvania. The Westinghouse Corporation saw radio broadcasting as a way of selling radio receivers and opened the station by using it to announce the results of the 1920 Presidential Election (Lewis, 1991: 152-153). An indication of the frenzy

of developments around radio broadcasting at that time is demonstrated by the fact that historians are unsure that KDKA was indeed the first scheduled radio broadcaster in the USA, thus *"there is some dispute over KDKA's 'earliest' claim"* (Bensman, 2000: 15).

Undoubtedly, *"the 'radio craze' of the 1920s"* (Lacey, in Hilmes and Loviglio (Editors), 2002: 24) had begun. What drove this development was not just the interest of those building and operating the transmitters, but also the increasing number of enthusiasts building equipment to receive their signals.

Broadcasting developed because audiences wanted it and experimenters began to provide it. It was fun and entertaining. It was available and free. Only later did it become commercial and profitable (Greb & Adams, 2003: 16).

From such experimental beginnings, broadcast radio quickly evolved. Initially it tended to be dominated by commercial objectives, but, particularly in many parts of Europe, the state soon intervened in an attempt to exert control over this fledgling electronic medium. Many countries, which began with private broadcasters, for example, the United Kingdom, Norway and the Republic of Ireland, effectively nationalised early private radio stations, assimilating them into state broadcasting monopolies such as the British Broadcasting Corporation (BBC) (Crisell, 1987: 22), Norsk Riks-Kringkasting (NRK) and Radio Éireann (known today as Radio Telefís Éireann - RTE).

The attitude of politicians to the emergence of broadcast radio was shaped by a variety of factors. In the United Kingdom, the government demonstrated its willingness to go against public opinion and private interests very early on. Despite their popularity amongst wireless enthusiasts, the various experimental radio broadcasts of music and news material, which were carried out by the Marconi Company under an experimental licence during 1920, were suspended by the Postmaster General later that same year. The reason cited for this action was interference to other radio users, in particular the military (Briggs, 1961: 49-50):

There was – in spite of growing public interest in radio as an entertainment medium – a sense that radio transmissions should not be used for other than official or military purposes (Street, 2006: 41).

This early use of the 'interference argument' was one of the first of many. This supposed justification, or excuse, for inaction or the restriction of broadcasting development, has continued to be used, by numerous jurisdictions around the world, right up to the present day. Although public pressure did lead to further speech and music transmissions prior to the formation of the British Broadcasting Company in late 1922:

It is noteworthy that in order to be able to establish regular entertainment on radio in the first place, pressure had to be exerted on official British government departments at a time when elsewhere around the world, including the USA and France, the idea of the medium as a disseminator of speech and music was widely accepted (*ibid*, 43).

The more relaxed and market orientated approach to radio broadcasting as taken by some other jurisdictions marked the beginning of differentiation of broadcasting on a national basis. For example, although British and American approaches to radio broadcasting quickly became very different from each other:

In their birth and infancy, however, they were not so distinct as they have since become. In both countries there were the same pressures and the same outspoken advocates of common ideas and comparable institutions. (Briggs 1961: 59).

In parallel with developments in the United Kingdom, the American radio industry was growing rapidly. When the first advertising was introduced in 1922, there was considerable opposition to the move. Speaking at the first American Radio Conference

in the same year, Herbert Hoover, Secretary of the Department of Commerce stated that it was *"inconceivable that we should allow so great a possibility for service ... to be drowned in advertising chatter"* (*ibid*, 63, quoted in Siepmann, 1946: 140). However, *"[h]igh minded opposition ... did not destroy the practice, largely because no reasonable alternative means of securing revenue for broadcasting companies was ever proposed"* (*ibid.*). Thus, financed largely through the sale of advertising, by the end of 1924, there were over 500 stations operating in the United States, with very little control by the state of their broadcasting activities:

*During the first years of broadcasting experience it was not distaste for American advertising which influenced the first British critics of American broadcasting, but alarm at the 'chaos of the ether' in the United States. The multiplicity of radio stations and the scarcity of wavelengths led to interference and overlapping 'a jumble of signals' and a 'blasting and blanketing of rival programmes'. Even in America itself, despite its tradition of free enterprise, there was pressure for government 'policing of the ether' ... A few Americans were even tempted to look with approval on the British Post Office (*ibid.*, 64).*

Whereas in the United States the 'genie was out of the bottle', in Britain and in other parts of Europe, perceptions of the chaotic state of American radio broadcasting undoubtedly helped shape the attitude of politicians in relation to the future development of the medium. A key event was the American 1922 Radio Conference organised by the Secretary of Commerce, Herbert Hoover to share and regulate the already crowded airwaves of the USA (Lewis and Booth, 1989: 36). Taking place in Washington DC, the conference was attended by a representative of the British General Post Office, one F. J. Brown. Reporting back to the British Imperial Communications Committee in Westminster, Brown took the view that:

... only bona fide set manufacturers should be involved in broadcasting and that 'clashing' of wavelengths had to be avoided.
(*ibid.*, 52)

This struggle for the control of broadcasting demonstrated by such early social and political manoeuvrings has arguably been a feature of the medium ever since. The ongoing debate over the scope and scale of Community Radio is but one modern-day element of the continuing media policy debate which can trace its roots right back to the emergence of radio broadcasting in the early years of the Twentieth Century.

From the outset however, commercial broadcasting was not limited to the confines of the Americas. In other parts of the world, including European countries such as France and Luxembourg, some commercial broadcasters prevailed, succeeding in maintaining their independence from the state. Conceptually, the two types of broadcasting rapidly became very different from each other. Rather than being driven by the commercial imperative to maximise audiences and thus profits for shareholders, state-owned broadcasters, most notably the BBC in the United Kingdom, soon developed the concept of a public service broadcasting ethos and practice, promoting the delivery of information, education and entertainment as an end in its own right. For commercial broadcasters, delivering the greatest number of listeners at the minimum possible cost was the priority from the outset, even if this meant broadcasting across borders and thus sometimes competing directly with the PSB broadcasters in neighbouring jurisdictions.¹

Inevitably therefore, particularly in a European context, it soon became impossible for either type of broadcasting to ignore the impacts of its rival. Over time, in the post-war period, the early divergence in approaches to broadcasting was, in most countries, gradually superseded by a duopoly of state and commercial radio broadcasting. Even in the United States, the cradle of commercial broadcasting, a limited amount of public service broadcasting was eventually introduced with the launch of National Public Radio (NPR) in 1970. In addition, the Federal Communications Commission (FCC) has,

¹ As for example in the case of Radio Normandie and Radio Luxembourg etc., which, from the 1930s, targeted specific programming at listeners in the United Kingdom, where the BBC otherwise had a *de-facto* and *de-jure* broadcasting monopoly.

historically, always reserved some broadcasting frequencies for non-commercial use. These allocations allow the operation of educational stations and alternative services, such as those provided by stations within the Pacifica Network.

With dual PSB and commercial radio broadcasting systems becoming the norm over recent decades, the demand for additional broadcasting spectrum, or for improvements in the efficiency of its use has been almost ever present. As technological competence has increased, so has the number of frequencies used for broadcasting, along with overall information carrying capacity they provide. However, because broadcasting spectrum is a finite resource, the laws of physics dictate that as the number of operational services increases, the inevitable result is that the number of frequencies available at any location for additional broadcasting services becomes increasingly limited.

For 'third sector' community broadcasters seeking frequencies in jurisdictions where dual broadcasting systems have already become firmly established, the lack of available broadcasting frequencies can be a limiting factor in the development of their services. Fortunately for prospective broadcasters, technological advances have, at least to some extent, progressively increased the availability of frequencies at any given location; as discussed further below, demand does not outstrip supply to the extent that it might have done in the absence of such advances.

2. Platform Evolution and Diversification

Once the practice of radio broadcasting became established during the 1920s, it continued to develop, not just in terms of programming diversity but also in relation to its own technological requirements. Thereafter, the development of one-to-one radio telephony, or radio communications systems, rapidly became separate from the development of one-to-many radio broadcasting. As the potential for this new form of mass communication became clear, inventors, engineers and technicians took up the challenge of improving its performance.

At the outset of radio broadcasting, the state of available technology was such that it was only possible to transmit and receive on relatively low frequency, long-wave and

medium-wave, spectrum allocations. Gradually however, technological advances meant that it became possible to use higher and higher frequencies, resulting in the availability of access to considerable additional spectrum. In terms of radio broadcasting, first came various short-wave allocations (used primarily for international broadcasting, but also for domestic broadcasting in some regions), then came vhf Band II (the FM stereo band) and, more recently, Band III (used for digital audio broadcasting). Other microwave frequencies, such as L-Band (approximately 1.4 to 1.5 GHz), have been used for satellite delivered services such as 'WorldSpace' and for short-range terrestrial DAB transmissions, but to date, only to a very limited extent.

Whilst not all of the above allocations are universally used for broadcasting, and whilst various other frequencies may also be used for broadcasting, the overarching effect is that, throughout its history, the availability of broadcasting frequencies has tended to increase albeit at a relatively slow pace. Higher frequencies, such as FM Band II, have additional advantages. As well as being less susceptible to degradation due to changes in atmospheric conditions, they can also be used to serve more accurately defined coverage areas and be re-used more frequently, without degrading other transmissions sharing the same spectrum.

Alongside expanded carrying capacity, and enhanced coverage flexibility, throughout its history, broadcast radio has also gradually become an increasingly high quality medium in terms of its content delivery capabilities. From its low-fidelity, monophonic, speech-only, beginnings, the medium has evolved to become capable of delivering high-fidelity stereophonic music content, as well as additional non-audio data-streams (such as RDS RadioText etc.), through increasingly robust transmission pathways.

More recently, further technological advances have also increased the number of platforms over which radio programming can now be delivered. Such change has been especially prevalent over the past fifteen to 25 years. From the early 1990s, in particular, digitisation and convergence have both played their part, with new digital broadcasting technologies, such as EUREKA 147 Digital Audio Broadcasting (DAB), cable and satellite, all emerging in competition with established analogue platforms. In addition,

the delivery of broadcast content over non-broadcast infrastructure, such as the Internet and mobile phone networks, has become increasingly viable, at least from a technological perspective. The availability of Internet-based 'broadcasting' in particular has become relatively commonplace, although mass audiences and viable economic models, whilst existing in a minority of cases, generally remain elusive.

As a direct result of such developments, today, broadcast radio stations can be delivered via an increasing range of technologies, including both analogue and digital broadcasting platforms as well as other Internet-based and telecommunications-based networks, which were not originally intended as broadcast content delivery mediums. However, this plethora of options is not necessarily entirely beneficial; stations are plagued with a surfeit of choice. As one specialist broadcast radio operator put it:

Only as recently as the early 1990s, everything was clear: get a licence and an FM frequency and just get on with it! Today, it's much more complicated, there's much more competition and everything is multi-platform. We have to be more innovative to survive, and it's not clear which of the platforms out there we should be backing.²

Over recent years, technological advances in broadcasting and related fields have undoubtedly multiplied the number of *potential* programme delivery options for radio broadcasters. However, despite such advances, and at least for the present, traditional analogue radio platforms (FM & AM transmissions) remain very much the dominant delivery conduits for broadcast radio (such dominance being one of the key justifications for their continued regulation). Analogue platforms remain primary for a number of reasons, not least the fact of their ubiquity. Today, analogue broadcast radio coverage is near universal in terms of its geographical reach; whilst analogue broadcast receivers are almost omnipresent, not just in the home and workplace, but also in the car, in mobile phones and in a variety of other portable entertainment devices.

² Sammy Jacob, Managing Director of NME Radio, in conversation, October 2009.

Despite the increasing diversity of alternative programme delivery options for broadcasters, a further reason for the continued dominance of the 'old-guard' analogue transmission platforms is the location-specific focus of the majority of broadcast radio content. Where consumption (listening) is concentrated around a specific location, the one-to-many broadcasting model has particular economic and practical advantages over the telecommunications one-to-one model. Although digital transmission platforms also have the advantage of being broadcast technologies, the 'first generation' systems, which are currently prevalent, have, historically at least, tended to be less flexible in terms of their ability to meet the specific geographical coverage requirements of individual radio stations.

In the case of speech-based radio services, to a greater, rather than lesser extent, these require some geographical focus in order to be of relevance to their listeners. At the macro-level (for example in the case of national and regional services), such a focus may be used to help put international events into a national context or to focus on broader national issues. At the micro-level (of local and community broadcasting), it involves reporting and reflecting local experiences, tastes and interests. Despite the fact that music-focused radio programming can be created and delivered without much in the way of a geographical focus, nevertheless, in the majority of cases, elements of its content will still have a degree of geographically focused content included in their output.

For geographically targeted services, the key benefit of one-to-many broadcast delivery is that, although stations may pay extra for additional geographical coverage (range), there is no appreciable economic marginal cost for adding additional listeners. Broadcast radio stations must pay to achieve their broadcast range, regardless of the number of people actually listening to them. In addition, within the area to which the station broadcasts (its 'service area'), there is no upper limit to the number of individuals that can listen to its output; a 100% reach is, theoretically at least, achievable.

However, in comparison, although they tend not to have to pay for coverage range, for one-to-one telecommunications based delivery platforms, the greater the number of

listeners to a station, the greater the cost of programme delivery becomes. Not only is there a specific financial marginal cost per listener (typically fixed regardless of the distances involved), but, where consumption is concentrated around a specific geographical location, there may also be capacity limitations as to the number of concurrent listeners that the local telecommunications infrastructure can reliably accommodate.

Analogue broadcast radio platforms, therefore, currently offer a number of advantages beyond the fact that they can, to all intents and purposes, be said to be universally available and accessible to all, regardless of location, when at home, at work or when travelling. The penetration of even the most popular of digital technologies pales by comparison, both in terms of signal distribution and in relation to receiver availability. To date, in those countries that have pursued the introduction of one or another form of digital radio broadcasting, there remain locations (typically those that are more remote and rural) that are not yet properly served by the technology or technologies concerned. Moreover, the availability of digital radio receivers remains limited. Portable and mobile designs are particularly rare and, where they do exist, command a considerable price premium over their analogue counterparts.

Price premiums do not apply to the cost of digital receivers alone. Costs of transmission infrastructure also tend to be higher for digital transmissions than for equivalent analogue alternatives. There are a number of reasons for such discrepancies, including the need for royalty payments and the added complexity of the digital transmission chain. Such additional complexity can also load the cost of on-going maintenance, particularly because the engineering skills-base available will be smaller in relation to emergent technologies.

Perhaps the greatest problem for the proponents of new digital radio broadcast transmission systems is the flexibility and robustness of the established analogue platforms. FM broadcasting, in particular, can be scaled from the micro-level to the national, providing high quality stereophonic audio with limited digital data carrying capacity (RDS) built-in. Digital alternatives such as DAB can offer clear benefits in

some areas, such as spectral efficiency for wide-area coverage services, but they currently struggle to achieve levels of flexibility and cost-effectiveness similar to those offered by analogue FM. A further problem is that, at present, there are a number of different digital radio broadcasting systems competing with each other, with no one standard yet obtaining a clear dominance. Add to the mix the various concurrent developments in online, web-based, audio content delivery and it soon becomes clear that digital radio broadcasting is attempting to establish itself in a highly competitive media technology environment.

The relative merits of analogue and digital platforms are complex and are explored in more detail later in this thesis. However, as a result of all of the above, it is clear that there is public confusion over the potential benefits of digital radio broadcasting, whilst satisfaction levels for FM broadcasting remain high. It is for these reasons that analogue terrestrial broadcast radio spectrum remains a scarce resource, with demand continuing to outstrip supply. All broadcasters continue to want access to analogue broadcast spectrum because this remains the platform of choice for the vast majority of potential listeners as well as being the only currently viable route for reliable mass mobile and portable reception. Despite some attempts by individual administrations to encourage digital alternatives, it is not yet the case that even a minority of terrestrial broadcasters are volunteering to surrender their analogue spectrum. Indeed some, including numerous Community Radio operators, continue to press for access to more analogue frequencies, arguing that the current imbalance in their distribution unfairly disadvantages them, discriminating against their further expansion and development. Building on this introduction, the roll of technology today as it relates specifically to the operation of Community Radio services is examined in further detail later in this thesis.

Although technological developments (and changes in the attitudes of politicians) have allowed the total number of broadcast radio services available at a given location to increase dramatically over the years, the problem is that such increases in carrying capacity have failed (particularly in urban environments) to keep pace with the parallel demand for yet more additional radio services. With other non-broadcast demands for access to spectrum continuing to increase, the likelihood of additional spectrum being

allocated to broadcasting in the foreseeable future looks remote. An end to simulcasting (the transmission of a single programme stream on more than one broadcast frequency, for example on both FM and DAB) could, in some jurisdictions, potentially free up some additional resources. However, in many jurisdictions, the scale of imbalance between supply and demand is such that it would only be marginally reduced by any such moves.

3. Radio, Regulation and Change

A variety of external factors each play their part in the emergence of any new product or service. Radio broadcasting, as both a product and a service, is a case in point. In the early part of the Twentieth Century, "[s]ocial, *political and technological implications paved the way to regulation of* [radio] *broadcasting*" (Bensman, 2000: 3). As broadcast radio expanded, these factors were joined by commercial and wider economic considerations, creating, over time, the complex regulatory structures that underpin the operation of the medium today. Broadcast radio regulation imposes requirements and limits on the operation of licensed broadcast radio services, contributing towards the success or failure of individual new ideas and directions within the medium, helping or hindering their development, popularity, viability and longevity.

It might be argued that modern-day regulation of the broadcast radio medium must inevitably be more complex than it was earlier on, simply because it has to accommodate greater diversity and scale. However, on the other hand, it is important to keep in mind that it is not only the expansion and diversification that has taken place within radio broadcasting itself that has affected the way in which the medium is regulated today. Equally important is the wider socio-political context within which such regulation is implemented.

Radio broadcasting has matured and changed in ways that have been shaped, and in some cases dictated, by the impact of such external factors. Although partly comprising elements concerned with internal aspects of broadcast radio itself, in many respects, broadcast radio regulation can be understood as an intermediary. Such regulation

defines and controls the nature of the relationship between the radio 'industry', in all its various forms, and the demands of wider society as represented by the various external factors that impact upon the medium.

Although this thesis focuses on radio broadcasting and on Community Radio in particular, it is impossible to examine the specifics of broadcast radio regulation without first considering, albeit briefly, the wider concept of regulation as a whole. The notion of government regulation is a contested one, particularly in terms of degree and balance:

From the beginnings of modern political theory, there has been a debate about whether the state is best when this is small in scope, focused on creating the conditions in which people can live without constraint and allowing commerce to innovate and develop according to its own logic, or whether a strong state is necessary to counter the extreme effects of modernisation and capitalism so as to enable citizens themselves to further their interests and realise their potential (Lunt & Livingstone, 2012: 4).

UK broadcast radio regulation, as it exists today, reflects this debate in microcosm, being the result of a (sometimes shifting) compromise between competing demands and objectives from both sides of the above debate. As Lunt and Livingstone highlight:

There are considerable intellectual, political and social challenges to be faced as the state seeks to balance the protection of public interests in the face of powerful global economic interests exerting long-term pressures towards deregulation. (ibid.).

A key justification for the existence of broadcast radio regulation is the issue of scarcity. As discussed earlier, throughout its history, broadcast radio has been plagued by an imbalance between demand and supply in terms of available broadcasting frequencies. Despite technological advances, this imbalance continues, constraining licensing

opportunities and thus adding to the challenge of balancing the competing demands referred to above.

It is perhaps fortunate for the survival of broadcast regulators as a breed that the continued dominance of long-established analogue platforms means that the problems of spectrum scarcity have yet to be completely solved. Because demand for analogue frequencies continues to outstrip supply, decisions still have to be made about who should be granted the privilege of access to the airwaves and on what basis such access should be granted. Unless and until the dominance of the analogue broadcast radio delivery model is broken, such scarcity will, in one form or another, continue to require regulation. Even when such platforms are, eventually, superseded, it is still too early to judge how well their replacements might cope with future capacity demands.

Modern broadcast regulation is however concerned with more than simply allocating a range of scarce frequency resources. In the UK, and to a greater or lesser extent in most democratic countries, in terms of broader regulatory theory, it comes down firmly in favour of addressing "*not only economic but also social and cultural policy*" (*ibid.*, 18). It was this broad-based approach to regulation which underpinned the foundation of non-commercial BBC as a public service broadcaster and which, more recently, has provided a justification for the development of smaller-scale community-based broadcasting.

The politics behind broadcast regulation are by no means static and over the years have influenced the development of broadcast regulation from its original "*top-down state-led, command-and-control style*" (*ibid.*), to a more dispersed approach "*encompassing both administrative ... and even 'softer' or more discursive modes and techniques of power*" (*ibid.*). This gradual change is perhaps best exemplified by the way in which regulatory control of broadcasting has, over recent years, been removed from direct government oversight to become the responsibility of a succession of increasingly autonomous regulatory bodies.

One broader outcome of such developments is that the breadth and depth of broadcast radio regulation as a whole has tended to decrease. For example, detailed regulations concerning programming formats have gradually been diluted, and traditionally proactive and broad-ranging rules concerning 'taste and decency' have, as discussed further below, been largely replaced with reactive regulation, relating to a narrower set of issues encompassed by the phrase 'harm and offence'. Over recent years, and particularly in relation to commercial radio broadcasting, both 'input regulations', the imposition of regulations over how programmes are produced (for example, in terms of where programmes are produced) and 'output regulations' (for example, in terms of what content is required to be broadcast), have tended to be gradually reduced. From this perspective, it is possible to suggest that the 'high tide' of radio regulation is already receding.

Such changes do not simply reflect the changing attitudes and priorities of politicians and regulators. They also affect the attitudes and expectations of station operators, prospective station operators, and, not least, members of the wider general public. Such relaxations in the area of programme content have been driven not only by wider social change, but also, internally to the broadcast radio industry, by the commercial sector, in its constant search for lower costs and higher profitability. It is into this new world of reduced content regulation that UK Community Radio has emerged over the past decade. However, as the aims and objectives of Community Radio are very different from those of its commercial competitors, it remains to be seen whether or not such a 'light-touch' regulatory approach is also appropriate for non-profit-distributing services.

Over the years, technological advances have provided increasing opportunities for the expansion of radio broadcasting. Individual broadcasting platforms have matured, and others have emerged, diversifying the delivery options for radio programming beyond the confines of traditional broadcast transmission. Such evolution has, inevitably, affected the direction and development of broadcast radio regulation. Radio broadcasting has expanded, in terms of its scope, scale and influence, changing the make-up of broadcast radio regulation in the process. Even in the current situation where analogue radio broadcasting remains dominant, by definition, the modern-day

regulation of competitive broadcast radio plurality is inevitably very different from the earlier regulation of a small number of pioneering and often monopolistic providers.

Taking advantage of technological advances and adopting more market orientated approaches, over recent years, the attitude of British and European politicians has gradually relaxed somewhat. Rather than seeking to ensure the provision of only a small number of universally available, common interest, PSB services, as was the case during much of the earlier history of European radio broadcasting, today's politicians and regulators have somewhat eschewed such 'old-fashioned' notions of mutuality, in favour of approaches designed to provide choice, or perhaps, more precisely, 'consumer choice'. Thus, broadcast radio today has evolved to reflect underlying changes in society; more specifically, its regulatory guiding principles have become less centralised and paternalistic.

The regulation of broadcast radio can be sub-divided into a number of key policy areas, as summarised in Table 1.1 (below). Although many of these areas are distinct and separate from each other, broadcast radio regulation is complex and, inevitably, there are aspects that also overlap with each other.

The following table summarises a number of key policy areas that may be covered by broadcast radio regulation. However, it should be noted that the relative importance of these various elements will tend to vary on a jurisdiction-by-jurisdiction basis. In the UK, the principles of analogue radio regulation are currently set out within the Broadcasting Act 1990 (HMG UK, 1990). Digital radio is covered both by this Act and by the subsequent Broadcasting Act 1996 (HMG UK, 1996). The underlying powers of Ofcom are defined in the Communications Act 2003 (HMG UK, 2003), with specific duties concerning Community Radio being set out in the Community Radio Order 2004 (HMG UK, 2004) and the Community Radio (Amendment) Orders 2010 (HMG UK, 2010) and 2015 (HMG UK, 2015).

Table 1.1: Key Elements of Broadcast Regulation.	
(A) Spectrum Planning	Ensuring the optimal use of the electro-magnetic spectrum used for broadcasting. Preventing interference to other spectrum users. Defining coverage areas and preventing unlicensed transmissions (consisting of both international and national elements).
(B) Service Diversity / Plurality	Ensuring a diverse range of services is available by limiting content overlap between services available at a particular location (consisting of national and local elements).
(C) Content & Miscellaneous Regulation	Covering issues such as 'harm and offence', the protection of minors, electoral law, balance, undue influence, criminal activities, religion and privacy (in the UK, these matters are primarily covered by the Ofcom Broadcasting Code).
(D) Revenue Generation	Restrictions and requirements concerning the carriage and content of spot advertising and station / programme sponsorship (in the UK, these matters are covered by the Ofcom Broadcasting Code).
(E) Ownership Restrictions	Limits on station ownership within a given area and / or in terms of potential audience reach etc. 'Fit and proper' ownership etc.

Drawing upon Ofcom as the primary source of information, this table presents the issues surrounding the regulation of broadcast radio as discussed in detail in the regulator's various publications: *Radio – Preparing for the Future (Phase 1: Developing a New Framework)* (Ofcom, 2004(b)) and *The Future of Radio: The Future of FM and AM Services and the Alignment of Analogue and Digital Regulation* (Ofcom, 2006). Specific duties and approaches to the licensing of Community Radio services are set out in its consultation document: *Licensing Community Radio*, published in February 2004 (Ofcom, 2004). These various elements of broadcast radio regulation are applied in varying degrees to both the licensing process, prior to commencement of broadcasting, and to the operational activities of individual radio stations once licensed.

(A) Spectrum Planning

Limits on the availability of spectrum and managing competing demands for its use, were the original justifications for regulation of the airwaves. Both requirements remain relevant today and continue to influence the implementation of various elements of radio policy and regulation. At first glance, maximising access to the airwaves and minimising interference might appear to be relatively simple issues. However, as has previously been discussed, the whole concept of frequency scarcity (both real and invented) has been the subject of heated debate and argument since the earliest days of radio broadcasting. Sharing out the 'cake' of broadcast frequencies is not easy, particularly when the parties involved not only argue over how it should be sliced, but also disagree about the proportion of its ingredients, its shape and overall size!

The original twin objectives of sharing access to the airwaves and minimising interference remain the same today as they have always been. As spectrum usage has intensified, so too has the importance of minimising the amount of interference that might be caused, both between individual stations, and between radio broadcasters and other non-broadcast spectrum users. Meanwhile, the demand of additional broadcast radio services has also increased, adding weight to the importance of maximising the number of broadcast services that can co-exist and be received within any given area. Moreover, with control of frequency allocations requiring, by necessity, international collaboration, the importance of national self-image and external profile cannot be ignored. Frequency planning, particularly across the crowded continent of Europe, has always been the subject of inter-jurisdictional rivalry, as countries seek to maximise their own access to the airwaves.

From a technical perspective, spectrum is shared between competing users through frequency planning. In the analogue world, the coverage achieved by a particular radio station can be increased in three ways: firstly, by selecting the most appropriate transmitter site; secondly, by maximising the amount of power radiated by the transmitter; and thirdly, by introducing additional frequencies and transmitter sites to carry the same programming beyond the range of the original transmitter. However, in

the analogue domain, the greater the coverage achieved by a particular radio station, the further away from it the frequencies concerned can be re-used by other services. On the other hand, weaker signals create problems of inadequate mobile and portable reception as well as an increased susceptibility of the programme material being carried to interference. The higher the level of unwanted signal 'noise' from other distant, unwanted services, the greater the amount of degradation that occurs to the wanted radio signal. The objective of regulation here is to maximise the degree to which such problems can be ameliorated through the imposition of rules and limits that ensure adequate coverage, whilst at the same time attempting to prevent interference between broadcasters and between broadcasters and other spectrum users. In a crowded broadcasting environment, it is still possible to introduce additional services, but *only* at the expense of causing increased degradation to the reception of services already broadcasting in the same and adjacent areas. Under such circumstances, coverage is effectively constrained by a process referred to as 'interference limiting'.

Part of the reason for on-going technological developments in radio broadcasting is a drive to overcome the various limitations mentioned above. However, from another perspective, the evolution of radio broadcasting policy as it relates to technological change can often appear to take the form of an on-going game of catch-up the other way around. Politicians and regulators often struggle to keep abreast of an increasing range of technological developments, failing to understand fully their various implications. As a result, the reactions of politicians and regulators can often be slow (they might argue cautious) and inappropriate, resulting in regulatory environments that are less than ideal for the radio industry and / or the wider general public (as both citizens and consumers).

The requirements of spectrum planning (A in Table 1.1 above) place specific technical limits on the number of radio services that can be broadcast to a given location.

However, as a multitude of technological advances have been made in relation to the transmission of broadcast radio services, it has been possible to increase the number of radio services provided. For example, as AM broadcasting was supplemented by FM, regulators were able to increase variety of radio stations they licensed to broadcast. In

some areas at least, the subsequent arrival of digital transmission systems has further increased the availability of additional services.

Although technological advances have facilitated a gradual expansion in the availability and increasingly efficient use of broadcast radio spectrum, there remain other non-technical uses of the frequency scarcity argument. Specifically, a further fundamental limitation on the licensing of additional services has been the traditional and often entrenched cautiousness of politicians and regulators. These actors have historically tended to regard access to the airwaves as a privilege to be jealously guarded, rather than a right to be facilitated by the state for the benefit of its citizens. Concerns about the technical issues of frequency scarcity and interference, genuine as to some extent they may be, have also been used as a proxy for the broadly political placing of limits on the types of groups and individuals granted access to the airwaves.

From its earliest days, the perception of radio broadcasting has been one of a powerful medium, one with a potential to exercise considerable influence over its listeners (as both citizens and consumers). Such perceptions have undoubtedly influenced the way in which the medium has been permitted to develop, and, to a certain degree, this still remains the case today. Particularly in Europe, politicians have tended towards caution, limiting access to the airwaves through legislation and regulation in ways that would probably be considered intolerable if applied to other walks of life, or to other media. It is difficult to imagine more traditional media, such as printed newspapers and magazines, or so-called 'new media', such as Internet communications and the World Wide Web being regulated to the same degree. It is the existence of the frequency scarcity argument that underpins the application of stricter regulation in relation to broadcasting alone.

Nevertheless, as Western society has become less homogeneous, so the demand for additional radio services, which encompass and reflect the increasingly diverse range of individual tastes and interests, has expanded accordingly. In trying to accommodate such demands, the response of British and Western European politicians and regulators has tended to err on the side of restraint, particularly when it comes to considering the

demands of more marginalised elements of society, as so often represented by the Community Radio sector. Thus, official attempts to reflect and accommodate some of the growing diversity and individualism to be found within today's increasingly multicultural and consumer-driven society have tended to be limited in terms of their relative scope and scale.

Regulation in relation to frequency availability has not therefore developed solely as the result of attempts to minimise purely technical problems caused by practice coming up against the current limits of broadcast radio technology. From the outset, such concrete considerations have undoubtedly been important, but so too have political and cultural concerns about the potential social impacts of radio broadcasting.

(B) Service Diversity and Plurality

This second element of broadcast radio regulation arises, at least in part, out of the first. Over the years, the popularity of radio broadcasting along with a desire to control access to it, have conspired to create a consistent problem of imbalance (genuine and manufactured) between supply and demand in terms of available broadcasting frequencies. Although, as has been shown, technological advances have considerably improved the availability of usable broadcast frequencies, demand for access to such spectrum has also grown, such that the imbalance between supply and demand continues to exist.

Despite such difficulties, over the first century or so of its existence, broadcast radio has evolved from an initial handful of single platform, broad-format, mono-cultural channels, to the present day multi-platform, multi-station, multi-cultural model, encompassing every possible scale, from the international to the ultra-local. In parallel with such developments, the nature of broadcast radio content has also changed. The vast majority of broadcasters no longer seek to provide programming of interest and relevance to everyone within their coverage area, typically through the provision of a diverse range of programming. Instead, most of today's radio stations, particularly those that operate on a commercial 'for-profit' basis, tend to be increasingly formatted, so as

to serve, or 'super-serve' only a specific sub-section of the total potential listenership available within their coverage area.

Commercial radio broadcasters identified as early as the 1930s that popular programming aimed at a lowest common denominator was the best way to maximise listenership and therefore profits. As a result, commercial broadcasters tend to compete with each other within a relatively narrow band of popular formats, leaving more specialist and niche interest programming to others. Thus, a simplistic market-based approach to the regulation of broadcast radio has its limits, as there are various types of programming that the 'market', because of its need to maximise profitability, is not interested in or capable of providing.

Nevertheless, in jurisdictions such as the United Kingdom, it still remains the case that considerable weight is placed upon the wider social value of various types of broadcast radio programming, which commercial radio broadcasters lack the will or capability to provide. It is primarily for this reason that not all of today's broadcast radio services are privately operated on a for-profit basis. Public Service Broadcasters (PSBs) and, more recently, Community Radio services, exist, at least partly, to provide services that the market cannot or will not deliver.

Here then, is the second justification for regulating diversity and plurality of content: a desire to broaden the range of programming available to beyond that which the market alone would provide. In some countries, for example the United Kingdom, this objective has led not only to the creation of a strong PSB provider in the shape of the BBC, but also to various interventions in the licensing and operation of commercial radio broadcasting. In some other jurisdictions, such as the United States, where faith in the market has traditionally been stronger, much smaller market interventions have been made. Commercial radio there is much more lightly regulated and Public Service Broadcasting, in the form of National Public Radio (NPR) is a far smaller and more marginal operation.

Given such market limitations and the long-standing imbalance between supply and demand, many jurisdictions have implemented regulatory attempts to broaden the range of services available and share out limited broadcasting spectrum. There are a number of ways in which this can be done, ranging from a lottery or auction, to some sort of 'beauty contest', which requires applicants to guarantee certain characteristics of their proposed service, should it be awarded a licence to broadcast.

Analogue local radio licensing in the United Kingdom is carried out under the requirements of the Broadcasting Act 1990 (HMG UK, 1990), and section 105 of the Act requires that the licensing body take into account:

- (a) the ability of each of the applicants for the licence to maintain, throughout the period for which the licence would be in force, the service which he proposes to provide;*
- (b) the extent to which any such proposed service would cater for the tastes and interests of persons living in the area or locality for which the service would be provided, and, where it is proposed to cater for any particular tastes and interests of such persons, the extent to which the service would cater for those tastes and interests;*
- (c) the extent to which any such proposed service would broaden the range of programmes available by way of local services to persons living in the area or locality for which it would be provided, and, in particular, the extent to which the service would cater for tastes and interests different from those already catered for by local services provided for that area or locality; and*
- (d) the extent to which any application for the licence is supported by persons living in that area or locality* (HMG UK, 1990).

Although this 'beauty-contest' based approach is used for analogue local radio licensing, alternative approaches are taken for other types of service. BBC radio services are licensed under the terms of the Corporation's Royal Charter, with each BBC radio

service (national and local) having its own Service Licence.³ National analogue commercial services were awarded their original licences by way of an auction process (HMG UK, 1990: Sections 98-103), whilst national and local digital programme services are licensed under the terms of the Broadcasting Act 1996. This contains similar requirements to those concerning local analogue licensing ((a) to (d) (above)), but allows the multiplex licence holder to sub-contract the provision of the various individual programme services it carries (provided these meet the requirements of its licence and are approved by the regulator) (HMG UK, 1996 Sections 47 & 51).

In the UK at least, the current diversity of approaches to broadcast radio licensing is something of a pick-and-mix affair, and the arrival of Community Radio licensing further complicated the licensing matrix. In addition to being required to meet the requirements of Section 105 of the Broadcasting Act 1990 (above), the terms of the Community Radio Order 2004 (HMG UK, 2004: Section 5), modify this to include a further three clauses as set out below:

- (e) the extent to which the provision of any such proposed service would result in the delivery of social gain to the public or the relevant community;*
- (f) the provision that each of the applicants proposes to make in order to render himself accountable to the relevant community in respect of the provision of the proposed service;*
- (g) the provision that each of the applicants proposes to make to allow for access by members of the relevant community to the facilities to be used for the provision of the service and for their training in the use of those facilities.*

The inclusion of these additional requirements in the Community Radio licensing process serves a dual purpose. In addition to ensuring that UK Community Radio services are focused on the provision of benefits to their target communities, these clauses also help ensure that such services are effectively prevented from becoming

³ Details of BBC Service Licences are available on-line at:
http://www.bbc.co.uk/bbctrust/our_work/service_reviews/

commercial radio 'clones' and thereby increase the degree of competition with stations in the established small-scale commercial sector.

(C) Content and Miscellaneous Regulation

The spectrum planning and content diversity elements of broadcast radio regulation, as discussed above, can broadly be considered to be positive regulatory interventions, designed to maximise the effective delivery of a large and diverse range of broadcast radio services. However, in addition to facilitating access to the airwaves through the licensing process, regulators are also concerned with oversight of the programming content carried by individual radio stations. Typically, in a European context at least, prospective radio stations are required to provide details of their intended programming content and once on air, they are required to abide by rules concerning content regulation. The core objective of such regulation is to prevent certain types of content (as summarised in Table 1.1 above) from reaching the airwaves.

In the UK, content regulation is a further responsibility of the broadcast regulator, Ofcom, which publishes (and regularly revises) its Broadcasting Code (Ofcom, 2008 and 2015 (d) etc.). Divided into sections, this code sets out a wide range of rules that cover issues such as: the protection of minors; harm and offence; crime; religion; due impartiality and accuracy; elections and referendums; fairness; privacy; sponsorship; and, commercial references. Outside the code, there are other minor regulatory hurdles for broadcasters to overcome. These include a requirement that any licence must be held by a "*fit and proper*" person, for example, not someone who has been prosecuted for unlicensed broadcasting within the preceding five years (Ofcom, 2012 (b)).

Community Radio services tend to be highly targeted in terms of both their programming outputs and potential audiences. A key element within Ofcom's broadcasting code is the section which deals with 'Harm and Offence' (*ibid.*, 14-17).⁴

⁴ Previously, such programme content issues were captured under the broader umbrella term of 'taste and decency'. Present-day terminology is therefore more tightly defined than was previously the case.

The problem for minority Community Radio operators is that although "*context*" is taken into account, such regulation is based on "[g]*enerally accepted standards*", (*ibid.*, 14) which may not be relevant to the minority audience involved. The degree to which certain generic rules concerning the nature of broadcast content may be appropriate for such services can be a concern for their operators. This is particularly the case when the target communities involved are marginalised with respect to mainstream society. How broadcasting regulations are implemented and the degree to which they accommodate such diversity is an issue that can have a considerable impact upon the effective delivery of such services.

(D) Revenue Generation

A key input of any radio broadcasting organisation, large or small, is the revenue streams available to it. To a certain extent, the nature of these revenue streams impacts upon the nature of a station's outputs. From a regulatory perspective therefore, defining the revenue streams available to a given type of radio station can be an effective tool for achieving various public policy objectives, such as promoting economic growth, encouraging competition and ensuring a diversity of radio services.

For PSB and commercial broadcasters, the predominant sources of income that each of them draw upon is clearly defined. In the UK, the Television Licence Fee is also used to fund BBC network and local radio services, with commercial radio stations being predominantly funded by the sale of spot-advertising and programme / station sponsorship opportunities. Stations that depend upon on-air commercial activities for their funding, by necessity, need to broadcast programmes that attract a large audience. A larger audience, whilst more economically attractive, may only be achievable with mainstream programming content. BBC PSB radio on the other hand, funded by a hypothecated tax, is required to provide a broad range of programming, including minority content, which would not always be commercially viable.

By comparison, in the UK at least, funding for Community Radio is a rather more complex affair. At the national level, dedicated public funding is currently limited to approximately a mere £0.45 million per year (DCMS web-site, 2012 and Ofcom,

2011). However, as Steve Buckley noted as early as 2009, this fund "*has not kept pace with growth in the number of services*" (Buckley, 2009). Indeed, in the years since this fund was established in 2005, it has not increased, despite the fact that the number of operational Community Radio services eligible for support has grown more than ten-fold, from under twenty to approaching 250 (as at April 2012).

Further dedicated funding is sometimes available from individual nations; for example, in Wales, Community Radio stations can access a £100,000 fund (Welsh Government web-site 2012) and occasionally, local authorities will provide financial support for stations in their area (see for example Government Funding web-site, 2012). However, most Community Radio stations will tend to have to compete for funding from more general government-related, third sector and charitable funding schemes.

Other popular sources of funding for Community Radio services include donations from supporters, on-air commercial sales and 'Service Level Agreements' (SLAs) under which individual stations will deliver particular services for external organisations such as local government departments, schools or hospitals.

On-air commercial activity (primarily spot-advertising, along with programme and / or station sponsorship opportunities), whilst permissible for most Community Radio stations in the UK, is constrained by legislation. The maximum any community station can generate from all such sources is 50% of their total operational costs (HMG UK, 2004: 7). However, to protect the interests of very small-scale commercial broadcasters, where the majority of a Community Radio station's coverage overlaps with that of such a station, the community broadcaster was, until recently, automatically prevented from generating any income at all from on-air commercial activities (*ibid.*) and additional restrictions still apply in such instances.

Ofcom's annual report on the Community Radio sector for 2010 / 2011 (the most recent available at the time of writing in 2015) makes clear the diversity of funding sources that stations draw upon, noting that, on average, stations obtain some 37% of their funding from grant sources, as compared to an average of 21% from commercial

activities (advertising and sponsorship). Donations and 'Service Level Agreements' typically comprise 12% and 11% of funding respectively, with various miscellaneous sources comprising the remaining 6% of income (Ofcom, 2011 (a): 15).

Whilst Community Radio's sources of funding are both diverse and, to a certain extent, perhaps unpredictable, it would be wrong to assume that this automatically means that their funding is intrinsically less reliable. Commercial radio stations have no guarantee of a steady level of income and BBC station budgets, especially for local stations, can be squeezed from the centre at short-notice.

(E) Ownership Restrictions

Beyond legislative requirements to ensure that radio station owners are considered "*fit and proper*" persons for the role (Ofcom, 2012 (b)), ownership restriction can be used to help promote diversity of content and localness. In other words, this type of input regulation can also act as something of a proxy in relation to various forms of output regulation.

Specifically in relation to Community Radio, the ownership limits applied are, in the UK at least, stringent. Legislation not only limits control through ownership to only a single Community Radio Licence, but also prevents owners of commercial radio stations or groups exercising control of community stations.

Although not universally accepted, the single station ownership limit is generally approved of by the Community Radio sector, primarily because it has seen the decline in localness and specialist programming, which has occurred in the commercial sector since mergers and conglomeration into national groups has become the norm there.

It should be noted, however, that the single station ownership rule for UK Community Radio does not preclude close cooperation between community stations or even between community stations and commercial ones. For example, various 'BFBS / Garrison Radio' community stations around the country are all permitted to share the majority of

their programming aimed at military personnel and their families, even though each station is independent of the other.

Technological Impacts

Aside from macro-level spectrum and frequency planning, broadcast radio regulation is a national rather than international competency. This can be problematic because radio waves do not respect geographical political boundaries (as has been demonstrated over many years by the activities of broadcasters including 'Radio Luxembourg' and the various off-shore 'pirate' stations). However, before the advent of Internet and satellite broadcasting, the impact of such interlopers was limited because of frequency availability limitations.

Today the situation is very different. Internet radio "broadcasting" has emerged, at least in part, because of the technical limitations of traditional broadcasting technologies. Current bandwidth issues aside, by comparison with established platforms, Internet radio broadcasting is practically unlimited in relation to geographical reach and in terms of the number of services it can carry. Meanwhile, both terrestrial and satellite digital broadcasting technologies were designed from the outset to address the issue of analogue spectrum scarcity, and, in the case of satellite delivery, to operate on an international scale.

Because such border-agnostic technological developments make the delivery of externally originated content both easier and cheaper, the inevitable result is a weakening in the effectiveness of regulation at the national level. A broadcaster wanting to avoid the restrictions of the Ofcom Broadcasting Code can, at least in principle, establish itself in another jurisdiction and deliver programming from there instead. In practice, with the continued dominance of traditional broadcasting still in place, such an approach can have only a limited, peripheral impact. However, as Internet radio listening increases, the writing may well be on the wall for at least some elements of the 'gate-keeping' role of radio regulation.

In broader terms, should such delivery methods reach the mainstream in future, then the long-term frequency scarcity justification behind broadcast radio regulation would be ameliorated. Given that the original justification for interventionist broadcast radio regulation rested on perceptions of spectrum scarcity, it is at least possible to conceive of a future broadcasting environment within which many of the established regulatory levers are either deemed irrelevant or are found to be no longer functional.

Building on the above, the roll of regulation today as it relates specifically to the operation of Community Radio services is examined further, later in this thesis.

4. The Link Between Technology & Regulation

As can be seen from the above, the relationship between wider societal changes, broadcast transmission technologies, the evolution of broadcast radio and the development of its regulation is a complex and inter-woven issue. The way in which radio is changing, and the context within which such change is occurring, may place contradictory, sometimes even mutually exclusive, demands upon the approaches taken towards regulation and its implementation. More specifically, there exist various competing interests, both commercial and otherwise, each wishing to prioritise its own agenda through access to the airwaves. At its heart, the challenge for broadcast radio regulators is about balancing competing and sometimes conflicting demands, not just between competing broadcasters, but also in ways that are, hopefully, of maximum benefit to the listening public as both citizens and consumers.

Whilst distinct and separate in some respects, inevitably, the two issues of regulation and technology are particularly closely linked. Technological developments often drive changes in regulatory approaches and priorities, whilst, conversely; non-technical developments in policy direction and regulatory frameworks can impact on the effectiveness and viability of specific technologies. In reality, therefore, the relationships between technology and regulation are often complex and multi-faceted. Potentially, they can be either beneficial or damaging, sometimes to the point of being either symbiotic or, conversely, destructive. The two-way street between regulation and

technology has numerous intersections, twists, turns and diversions along the way. An obvious specific example here would be the on-going development and roll-out of Digital Audio Broadcasting (DAB) and its numerous variants. Such broadcasting transmission technologies, which offer both advantages and disadvantages for broadcasters and the public alike, will be explored in more detail, with specific reference to the requirements of Community Radio broadcasters, later in this thesis.

Despite the best attempts of politicians and regulators, some elements of broadcast radio regulation do, on occasion, seem to be playing 'catch-up' with the realities of the broadcast radio technological environment. Here, one obvious example is that of unlicensed 'pirate' broadcasting in its various forms (both off-shore and on-shore), which dates back until at least the early 1930s (Clayton, 1933: 31 & Coe, 1996: 35), and which advances in technology have gradually made increasingly simple and inexpensive to operate (Martin, 1974).

Conversely, regulation has always had influence over the uptake of particular technologies. For a broadcast technology to be successful, it needs not only to be effective in achieving its technical objective, but also to be compatible with relevant regulatory rules and requirements. In circumstances where either one of these objectives is not met, the technology in question is unlikely to thrive.

To take an obvious example, FM broadcasting became a popular international standard, not only because of its technical prowess and advantages over AM broadcasting, but also because of its inherent flexibility. This not only allowed regulators to use it to target specifically defined coverage areas, but also, above all, it allowed them to re-use the frequencies involved more often than was the case for AM transmissions.

Equally, AM stereo broadcasting was never accepted in Europe because it was incompatible with other ancillary uses of AM broadcast signals and because it required changes to the engineering regulations surrounding the planning and installation of AM transmission systems. More recently, attempts to introduce HD Radio to Europe have also met with strong resistance from regulators because of similar incompatibilities.

Here again, the application of broadcast radio regulation involves decisions designed to best facilitate the effective selection and use of technologies in ways intended to help ensure the most effective use of available frequencies. The primary regulatory objective remains maximising the number of available broadcast radio services of adequate technical quality to be easily and reliably received by potential listeners.

5. The 'Place' for Community Radio Services.

The way in which early radio broadcasting evolved, was, as has previously been alluded to, dictated, as least in part by the nature of the society into which it emerged.

Although the later arrival of Community Radio was similarly influenced by external socio-economic factors, it was also emerging into a pre-existing and mature broadcasting ecology within which ground-rules had already been set and 'territories' staked out by existing players. The nature, scale and competencies of other pre-existing forms of radio broadcasting, particularly in terms of programming and economic models, have undoubtedly exercised a degree of influence over the development of Community Radio, as it is understood today.

Community Radio has not only emerged into a crowded radio environment in terms of existing broadcasters; it has also emerged into a medium that has pre-existing and fully developed regulatory frameworks. However, this is also an environment that is in something of a state of flux, challenged, not only by demands that it should accommodate a new 'third-tier' of Community Radio broadcasting, but also, more profoundly, by such issues as the introduction of new technologies, shifts in the balance of power between the existing PSB and commercial sectors and, not least, on-going changes in the attitudes of politicians and the needs and desires of the general public.

In fact, it can be argued that the emergence of Community Radio is a reflection of both developments in radio broadcasting as a whole and of wider societal changes. The 'grass-roots' demand for locally owned and controlled radio services reflects not only the importance that people place upon their locale and the 'local experience', but also the fact that other broadcasters, particularly from the commercial sector, have, over recent

years, tended to pull back from the delivery of such services. Community Radio services that broadcast to a 'community of place' develop a deliberately narrow geographical focus, in part because this is increasingly missing from other forms of radio broadcasting. Where a 'community of interest' rather than a 'community of place' is the driver for the operation of such a service, the importance of the shared 'community experience' changes its form but nevertheless remains central.

As the emerging 'third-sector' of radio broadcasting, Community Radio is playing its part in contributing to the increasing diversity of radio services. Community Radio differs from public service and commercial radio both in terms of what it tries to achieve and through the methods by which it seeks to achieve such objectives. These differences are at the heart of Community Radio, visible through the range of inputs that it employs, the structures it creates, the processes it engages in and the outputs that it generates. Crucially, such services are concerned with more than simply the delivery of radio programmes. In fact, it could be argued that a successful Community Radio service is almost always engaged in the delivery of a wide range of community benefits beyond the provision of broadcast content alone. Nevertheless, the traditional radio broadcasting element remains central. This is not only because of its ability to provide an efficient platform for the dissemination of relevant local content, but also because of the integral role it can play in the delivery of wider social engagement. Radio is a key tool, not just for the effective provision of information, education and entertainment, but also for the promotion of engagement and interaction as well as wider community benefits such as community cohesion and integration.

Part of what makes Community Radio different from other forms of radio broadcasting is therefore the degree of interactivity and interdependence that such services have with their listeners and the wider communities within which they operate. Such relationships are at the heart of the Community Radio ethos. While mainstream debates about the future of broadcast media tend to focus on issues such as ownership, scale, plurality and the cost and difficulties of providing local content, Community Radio provides something of a practical counter-balance. It actively engages at the micro-level and takes

on the challenge of delivering the types of content that other, larger, broadcasters are either not interested in or are incapable of producing.

Technologically, the community sector has been generally quick to embrace the benefits provided by Internet-based web technologies, primarily as adjuncts to their main analogue broadcasting delivery platforms. By comparison however, the various emerging digital broadcast delivery platforms, such as DAB, have so far proven to be of little relevance to Community Radio broadcasters. As will be examined in more detail later in this thesis, there are two key factors that define the sector's interest in particular new technologies: specifically, appropriateness and cost. Recent changes to the cost and regulation elements of DAB are of special relevance here and are explored in detail later in this thesis.

The structure and objectives of Community Radio services provide them with both benefits and disadvantages. On the plus side, Community Radio services are flexible and adaptable, able to choose to provide services complementary to those of their competitors. Free from the profit-making requirements of the commercial sector and of the universality requirements that typically apply to public service broadcasters, Community Radio operators have the ability to target much narrower and more clearly defined target audiences than is the case for other types of radio broadcaster. Against such advantages, Community Radio stations are typically far less well resourced than are their successful commercial rivals and established PSB competitors.

It is precisely because the operations and objectives of community radio services are more diverse than those of other radio broadcasters that, internationally, the sector typically seems to require its own unique legislation and regulation in order to survive and flourish. Earlier experiments in UK-based community broadcasting, such as the 'incremental radio licences' granted by the Radio Authority in the late 1980s and early 1990s demonstrated how, without such protections, such services can be extremely vulnerable to the risk of commercial pressures not only diluting, but eventually overwhelming and usurping their distinctive altruistic nature. Part of the problem here is that, as a consequence of its relative youth, Community Radio has emerged into a

broadcast radio world already inhabited by an established (perhaps even entrenched) broadcasting duopoly. In order to justify its own existence, as well as the existence of specific underpinning legislation and regulation, it is essential that Community Radio is able to distinguish itself from these pre-existing PSB and commercial operators.

The role, or 'place', for Community Radio is shaped by its distinctive (altruistic / third-sector) character, whilst the 'space' for the delivery of such Community Radio services is determined through the application of enabling and defining regulation. The provision of specific regulations that encompass the operation of Community Radio services, helps provide such stations with a degree of protection against encroachment by larger, more well established broadcasters, thereby attempting to create a sustainable 'space' for community-based broadcasters. However, specific legislation and regulation are not without their problems, for example in terms of their scope and scale, or in terms of their ability, or inability, to react quickly to emergent external factors such as new technological changes and trends. Such issues will be examined in greater detail throughout the remainder of this thesis.

Conclusions

The purpose of this opening chapter is to provide a broad context within which the position of Community Radio can subsequently be considered in greater detail. In this chapter, I have therefore provided an historical overview of the development of radio broadcasting in the United Kingdom, from its early monopolistic beginning to the diverse medium that has since emerged. In particular, this chapter has explored what might, from a Community Radio perspective, be described as the 'pre-history' of broadcast radio in the United Kingdom, that is to say the period prior to the emergence of the concept of Community Radio as a separate 'tier' of broadcast radio.

I have also explored the way in which technological advances progressively improved and diversified the delivery of broadcast radio services, enabling an increasingly number of broadcast radio stations to operate within available spectrum capacity. Issues relating to broadcast radio regulation, its objectives and the way in which technological developments influence its implementation have been examined to demonstrate the

increasing complexity of this task. The close entanglement between broadcasting technologies and the regulation of the medium is subsequently highlighted.

Having considered these key contextual elements, I have then drawn this chapter to its close by moving on to identify some of the impacts such context has had on the emergence of Community Radio in the United Kingdom. I argue that this context is critical to the fundamental research question under consideration in this thesis, that is to say, how the 'place' for Community Radio might be properly defined. Finally, as a precursor to the next chapter, which considers the situation in the United Kingdom in more detail, I have drawn this chapter to a close by summarising the environment into which full-time Community Radio services were finally introduced into the United Kingdom during the earliest years of the Twenty-First Century.

As set out above, I suggest that the development of Community Radio in the United Kingdom has been heavily influenced not only by the nature of modern-day society, but also by the history of the wider broadcast radio medium as a whole. Whereas this chapter has provided a broad historical context within which to view the arrival of Community Radio in the United Kingdom, the focus of the following chapter is, by necessity, narrower. It examines the evolution of the British Community Radio sector in more detail and traces its emergence to policy debates that date back at least as far as the immediate post-war period.

(14,039)

CHAPTER 2:

The Arrival of Community Radio

As has been shown in the preceding chapter, various external factors have played a part in shaping the current state of Community Radio in the United Kingdom. This chapter focuses in particular on two key underlying factors, both of which, it is argued, have been especially strong influences on the emergence and subsequent evolution of British Community Radio policy and practice.

Firstly, this chapter argues that various local influences, such as the offshore broadcasting boom of the 1960s and the role of the BBC over the long term, have impacted both the direction and speed of wider broadcasting development as a whole and of Community Radio in particular.

Secondly, when tracing the development of Community Radio in the United Kingdom, it is important to acknowledge from the outset that such development took place later than in various other parts of the world. Given such temporal delay, much of the UK Community Radio sector's underlying conceptual framework and policy objectives were, from the outset, inevitably heavily influenced by perceptions and experiences of pre-existing structures and practices in other jurisdictions.

Accordingly, this chapter makes reference to various international comparators in order to place the British experience in a wider context. It explores how, eventually, the circumstances were such that the sector was provided with the opportunity to draw upon pre-existing international policies and practice when the time finally came to develop the legislative and regulatory frameworks for the so-called 'third-sector' of radio broadcasting in the United Kingdom.

The Emergence of Community Radio in the United Kingdom

In order to appreciate how the distinctive nature and purpose of Community Radio broadcasting emerged over time, it is first necessary to have an understanding of the historical context within which such evolution took place. As set out earlier in the

introduction to this thesis, a fundamental issue has been the relative positioning of Community Radio in relation to larger, longer established, and typically better funded PSB and commercial broadcasters.

A primary justification for the existence of Community Radio is that it provides clearly defined 'additionality', expanding the mix of broadcast radio services available at a given location. This is particularly the case in Western European jurisdictions, but also, to a lesser extent, elsewhere, such as in the United States. Thus, the ways in which Community Radio services add to the mix of broadcast radio provision has always been a critical concern, inevitably influencing the conceptualisation of the sector as well as its relationships with other forms of radio broadcasting, as they exist today.

The term 'aditionality' is important here, because although some aspects of community radio output will be unique to the particular service concerned, other aspects will not necessarily be so. For example, a geographically-based 'community-of-place' broadcaster might provide a range of specialist music outputs and local speech-based content that is unique, but such output might be broadcast alongside other music output and local speech-based content, which broadly duplicates the types of material broadcast by other local PSB and commercial stations in the same area.

In a Western European context, Public Service Broadcasters (PSBs) may generally be said to seek to protect their historical position of privilege whilst commercial radio operators seek to expand their market share. Over recent years, Community Radio has introduced another side to this historical conflict between the public and the private spheres. Much of the following thesis is concerned with the relationships and boundaries between the three sectors of radio broadcasting, (in addition to considering the role of unlicensed operators). How rigid might the divisions between the various players be, and what potential might there be for conflict or for mutually beneficial collaboration? What role may be played by regulation and technological development in relation to the relative future strengths and weaknesses of each of the three licensed sectors?

Similarities of approach can also be found in other areas of activity, such as for example engagement with listeners. Although Community Radio services will typically interact much more widely with individual members of their target audience than might nearby PSB and commercial stations, all three types of station will tend to employ some techniques that are similar, such as for example, the use of web-site forms, text messages and e-mails. Community Radio stations may go much further in terms of their outreach and listener engagement, but in a variety of operational areas, there will often be considerable similarities between the activities of such broadcasters and those of other radio stations. Such similarities are likely to be most prevalent between Community Radio services and local traditional public service broadcasters (in the UK, BBC Local Radio), and, perhaps to a somewhat lesser extent, between Community Radio services and those commercial radio stations that have a relatively small-scale broadcast coverage area.

However, of itself, the actual provision of additionality is not the key issue here. More importantly, such additionality must be accepted as such, and be recognised as having both relevance and value by politicians, regulators and, not least, other non-community broadcasters. The provision of additionality is closely linked to the fundamental principles of Community Radio, particularly in terms of its inputs, structures, processes and outputs. Over the following pages, these factors are examined and discussed in more detail and contextualised in relation to the aims and objectives of community media more widely. Particular attention is paid to how the fundamental principles of Community Radio compare with those of public service and commercial broadcasters.

Given the relatively late emergence of full-time Community Radio in the United Kingdom, this examination begins with an historical overview, which includes international as well as domestic elements. It examines the degree to which the approaches taken in respect of the introduction of British Community Radio were influenced by preceding, wider, international developments.

As the following paragraphs will show, whilst the British concept of Community Radio is by no means a 'carbon-copy' of the sector in other jurisdictions, it has however

benefited from being 'late to the party'. Both those involved in campaigning for the introduction of Community Radio in the United Kingdom, as well as those involved in drawing-up its enabling legal and regulatory frameworks were able to draw upon a wealth of existing international experience and expertise. As a result, the British approach to Community Radio is based, at least in part, on the 'cherry-picking' of those pre-existing international elements, which were thought to be both relevant to the emerging UK concept of Community Radio and which had the advantage of already having being shown to work within the context of various other jurisdictions.

There are, however, also disadvantages to being a late arrival. The dramatic expansion of commercial radio throughout the late 1980s and 1990s has led to genuine problems of frequency scarcity, limiting the opportunities for new Community Radio service, particularly in some of the larger urban conurbations. The UK's Community Radio sector has grown fast over the past few years, but opportunities for its expansion in the traditional analogue broadcasting domain were limited from the outset and are being further reduced as each new station takes to the air. As will be discussed later in this thesis, technological developments and regulatory mechanisms may both aid the future expansion of the sector but, in both cases, potential benefits of substantial scale for the sector remain, at best, some way off.

The journey towards the arrival of Community Radio in the United Kingdom has been a long and bumpy ride with numerous false starts, diversions and stops along the way. Pressure for the introduction of UK Community Radio can long be said to have come from two sometimes overlapping but nevertheless distinct backgrounds. On the one hand, a long-running political campaign, largely based around notions of democratic access to the airwaves, was driven forward by various campaigning bodies, most notably the Community Radio Association (CRA), later renamed the Community Media Association (CMA). In parallel, there were also direct-action challenges from a diverse range of unlicensed 'pirate' broadcasters, which, between them, demonstrated some elements of community broadcasting, by simply ignoring the fact that they had not been granted broadcasting licences.

Although unlicensed broadcasting can be said to date back to the earliest days of wireless radio (there were no licences at the time of its creation), it first came to prominence in Europe through the activities of the off-shore 'pirate' broadcasters of the late 1950s and 1960s (Harris, 1976). Following the passing of the Marine (etc.) Broadcasting Offences Act (HMG UK, 1967), most of these ship or fort-based broadcasters quickly ceased broadcasting. However, their influence remained, not only in terms of the changes made to the radio broadcasting activities of the BBC and the later introduction of commercial Independent Local Radio (ILR), but also because their broadcasting activities were mimicked by a growing number of land-based 'pirate' broadcasters, which emerged from the late 1960s onwards and particularly during the early 1980s (Hind & Mosco, 1985).

Official Policy Debates

Prior to the arrival of the offshore pirate stations, there was little official debate over non-BBC and local radio services. However, there was some consideration of alternative approaches to a public service monopoly in both the *Beveridge Report of the Broadcasting Committee* (Beveridge *et. al.*, 1951) and the *Pilkington Report of the Committee on Broadcasting* (Pilkington *et. al.*, 1962).

Beveridge was not in favour of commercial radio, taking the view that UK broadcasting should not "*become financially dependent on sponsoring*" (Beveridge *et. al.*, 1951: 49 (para. 195)), which would, in the committee's view, result in broadcasting ending up "*in the hands of people whose interest is not broadcasting but the selling of some other goods or services or the propagation of particular ideas*" (*ibid.*, 50). However, considering the opportunities that VHF (FM, Band II) sound broadcasting was soon expected to bring to the UK, Beveridge noted:

How large a scope there would be in Britain for local stations broadcasting programmes controlled by Universities or Local Authorities or public service organisations is not known, but the

experiment of setting up some local stations should be tried without delay (*ibid.*, 79 (para. 295)).

By the time Sir Harry Pilkington's *Report of the Committee on Broadcasting* was published, just over ten years later in 1962, the debate on alternative approaches to the provision of local radio services had clearly not made much progress. Indeed, it could be said to have stagnated or perhaps even, as Briggs suggests in volume five of his *History of Broadcasting in the United Kingdom* been effectively closed down by the BBC, which in its twelfth memorandum to the committee:

put forward a plan to build eighty to ninety stations in five years ... There would be no standard blueprint ... the programming of each station would grow out of the life around it [and] would not be expected to go for large audiences for their own sake (Briggs, 1995: 285).

Briggs observes that "*the BBC hoped to persuade the Committee that it could provide a better service than any rival*" (*ibid.*). Linfoot puts it in stronger terms, concluding that "*the BBC waged an assiduous campaign to persuade the Pilkington Committee of its rightful claim to launch and run local broadcasting*" (Linfoot, 2011: 87). In the event, the corporation achieved this objective. Although the report notes the development of VHF (FM) radio broadcasting and the arrival of the portable transistor radio (Pilkington *et al.*, 1962: 10-11 (para. 28)), it is largely complacent about the provision of sound broadcasting services, noting that "[i]n the main" submissions to the committee "*expressed satisfaction with the service*" (*ibid.*, 13 (para. 37)).

Dealing, albeit briefly, with the possible future development of local radio services, the report expends some twenty pages discussing possible options. Having noted that "*with the advent of VHF services, the BBC has developed the broadcasting of local news and information to smaller areas*" (*ibid.*, 22 (para. 60)), it frames discussions concerning the possible development of new stand-alone local radio services

in the context of a choice between BBC or private commercial provision. A mere two pages of the report (*ibid.* 222-223 (paras. 804-809)) give scant consideration to alternative approaches such as local authority or university involvement. The committee's underlying concern is a paternalistic one, centred on the issues of control and quality:

Local trusts would have to resist great pressures if they were to maintain their independence and at the same time put out a service they thought worthwhile (ibid., 223 (para. 805)).

A mixed funding approach, as put forward by the 'Independent Broadcasting Group' is considered as a proposal for commercial radio, the committee taking the view that any such approach would inevitably come to be dependent upon commercial funding: "*far from being merely permitted, the sale of advertising time would be necessary*" (*ibid.*, (para 809)).

Frank Gillard and BBC Local Radio

In addition to the various memoranda provided to it by the BBC, Pilkington's approach to local radio was undoubtedly also influenced by the then on-going work of Frank Gillard at the BBC to develop such services for the Corporation. Gillard had been interested in local radio since at least the early 1950s and is described by Briggs as "*the main advocate of local radio inside the BBC, a very eloquent and determined advocate and its main organiser*" (Briggs, 1995: 624).

When Gillard visited America on a two-month study tour in early 1954, he came back with mixed views of local radio there, concerned about the amount of popular music played during peak hours, but nevertheless "*most impressed with the focus on local news stories, and how that bonded with the audience*" (Linfoot, 2011: 73). After at least one other visit to the USA, and despite a lack of senior managerial support within the BBC, Gillard decided to "*preach the gospel of local radio*" (*ibid.*, 71).

By the late 1950s, the BBC was beginning to realise the potential of local radio broadcasting and, eventually, Gillard "*won over the Board of Management to his belief in local radio*" (Briggs, 1995: 628). Having done so, he then organised a series of sixteen experimental recorded 'broadcast' services, at a variety of locations around the country (Linfoot, 2011: 90-92).

In campaigning for the introduction of local radio, Gillard stressed the degree to which the operational costs of small-scale services would be minimised. Writing in the *Yorkshire Post* in 1963, he stressed how simple the technology required would be:

The VHF [FM] transmitter, taking up no more room than a wardrobe and housed in a small hut, is located at some geographically commanding spot in the city and joined to the studio by landline ... For the rest, the station needs a few tape recorders and a radio-equipped car ... (Gillard, 1963, quoted in Briggs, 1995: 632).

The article ended with a challenge to those suggesting local broadcasting would be too expensive; Gillard "*asked boldly whether 'the communities of Britain' could afford to be without this valuable new instrument, available at such modest cost*" (*ibid.*, 632-633).

In practice, Gillard can be said to have been either optimistic, or even somewhat naïve, when predicting such low-cost operations. Estimates in 1960 that local radio stations "*would cost about £17,500:00 to build and about £28,000:00 a year to run*" (*ibid.*, 628) had risen considerably by 1966, by which time the BBC then estimated that:

The capital sum required to establish each station would average, it is estimated, between £30,000:00 and £35,000:00 ... and the operating costs for a programme output of five or six hours a day would average about £1,000:00 per week (*ibid.* 635-636).

Nevertheless, with the benefit of hindsight, it is correct to say that he identified a genuine trend, which has continued over the intervening decades. For example, the £104,000 put towards the cost of building BBC Radio Leicester by Leicester City Council in 1967 (Stirling, 2004: 334) would, even before adjusting for inflation, pay comfortably for the complete capital technical infrastructure of many a current UK Community Radio service.

The early pre-recorded local experiments took place in parallel with the work of the Pilkington Committee. Consequently, the BBC was able to make use of some of the recordings in order to demonstrate to the committee its proposed approach towards local radio. Pilkington's final report notes that its members had listened to "*recorded extracts from the BBC's experimental 'broadcasts' in six towns in different parts of the country*" (Pilkington *et. al.*, 1962: 225 (para. 816)), as well as to "*extracts from an experimental 'broadcast' prepared by the South Coast Broadcasting Company Limited*" (*ibid.*), a group proposing the introduction of commercial radio. Questioning how realistic such experiments might be, the committee nevertheless concluded that "*in the end, the viability of any service can only be proved by practice and not by prophecy*" (*ibid.* (para. 817)).

Ultimately, and perhaps, largely because of the BBC's concerted efforts over the issue, the Pilkington Committee's approach to the development of local radio was considerably more conservative than that of the previous Beveridge Committee. Dismissing the alternatives, Pilkington concluded that:

... one service, and one only, of local sound broadcasting be planned; that it be provided by the BBC and financed from licence revenue...
(*ibid.*, 232 (para. 846)).

Despite such apparently unequivocal support for the development of BBC local radio, its relative importance was immediately downgraded in the next paragraph of the report, which stated that:

In recommending this, we stress that the development of local sound broadcasting must not delay the completion of the transmission coverage, on VHF, of the three national sound services (ibid. (para. 847)).

Following the Pilkington Report, throughout the early to mid 1960s, the BBC kept up the pressure on government to introduce local radio controlled by the Corporation. Looking back at the early local radio proposals of the BBC, as summarised in the Corporation's 1966 pamphlet entitled *Local Radio In The Public Interest: The BBC's Plan*, there is much contained within them that would be recognised as familiar by today's Community Radio broadcasters. Indeed, the document includes a very early use of the term "*community radio*" in relation to the type of service that was then being proposed (BBC, 1966: 12).

BBC local stations, therefore, would devote themselves to local issues and interests, to provide a service which would ... meet a genuine need in each modern community. Everything of real concern in community life would be reflected and covered in the programmes - news and current events in great variety, local information of all kinds, sport, entertainment, municipal affairs, local controversies and talking points, personalities in the public eye, distinguished visitors, educational, religious, industrial, and commercial matters, the special interests of women, of children, of sick people and of the elderly, the activities of voluntary bodies and much more. (ibid., 4)

However, the parallels with current approaches to Community Radio delivery are not merely limited to similarities in terms of content. The Corporation also stressed the autonomous and responsive nature of each local service:

... if local broadcasting is to be successful, the service provided by each station must be designed according to the special needs of its community, and that those needs could not possibly be assessed and

met anywhere else but on the spot. Local broadcasting must accept certain basic common standards of integrity, accuracy, fairness, responsibility, taste, and purpose. But in its programmes it must show the greatest possible variety of expression and enterprise. In every centre it must be free to experiment and to expand its services, to the utmost limits of the talents of those who are engaged on its operation and of the resources they have at their disposal (ibid., 10).

Another remarkable similarity between the BBC's early plans and current Community Radio practice can be found in relation to the issue of scale. Modern Community Radio stations, such as Future Radio in Norwich, Radio Reverb in Brighton, RadioLaB in Luton and Sheffield Live!, each provide the sort of coverage that, in the mid 1960s, the BBC expected would become the norm for its local radio stations:

The range of the local transmitter would depend on the nature of the community. For a single, compact city it might be no more than five or six miles. The majority of the BBC's stations would be of this order (ibid., 7).

An indication of the paucity and narrowness of debate around direct community involvement in broadcasting during the mid 1960s is given by the existence of John Scupham's 1967 book *Broadcasting and the Community*. In many ways a wide-ranging volume, it nevertheless fails, despite its title, to discuss Community Radio (or television) to any meaningful extent. The concept of independent not-for-profit services is not discussed. Rather the author remains largely in favour of a paternalistic approach to the state provision of radio services, conceding that: *"It is proper that the BBC in particular should be informed, persuaded, lobbied, and generally pursued and pestered by the community that it exists to serve"* (Scupham, 1967: 60). Writing before the introduction of local radio in Britain, Scupham is not only unconvinced of the value of commercial radio, but also doubtful about the BBC's ability to deliver meaningfully local services. Indeed, the history of BBC local radio over the intervening years shows just how prescient his views were:

To reject the claims of the commercial lobby is not necessarily to accept the bid of the BBC. The whole point of local broadcasting is that it shall be local. The BBC is a huge national concern with strong centralising tendencies (ibid., 64).

However, despite recognising the weaknesses of both the commercial lobby and the BBC in relation to the provision of local radio services, Scupham fails to explore an autonomous third option. The closest he comes to doing this is by suggesting that: *"The best hope lies in the establishment of partnerships ... between the BBC and those local interests that can participate most fully..." (ibid., 65).*

Such partnerships were clearly evident at the start of BBC local radio. The first station, Radio Leicester, took to the air in November 1967. Indeed, Leicester became the location because *"the local City Council was prepared to contribute £104,000 towards its costs"* (Sterling, 2004: 334).

The timing of the launch of BBC local radio was significant, as it came just after the closure of most of the offshore 'pirate' stations (discussed in more detail below), when pressure for the introduction of legal commercial radio stations was becoming significant. As Sterling points out:

It is important to emphasise that the BBC's commitment to local radio was not simply a romantic celebration of the diversity of local cultures. Gillard's ambitious plan for a network of more than 90 BBC local stations was a political tactic to head off the clamour for legalising commercial radio. It enabled the BBC to justify its monopolistic control of all licence fee funds (ibid.).

Nevertheless, there was undoubtedly a clear commitment to community involvement within the pioneering versions of BBC local radio:

The first charter for local radio, written by Frank Gillard, declared: "Station managers will be free to provide programmes, which in their judgement best meet the needs of their communities" (ibid.).

According to the BBC, *"the stations soon exceeded expectations, especially with a range of shows aimed at specialist and niche audiences and communities"* (BBC, 2015), although the *"fragmented schedule, with a wide variety of different programmes, made it hard for listeners to find their favourite shows"* (ibid).

With the benefit of hindsight, it is interesting to note the way in which the arrival of early BBC local radio restored localised content delivery, re-establishing a link between the Corporation and local communities, which had quickly disappeared after the earliest days of its radio broadcasting during the mid 1920s. Back then, it was not technically possible to deliver national networks and, thus, the BBC had initially provided a range of local relay stations and regional services instead. As broadcasting technology rapidly evolved, it soon became possible to deliver centralised services to the vast majority of the United Kingdom. As a result, the early, more localised, BBC services gradually disappeared.

When the third of the BBC's first local radio stations, Radio Stoke, took to the air, in March 1968:

... one of the first voices heard was that of John Snagge who had broadcast for the 1920s relay station 6ST, Radio Stoke's ancestor. He began: 'This is BBC Radio Stoke-On-Trent. We must apologise to listeners for the break in transmission, which occurred at twelve o'clock midnight on October 30th, 1928. This was due to circumstances beyond our control. Normal transmission has now been resumed' (Snagge, quoted in Higgins, 2015: 201).

Unlicensed Broadcasting

In parallel with the slow-moving deliberations of politicians, broadcasting practitioners and campaigners during the late 1950s and 1960s, there were those not prepared to wait for potential new licensing opportunities. As was the case during the earliest period of broadcast radio development, once again, the pace of change was being driven, at least in part, by practical developments that were taking place outside the mainstream of licensed broadcasting.

Offshore 'Pirate' Radio

Driven primarily by commercial interests, offshore, so-called 'pirate' broadcasters began operating from ships and other structures outside territorial waters and, thus, beyond the jurisdictions of national legislation or direct enforcement actions intended to terminate their transmissions (Robertson, 1982).

Although the origins of unlicensed offshore broadcasting can be traced back as far as the early 1930s off the coast of California (Clayton, 1933: 31), in Europe, the practice really developed in Scandinavia during the late 1950s, starting with the launch of Radio Mercur, broadcasting to Denmark in July 1958 (March Hunnings, 1965: 410-411 and Baron, 1975: 35). The first such broadcaster to target the United Kingdom specifically was 'Radio Caroline', which commenced regular broadcasting from an anchorage off the coast of Essex, near Harwich, on Easter Sunday, the 29th of March, 1964 (Harris, 1977: 20).

In practice, beyond challenging the monopolistic broadcasting structures of the day, offshore commercial pirate radio stations also demonstrated that, by the 1960s, the technology of broadcasting had become both relatively inexpensive and increasingly accessible. Government moves to suppress the offshore broadcasters, such as the *Marine etc. (Broadcasting) Offences Act* (HMG UK, 1967) and the *European Agreement for the Prevention of Broadcasts Transmitted from Stations Outside National Territories* (Council of Europe, 1965), but which also came into force in 1967, arrived too late to prevent land-based, small-scale imitation of the original offshore pirates. By the early 1970s, the

UK's radio broadcasting genie was well and truly out of the bottle and monopolistic control was beginning to crack.

Just after the introduction of the Marine (Broadcasting) Offences Act 1967, the Home office allowed a small number of university radio stations to begin broadcasting on medium-wave frequencies, ostensibly just to their particular campuses. University Radio York (URY) began broadcasting in September 1968 and claims to be the first non-BBC radio service to be licensed to broadcast in the UK since the award of the first BBC Royal Charter in 1927 (Stewart, 1998).

Land-based 'Pirate' Radio

Such developments were tightly constrained and did not provide broadcasting opportunities for members of the wider general public. Thus, various groups resorted to unlicensed broadcasting as the only way to gain access to the airwaves. At first, these so-called 'free radio' stations were, like their offshore predecessors, campaigners for commercial radio licences. For example, in August 1968, as a direct result of the closure of the offshore radio stations, 'Radio Free London' broadcast for three days in connection with a Free Radio Association rally held in Trafalgar Square, London (King, 2007: 7-9). Arguably more of a publicity stunt than a prototype for non-BBC radio broadcasting in the UK, this short-lived station nevertheless had considerable impact in the longer term, as it contributed directly to the creation of the most serious and long-term, land-based commercial 'pirate', 'Radio Jackie' (*ibid.*, 16). This station began weekend broadcasting to South West London as early as 1970 and so pre-dates all licensed UK commercial radio stations. More than 40 years later, it still exists, now operating full-time, as an Ofcom licensed commercial service, in the same area.

By the early 1970s, however, interest in pirate broadcasting had begun to widen. Groups with interests other than the profit motive began to realise that radio broadcasting was not only a potentially useful platform but also one that was becoming increasingly technologically and economically accessible. Academic interest in the development and diversification of broadcasting was also growing. Arising from a symposium at Manchester University's Holly Royde College, the *Structures of*

Broadcasting volume paid considerable attention to the development of local radio, looking beyond the then experimental BBC local radio services. Whilst two chapters, 'Radio for local communities – a chairman's view' and 'Radio for local communities – a manager's view' are of particular relevance here, the issue of the future development of local radio is also considered at various points elsewhere in the volume (Wedell, 1970).

Third Sector Campaigning

Outside the established industry and academia, the topic of local radio broadcasting was also gradually gaining increased prominence. In 1972, David Gardiner, writing in a pamphlet published with the first issue of the “radical science and people's technology” magazine, *Undercurrents*, observed that:

There is still the mystique and the downright ignorance of radio's potentials, even after the off-shore 'pirates' in the North Sea and the political 'pirates' of Northern Ireland, Greece, Africa and other troubled places have given the lie to the theory that living room table radio can never really operate. A small group or a community might conceivably operate its own newspaper, but its own radio station....!
(Gardiner, 1972: 3)

Elsewhere in the limited literature base of this period, Nigel G. Turner was another exception to the general rule. His booklet *Community Radio in Britain: A Practical Introduction* (Turner, 1973), whilst still somewhat preoccupied with the technological aspects of transmission, begins with an opening chapter that discusses the nature of Community Radio stations, noting that they “*can help re-establish a sense of community; they can be used as tools for the community ... It is the intimacy of radio that makes it such a potentially creative tool*” (*ibid.*, 10). Critical of the wider 'free radio' movement, Turner took the view that “*Free Radio is not necessarily commercial, and commercial radio certainly isn't free*” (*ibid.*, 27).

Undercurrents magazine maintained a long-standing interest in radio broadcasting. In 1974, it published a pair of articles in back-to-back editions. 'The People's Radio Primer' (*Undercurrents*, Issue 7: 25-32), was followed by 'Opening Up The Airwaves' (*Undercurrents*, Issue 8: 21-25). Although both articles focus primarily on accessible technology for analogue (AM & FM) radio broadcasting, they also consider legal issues and the reasons why groups and individuals might want to consider operating their own radio services. The second article notes that the pirate radio stations of that time had *"almost without exception ... no conception of why they were doing it ... apart from the vague ideal of 'free radio' ... i.e. commercial radio"* (Martin, 1974: 24). The article goes on to suggest that Community Radio stations should provide listeners with *"the sort of programming they want to hear"* and be *"non profit making ... and controlled by the listeners"* (*ibid.*).

Within these brief, rather general, proposals, are contained some of the earliest ideas for a conceptual framework for Community Radio to emerge from the United Kingdom. Although the author may have come up with these suggestions himself, the ideas themselves were by no means original even then. Broadcasters, such as the Pacifica Foundation in the United States, had been operating not-for-profit services since the late 1940s (Lasar, 2000: 144-145) and, at that time at least, BBC Local Radio, which had by then moved from its experimental stage to one of gradually expanding permanence, was a great deal more diverse, locally independent and open to community inputs than it has become today.

By 1978, this more radical approach to local broadcasting was finding practical outlets through the operation of land-based pirate stations such as Radio AMY (Alternative Media for You) in North London and East London Radio. Radio AMY was unusual in that, despite its 'free radio' background and its pirate broadcasting activity, it recognised the need for political campaigning. In 1979, it facilitated the publication of *One Year On: An Examination of Britain's Only Community-Access Radio* (Rollings, 1979). In this document, the distinctive nature of Community Radio is more clearly defined than hitherto. For example, Rollings opines:

It is time for a brand new structure which is answerable to its listeners, and encourages them to express themselves without stringent restrictions, or having to speak through a third party (Rollings, 1979: 3).

Gradually, therefore, the implicit practices of Community Radio were beginning to become explicitly defined, not only in the light of increasing experience, but also as a result of being discussed and refined by academics and other interested parties.

In parallel, a political campaign had begun to coalesce around this increasingly clear definition of Community Radio and, as a result, academic interest in the concept was further increased.

Much of the academic writing around Community Radio from this period came from practitioners and those closely linked to the campaign for its introduction, either through political campaigning, practice or both. As Peter Lewis explained, looking back at the emergence of Community Radio theory in 2010:

First came practice, a form of direct action that challenged the assumptions, values, and practices of the mainstream, and in which, as in all practice, theory was implicit. But the task for observers and commentators was then to describe and demarcate the field. This had to be done within mainstream media as well as in academic work. Within the latter, the task was to make connections within existing theory and to develop new theoretical perspectives. And all the time, at other levels, public and media understanding had to be won for policies that would create an infrastructure both for the object of study (e.g. regulatory policies) and for study and research itself (academic policies). Achieving this needs the triad of activists, practitioners, and academics (Lewis, 2010: 833).

The Annan Report

The issue of Community Radio had risen up the political agenda with the publication of the Annan Committee report on the future of broadcasting in February 1977. The committee had been in operation since April 1974 and, although primarily remembered for its recommendations for a fourth national terrestrial television channel (delivered in 1980 as Channel 4), it also helped draw out arguments for the possible development of a so-called third-tier of radio broadcasting. The report's proposal that *"there should be a greater diversity of ownership than is possible under the present under the present Independent Local radio system"* and that *"some might be operated by non-profit-making trusts"* (Annan, 1977: 14.3) were ignored by the government, but sparked a wider public debate and, arguably, helped define the approach taken when Community Radio legislation was eventually enacted some 25 years later.

Home Office Local Radio Working Party

More immediately, although the Annan Report failed to deliver full-time Community Radio services, it did nevertheless instigate a period of gradual development towards that ultimate goal. The government's subsequent White Paper, published in July 1978, recommended the establishment of the 'Home Office Local Radio Working Party'. This was subsequently established, going on to publish three reports, in October 1978 (Home Office, 1978), July 1979 (Home Office, 1979) and December 1980 (Home Office, 1980).

Given that the committee consisted only of representatives of the Home Office, the BBC and the IBA, it was perhaps not surprising that its first report was preoccupied with *"a choice between BBC or IBA local radio"* (Home Office, 1978: para.18). In the second report, the working party, whilst still failing to tackle the issue of Community Radio head-on, does express concern that rural and ethnic minority audiences were not being sufficiently well served by the existing duopoly (Home Office, 1979: paras. 50 & 51).

In parallel with the operation of the Home Office Local Radio Working Party, campaigners for Community Radio had begun to increase their demands for the

introduction of third-tier radio services. Particularly effective amongst campaigners at this stage were the Community Communications Group (ComCom) and the Local Radio Workshop (LRW) (Lewis, 2008: 8), both of which drew heavily upon pre-existing North American experience when suggesting possible developments this side of the Atlantic (Lewis, 1977: 5-14 and Lewis, 1999).

By the time the third report was published, sufficient political pressure had been brought to bear upon the Home Office Local Radio Working Party to ensure that Community Radio was discussed in some detail. Two organisations, ComCom and the Association of Community Broadcasting Stations (ACBS) gave evidence to the working party (Home Office, 1980: 1) and part two of the third report was entirely devoted to an analysis of what might constitute Community Radio in the UK. Of particular historical interest is the fact that, for the first time in an official document, the report gave consideration of a possible experiment, to evaluate the potential of Community Radio services (*ibid.*, 33-47). The report concluded that such an experiment *"could be authorised by the Home Secretary under existing legislation"* (*ibid.*, 47: para. 7.37).

The Community Radio Association

With the prospect of experimental broadcasts apparently imminent, and a growing number of 'pirate' broadcasters operating increasingly openly in major conurbations across the UK (Hinds & Moscow, 1985: 17), interest in Community Radio blossomed during the early 1980s. Perhaps the most important development came in 1983 with the formation of the CRA (Community Radio Association), an organisation that rapidly came to represent the vast majority of would-be not-for-profit broadcasters in the UK, as well as a number of 'pirate' broadcasters interested in doing more than simply playing their favourite music, but nevertheless unwilling to wait for the law to provide them with an opportunity to broadcast legally.

Specialist Publications

From a research perspective, the early 1980s marks the point at which the development of community radio in the United Kingdom began to become considerably better

documented by what is sometimes, perhaps disparagingly, called 'grey' literature. A particularly well-produced example, *Relay Magazine*, first published in the Autumn of 1981 and described as "*the other magazine about the airwaves*", explained its mission as "*an attempt to provide a voice for all those struggling to develop new forms of radio – imaginative, accountable, democratic*" (*Relay Magazine*, 1981, Issue 1: 1). Early editions of this publication both track the emergence of an organised campaign for the introduction of licensed Community Radio and explore wider radio broadcasting issues. For example, issue three (published in the Summer of 1982) discusses the Home Office Local Radio Working Party, explores options for developing both Community Radio and television, critiques BBC Local Radio and includes case studies of commercial radio and unlicensed 'pirate' broadcasters. It also takes on an international element, examining what, if anything, it might be possible to learn from the effectively unregulated approach to radio broadcasting being taken by Italy at that time (*Relay Magazine*, 1982, Issue 3: 8-9).

As an adjunct to the 'fanzine' publishing culture of the time, the early 1980s also saw the emergence of various radio magazines, which, although focusing primarily on the activities of 'pirate' broadcasters, also took an interest in the growing campaign for licensed Community Radio. *Soundwaves* (mid 1980s) and *TX Magazine* (1985 – 1988) are two examples, both produced by individuals and sold via mail-order. Today, the primary relevance of such titles is the way in which they evidence the wide diversity and scale of land-based unlicensed broadcasting at that time.

Another particularly useful source of information about the campaign for the introduction of licensed Community Radio is *Airflash Magazine*, which was published initially as a membership newsletter and later as a magazine by the CRA and its later manifestation, the Community Media Association (CMA). Published in print form (95 issues), between 1983 and 2007, it contains a wealth of detailed material about the development of the sector, documenting its increasing competence and confidence over a period of some 25 years.

Special Event Radio

The formation of the CRA in 1983 coincided almost exactly with the introduction of short-term Special Event Radio (SER) licences, issued directly by the Home Office and permitting low-power broadcasts, as the term suggests, to cover special events such as community or music festivals (Gordon, 2000: 8). There is, however, scant mention of this significant development in the campaigning literature of the time.

SER licenses became very popular throughout the mid to late 1980s, being taken over by the Radio Authority in 1991 to become Restricted Service Licences (RSLs). The remit of the RSL scheme was more flexible than that of the original SER approach, which it replaced, with individual broadcasts no longer being required to be linked to a specific 'special event'. However, geographical coverage was still limited to a couple of kilometres from the transmitter and for a maximum of (typically) 28 days duration. Despite such limitations, in its first decade, the Radio Authority licensed approximately 350 such services each year (*ibid.*, 5). Even today, with so many other options available, the scheme (now run by Ofcom) remains popular. In 2009 (the most recent year for which figures have been published), some 368 temporary RSL licences were granted (Ofcom, 2010: 3).

Working through the *Airflash* archive, the first development to be covered in considerable detail is the proposed Community Radio Experiment of 1985. Although the experiment itself was eventually abandoned, the level of interest generated by the application process resulted in a range of subsequent policy developments, such as the development of the Restricted Service Licence scheme and the 'Incremental Radio' scheme (both of which are discussed in more detail later in this chapter).

Land-based Pirate Radio

In parallel with the emergence of licensed short-term Special Event Radio broadcasting, land-based 'pirate' radio began to expand rapidly from the early 1980s onwards. Land-based unlicensed broadcasting had been operating at a relatively low level since the late 1960s, primarily on AM (medium-wave), the most notable example being Radio Jackie as previously referred to (earlier in this chapter). However, by the early 1980s,

technological developments had resulted in the availability of high-power, low-cost transistors (often military surplus), which were perfectly capable of transmitting in the VHF FM Band II (87.5 to 108 MHz).

Thus it was that by the middle of the 1980s, a confluence of developments saw pressure for a new third tier of radio broadcasting come from a variety of parallel sources. Effective lobbying, particularly from the CMA, was supplemented by an increasing number of licensed, short-term radio services which, as Pilkington had suggested would be the case back in 1962, were beginning to demonstrate how such services might operate in practice. Licenced services were also supplemented by 'direct action' in the form of land-based unlicensed broadcasting. The majority of these 'pirate' broadcasters were very much focused on specialist music programming (targeting particular communities of interest or ethnic minority audiences). Their survival in the face of regular enforcement action by what was (until the arrival of British Telecom in 1984) known as the Post Office Radio Interference Service (RIS), which was subsequently taken over by the Department of Trade and Industry's Radiocommunications Agency, clearly proved two things:

- 1) That it was perfectly possible to deliver radio programmes over the long-term at costs much lower than those associated with BBC Local Radio or their commercial competitors, the IBA's Local Radio Contractors. Crucially, despite using much lower-cost studio equipment and not spending money on expensive studio sound treatment and soundproofing, it was often impossible for listeners to distinguish between stations of different types in terms of perceived technical quality.
- 2) Particularly in major conurbations, the existence of large numbers of unlicensed broadcasters also demonstrated that, despite the protestations of regulators, it was perfectly possible to find room for additional broadcasting services on existing broadcast radio spectrum.

Just as it is today, in the 1980s, 'pirate' radio broadcasting was particularly prevalent in the Greater London area and its impact did not go unnoticed by the capital's local government of the time, the Greater London Council (GLC). This powerful local authority, with an interest in radio broadcasting that dated back to at least 1969, when it unsuccessfully sought to establish a 'Greater London Radio Authority' (HMG UK, 1969), was Labour controlled throughout the early 1980s until its abolition by the Thatcher Government in 1986. Not surprisingly, it was strongly politically opposed to the national Conservative Government of the time and it saw the development of Community Radio as a potentially useful social tool, putting money into various London-based projects between 1983 and 1986.

Another reason why 'pirate' broadcasting became so prevalent in the early 1980s was due to the discovery of a 'loophole' in the Wireless Telegraphy Act (WTA, 1949), the relevant broadcasting legislation concerned with the prevention of such unlicensed broadcasting. When closing down 'pirate' stations, the RIS (and the police) had regularly been confiscating various pieces of broadcasting equipment and other ancillary items, such as record collections, using clauses in the WTA as justification for such actions.

In December 1983, barrister, Peter Corrigan discovered a loophole in the 1949 Wireless Telegraphy Act which implied that radio transmitters manufactured in the UK could not be seized until the case had gone to court, or until a specific order was made for the confiscation of the equipment. A test case ... was processed in court and proved successful on this point of law, a result which heralded the beginning of seven-day-a-week transmissions by many London pirate stations from early 1984 (Goddard, 2011: 37).

The Government quickly took steps to resolve this issue and in July 1984, the new Telecommunications Act (1984) was given Royal assent. The Act *"irrevocably changed the legal status of pirate radio stations"* (*ibid.*, 13), allowing the *"seizure of broadcasting equipment without a warrant, powers they had not*

previously enjoyed" (*ibid.*). However, although some stations did close voluntarily, the level of unlicensed broadcasting activity did not subsequently decline to pre-test case levels; indeed, within a few months, it was higher than ever and the 'pirate' genie remained well and truly out of its bottle.

On the evening of January 14th, 1985, in a House of Lords debate about unlicensed broadcasting (dominated, incidentally, by numerous peers declaring various interests as directors of existing commercial radio stations), Labour Peer, Lord McKintosh of Haringey spoke of the need for *"an element of stick and carrot which ought to be applied"* (HMG UK, 2005) in relation to unlicensed broadcasting policy. Having recognised the importance of the enforcing the law, he added:

At the same time I do not think we should ignore the carrot. If it is true — and I believe it to be true — that there has been a substantial expansion of illegal pirate radio in the last few years, ought it not to be in the interests of Government and of the IBA to see to it that the attraction of pirate radio is less? Ought it not to be, for example, that the IBA and the Government should proceed faster in the licensing of new radio stations in the smaller communities? I understand that the IBA has been pressing the Government for wider powers in relation to community radio, but we still have a very monolithic radio structure in this country. We do not have ethnic radio stations. We do not really have local radio stations operating, as they should do, on a shoe-string or in accordance with the very high technical and engineering standards which may be appropriate for national radio stations but which I doubt are appropriate for community radio (*ibid.*).

Such pressures undoubtedly contributed to the 'false dawn' of 1985, when, soon after the House of Lords debate concerning unlicensed broadcasting (above), *"the Home Office announced a community radio experiment, but then abruptly abandoned it"* (Everitt, 2003: 16). If nothing else, the aborted experiment proved

conclusively the demand for small-scale broadcasting. Inviting applications for a proposed 21, two-year-long, experimental licences (HMG UK, 1985 (ii)), the Home Office received no fewer than 271 separate applications (Fleming, 2010: 44).

The Community Radio Experiment

Following the House of Lords debate (above), the government first suggested the possibility of a Community Radio experiment in a written answer to a House of Lords question later that same month. In those pre-Internet days, the suggestion of *"perhaps starting with some experimental stations"* (HMG UK, 1985 (ii)) almost immediately resulted in the Home office receiving *"about 120 letters on community radio, together with a similar number of telephone inquiries"* (HMG UK, 1985: (iii)) mostly *"from persons wishing to set up community radio stations"* (*ibid.*), including some referring *"to the availability and allocation of frequencies"* (*ibid.*). With no sign of the suggested experiment being announced, by early June 1985 the government reported that it had now *"received about 400 letters on community radio together with a broadly similar number of telephone inquiries"* (HMG UK, 1985 (iv)).

The long hoped for experiment was finally announced in early July 1985, when, in a written answer to Parliament, the then Home Secretary, Leon Brittan QC, explained that he had:

... decided to establish an experiment to test the viability of and scope for a range of different types of community radio, set up and financed in different ways in different locations (HMG UK, 1985 (v)).

More details were provided in a further statement later that month (HMG UK, 1985 (vi)) and by August 1985, across the country in the various specific locations decided upon by the Home Office (from The Shetland Isles down to Penzance via various urban and rural locations in Scotland, England and Wales), numerous groups and individuals (including the then young author of this thesis) were working to complete their various applications for experimental Community Radio licences, each to be submitted to the

Home Office by the 30th of September, 1985 (*ibid.*). The Home Secretary explained that in selecting successful applicants he hoped *"to have the benefit of advice from a panel of advisers"* (*ibid.*). Optimistically, he concluded the statement with the words: *"Subject to the number of applications received, I hope to be able to announce the successful applicants in December"* (*ibid.*).

In fact, the process of awarding the proposed experimental licences dragged on, with no apparent sign of reaching a conclusion, until the end of June 1986. In part, this was a result of the high volume of applications made. The Home Secretary did indeed appoint a panel of advisers, including two members closely linked to the Community Radio Association (Ray Beaty and Bevan Jones), which, over the New Year 1985 / 1986 *"held a number of useful meetings with interested individuals and groups"* (HMG UK, 1986).

Given the high number of applications received, it was perhaps not surprising that the Advisory Panel found it very difficult to come up with a set of licensing recommendations compatible with the Home Office's guidelines for the experiment. Eventually reporting in March 1986, the panel suggested that, in London, where demand had been greatest, *"an additional three stations"* (Hebditch, 1986) should be added to the experiment.

At this point a new Home Secretary, Douglas Hurd, came in, who it's been reported wasn't entirely happy with the way the experiment was to be run or the decisions the panel had made. Some of the chosen stations were judged to be politically "sensitive" (seemingly the ones with local authority grants) and it seems that the Conservatives were worried that stations with a left-wing bias, however slight, might damage their chances at the next election, and possibly some of the more extreme ones might be able to incite riots. (ibid.).

At the time, however, the change of plan, when announced, appeared to be sudden. On the 26th of June 1985, the Home Office Minister, Giles Shaw, was still implying in

Parliament that the experiment would proceed (HMG UK, 1986 (ii)). Then, after leaks to the national press (HMG UK, 1986 (iii)) leading to complaints in Parliament (*ibid.*), on the 30th of June 1986, Leon Brittan's successor as Home Secretary, Douglas Hurd, announced to the House of Commons that, in spite of the high levels of interest in it, the experiment was to be abandoned forthwith (HMG UK, 1986 (iv)). As befitted the attitude of the Home Office at that time, the reasons for the abandonment were suitably general, vague and opaque, referring to matters that had, by the government's own admission (HMG UK, 1985 (vi)), already been considered prior to the experiment having been announced in the first place:

It had been hoped to start this two-year experiment several months ago. But various difficulties arose and anxieties were expressed about its exact form. There would have been no regulatory body, and yet the public would have expected certain minimum standards of objectivity and decency to be maintained. Even in an experiment in partial deregulation, some minimum would still be necessary....

(HMG UK, 1986).

The real reasons for the cancellation of the experiment were, perhaps, a little more party political in character. According to *New Society Magazine* at the time (quoted in Goddard, 2011), one element behind the decision was:

The desire of [Conservative Party Chairman] Norman Tebbit to make his rival for the party leadership look foolish. The ex-Heathite [Douglas] Hurd was in sympathy with the aims of many community radio projects to give ethnic groups a voice; but Tebbit, at the last moment and with [Prime Minister] Mrs Thatcher's backing, persuaded the Cabinet to turn Hurd down (Quoted in Goddard, 2011: 54).

The then Broadcasting Spokesman for the Liberal Party, Clement Freud MP, was cynical about the reasons behind the cancellation:

Could it be that Mrs Thatcher is afraid of the voices of ordinary citizens: that its alright for Mr Murdoch to take over the Times, but too dangerous to allow 21 community stations to experiment...

(Quoted in Hebditch, 1986 and Anonymous, 1987: 7).

Writing a year or so later, one member of the Home Office Advisory Panel, Bevan Jones, observed:

The aborted experiment in CR would ... have tested a variety of styles of station ranging from the democratically accountable voluntary organisations to the hard-nosed professionally managed type. But one lesson can be drawn from the experience. It is that there is real and widespread interest in Community Radio (Jones, 1987).

Former IBA executive, Tony Stoller, writing with the benefit of hindsight in 2010 suggested that back in 1986:

It seems most likely that community radio was a libertarian step too far. The true instinct of the Thatcher/Blair governing philosophies has been to liberalise business and individual commercial enterprise, but to keep personal radicalism firmly in check (Stoller, 2010: 9).

The last word on the botched Home Office experiment goes to the late John Gray (1918 - 2006), a long-standing Community Radio supporter, with a broad interest in radio dating back to the early days of local BBC broadcasting in Aberdeen, Scotland. In a letter to the *Scotsman* newspaper, published on the 03rd of June 3rd, 1986, he suggested:

As an example of insensitive incompetence, the indefinite postponement of the experiment in community radio is a terrifying example of political ineptitude by the present government. To start a

scheme, to encourage widespread participation and then, on dubious grounds, ditch the whole effort at the last moment is almost incredible (Gray, 1986, quoted in *ibid.*).

Incremental Radio

It was not until 1989 that the then soon to be replaced broadcasting regulator, the Independent Broadcasting Authority (IBA), finally succeeded in taking the first tentative concrete steps towards the introduction of full-time Community Radio services. This was done through the introduction of a new tier of smaller radio stations, which were operated under what became known as 'Incremental Radio' licences. In order to meet the requirements of broadcasting legislation in place at the time (the Sound Broadcasting Act (1972)) (HMG UK, 1972), these relatively small-scale services were introduced only into areas that were already served by existing local radio services. In addition, they were required to provide output that was complementary to that of the established local radio tier, such as specialist music formats or programming intended to serve a specific sub-section of the community.

Clearly, the IBA was trying to strike a balance between the demands of the Community Radio lobby for access to the airwaves whilst, at the same time, seeking to minimise the impacts that such services might have on its existing station operators. However, the Authority was struggling with legislation that was recognised, even by the government of the day, as being less than ideal for non-commercial broadcasters. Speaking in the House of Lords, before invitations for incremental licences were issued, the Minister of State at the Home Office, Earl Ferres, said that the IBA's proposals for its experiment were *"a welcome but necessarily limited start with community radio before the new legislation. But the present framework is, frankly, not ideal for community radio"* (HMG UK, 1988).

Despite this, 21 of these relatively small-scale services were licensed. Several were operated by ex-pirates, and several, including WEAR FM in Sunderland, Mellow 1557 in rural Essex, For the People (FTP) in Bristol, and Spectrum Radio in London, adhered to clear community broadcasting principles. However, despite the alternative ideals

behind such stations, they were each required to operate under legislation intended for the delivery of commercial broadcasting and, not surprisingly therefore, this legislation made no provisions to ensure and protect the long-term adherence to elements such as not-for-profit operation or community ownership and control. Thus, commercial pressures took their toll and:

What had begun as an exciting attempt to free up the airwaves, to enable them to carry the full range of values, tastes and opinions that shape our society, ended in an increase of stations sounding virtually indistinguishable from one another (Crissell, 1997: 216).

Former Chief Executive of the Radio Authority, Tony Stoller, observes that *"[m]easured in terms of a new foray into community radio - and by other measures too - many of the incremental stations failed"* (Stoller, 2010: 160). He broadly agrees with Crissell that *"[t]hose that survived became largely indistinguishable from mainstream ILRs"* (*ibid.*) but noted that this was not the case for those stations that *"were focused upon specific ethnic minority communities where the dynamic was different"* (*ibid.*) and observes that Ofcom *"now dismissively characterises the incremental stations as a 'false dawn' for community radio"* (*ibid.*, 161).

When the Broadcasting Act (1990) arrived, despite the on-going campaign of the Community Radio Association, it *"placed no specific community radio obligations on the new regulator, the Radio Authority ... to the continued frustration of the CRA"* (*ibid.*). In Stoller's view:

It looked at that point as if there would be no third tier of radio in the UK. The new regulator was almost as doctrinally opposed to the notion of separate community radio as were the ILR companies and there was relatively little political support (*ibid.*).

Stoller notes that it was at around this point that the CRA transformed itself into the Community Media Association (CMA). Stoller argues that this was because *"it lacked the political support to bring community radio back to the foreground of policy discussion"* (*ibid.*, 318). An alternative view might be that the CRA was 'ahead of the curve', recognising the forthcoming convergent realities of media in the Twenty-First Century:

In 1996, in response to new opportunities for local and community television and the emergence of the Internet as a platform for community media, it adopted a broader remit and changed its name to the Community Media Association (Buckley, 2011: 31).

Restricted Service Licences

Although subsequent legislation in the form of the Broadcasting Act 1990 did not provide for the introduction of full-time community radio services, it did, however, make permanent the existing system for the provision of temporary short-term broadcasting licenses and long-term, very low-power services for closed establishments such as hospitals and universities. Short and long-term 'Restricted Service Licences' (RSLs) replaced and enhanced the systems of short-term 'Special Event Radio' (SER) licensing and longer-term hospital and student radio licensing, which had hitherto been operated directly by the Home Office.

Years before permanent Community Radio licenses were available, RSL licenses were used as a form of trial community service, often using a particular local event or activity as the justification for such broadcasts. A large number of those stations that have, from 2004 onwards, since been licensed as full-time Community Radio services, have a history of prior RSL broadcasting. Despite the increasing number of such permanent community stations, interest in the use of short-term RSL licenses continues unabated, with around 400 temporary broadcasts taking place each year in various locations across the UK.

In terms of permanent radio broadcasting services, the 1990s was a period of rapid expansion in the United Kingdom and this was particularly the case within the commercial sector. Although a separate specific tier of Community Radio was still some two decades away, at this time, a number of community-based services did succeed in taking to the airwaves, working within the licensing framework intended for commercial radio.

The Scottish Experience

This was most notably the case in Scotland where a confluence of circumstances made space for community-based services. In particular, the size of some communities, geography and distribution of the Scottish population made frequency availability less of a problem (mountains block interfering radio waves very effectively). In parallel, competition from commercial applicants was less than in other parts of the country, simply because lower population density (outside Edinburgh, Glasgow and the wider central belt of Scotland) meant that, very often, the coverage achievable within the rural terrain was not considered to be commercially viable.

Another factor was that, also outside of the central belt, some established commercial broadcasters, most notably Moray Firth Radio (MFR) broadcasting from Inverness, chose to cooperate with community-based groups seeking to broadcast their own programmes. Such an approach was as unusual as it was practical. MFR offered its own programming as a sustaining service, along with other practical help, for example with transmission planning and studio technical support and advice. As a result, throughout the 1990s, parts of Scotland, for example, Oban (Oban FM), Aberfeldy and Pitlochry (Heartland Radio), Gairloch and Loch Ewe (Two Lochs Radio), Lochbroom FM (Ullapool) and the Isle of Lewis (Isles FM), each established fully operational, local community-based services under the terms of the commercial radio licensing remit of the Radio Authority. Not only were these working examples of Community Radio highlighted as success stories by campaigners in other parts of the United Kingdom, but, more importantly, they also demonstrated to a sceptical regulator that low-budget, non-commercial organisations could reliably deliver adequate standards of programming and adhere to mainstream broadcast regulations.

The Radio Authority

The introduction of the Broadcasting Act (1990) saw the abolition of the IBA and its replacement by the Radio Authority. Although a fundamental change, particularly in terms of separating the regulation of radio from the often previously dominant presence of television, behind the organisational change, many of the people involved remained the same. On the 07th of September, 1989, the Guardian newspaper questioned, *whether the interests of political balance had been properly served by yesterday's appointment of Lord Chalfont, a belligerently right-wing peer, as head of the Radio Authority* (The Guardian, 1989: 22).

In fact, none of the early appointments to the authority's board *"was through any open or competitive process"* (Stoller, 2010: 201) and:

Staffing the Authority was similarly uncompetitive. IBA director of radio, Peter Baldwin became chief executive of the Radio Authority, and senior IBA Radio Division figures Paul Brown and David Vick, joined by others ... quietly 'crossed the floor' to radio (ibid.).

Digital Audio Broadcasting

The Radio Authority took over responsibility for broadcast radio regulation at a time of considerable change, not only in relation to the established use of analogue (AM and FM) radio frequencies but also in relation to digital radio broadcasting (discussed in more detail later in this thesis). The BBC carried out the first United Kingdom field trials of the then emergent Digital Audio Broadcasting (DAB) standard during February and March 1990 (Shelswell *et al*, 1991: 1). These tests, from Crystal Palace and Kenley in London (*ibid.*, 6-8) and which were receivable at the Radio Authority's Central London offices, took place just weeks after the new Authority was established in shadow form on the 01st of January 1990 (Stoller, 2010: 201).

The first public demonstrations of DAB took place at the end of July 1991 in the centre of Birmingham. During the Radio Academy's annual Radio Festival there, the BBC demonstrated comparative DAB and FM coverage.

A coach driven round Birmingham was used to demonstrate the ruggedness of the DAB system in a typical city-centre environment, where normal FM radio can suffer from poor reception caused by the many tall buildings. Visitors listening on headphones were able to compare DAB and FM signals which were being received from transmitters on 211 and 215 MHz respectively, carrying identical programme material (BBC, 1991: 1).

This demonstration (at which the author was present) had a considerable impact on the attending members of the UK radio industry and, partly as a result of the success of this demonstration and the subsequent publicity, the Radio Authority moved quickly, to declare that *"DAB is Big News for Radio"* (Radio Authority, 1992: 3). Noting that the technology had *"been demonstrated convincingly as the most credible technique"* (*ibid.*, 6), nevertheless, the Authority also recognised from the outset that DAB would be of limited use to smaller services (including Community Radio), and noted the system's inherent *"degree of planning inflexibility"* (*ibid.*, 6), which, as a result, would mean that:

... for the smaller discrete local station, or where the strength of a given local market will not support more than, say, three local services, the current FM system may remain the most suitable delivery system for the foreseeable future (*ibid.*).

Expanding The FM Band

Although expansionary impacts of DAB broadcasting were still some years off, one of the reasons for the expansion of the non-BBC local radio sector during the 1990s was that, at last, many years later than in the rest of Europe, the FM spectrum between 105 and 108 MHz (vhf / FM) was made available for broadcasting in the UK. The

government had dragged its heels over this because, at the time, *"it was used for radio communications by some of the emergency services and there were cost implications in re-equipping those to use other frequencies"* (Stoller, 2010: 245). Stoller further notes that *"It took a good deal of arm twisting before 105-108 was allocated ... for commercial radio"* (*ibid.*, 246).

Having obtained the spectrum, the Radio Authority was somewhat uncertain as to how best to utilise it and, in February 1994, it decided to consult on various options (*ibid.*), receiving 21 responses, which, according to Stoller, were *"predictably mixed and self-interested"* (*ibid.*).

For technical reasons, relating to the close proximity of frequencies used for aircraft communications and navigation above 108 MHz, the placing of high power transmitters close to 108 MHz runs a greater risk of interference problems than is the case with lower power transmitters. As early as 1987, the Home Office noted in a Green Paper *"the need to minimise interference to the aeronautical radio-navigation services"* (Home Office, 1987), suggesting that, as a result, frequencies just below 108 MHz would be *"more suitable for low power use"* (*ibid.*) and going on to observe that room might be found for *"over 400 stations"* there (*ibid.*).

Thus, the allocation of the spectrum between 107 and 108 MHz to *"small coverage services, 'equating with what some might call 'community radio', or even 'neighbourhood radio'"* (Stoller, 2010: 246) was arguably a sensibly precautionary approach to take. However, it was also one that had the potential to work in favour of the Community Radio sector and its drive for the introduction of smaller, more geographically focused, services.

In fact, the Community Radio Association pushed hard, albeit not particularly successfully, for the allocation of the entire spectrum between 105 and 108 MHz for use by Community Radio services. In April 1994, it published a detailed, 28-page document, responding to the Radio Authority's consultation (CMA, 1994). This document contextualised the authority's options in relation to prior statements by the

government, for example by pointing out that, in the run up to the creation of the Broadcasting Act (1990), it had stated that its proposals were intended to "*create an environment in which community radio, based on a combination of local identity and cultured diversity, will be able to fulfil its potential*" (Home Office, 1988).

Summarising the arguments in favour of Community Radio, the CRA stated:

We believe there is an unanswerable case for the further substantial development of community radio services utilising available FM frequencies in the light of stated Government policy, demonstrable listener preference and the continuing growth in the number of aspirant local radio broadcasters (CRA, 1994: 27).

The campaigning body also employed arguments based upon its knowledge of the situation in other jurisdictions (a technique it was to employ more successfully in the run-up to the Access Radio experiment some years later) and it also warned of the consequences of not proceeding with the licensing of community-based services:

There is sufficient comparative evidence of the development of community type radio services in other European Union countries to indicate that the demand is unlikely to diminish until a level in the order of 300 such services are available in the UK. We predict that failure to respond to this demand will exacerbate the social and economic problem of widespread unlicensed local radio broadcasting (*ibid*).

With the benefit of hindsight, the CRA's observations in these areas have proven to be correct, at least to some extent. According to Ofcom, by May 2015, there were some 227 Community Radio stations broadcasting in the United Kingdom (Ofcom, 2015: 228). However, as the CRA suggested would be the case, unlicensed 'pirate' broadcasting has, however, yet to show any serious signs of decline, with, in Ofcom's

estimation, *"about a hundred illegal stations in the UK with around three quarters based in London"* (Ofcom, 2014: 1).

Having considered the various responses, the Radio Authority selected its proposed *"hybrid option"* (Stoller, 2010: 246) which it usefully summarised several years later in a document explaining its licensing award procedures:

The Authority reviewed a number of options and, after a consultation process involving the radio industry and the public, decided on the mix of 'regional' licences (mainly using frequencies in the 105-106 MHz range), and licences to serve areas usually smaller than 'first generation' ILR areas (mainly in 107-108 MHz) (Radio Authority, 1999).

'Sally Licenses'

The smaller stations introduced following the 105-108 MHz consultation were licensed under the rules of the Radio Authority's new 'Small Scale Alternative Location Licence' scheme and were given the acronym 'sally' or 'sallies'. Their relatively small coverage objectives (only slightly larger than for most current Community Radio services), allowed the Authority to trial a new approach to licensing. In what was something of a radical departure from the traditional approach of the regulator, rather than defining a particular set of coverage parameters (transmitter location, radiated power etc.) in advance, instead:

In many wider localities it was possible to offer one or more licences for low-powered transmission, but not to meet all the possible local demands. In such instances, the Authority invited applicants to propose, not only what programming they would provide, but [also] which part of the wider area they would provide it for (Stoller, 2010: 300).

In spite of the fact that, in some respects, *"sallies caused more problems than they solved"* (*ibid.*, 301), this approach to licensing was considered sufficiently successful to become the basis upon which almost all of the subsequent Community Radio licensing by Ofcom has been carried out to date.

Following the completion of the Radio Authority's 105 to 108 MHz consultation process, Community Radio was, once again, left largely out of the regulatory equation, in effect no further forward than it had been at the start of the Incremental Radio experiment of a few years earlier. Although new frequency resources were indeed available for the first time, and community-based groups could still apply for small-scale licences, this was still only in the face of potential commercial competition and within a regulatory structure, which still favoured such applicants.

1990s Industry Evolution

Under the auspices of the previous Independent Broadcasting Authority:

From 1973, until the wheel turned in 1990, ILR stations produced a full range of speech content, including hour-long documentaries, regular features, extended news programmes and phone-ins. A wide range of specialist music was also a requirement – with more than half an ear to musical education – and the stations' schedules reflected this. Every station (apart of course from the News/Speech franchise held by LBC) was expected to broadcast a full range of separate genre specialist music programmes; typically including classical, country, jazz, folk, rock, so-called 'ethnic' and more (Stoller & Wray, 2010: 6).

Throughout the 1990s, the full impact of the changes brought about by the Broadcasting Act (1990) began to be felt. The fundamental shift from 'independent radio' under the Independent Broadcasting Authority of the 1970s and 1980s to 'commercial radio' under the Radio Authority of the 1990s and early 2000s had profound effects on the way in which the industry evolved. With the public service

obligations of IBA franchise holder stations now a thing of the past, simpler, mainstream, rolling music programming became the norm. In parallel, ownership rules were also relaxed, so the commercial radio sector embarked on a period of mergers and consolidation, which has continued unabated since. Today, two main groups, Global Radio and Bauer Media, own the vast majority of commercial radio stations broadcasting in the United Kingdom.

The commercial logic of such developments, in terms of staff reductions, and the centralisation of facilities, through increased networking and automation in particular, delivered considerable cost savings to the industry. However, combined with the removal of public service requirements, such developments also resulted in dramatic changes to local radio programming and, in particular, to a reduction in the provision of local content, which was *"exacerbated by commercial radio's falling investment in its programming"* (Stoller, 2010: 297).

Inadvertently, through its abandonment of commitments to broad format programming and specialist local content, the commercial sector was, in effect, helping boost the argument in favour of Community Radio as a way of replacing such content. Stoller and Wray suggest that: *"It is Community Radio ... which looks set to be the true heir to the ambitions of independent radio in the UK"* (emphasis in original) (Stoller & Wray, 2010: 18).

'New Labour' / 'new Labour'

Following the change of government in 1997, pressure for the introduction of Community Radio continued. Perhaps because it was not burdened by such close ties to the commercial radio sector as its Conservative predecessors, or indeed the same 'baggage of history' concerning previous attempts at legislative change, the new Labour / New Labour government soon indicated that it would support the introduction of such services.

Signs of progress were becoming obvious by 1999, when the CMA was invited to make contributions to a joint Radiocommunications Agency, BBC and Radio Authority

investigation into options for re-planning the FM (Band II) spectrum, carried out by Aegis Systems Limited (Rudd *et al*, 2000). This report examined options for the introduction of additional FM stations in urban areas such as Leeds and London, specifically considering the potential for launching small-scale community-based services. At around the same time, the Radio Authority, as the then regulator responsible for all UK non-BBC radio broadcasting, began to develop plans for the introduction of a limited number of experimental 'Access Radio' stations with which it intended to develop the concept and structures of Community Radio within the UK context.

Access Radio

The term 'Access Radio' was in fact an early bone of contention between the Radio Authority and long-term campaigners for Community Radio. The CMA and others argued that the term 'Access Radio' already had a specific meaning internationally (related to open access stations) and that the Radio Authority simply did not wish to admit that it was finally introducing a tier of radio of which it had historically been less than supportive.

Such minor spats aside, from the outset, the Radio Authority made a point of liaising with the Community Media Association in relation to the development of its plans. An early concrete example of this was the Authority's organising of a one-day seminar in February 2001; billed as a "*great debate on third tier of radio services*", it included no fewer than three speakers from the CMA and heard contributions from the floor by others and from a number of prospective community broadcasters (Radio Authority 2001 & 2001a). An invitation for expressions of interest in applying for what would be known as 'Access Radio' licences was issued by the authority in May 2001, with the intention of selecting a diverse range of services with differing objectives, structures and funding models (Radio Authority, 2001b). In early August 2001, the Radio Authority announced that it was inviting fifteen groups to make formal applications for licenses:

The fifteen groups reflect all four of the home nations, rural and urban areas, including links with urban regeneration projects, services for ethnic minorities in the Asian and Afro-Caribbean communities, a wide range of age groups from children to older people, Christian based stations, and a range of financial models. The maximum length of licences to be offered is twelve months, but some services propose shorter durations. Others propose the sharing of frequencies or shared administration, some intend to broadcast for only part of the day or week, some services will broadcast on AM and some on FM. Broadcast wavebands are still to be determined for a number of these services, as well as the clearance of suitable frequencies (Radio Authority 2001c).

The majority of the pilot groups had been members of the CMA prior to applying for their experimental licences, and those not connected with the organisation all chose to join soon after their licences were awarded, such that all fifteen groups were members of the CMA from 2002 onwards. A number of meetings were held between the Radio Authority, the CMA and the various Access Radio pilot stations throughout the experimental period. For example, the various parties spent all day on the 11th of September 2001 in a planning meeting hosted by the CMA in Sheffield, oblivious to the momentous occurrences taking place in New York and elsewhere in the United States.

At around this time, the CMA made its own contribution to the debate about the eventual nature of the forthcoming UK Community Radio sector. It commissioned and published a comparative analysis of Community Radio in six other jurisdictions (Australia, Canada, France, Holland (The Netherlands), Ireland, and South Africa) (Price-Davies & Tacchi, 2001). This report made a number of concrete recommendations, several of which found their way into the eventual Community Radio enabling legislation, the CRO 2004.

Once the various Access Radio pilot projects began to come on air in 2002, liaison between the Radio Authority and CMA continued and in some respects increased. The

Radio Authority appointed Professor Anthony Everitt to assess the activities of the various pilot stations (Radio Authority 2001(d)). Everitt visited the various stations on an individual basis, but it was the CMA that typically provided facilities when the various stations met together, often with the assessor and staff of the Radio Authority also present.

Although the original intention had been to operate the Access Radio experiment for a one-year period, the original licences were extended on more than one occasion with most of the trial stations receiving full-time Community Radio licences in 2006. There were two main reasons for the extensions. Firstly, the thorough nature of Professor Everitt's analysis of the experiment took somewhat longer than expected, leading to the publication of two reports (Everitt 2003 & 2003 (a)), rather than one as had originally been intended. Secondly, the introduction of permanent enabling legislation, The Community Radio Order 2004 (HMG UK, 2004), took longer than expected to finalise. Given the complimentary nature of the Everitt reports, which suggested that the experimental stations were working well, both the Radio Authority and its successor, Ofcom, took the pragmatic view that there was little to be gained by terminating licences. Doubtless, the thinking behind such pragmatism was that the only effect of such a move would have been for the experimental groups to lose momentum whilst off-air and waiting to apply for subsequent, full-time, permanent licences.

Various parties contributed to the final makeup of the Community Radio Order 2004. After, in its White Paper consultation, *A New Future for Communications* was published in December 2000, the government invited "*views on extending the diversity of radio service through 'Access Radio'*" and on "*whether the benefits of Community Radio would justify greater public intervention*" (DCMS / DTI, 2000: 39 & 40).

The Radio Authority set out its underlying thoughts in a document entitled 'Access Radio: Submission by the Radio Authority to DCMS [Department for Culture Media & Sport] / DTI [Department of Trade & Industry]' (Radio Authority 2001 (e)). This response was one of many contributions to the debate, with others coming from the

CMA and prospective community broadcasters as well as other interested parties, such as the commercial radio sector.

Ofcom Community Radio

Acting on the various responses received, the UK Government created section 262 of the Communications Act 2003, which provided powers for the introduction, under secondary legislation, of radio services that would:

...be provided primarily for the good of members of the public or of a particular community, rather than for commercial reasons; and...

[which] *...would confer, significant benefits on the public or on the communities for which they are provided* (HM Government, 2003:

Section 262(2) a & b).

With such enabling legislation in place, thereafter, attention focused on the creation of the required secondary legislation, the Community Radio Order, 2004. A further formal consultation process took place between the 10th of February and the 20th of April 2004, before this legislation was finalised by the DCMS. During early 2004, the consultation phase over the eventual wording of the CRO did indeed lead to changes, some of which were not welcomed by the Community Radio sector. In particular, some changes had been introduced to strengthen protection for the commercial radio sector. Early drafts of the order provided limited protection for small-scale commercial broadcasters, which, it was felt, might be financially damaged by the introduction of competing Community Radio services. It was at this point that the CRA "*decided that its job was done*" (Stoller, 2010: 324) However, the commercial radio sector body, the Commercial Radio Companies Association (CRCA) (now known as the RadioCentre) felt that such protection was inadequate and was successful in lobbying for change, such that the "*final order gave them plenty*" (*ibid.*).

Whereas an early draft of the CRO, published prior to the 2004 consultation, simply stated:

A community radio licence shall include such conditions (if any) as appear to OFCOM to be appropriate for securing that the sale of advertising and sponsorship in connection with the service provided under that licence does not unduly prejudice the economic viability of any other local sound broadcasting service (DCMS, 2004: 6).

By comparison, the final version of the CRO included far more concrete restrictions, namely:

(a) OFCOM shall not grant a licence to provide a community radio service in any case where the licence, if granted, would overlap with another local licence for a service, other than a community radio service, the potential audience of which includes no more than 50,000 persons who have attained the age of 15 years;

(b) every licence to provide a community radio service that overlaps with any other local licence the potential audience of which includes more than 50,000 persons who have attained the age of 15 years, but no more than 150,000 such persons, must contain such conditions as appear to OFCOM to be appropriate for prohibiting -

(i) the inclusion in that service of any remunerated advertisement, and

(ii) the sponsorship of any programmes included in that service...

(HM Government, 2004: 7).

The greater lobbying experience and resource base of the commercial radio sector was clearly used to great effect at this time. The Commercial Radio Companies Association (CRCA) went as far as publishing a 41-page booklet in support of its assertion that commercial radio already delivered much of what the new Community Radio services were seeking to provide. 'Commercial Radio: In The Public Service' was described by the CRCA as an audit of:

radio station members [that] collated and submitted statistics about their news, weather, travel, what's on, charitable, social action and community information broadcasts (CRCA, 2004: 5).

The above document was prolific in its use of the word 'community' making great play of activities such as raising money for local charities (*ibid.*, 33), "*opening local fêtes and carnivals*" (*ibid.*, 37) and "*how station staff participate in local panels*" (*ibid.*).

Although the audit made much of station involvement in such activities, these tended to be of a one-way nature: station involvement in local community activities. Notable by its absence from the audit was any mention of involvement by members of local communities in the activities of CRCA member stations. However, as a 'marketing tool' for commercial radio, the contents of this publication certainly seemed to make an impression and may well have helped in the CRCA's campaign for legislative protection of its smaller members' interests. Subsequent publications, by the CRCA's successor organisation, the RadioCentre, have continued, albeit to a lesser extent, to promote commercial radio's community involvement credentials (RadioCentre, 2008: 22-23).

Lisa Kerr, who was external affairs manager for the CRCA at the time, commented:

We have been concerned that if the funding models of commercial and community radio became blurred, community stations would start acting like commercial ones and could take away advertising revenue. In this legislation, the Government has just about got it right (Kerr, 2004, quoted in Lindsay, 2004).

Although the above restrictions have had only a relatively minor impact on the emergence of Community Radio in the UK as a whole, they have undoubtedly impacted severely on the activities of individual community stations. Early in 2009, Ofcom's annual report into the activities of the community radio sector stated that some sixteen

stations were prevented from generating any income from on-air commercial activities, with a further two being restricted to a lower percentage of income from such sources (in one case 15%, in the other 25%) (Ofcom, 2009: 1). Of course, the impact of the first of the two restrictions referred to above is less easy to quantify, but the author is aware of at least two active community radio groups (WCR in Warminster and Access FM in Bridgewater) that were prevented from holding a licence because of the presence of a very small-scale commercial broadcaster's output overlapping their proposed broadcasting areas.

Unlicensed Radio Broadcasting Today

In spite of the obvious success of Community Radio in the United Kingdom, as previously touched upon, unlicensed 'pirate' radio broadcasting remains an unresolved issue. Once Ofcom's Community Radio licensing system was in place, the regulator decided to look again at the issue of unlicensed broadcasting, publishing its report *Illegal Broadcasting - Understanding The Issues*, along with a series of three annexes, in April 2007 (Ofcom, 2007, 2007 (a), 2007 (b) & 2007 (c)).

When Community Radio licensing was first introduced by Ofcom, there had been a hope within certain sections of the regulator (most notably the Radio Interference Section) that it would, through its offer of legal routes into broadcasting, lead to a reduction in the number of unlicensed 'pirate' broadcasters. However, as predicted by the CRA as far back as 1994, this has not yet proven to be the case. The main objective for the research was to better understand the drivers that make unlicensed stations popular, but it also sought to understand why operators were not inclined to take up the option of applying for a Community Radio licence instead.

Some ex-pirate radio presenters and operators have indeed moved over to present individual programmes or otherwise work on various Community Radio stations. However, even though licensed Community Radio services "*operate on a protected frequency which can help in attracting greater audience loyalty*" (Ofcom, 2014: 3), only a small number of 'pirate' stations themselves have switched off to apply

to become Community Radio services in their own right. Ofcom quotes Kane FM in Guildford, Surrey as being one such station:

Becoming a community radio station has enabled us to reach out to thousands of people who share a taste in forward thinking music, culture and society. We are working with youth groups who have often seen radio as an out-of-reach medium. "It has also helped with sustainability, securing revenue streams from charitable donations, trust funds and local businesses" (Kane FM quoted in Ofcom, 2014: 3).

Ofcom's research into land-based unlicensed broadcasting involved qualitative interviews with 'expert interviewees' and there was consensus amongst them that *"that illegal radio performed a community function which licensed stations could not, or would not, address"* (Ofcom, 2007 (b): 22). Moreover, the research also determined that *"Heavy listeners of illegal broadcasters – refer to them as 'Community Radio'"* (*ibid.*, 16).

A particular concern of Ofcom is, not surprisingly, issues of potential interference and in the regulator's view:

Illegal broadcasters cause interference to safety-of-life radio systems, such as those used by air traffic control and the fire service. Because illegal broadcasters use unauthorised frequencies at transmitted powers which have not been cleared internationally, and because their transmitter equipment may not comply with the appropriate technical standards, their signals may interfere with services using adjacent frequencies or those frequencies which have a technical relationship to the ones being used by the illegal broadcaster (Ofcom, 2007: 7).

This general concern is amplified in relation to licensed Community Radio services because interference problems for such services:

are likely to get worse as more community radio stations - which Ofcom has been licensing ... come on air. This is because community radio stations are required to transmit at much lower power than their commercial counterparts (therefore making them particularly vulnerable to interference) (ibid.).

Frequency Availability

In major UK cities, and particularly in London, the presence of unlicensed 'pirate' broadcasters already places additional limits on the spectrum available for use by additional analogue Community Radio services. However, even in locations where unlicensed broadcasters are not operating, the availability of broadcast radio spectrum (and of FM frequencies in particular) has placed major restrictions on the development of Community Radio services. Put simply, the prior development of BBC and, in particular, commercial radio, which took place before the arrival of community-based services, has restricted not only the number of stations and their individual coverage areas but also the locations in which they have been able to be licensed. This lack of available analogue spectrum has consequently been one of the drivers behind current plans to develop small-scale DAB capacity, as discussed in more detail later in this thesis.

Recent Legislative and Regulatory Developments

Despite the earlier success of the commercial radio sector in enhancing protection for its operators in 2004, now, several years later, certain elements of these restrictions are progressively being reconsidered. During 2009, the DCMS undertook a public consultation to decide whether or not to remove the restriction that prevents Ofcom from licensing Community Radio services in areas where a commercial station broadcasts to fewer than 50,000 adults (aged 15+). It stated that:

The recent John Myers report, "An Independent Review of the Rules Governing Local Content on Commercial Radio", commissioned by Government as part of the DBR, recommended that this restriction be lifted. Therefore, we are seeking views on lifting the rule prohibiting

a community radio station from being licensed if it would overlap with an existing local radio service for which the MCA contains no more than 50,000 adults.

The Myers review also recommended that, should this restriction be lifted, the advertising and sponsorship restriction should then be applied to all community radio stations that overlap with local radio services of up to 150,000 adults. We also seek views on this
(DCMS, 2009 (b): 5).

Following its consultation about the proposals, which, predictably, received general support from the community sector and opposition from commercial operators, the DCMS sponsored additional secondary legislation, submitted to Parliament in November 2009. After consideration by Parliament, the 'Community Radio (Amendment) Order 2010' (CRAO 2010) (HMG UK, 2010) came into law, relaxing not only the licensing restrictions outlined above, but also formally granting Ofcom powers to extend the various initial five-year licences granted from 2004 onwards.

Overall, the CRAO 2010 was favourably received by the Community Radio sector. In particular, the removal of the restrictions on licensing Community Radio services that would compete with very small-scale commercial stations seemed to demonstrate the growing influence of the Community Radio sector, or at least its increasing ability to make its voice heard in the government and regulatory circles.

More recently, a further iteration of the Community Radio Order has made its way into the statute book. The Community Radio (Amendment) Order 2015 (CRAO 2015) (HMG UK, 2015) heralded another incremental relaxation in the funding arrangements for Community Radio services, gradually shifting the ground away from protecting the interests of small-scale commercial broadcasters.

Although it is not possible to prove a causal link to the introduction of more relaxed funding controls, by the Summer of 2015 (when this thesis was being completed), Ofcom was reporting that:

For the first time since 2008, ... community radio revenues have increased. While average (mean) income is up by 0.8%, median income has increased by 6.9% since a year ago. The average community radio station income is £55,570, while median income is £35,750, up £2,500 on 2013 (Ofcom, 2015: 228).

Conclusions

In this chapter, I have traced the development of Community Radio legislation in the United Kingdom and, in parallel, tracked the gradual change in the attitudes of politicians and regulators concerning the so-called 'third tier' of radio broadcasting.

It is clear from the historical summary provided, that local influences, such as the activities of the BBC, along with those of both offshore and land-based unlicensed broadcasters as well as political campaigners have each, in their own way, influenced the evolution, scope and form of Community Radio as it exists today. This chapter has also highlighted the way in which, as far back as the earliest days of Frank Gillard's interest in local radio, another external influence has also been the international context of broadcast radio theory and practice.

Of particular note in relation to the title of this thesis, is the changing nature of BBC local radio since its first arrival nearly 50 years ago. Although the scale of BBC local radio in England is now based on a countywide model, this was not the case in the late 1960s, when the Corporation's prototype stations tended to be city based, not much larger than many of today's community-based services.

In terms of content, BBC local radio has also changed considerably over the intervening half-century with station managers being a great deal less independent in terms of programming decisions than was originally the case. The days of volunteer presenters

and niche specialist programmes are long gone and oversight from London has considerably increased, even to the point of embracing the branding of local stations (which is now similar across the country).

Much of what early BBC local radio was concerned with, in terms of community outreach and specialist content has been side-lined in favour of broader, more general, magazine-style programming and, outside peak listening hours, shared content across multiple stations. However, I would argue that, in terms of content at least, some of the earliest seeds of what has today become third sector Community Radio in the United Kingdom were, in fact, sewn by the BBC when it developed its initial local radio proposals in the early to mid 1960s. The degree to which some of the early BBC proposals for local radio are now being delivered by Community Radio services today is, I would argue a somewhat under-explored issue.

Similarly, commercial radio, which in its early days was charged with the delivery of clear public service objectives, such as high levels of speech-based output and locally originated content, has succeeded in escaping such responsibilities in favour of cost cutting and profit maximisation. Local stations have merged into groups, reducing local staffing levels, losing local branding and local news and information gathering capabilities; the links between commercial broadcasters and their local communities are now less strong than they were in earlier years.

In both cases, the logic of the approach taken may, from an economic perspective at least, be understandable, but there is no doubt that the diversity of programming provided has been reduced as a result. For Community Radio broadcasters, this is perhaps no bad thing; in terms of programme content, the space for Community Radio services in the United Kingdom is undoubtedly greater today than it was in the past.

Moving on from the positions taken by other radio broadcasters, this chapter has also examined various approaches taken by campaigners and prospective Community Radio broadcasters as they too attempted to influence the shape of relevant legislation. Although such debates had been on going for many years in the abstract, they became

materially a great deal more important once the prospect of full-time licensing became a reality.

As this chapter has shown, debates begun in the late 1990s in relation to the Access Radio Experiment evolved into a long-term process, which has continued in various forms to date. Often the result of on-going tensions between community broadcasting campaigners and representatives of the other radio broadcasting sectors, both sides of the debate have, over time, sought to influence the contents of the subsequent enabling legislation within the Communications Act 2003 and, thereafter the Community Radio Order 2004 (as well as the subsequent Community Radio (Amendment) Orders of 2010 and 2015). Although the Community Radio sector has grown considerably since the turn of the century, in size and, arguably, reputation, it has yet to convince much of the commercial sector in particular that it is not a threat to their broadcasting business model.

(16,384)

CHAPTER THREE:

Theories, Practices (and Policies) of Community Radio

Introduction

In parallel with the practical development and expansion of Community Radio, over the years, a number of theoretical approaches to the sector have gradually been developed. These have variously sought to define and conceptualise the practice of Community Radio and to contextualise it both ideologically and in relation to various social movements and broader theoretical models.

As discussed elsewhere in this thesis, the development of Community Radio in the United Kingdom came late when compared to the experience in various other jurisdictions. Thus, the underpinnings of British Community Radio practice have always been heavily influenced by pre-existing international theories and practices. Chapter Two of this thesis highlighted how local factors, such as the scale, diversity and strength of the pre-existing BBC and commercial radio sectors, also played a key role in the development of local theory and practice in the United Kingdom. However, the underlying theoretical perspectives discussed in this chapter are fundamentally of an international nature.

The exploration of theory underpinning Community Radio practice is, therefore, supported in this chapter by international examples of their implementation, in varying degree, through law and regulation. Theory may be implicit in practice, but for licensed Community Radio, as part of a regulated industry, the degree to which it can be implemented successfully is, to a large extent, defined by the various legal and regulatory structures that govern its delivery.

Before examining possible definitions, it is important to re-state the diversity of terminology that is sometimes used. Community Radio and community media are the preferred terms in this thesis, however when quoting from the works of other authors here, they may sometimes prefer to use other terms, such as 'alternative' or 'radical', etc. The differences between such terms are nuanced and, whilst in some cases such

differences are nevertheless important, there is usually a considerable degree of interchangeability between them. As an example, one author who uses a different term is John Downing. Preferring the term 'radical media' (the title of the 2001 book of which he was lead author), he describes the term 'community' as "*fuzzy*" (Downing *et al.*, 2001: 39) arguing that:

Terms such as community media or grassroots media may easily conceal more than they reveal. They are stronger in what they exclude - mainstream media - than in what they signify (*ibid.*, 40)
(Emphases in original).

Defining Community

Before exploring the theoretical underpinnings of Community Radio, it is helpful to seek out some definitions and, to begin with, to contextualise the use of the word 'community' as a constituent part of the term as set out below.

"Community is a fundamentally political concept" (Hoggett, 1997: 14), which, as a result, *"is a continually contested term ... fought over by different groups"* (*ibid.*). Furthermore, what is meant by the term "community" rather depends on the perspective taken, and *"the idea of community is one whose popularity conceals a multiplicity of meanings"* (*ibid.*, 3). As Rosie Niven wrote in an article on the subject: *"when it comes to defining the concept of community, things start to get trickier"* (Niven, 2014).

In spite of the vagaries of its meaning, *"[n]owhere is the idea of community more ubiquitous than in contemporary social and public policy"* (Hoggett, 1997: 3). Thus, examining *"the notion of community and the role it plays in contemporary politics"*, as Rennie puts it, *"is essential to any theorisation of community media and unavoidable for community media practice"* (Rennie, 2006: 1).

In fact, the term 'community' has always been a contested one, both in terms of meanings attached to it and of various values associated with it. Since the later years of the Nineteenth Century, the word has tended to be associated with vague notions of more cohesive and harmonious times past, which, although they may never have existed, nevertheless, can be said to exercise something of a hold over the imagination.

From a structural perspective, perhaps one of the earliest academic titles concerning the term was by Ferdinand Tönnies, who explored concepts of the social organisation of society in *Gemeinschaft und Gesellschaft* (*Community and Society*, 1887) (Hoggett, 1997: 4). As its title suggests, this book noted the inter-relationship between community and society, suggesting that societies, at various levels, always contain communal elements. Since that time, as Hoggett has observed:

the use of the term community has remained to some extent associated with the hope and the wish of reviving once more the closer, warmer, more harmonious type of bonds between people vaguely attributed to past ages (Elias, 1974, quoted in Hoggett, 1997: 5).

In general, it remains ***"a much used yet little understood term"*** (*ibid.*). Smith (2013) observes that its history, specifically in terms of social sciences literature, dates back only a little over a century:

Before 1910 there was little social science literature concerning 'community' and it was really only in 1915 that the first clear sociological definition emerged (Smith, 2013).

Quoting Harper and Dunham (1959: 19), Smith notes that C. J. Galpin developed this first definition ***"in relation to delineating rural communities in terms of trade and service areas surrounding a central village"*** (*ibid.*) and that it was quickly followed by a number of competing definitions. In summary, these can be largely divided into two main subsets, those that consider community in terms of geography (community of place) and those that consider community in terms of lived experience

(community of interest). Although, in practice, there may often be material overlaps between these two types of community, such cleavage in the definition of the term remains to this day and is even reflected in broadcasting legislation and regulation, which may identify these two approaches as equally valid, but often separate, elements of the Community Radio sector as a whole.

The serendipity of timing between the emergence of academic definitions of community and the arrival of early radio broadcasting was perhaps fortunate. Radio was the first medium to allow for the creation of real-time communities of interest, free from geographical constraint (at least to the extent that the early broadcasting technologies were capable of delivering). Indeed, as the Science Museum in London notes, the arrival of the BBC was itself driven through the activities of a particular community of interest:

The creation of the BBC, Britain's first national broadcasting service was the culmination of a highly creative period of experimentation with radio transmission. In the years following the First World War many former military radio operators became amateur radio enthusiasts, tinkering with their home-made sets to pick up transmissions, and transmitting their own talks or music. They used radio to share their discoveries, forming a community of fellow experimenters (Science Museum, 2014).

Smith's article also considers community in the context of political discourse, noting, again, a range of views: *"For some it might mean little more than a glorified reworking of the market. For others, it may be a powerful organizing (sic) ideal"* (Smith, 2013.). Thus, the concept of community is perceived as being value-laden with the resultant possibility of being adopted in support of particular ideological perspectives.

Values perceived to be associated with community encompass a plethora of elements. The term is often associated with nouns such as collaboration, cooperation, interaction,

involvement and participation, as well as commitment, mutuality, solidarity and trust (*ibid.*). At the same time as Tönnies was writing about community and society in Germany, the early socialist William Morris was writing about 'fellowship' in England (*ibid.*), perhaps rather dramatically stating that:

***Forsooth brothers, fellowship is heaven and lack of fellowship is hell;
fellowship is life and lack of fellowship is death; and the deeds that
ye do upon the earth, it is for fellowship's sake that ye do them***
(Morris, 1887: 29).

More recent definitions of community have attempted to merge the physical and value-driven elements of the term more cohesively. Because it makes no reference to the requirement of place, a particularly helpful definition in relation to Community Radio was published in the early 1980s, defining a community as "***an informally organized*** (sic) ***social entity which is characterized*** (sic) ***by a sense of identity***" (White, 1982: 19). Such social entities comprise not only their members (the people involved); they must also be backed up by resources, both social and material (social and economic capital as discussed further below).

On a per-station basis, geographical locality may, or may not, still play a role to a varying extent, but any community will always include the creation of a social grouping, which includes interpersonal relationships of one sort or another. This factor forms a key justification for the use of the term Community Radio. Such stations are intrinsically based on both an internal social grouping of those running the station (paid, volunteer or a combination of the two) as well as an external, looser, social grouping of listeners, which may, from time to time and in varying degrees, interact with the internal social grouping through over-air or online interaction, sometimes supplemented by face-to-face social engagements.

What underlies most definitions of community is, in modern day parlance, some form of networked social interaction. Going back to its perceived values, one of the most useful ways of thinking about the benefits of community in relation to Community

Radio is to consider its impact in terms of the potential to enhance 'social capital'. Roberts Putnam's highly accessible work of 2000, *Bowling Alone*, puts this term neatly into a wider context:

Whereas physical capital refers to physical objects and human capital refers to the properties of individuals, social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them. In that sense social capital is closely related to what some have called "civic virtue." The difference is that "social capital" calls attention to the fact that civic virtue is most powerful when embedded in a sense network of reciprocal social relations. A society of many virtuous but isolated individuals is not necessarily rich in social capital (Putnam, 2000: 19).

Specifically in terms of the media, Peter Lewis notes that the concept of community *"can be traced back to sociological interest in the 1950s"* (Lewis, in Lewis and Jones (Editors), 2006: 26). Observing that this early work contextualised community *"as a defender of traditional values"* (*ibid*), Lewis concludes that the authors of that research *"need not be held responsible for the nostalgic connotations which attached themselves to "community" over the next few decades, but they undoubtedly exist"* (*ibid.*).

Considering the term 'community' as it is currently understood, Lewis goes on to suggest that because *"in political discourse the term is unthreatening and respectable"* (*ibid.*), it can be, diplomatically (in the broadest sense), extremely useful:

The canonisation of "community" by, successively, the NFCB¹, UNESCO and AMARC (all organisations with a need to represent a miscellany of interests and present an acceptable policy to the outside world) can be understood in the same political light even if,

¹ NFCB stands for National Federation of Community Broadcasters.

ostensibly, its usage was claimed to be an indicator of organisational features such as ownership and control (ibid.).

Defining Community Radio

Simon Partridge suggests that the first explicit (British) use of the term 'Community Radio' appeared in Rachel Powell's 1965 pamphlet *Possibilities For Local Radio* (Partridge, 1982: 10), some months before the BBC's apparent first use of the term. Published by Birmingham University's Centre for Contemporary Cultural studies and written at a time of high demand for the introduction of commercial local radio to the United Kingdom, this paper attempts to *"give new depth and detail to the idea of local radio and shows what could be meant by the imaginative use of broadcasting within small communities"* (preface to Powell pamphlet, quoted in Mowitt, 2011: 157).

Identifying what constitutes Community Radio is, as touched upon at the start of this thesis, a somewhat difficult task (see also Jankowski, in Jankowski (Editor), 2002: 6). Depending on the particular perspective taken, a variety of possible differing definitions may result. An early example of the diversity of the sector is given by the numerous case studies provided in *A Passion For Radio* (Giraud (Editor), 1992 & later extended version as republished, 2001). Lewis, as a Community Radio scholar with a long-standing interest in the medium, suggests that part of the difficulty with its categorisation lies in its roots as part of wider alternative media and is, at least in part, due to one of the basic justifications for its existence:

Alternative media in any particular place and time are a response to conditions that threaten cultural identity. These threats take different forms and consequently elicit different responses (Lewis, 1993: 14).

Although the 'different responses', as referred to above, drive the diversity of the Community Radio sector, the language used here is also important. Community Radio is typically representative of cultural identities that fall, to a greater or lesser extent,

outside the mainstream. As the British legislation that currently governs the sector puts it, the purpose of such stations is to deliver broadcast radio *"to individuals who are otherwise underserved by such services"* (HMG UK, 2004: 2). The particular 'threat(s)' involved may be direct or indirect, overt or covert, depending upon the specific set of circumstances involved. Sometimes the nature of the threat is simply the overwhelming strength of the mainstream, an obvious example here being the wish of minority communities to preserve the use of their own language and culture.

To a certain extent, the type of 'threat' involved and the level of resultant tension define the level of accommodation that may be found between Community Radio and government authority. It also explains why in most countries *"community broadcasting did not emerge from explicit government policy, but from continued pressure and activity"* (Hollander, in Jankowski *et al.* (Editors), 1992: 12).

Although now provided with a dedicated legal framework, the history of Community Radio in the UK, as previously discussed, clearly demonstrates the resistance of mainstream politics to the accommodation of minority broadcasting interests. In some instances, 'pirate' radio broadcasters with community aspirations remain unlicensed, not only because of the, sometimes exaggerated, problems of spectrum availability and risk of potential interference, but also because it has not been possible to find a regulatory accommodation acceptable to both parties.

The government might argue that such broadcasters are unwilling to play by the rules (in terms not only of broadcast regulation, but also of wider legal compliances in terms of employment law, copyright, etc.). Conversely however, unlicensed broadcasters may view offers to accommodate them within the regulated fold as being inadequate (for example in terms of coverage) or, more broadly, as being incompatible with their wider objectives. The very small number of land-based 'pirate' broadcasters that have chosen to apply for Community Radio licenses from Ofcom might be said to provide some evidence in support of this view.

Given all of the above, the problem of encapsulating a concise definition of Community Radio is, understandably, a long-standing one. Kate Coyer notes that even the long-established, Canadian based, international sector body for Community Radio, the 'Association Mondiale des Radiodiffuseurs Communautaires' or the 'World Association of Community Radio Broadcasters' and always known by its French acronym, AMARC, prefers to offer *"a diversity of responses from member stations rather than a broad typology"* (Coyer, in Mansell and Raboy, 2014: 170).

Whatever its limits, a 'broad typology' of Community Radio is however useful, if not essential, when it comes developing a suitable policy framework within which to accommodate the sector.

That said, there can be said to exist a 'general ethos' of Community Radio, which, at its most basic level suggests that it should, as Brecht suggested (see Dunbar-Hester, 2014: 7 and also Atton, 2004: 135, quoting Brecht, 1979: 24-28), be considered a tool of communication rather than of distribution and that such communication should be conceived of as being bi-directional (see also Carpentier and Scifo, 2010: 115).

Radio Regen, the Manchester based development organisation which has been heavily involved in the development of Community Radio in the United Kingdom since the Radio Authority's 'Access Radio' pilot at the turn of the century is blunt in its exclusive definition: *"If a station is being run for profit, or it is being imposed from outside, then it is not a community radio station"* (Fogg *et al.*, 2005: 12).

Prioritising access and development, Regen makes clear its view that:

If a radio station is not offering access to voices which are under-represented elsewhere, and if a station is not of practical benefit to its community, it is not a community radio station (ibid.).

Coyer, agreeing with the Regen view, also explicitly identifies the problem of definition:

There exists no single academic or regulatory definition of precisely what constitutes community radio, but the basic premise of such broadcast institutions centres around radio that is not for profit, is participatory and made for and by a local audience (Coyer, 2005: 129).

Despite AMARC's reticence towards providing a precise definition of what is meant by the term Community Radio (above), for over two decades now, the organisation has promoted its own Community Radio Charter (AMARC, 1994), which builds upon such an underlying ethos (See also Appendix (i)). This stable document, originally adopted by the organisation's European Branch at its Slovenia Conference, held in 1994 (AMARC 1994 (a)), sets out a number of clear criteria, which Community Radio services are expected to adhere to. The first three points of the charter clearly highlight the importance attached to social interaction, development and the recognition of communities, requiring stations to:

- 1. promote the right to communicate, assist the free flow of information and opinions, encourage creative expression and contribute to the democratic process and a pluralist society;*
- 2. provide access to training, production and distribution facilities; encourage local creative talent and foster local traditions; and provide programmes for the benefit, entertainment, education and development of their listeners;*
- 3. seek to have their ownership representative of local geographically recognisable communities or of communities of common interest*
(AMARC, 1994).

The next three points in the organisation's charter focus on the origins of content broadcast by Community Radio stations, stressing independence, diversity and accuracy, requiring that stations:

4. are editorially independent of government, commercial and religious institutions and political parties in determining their programme policy;

5. provide a right of access to minority and marginalised groups and promote and protect cultural and linguistic diversity;

6. seek to honestly inform their listeners on the basis of information drawn from a diversity of sources and provide a right of reply to any person or organisation subject to serious misrepresentation (ibid.).

The penultimate three points of the charter are concerned with operational and managerial structures, further requiring that stations:

7. are established as organisations which are not run with a view to profit and ensure their independence by being financed from a variety of sources;

8. recognise and respect the contribution of volunteers, recognise the right of paid workers to join trade unions and provide satisfactory working conditions for both;

9. operate management, programming and employment practices which oppose discriminations and which are open and accountable to all supporters, staff and volunteers (ibid.).

The AMARC charter concludes with an overarching reference to the importance of communications as a valuable tool within a development framework, encouraging stations to:

10. foster exchange between community radio broadcasters using communications to develop greater understanding in support of peace, tolerance, democracy and development (ibid.).

Although the AMARC charter of 1994 is the best known set of guiding principles for Community Radio, its origins can be traced back at least as far at 1979, the year in which the British campaign body COMCOM (the Community Communications Group) drew up its Community Broadcasting Charter (Partridge, 1982: 14-15), which, amongst other things, required stations to serve a defined community, operate on a non-profit distributing basis, be democratically controlled and provide opportunities for training and access (*ibid.*).

The AMARC code is not simply a set of guiding criteria for use by Community Radio operators. Around the world, legislation and codes of practice relating to Community Radio broadcasting typically highlight a number of core requirements, which can be said to broadly define Community Radio services. In many instances, these codes are based, to a greater or lesser extent, on the AMARC code (above).

Sector representative bodies, such as the Community Media Association in the United Kingdom, the Community Radio Forum of Ireland (CRAOL) in the Republic of Ireland, Norsklokallradioforbundet (The Norwegian Local Radio Association) in Norway and the Prometheus Radio Group in the United States have all adopted similar, albeit not identical, approaches to help define Community Radio within their particular jurisdictions.

In some jurisdictions, such as, for example, the Republic of Ireland and the United Kingdom, AMARC's code has, either explicitly or implicitly, also found its way into official regulation. In the Republic of Ireland, the current broadcast regulator, the Broadcasting Authority of Ireland (BAI), which took over from the previous Broadcasting Commission of Ireland (BCI) in 2009, has adopted its predecessor's policy of explicitly using the code to define the character of Community Radio services:

In 1994, the Commission adopted the AMARC Community Radio Charter for Europe, as a statement of the objectives community stations should strive to achieve. The Irish experience has reinforced the relevance of this Charter for community broadcasters in Ireland. The BCI continues to use this Charter as a reference point when assessing submissions from, and the activities of, relevant groups (BAI, 2009: 3).

Interviewed for this thesis, Ciarán Kissane, the Head of Contract Awards at the BAI explained the charter's use in more detail. Irish Community Radio stations:

... operate under the model that's set out in the policy which deals with community ownership, control, programming, diversity of funding, you know, the standard type model that most people would recognise. Very much based on the Canadian definition that goes back into the 80s, but then was adapted for Ireland in terms of taking up some of the models for community development that were very prevalent in the mid 90s (Kissane, 2010).

By comparison, in the United Kingdom, the link to the AMARC code is somewhat less explicit. Rather than adopting the code as a stand-alone document, the British Government preferred to build individual elements into its Community Radio legislation (the Community Radio Order (2004) and subsequent amended versions thereof). So, for example, the Order requires not for profit operation and the provision of training (*ibid.*). In some respects, the Order goes further, requiring full independence of ownership, not just from commercial interests, but also from other Community Radio stations. Furthermore, it goes into great detail in terms of setting out mandatory requirements regarding the delivery of various types of 'social gain' (*ibid.*), as discussed further below.

A key justification for making use of documents such as the AMARC Charter is that such an approach provides a basis for differentiation between the third tier of

Community Radio broadcasting as compared to the earlier first and second tiers of public service providers and commercial stations. Where such differentiation is not enshrined in legislation and regulation, survival can be difficult for community-based broadcasters, as they can be subject to external pressures that make it hard, if not impossible, for them to stay true to their underlying not-for-profit, community-focused ethos. This is particularly the case in relation to competition for broadcasting licences, because the criteria against which applicants are judged can, for example, be slanted towards narrowly defined economic 'viability', or in favour of maximising audiences.

Very clear examples of what happens without the introduction of suitable legislation and the application of specific regulation can be found in both the United Kingdom and the Republic of Ireland. In 2006, tasked with reviewing the new tier of Community Radio services by the DCMS, civil servant, Moira Goatley, observed:

While the BBC created an FM local radio service in 1967 with a community based ethos, the catchment areas were expansive and this inevitably influenced the dynamics of the service. Horizons began to expand with the Broadcasting Act of 1972, which introduced commercial radio and by 1980 nearly 30 independent local radio stations were in existence. Many of these stations were community based initially, but commercial considerations soon began to take the upper hand. The BBC recognising the competing force of the commercial radio stations began to align its local programming policies with the new independent stations thereby effectively severing the link with community development (Goatley, 2006: 2).

Even though early independent radio franchisees, operated under the watchful eye of the UK's Independent Broadcasting Authority (IBA) were not autonomous commercial operations, in *The Radio Handbook*, Carole Fleming argues that, whatever their original community objectives, they were inevitably subject to major financial pressures:

because there was no financial support for stations, and no legislation to prevent them being taken over by commercial groups, most of them found they had to choose between closing down or being bought out (Fleming, 2009: 43-44).

Whilst this author questions the community credentials of the majority of the UK's early commercial stations, there is arguably clear merit in Fleming's subsequent observation that:

This meant that by the 1980s radio in the UK was increasingly the reserve (sic) of professional broadcasters aiming to maximise their audience often to the exclusion of minority groups within their transmission area (ibid., 44).

However, in the United Kingdom, perhaps the clearest (and slightly more recent) example comes from the time of the 'incremental radio experiment', which was operated by the IBA during 1988 and 1989. This scheme aimed to provide *"new local community licences to be issued for a range of niche services serving particular target interest groups"* (Carter, 2003: 23).

Licences were offered in three tranches during early 1989 and, in all, applications were invited for a total of twenty locations across the country. The first of the incremental radio stations launched later that year, with the remainder following over the course of the following year. In the event, 23 licences were eventually awarded and all but one of the stations made it on air by the end of 1990; *"half a dozen went to ethnic services. Others introduced specialist formats such as jazz and dance music (ibid.).*

Incremental stations were, by the standards of the traditional standards of the IBA, licensed through a relatively 'quick and dirty' process:

It was a rapid process with all contracts advertised and awarded in a

matter of months. It set a new blueprint, however, for how future licences would be issued in the Nineties. Written applications were followed up with additional questioning by IBA staff rather than face to face board presentations made to Authority members (ibid.).

Of the various incremental stations launched, some, such as Belfast Community Radio; Centresound (Stirling); For The People (FTP) (Bristol); Spectrum Radio (London); Mellow 1557 (Tendring, Essex); Radio Thamesmead (South East London) and WEAR FM (Sunderland) certainly considered themselves as Community Radio services. Others, such as Buzz FM (Birmingham); Choice FM (South London); KCBC (Kettering & Corby); Melody FM and KISS FM (both London) were much more in the vein of traditional commercial radio broadcasters, albeit with rather less mainstream programming formats.

Whatever their origins and objectives, almost all of the incremental stations soon found commercial pressures too great to bear and, just as with some of the first generation IBA stations (above), ended up surrendering their independence and being bought out by larger, commercial, broadcasting groups as part of the acquisitions and mergers process on-going at the time. Whilst the takeover of commercially minded radio stations by other commercial operators can be regarded as simply standard commercial practice, the takeover of Community Radio services by for-profit commercial companies, due to the prioritisation of the profit motive, almost inevitably results in fundamental changes to the nature of the broadcast radio output provided.

Belfast Community Radio maintained its community objectives until 1996, when it was taken over by commercial radio operator, Owen Oyston, to become Belfast CityBeat. Centresound (Stirling) also lasted until 1996, but required investment and back-office support from the established Edinburgh-based commercial broadcaster, Radio Forth from soon after its original launch. Another small station at about this time was Stray FM in Harrogate. Established by a local community-based group in 1994, the lack of ownership restrictions resulted in local shareholders selling to a nearby commercial station because the return on their investment was simply too great to resist.

The various problems encountered by community-based incremental operators were both evident and, in some cases, very recent, when the Radio Authority introduced its new Small Scale Alternative Location ('Sally' / 'Sallie') licences in 1996. However, with no other licensing opportunities open to them, various community groups tried once again to launch new services, once again under commercial radio licensing rules. Perhaps not surprisingly, the results were similar to those that occurred under the former regulator's 'incremental radio experiment', with many independent Sallie stations being taken over and merged into commercial groupings.

Although both incremental radio and the subsequent 'Sallie' schemes did little for Community Radio and in the case of many of the individual stations involved, ended in failure, there was nevertheless a silver lining to these experiments. Demonstrating as they did the high demand for alternative forms of local radio outside the commercial mainstream, they also provided clear evidence that existing commercial radio regulation was fundamentally unsuitable for such community-based approaches. For campaigners and regulators alike, by the end of the 1990s, it had become abundantly clear that, for Community Radio to be established successfully in the United Kingdom, some form of separate policy and regulatory oversight would be an essential prerequisite.

Meanwhile, in the Republic of Ireland, a similar situation had arisen. As Ciarán Kissane observed, prior to the introduction of specific Community Radio focused regulation, early Community Radio services, not specifically licensed as such, were:

... trying to compete with commercial operations on a commercial pitch and that was very difficult. So, you know, what they were expected to pay in terms of royalties and in terms of providing a service, you know, they won the contracts on the basis of providing a full service programme offering, you know, including 20% news and current affairs, self generated, including, you know, significant current affairs across the day, seventeen, eighteen hour programme schedules, you know, you had to hire a core staff. So, the operating

model, they just could not sustain that without saying, "well, we need to bring in revenue too, [and] that the only source of revenue was advertising" (Kissane interview, 2010).

Strict regulation of Community Radio is, however, by no means universal. In Norway, for example, where local radio in general was only fully introduced in 1988, the regulator refers to Community Radio as "niche radio". Interviewed for this thesis, Arve Lindboe at Mediatilsynet (the Norwegian Media Authority) explained that, to begin with *"there were applicants for any kind of radio, [with] any kind of commercial or non-commercial background"* (Lindboe interview, 2010) and that these were simply judged against broad *"local content ambitions"* (*ibid.*). Over time, the rules have tightened such that *"the regime today is based on the need to pre-define [the] possibility to make the radio project reliable enough to produce content for the community"* (*ibid.*). Whilst the Norwegian regulator does require that *"niche radios have limitations concerning economic activity"* (*ibid.*), the overall regulatory approach is one with a light touch. Lindboe's colleague at Mediatilsynet, Lars Erik Krogsrud, also interviewed for this thesis, explained:

the kind of philosophy here is that the niche radios, in itself, will provide for the pluralism, as long as you let them loose, so to speak and then there are not many hard demands to get them on the air. It's basically about showing that you have some economy and that you have some skills, some competence in radio or, yes, yes, radio skills. So, if you have that and you want to come on the air in an area that is not full of radio from before, you have, pretty much, a good possibility to get on the air (Krogsrud interview, 2010).

Listening to Community Radio in Norway, it is often not so easy to identify a strong strand of community involvement. Some stations, such as Radio Nova, the university student radio station in the capital city, Oslo, would be immediately recognisable as community services, others, particularly in remote and sparsely populated rural areas can be highly automated with little or no content beyond pre-recorded music. A lack of

clear and detailed policy specifically aimed at enhancing the sector's community involvement means that this is perfectly permissible under current Norwegian broadcasting regulations.

Although the history of Community Radio in the United States is one of the longest, small-scale, community-based services there are by and large a relatively new phenomenon. Referred to as Low Power FM (LPFM), these services are a relatively new arrival on America's airwaves, the sector being established broadly in parallel with Community Radio in the United Kingdom (see Coyer, 2006: 130-142).

Perhaps unsurprisingly, in many respects, the Federal Communications Commission (FCC) in the United States takes something of a light touch approach to the regulation of these services. Nevertheless, the influence of international consensus, as driven by the existence of documents such as the AMARC charter, is still evident. Interviewed for this thesis, Peter Doyle, Chief of the FCC's Media Bureau Audio Division, set out some of the unique licensing criteria that are applied to the LPFM sector:

We have a couple of licensing rules that are unique to this service, one of them is the fact that, well I call it, it's a one to a customer service, meaning that no entity can hold more than one low-power licence in the nation and that prohibition extends to board members, so that, for example, someone could not serve on a board, or a governing body, wherever the locus of decision making is in that entity of more than one low-power station, or, for that matter, on a low-power station and any kind of other radio station. There are very restrictive rules on the assignment of stations, they can be sold essentially for depreciated value, there's no profiting on the sales and we require applicants to be local, which we define in one of several different ways. A school would be local where the campus is, if three quarters of your board members live within 25 miles of the station, we'd also consider that local (Doyle, 2009).

Although it may not always do so as explicitly as it does in the British Community Radio Order, as referred to above, legislation, regulation and practice in relation to Community Radio are often concerned with the enhancement of 'social capital' through the delivery of 'social gain' or 'community benefits'. Here, the core concern of politicians and practitioners alike is often not only about 'improving' the lot of particular communities but also, it is often concerned with differentiating Community Radio from other forms of radio broadcasting as well as creating clear justifications for its existence and support.

The American example of LPFM (above) is a clear case in point. The campaign to introduce LPFM in the United States has clear parallels with the British experience. Strong opposition from incumbent (commercial) operators, represented in particular by the National Association of Broadcasters (NAB), successfully delayed and restricted the launch of LPFM for several years (see Dunbar-Hester, 2014: 15-18), frequency scarcity and interference risks being the major issues raised in defence of maintaining the *status quo*.

As discussed in more detail elsewhere in this thesis, spectrum availability is an almost universal issue for Community Radio operators. Because of practical issues such as frequency planning and the importance of avoiding radio frequency interference issues, as well the existence of less concrete, broad concerns in the area of content oversight, broadcast radio also has to operate, to a greater or lesser extent, under some degree of unified regulatory oversight. As has already been noted, there is a competitive edge to the regulation of frequencies and so it is within such contexts that *"the battles over community access have been fought out"* (Rennie, 2006: 4):

Community broadcasting requires that spectrum is set aside for community purposes. In doing so, governments must endorse "community" as a sphere of activity outside of the state and economy that [nonetheless] requires attention, status and resources. Through this process, communities are named and validated - named as having a substantial interest, if not a right, to broadcast (ibid.).

The 'validation' and recognition of communities through the granting of access to broadcasting spectrum highlights an implicit tension between the relatively ridged structures of administration and regulation in comparison to the more flexible and dynamic ways in which individual communities may behave.

Community broadcasting sits at the intersection of the administratively controlled broadcasting environment (having to comply to license (sic) conditions and regulation) and the more random, messy, and "natural" configurations of the community sphere. In many respects, the institutionalization (sic) of community media is a means to manage something that has previously managed itself and this creates a set of dilemmas that are unique to community media (ibid., 25).

The 'dynamic' of communities means that they can sometime evolve and change more quickly than bureaucratic models are able to cope with. Providing one community with the opportunity to broadcast many also encourage other community elements to do the same. A good example here might be the arrival of Community Radio services in Belfast, Northern Ireland during the first decade of this century and of which the author has personal experience through his prior work with both the Community Media Association and Ofcom.

From the outset, nationalist (broadly Catholic) elements were well ahead here, quickly launching an Irish language station, Raidió Fáilte (Welcome Radio), as well as a geographic community-based station, Féile FM (Festival FM), both based in West Belfast. Soon after both these services launched, Ofcom began to receive various enquiries from unionist (broadly Protestant) community groups wanting to develop similar services of their own, both language (Ulster-Scots) and geographical community-based. Having missed the Ofcom imposed licensing window, these prospective station operators had to wait for subsequent licensing opportunities and to hope that the regulator would be able to find what it deemed suitable frequency resources on which

they might operate. As an aside here, at the time (mid 2000s), it was remarkable to see the degree to which Féile FM, in particular, began to increase levels of cross-community involvement as a direct result of interest coming from the other side of the community divide.

As has been shown (above) the 'community' element of Community Radio, as well as its broad-ranging objectives, can lead to difficulties in relation to its accommodation within wider broadcasting policy structures. Rennie identifies this tension and suggests that suitable policy approaches must include elements originated from both sides of the regulatory divide:

There is a constant tension between who should gain access, what level of editorial control stations should maintain, and how to determine whether stations are representative of the community their license (sic) was intended for. It is these qualities that make community media a unique object of study and why it is that community media not only requires but brings with it alternative policy approaches (ibid., 25) (Emphasis in original).

From Practice to Theory

As previously mentioned, theory is implicit in practice. However, practitioners themselves rarely explicitly consider the theoretical underpinnings of their work, leaving such consideration to academics. Practitioner academics and academic practitioners do exist, but only as exceptions to the general rule. In the case of Community Radio, its various theoretical underpinnings were not explicitly defined at the outset. The earliest operators of examples of what is now considered to be Community Radio, such those that began in the late 1940s in Columbia and Bolivia (Dagron, 2001: 14 & 16), as well as the Pacifica Network in the United States (Rennie, 2006: 64-66 and, more generally, Lasar, 2000), undoubtedly knew that what they were doing was outside the mainstream, but would probably not have been able to articulate a detailed theoretical underpinning of their activities.

The same might be said for the majority of today's practitioners, the difference being that there is now what might best be described as a Mobius loop of practices, policies and theories, each informing the others and gradually building deeper and broader understandings of the sector's activities and objectives. Various theoretical models attempting to reflect Community Radio practice have emerged over the intervening years, but as with any developing practice, they must continue to evolve if they are to reflect the growing history and diversity of the sector.

Diversity of Theoretical Approaches

Given the diverse nature of Community Radio in practice, it is perhaps inevitable that theoretical approaches to the practice of Community Radio broadcasting (and to community media more broadly) are many and various (see also numerous contributions to Jankowski (Editor), 2002). Originally drawn from a range of underlying academic disciplines (such as development studies, education, politics and sociology), they have often emerged at the intersections of such disciplines.

Unsurprisingly, the discipline of media studies offers a useful place to start examining theoretical approaches to Community Radio. In fact, as Kerrie Foxwell points out, it has been responsible for some of the key framing of understandings of Community Radio:

Broadly, the key theoretical debates within media studies can be distinguished by the distinctive approaches associated with political economy and cultural studies or structuralist and post-structuralist analyses of the media. Despite the relatively late entry of community media into media studies, these more traditional debates have impacted on the ways in which we understand community radio's function and purpose - within communities, the media and society (Foxwell, in Gordon (Editor), 2012: 135).

The lateness of theory's arrival in relation to Community Radio is notable. As recently as 2008, Jonathan Hardy produced the eminently readable title, *Western Media Systems*

(Hardy, 2008). Despite his inclusion of specific chapters concerning media theory and media policy, as far as this reader can see, the author makes no mention of Community Radio, or even of wider community media as a whole. As Ellie Rennie observes:

Community media has received surprisingly little scholarly attention, even within the field of media studies itself. If anything, this deficiency reinforces the assumptions of marginality that surround community media (Rennie, 2006: 16).

Also noting the fact that *"theory was slower than practice in developing"* (Lewis, 1993: 21) and using the wider term of 'alternative media', Lewis suggests that particular theoretical approaches:

can be situated on the axes of specifically communication-oriented debates, and encountered in other discourses such as those of development and education (Lewis, 1993: 16).

Providing various examples, such as Paulo Freire's education-based 'conscientisation' approach, *"which aims to create an alternative, more authentic set of perceptions about the social reality experienced by those taking part"* (*ibid.*) and development-based conceptions around participation in which *"small-scale media enables people to formulate their own definitions of needs and goals"* (*ibid.*), Lewis also links the typically small-scale nature of alternative media to McLuhan's concept of the 'global village', arguing that the term *"has been (mis)appropriated to sell the idea of a global market"* (*ibid.*)

Although radio for development and social change in particular, has a long tradition as an important strand of Community Radio practice (see, for example, the wide variety of case studies in Dagron, 2001), in terms of theory, Lewis particularly highlights the concept of the public sphere *"as an important reference point for contemporary discussion of democratization (sic) in communications"* (*ibid.*, 7-8).

Part of the reason why the theories of Habermas concerning the public sphere are considered relevant to Community Radio is because of what Paddy Scannell describes as his *"two fold 'distrust of representation'"* (Scannell, also quoting John Durham Peters (1993), 2007: 256). Scannell describes Habermas as having *"a deep rooted suspicion of politics as a theatre on whose stage the powers that be represent their authority"* (Scannell, 2007: 256) and as rejecting *"representative democracy in favour of direct, participatory democracy"* (*ibid.*). A particular problem identified by Habermas is the sheer scale of mainstream mass media, which, he suggested, results in *"the public sphere [being] swamped by a media flow passively absorbed by a massified [sic] public"* (Outhwaite, 2009: 103). Community Radio, typically small in scale and participatory in nature, provides an alternative to such mass media, albeit to an intrinsically limited degree.

The range of theoretical paradigms within which it is possible to frame Community Radio is, of itself, problematic. Depending on the theory through which the phenomenon is viewed, particular aspects of its practice will either be highlighted or, conversely, will assume minimal importance (if they are not ignored entirely). Furthermore, the particular theoretical approach applied may bring with it a particular set of inherent value judgements, which could affect the research approach taken, to the detriment of developing the broadest possible overview and understanding of the subject matter at hand. To give a generic example, considering Community Radio from a developmental perspective will, inevitably, mean viewing its objectives in relation to achieving changes through challenges to the status quo. However, viewing Community Radio as part of the Habermasian public sphere will, equally inevitably, prioritise consensus building over conflict.

What is needed, therefore, is some common ground on which to build both theoretical foundations and, subsequently, appropriate policy frameworks to best ensure such theory can be applied in practice. In their article entitled *Community Media's Long March*, Nico Carpentier and Salvatore Scifo suggest that this basis can be found in the participatory nature of Community Radio and its potential to transform *"radio as a tool of distribution into a tool of communication"* (Carpentier & Scifo, 2010:

115). Pointing to *"the UNSECO debates in the 1970s about the New World Information and Communication Order (NWICO)"* (*ibid.*, 116) they note that *"at the centre of these debates was the right to communicate"* (*ibid.*).

As Skinner *et al.* note, *"the McBride Commission's endorsement of the right to communicate"* (Skinner *et al.* (Editors), 2005: 257) was politically problematic, causing:

The most vocal advocates of neo-liberal thought at the time, Ronald Regan and Margaret Thatcher [to go] so far as to withdraw their countries from UNESCO in the mid 1980s (*ibid.*).

However, despite such issues at the highest level, in parallel, the concept had gained considerable traction, such that the 1980s also:

saw the entrance on the international scene of "grassroots" organizations (sic) that made it their goal to promote the right to communicate. These included the World Association of Community Radio Broadcasters (AMARC) (*ibid.*)

That 'right to communicate', linked to the long-established concept of radio as 'a tool of communication' provides, therefore, a clearly defined point, or intersection, at which the theory and the practice of Community Radio can be said to converge. More specifically, that common ground can be identified in the requirements set out in the AMARC charter (as examined above) and which clearly attempt to build an effective basis for delivering the right to communicate in practice.

Since AMARC's foundation in the 1980s, theories of alternative media (including Community Radio) have coalesced around concepts such as the right to communicate. A particularly useful overview of such theories is to be found in Bailey, Cammaerts and Carpentier's volume *Understanding Alternative Media* (2008), which explicitly states that: *"A promising starting point for the analysis is given by the working*

definition of community radio adopted by AMARC-Europe" (Bailey *et al.*, 2008: 6).

The first section of this book, 'Theorising Alternative Media', begins with a chapter entitled 'Four Approaches To Alternative Media' (*ibid.*, 3-34). Although preferring the term 'alternative' to that of 'community', the authors nevertheless use *Community Radio* as a starting point *"a form of local public service type broadcasting, one which is independent of both state and major commercial interests"* (Buckley, quoted in AMARC / Ruddy (Editor), 1994 (a): 9), and note the *"semiotic diversity"* (Bailey *et al.*, 2008: 7) in the variety of ways in which the sector can be described. The authors take the view that the various terms are by no means mutually exclusive and that this *"shows the diversity of identities and practices"* (*ibid.*) present in the sector.

Bailey *et al.* begin from the premise that:

to understand (the importance of) alternative media we need to situate them in the political and democratic theories that have provided theoretical and intellectual support for their identities and practices. The participatory models of democracy and the related broadening of the definition of the political especially have influenced and cross-fertilized [sic] alternative media (*ibid.*, 4).

Taking the view that *"the political is approached here in a broad sense and not restricted to a specific sphere or system"* (*ibid.*), the authors suggest that:

it follows that the political cannot be reduced to the formal political system, to institutions or to political procedures. Such a perspective on the political sees the whole of society in its different aspects - the school, the family, the workplace, the community and (alternative) media, as equally valid spheres for political-democratic activities. At the same time, this widening of what constitutes the political allows

for the accommodation of sexual, gendered and cultural identities and struggles within the democratic project (ibid., 5).

Even within such a wide-ranging context, Bailey *et al.* note that alternative media *"are at the same time characterized by diversity and contingency"* (*ibid.*).

The four theories of alternative media are examined by the authors in some considerable detail and are summarised briefly below. Three of the four theories are largely self-explanatory, although the fourth, 'as rhizomatic', is, perhaps, a little less immediately accessible.

1. Serving a community

Observing that this approach *"uses a more essentialist theoretical framework"* (*ibid.*, 6) than the others (below), the authors focus here on the opportunities that Community Radio provides in terms of 'access to' and 'participation in' the media by members of the particular target community concerned. Further distinguishing between 'participation in' from 'participation through' the media, they suggest that alternative media is structured in such a way as to make it particularly competent in terms of providing *"deeper forms of participation"* (*ibid.* 11) than can be found in mainstream media.

2. An alternative to mainstream media

Two types of 'alternative' are considered here. Community Radio may simply be considered as an addition to mainstream media, or, it can provide more overt challenges to it. Such challenges are fundamentally about *"the relationship between media and representation"* (*ibid.*, 16) and are key, as a justification for the existence of alternatives to mainstream media:

one reason for the very existence of alternative media is to voice the 'ideologies' of those under - or misrepresented in the mainstream channels of communication (ibid.).

At the level of content, alternative media, including Community Radio *"can offer ideologies, representations and discourses that vary from those originating in the mainstream media"* (*ibid.*, 18). However, content output is not the only element of Community Radio that can be considered as an alternative to the mainstream. The ways in which Community Radio content is produced, in terms of inputs, processes and structures, can also be different. For example, structures in alternative media tend to be less hierarchical and to eschew some of what are often considered to be professional techniques in favour of experimental approaches.

Thus these media ... can rightfully be seen as a breeding ground for innovation, often to be eventually adopted by mainstream media (*ibid.*, 20).

3. As a link to civil society

Community Radio being deliberately established to be largely separate from state and market actors, it must, nevertheless, be a part of civil society, even though the notion of civil society itself is *"highly contested"* (*ibid.*), it should *"not be conceived as being necessarily separate from, independent of, or in opposition to the state or market at all times"* (*ibid.*, 22). Community Radio, along with wider alternative media, can be recognised not only as part of civil society, but also as a contributor to it, through the provision of opportunities for participation and self-representation, which, it is argued, can maintain and even strengthen the operation of broad democratic structures (*ibid.*, 25).

4. As rhizomatic media

The concept of the rhizome, as it relates to forms of alternative media, can be thought of as a kind of 'catch all', encapsulating a diverse range of activities engaged in by them. As Bailey *et al.* suggest: *"Like rhizomes, alternative media tend to cut across borders and build linkages between pre-existing gaps"* (*ibid.*, 28). Such connections are established not only within civic society but also reach towards both the state and the market (*ibid.*). Equally importantly, the types of linkages developed by Community Radio and wider alternative media can be recognised as both bi-directional

and responsive, adapting to changing circumstances and requirements. Within the concept of rhizomatic media, the Community Radio station remains structurally independent but highly integrated with, not just its target community, but also with wider society. Responsive to the needs of its community, rhizomatic media also seeks to benefit that community through the development of external linkages.

What is clear from the various approaches taken by Community Radio is that each of the four theories set out by Bailey *et al.* have relevance to its practice. Because of the wide variety of practice that the sector engages in, the relevance of one or other theory may vary on a case-by-case basis but, overall, some relevance will tend to be present. As the authors themselves conclude:

Alternative media research has a long theoretical and empirical tradition that has tried to capture their identity. Due to the complexity and elusiveness of this identity, this project has proven a very difficult task. For this reason a multi-theoretical approach is preferred, combining essentialist and relationist positions within the general framework. ... None of the four approaches ... can be considered as giving a sufficient overview when applied independently ... the only way to capture the diversity that characterizes (sic) community media is the simultaneous application of these approaches (Bailey *et al.*, 2008: 30).

Conclusions

In this chapter, I have attempted to explore the history and contested nature of the term 'community', in particular as it relates to Community Radio, itself a term which brings with it a diverse range of definitions and concepts. I have also sought to demonstrate the international origins of the sector as these have evolved since the middle of the Twentieth Century.

At the core of this chapter is an exploration of the complex entanglement between the development of theory and practice as it relates to the operation of Community Radio.

As it typically operates within forms of regulated broadcasting environments, I have also examined how both theory and practice have influenced the emergence and implementation of specific regulatory policies designed to ensure the effective delivery of Community Radio services as a distinct sector within wider radio broadcasting.

In particular here, I have sought to highlight the way in which early non-mainstream broadcast radio practice, what would now be recognised as Community Radio practice, led to the creation of a policy void, which required the development of relevant Community Radio theories before it could be filled with appropriate policy levers and regulatory approaches.

This chapter has also highlighted the international nature of the Community Radio sector today and, in particular, the effectiveness of AMARC in building a cohesive concept of the medium, recognised in various ways by numerous governments and regulatory bodies around the world.

In discussing the theoretical underpinnings of Community Radio, this chapter has explored the history, from adaptations of pre-existing theories in other fields to more specifically targeted multifaceted approaches. The way in which theory seeks to accommodate the diverse nature of the sector is also highlighted.

In terms of influencing policy development, it is practice that has demonstrated the viability of Community Media and theory that has provided multiple justifications of such practices and, consequently, assisted with their encapsulation into policy. The final word here on the interconnected roles of theory, practice and policy, goes to Peter Lewis, who recently observed that:

...the role of the academic community should not be overlooked. The growing volume of international attention and research translated into a new wave of published studies of community media on both sides of the Atlantic around the turn of the millennium ... all of

which contributed to a discourse that promoted community radio to a matter of public debate (Lewis, in Atton (Editor), 2015: 182).

(9,395)

CHAPTER FOUR:

Methodology

Introduction - Community Radio Research

The preceding chapters of this thesis have shown that, in terms of both practice and theory, Community Radio services differ markedly from Public Service Broadcasting and from for-profit commercial radio broadcasting. As has been shown, not only do such differences encompass the history and objectives of the various radio broadcasting sectors, but that they are also evident in the makeup of the various operational inputs and outputs involved, as well as through the ways in which each type of broadcaster interacts with wider society.

A fundamental difference between community-based services and their, typically larger, PSB and commercial 'competitors' is the enhanced granularity of their individual listenerships. The unique nature of each community broadcaster and its relationship with its target audience is fundamental to the sector and, inevitably, impacts upon the way in which it can be researched.

When it comes to planning and defining research into Community Radio, the relative diversity of the sector is a critical factor, which needs to be taken into account. It follows that the study of individual examples of community broadcasting requires careful planning if it is to yield conclusions that have wider relevance to the sector as a whole.

The research in this thesis employs a range of qualitative research methods, which are summarised later in this chapter. The diversity between individual case studies exhibited by the Community Radio sector is something that qualitative research methodologies are specifically designed to take into account. As Uwe Flick points out:

[q]ualitative research is of specific relevance to the study of social relations, due to the fact of the pluralization [sic] of life worlds. ... Locally, temporally, and situationally limited narratives are now

required. ... Rapid social change and the resulting diversification of life worlds are increasingly confronting social researchers with new social contexts and perspectives (Flick, 2009: 12).

Another fundamental difference between Community Radio and other forms of radio broadcasting is the degree of participation, which is intrinsic to its operation, the use of volunteers (see for example Ofcom, 2010 (b)), community links and interactions, etc. As explained later in this chapter, participation is, to a degree, carried forward into this thesis by the author. However, "[t]he concept of participation has been subject to lengthy debates regarding its historical origin, its theoretical grounding and practical applicability, and its critical connotations" (Mikkelsen, 2005: 53), such that it requires narrower definition in the context of this thesis.

The approach taken in relation to participation in this thesis is drawn from the field of development studies. Although, at first glance, this might not appear to be particularly relevant to the field of media (broadcast) study, in fact, specifically in relation to Community Radio, the linkage between these two disciplines quickly becomes apparent. Beyond on-air broadcast outputs, Community Radio in the UK is obligated to deliver 'social gain', 'access', 'participation' and 'accountability', in relation to its target community (Ofcom, 2012 (a): 4-6), objectives which, overall, are designed to benefit members of that target community. Put another way, the UK's Community Radio legislation is, arguably, as much (if not more) about development as it is about broadcasting.

Within this thesis, the definition of participation is one of an "*empowering process*" (Mikkelsen, 2005: 54), within which some of the research participants, through semi-structured interviews in particular, contribute to the analysis of their own projects, bringing their own opinions, thoughts and ideas to the debate.

As will be seen throughout the rest of this chapter, the approach taken to researching Community Radio is about much more than the broadcasting element of the sector's activities alone. The developmental elements of Community Radio delivery are equally,

if not more, important in defining the 'place' of the sector within the wider broadcast ecology and society as a whole.

Community Radio - The International Research Context

The context that the wider radio broadcasting industry and its history have provided as foundations in relation to the development and introduction of Community Radio in the United Kingdom has already been explored earlier in this thesis. Governments, regulators, established broadcasters, as well as other interested parties typically hold particular and often firmly entrenched views as to the relative merits of different forms of radio broadcasting. As evidenced earlier in this thesis, fundamental concepts underpinning the theory of Community Radio have international roots. As a result, these views take into account not only localised factors and self-interest (enlightened or otherwise), but also wider, internationally established, concepts and norms.

As discussed earlier in this thesis, beyond theoretical concepts of Community Radio, there exists also a strong international evidence base that demonstrates how the accepted broad principles of Community Radio have been delivered in practice over a number of decades. With a particular focus on the role of regulation and how this impacts on the content and delivery of Community Radio services, chapter two of this thesis provided examples of the relative position of Community Radio in differing jurisdictions. The example comparator jurisdictions referred to in this thesis (the Republic of Ireland, Norway and the United States of America) show how such practice can vary, according to the particular local context involved.

Thus, international comparators, by their very nature, can only provide part of the context for Community Radio in a specific jurisdiction. Individual jurisdictions each have their own unique set of economic, social and cultural variables, which must, inevitably, influence the design and implantation of media policy in general and, in relation to this thesis, of community broadcasting in particular. Although the ethos and underlying principles of Community Radio may exhibit considerable similarity internationally, the specific values and purposes of the sector will, to some extent at least, be jurisdiction specific.

In the case of Community Radio, advocates promoting its introduction within the United Kingdom were, from the late 1960s onwards, able not only to draw upon established theory but also, increasingly, a diverse range of practice from a variety of jurisdictions around the world. Being a relatively 'late adopter' in the field of community-broadcasting meant that campaigners and later, politicians and regulators in the UK, were able to adapt and adopt various elements of theory and practice from other jurisdictions, in order to build Community Radio structures suitable for use within the British broadcasting environment.

Primarily, for reasons of broad cultural affinity, it was influences from North America, Western Europe and Australia that tended to be the predominant examples drawn upon. This was not merely a subconscious process or one carried out solely by academics for academic purposes. At least in part, pre-existing international constructs were deliberately sought out to help inform the legislative design process, as in the case of the work by Eryl Price-Davies and Jo Tacchi in 2001, which was specifically commissioned for the purpose of identifying pre-existing international practices that might be adaptable for use in the UK (Price-Davies & Tacchi, 2001).

Community Radio Research - UK Specific Considerations

Throughout the 1970s and 1980s, international theory and practice, increasingly supplemented by local experience, gradually enabled proponents of Community Radio in the United Kingdom to articulate a concept of Community Radio within the specific context of a country already (and increasingly) served by established public service and private commercial radio broadcasters (BBC & ILR).

In the vast majority of jurisdictions where licensed Community Radio has been introduced, it has tended to be subsequent to the provision of public service and private commercial radio. Sometimes, as in the case of Ireland, the gap between the launch of individual sectors was brief. Although commercial stations and community services there were both given the go-ahead in the same legislation (Oireachtas, 1988), the then regulator (Independent Radio and Television Commission - IRTC) prioritised the

introduction of private commercial stations ahead of community-based services (Day, 2009: 35-36).

In the UK, the gap between the introduction of public service radio and licensed commercial stations was some 45 years and it was then more than 30 years later that permanent community-based radio services were finally legislated for. As a result, a highly diverse range of public service and private commercial stations was firmly established by the time permanent Community Radio services were finally introduced in 2004.

The presence of so many existing radio broadcasters by the turn of the century meant that, arguably, the technical, spectrum planning and allocation, capacity for the introduction of additional services (of any sort) had become considerably limited. In parallel, existing commercial broadcasters, in particular, were extremely concerned that the arrival of Community Radio would provide unwanted competition and impact adversely on their profitability.

Whilst the actual limitations on spectrum availability and the degree to which, in reality, Community Radio services might impact on the viability of existing radio services might be contested, what is not in doubt is that such concerns were strongly reflected in the first version of British permanent Community Radio legislation, the Community Radio Order (2004) (HMG UK, 2004). This secondary legislation, enabled under the Communications Act (2003) (HMG UK, 2003) and, later, its subsequent iterations, the Community Radio (Amendment) Orders (2010) and (2015) (HMG UK, 2010 and HMG UK, 2015), defines the political and regulatory framework within which Community Radio in the UK is expected to operate - in short, it defines (and constrains) a concept of the place for Community Radio.

Research Questions - In Summary

As the title of this PhD thesis suggests, the core issue, which the author seeks to explore, concerns conceptualisations of the 'place' for Community Radio. What might its purpose be and where might it fit within the wider cultural and broadcast radio

environments - how is it situated? Why might this be the case and what does this situation imply for the sector?

As set out above, Community Radio is typically situated within legislative and regulatory frameworks, as well as within a set of international norms and conventions. However, it can be further situated, not only in relation to the activities of the other two established main forms of radio broadcasting (public service and private commercial), but also, more broadly, within the specific communities it seeks to serve and within wider society as a whole.

It should be noted that this PhD thesis does not seek subjectively to 'rank' or prioritise different types of radio broadcasting, nor does it seek to attach differing degrees of perceived 'importance' to the outputs of each sector. What it does seek to do, is to illuminate any potential 'additionality' that might be provided by the Community Radio sector, not only within the narrow terms of its broadcast outputs, but also in terms of the wider social benefits that it seeks to deliver.

Research Questions - Development

The issue of place for Community Radio goes well beyond matters of resource allocation within a crowded media and broadcasting environment. What 'role', or roles, does Community Radio seek to fulfil and to what degree are these delivered in practice? Once identified, can such roles be considered to justify the existence of Community Radio services?

Because examining the position of Community Radio is central to this thesis, it follows that, as a first step, it is necessary to define the particular ways in which it can be situated in terms of the research being carried out. As set out below, the 'position' of Community Radio can be defined in a variety of ways. Positioning can be considered in relation to other broadcasters as well as in relation to other community organisations. It can also be considered in the context of political and regulatory support provided, and in terms of the resource base made available to it.

Beyond such instances of relative positioning, there are also more abstract positions, or 'roles' to consider for the sector. The place for Community Radio needs also to be considered, not only in relation to how its processes, inputs and outputs impact on the communities it seeks to serve, but also in terms of the degree of integration achieved within those communities.

The author concurs with the view of Zane Ibrahim, the founder of Bush Radio, one of the most long-standing, prominent, Community Radio services in South Africa, who often made the point that "*Community radio is 90 percent community and 10 percent radio*" (Ibrahim, 2004, quoted in Coyer, Dowmunt & Fountain, 2007: 113 and in Mansell & Raboy, 2014: 169). With this perspective in mind, how Community Radio is situated within the context of community involvement can be recognised as a key element of this research. Community involvement is a broad, multifaceted term and its implementation will vary from station to station and community to community. However, it is the author's belief that it should be possible to obtain useful insights into broad elements of practice and to learn about elements of sectoral knowledge from the individual examples studied during the course of this research.

Aside from the broad issues of community involvement, there are also key elements of broadcast practice to explore. A further essential step for this research is therefore concerned with the triangulation of the three main types of radio broadcasting in terms of overlap and separation. This can be envisaged in terms of multiple Venn diagrams, each exploring particular interactions between the differing radio broadcasting sectors. Such consideration of the three sectors of radio broadcasting examines not only broadcasting outputs, but also particular operational inputs and elements of the regulatory frameworks within which each one operates.

Having positioned the three sectors in relation to each other, it then becomes possible to consider examples of how two or more of the sectors might compete and under what circumstances they might be able to collaborate for mutual benefit. Tensions between the sectors, as well as their potential impacts, can be explored in relation to the on-going development of Community Radio services.

The primary purpose of positioning and triangulating Community Radio within the wider broadcast radio environment is to identify specific relative strengths and weaknesses of the community sector - what might it do better than other broadcasters and what might it be poorer at? More importantly, in terms of academic research, how and why might this be the case? Identifying what the community sector does well allows for an exploration of justifications for its existence, which may help justify its position, or 'place' within the wider media environment. Conversely, weaknesses in current Community Radio structures, once identified, can be evaluated and possible alternative approaches considered.

The broadcasting environment is by no means static. Thus, research into broadcast radio needs to take into account on-going trends in society and, more specifically, in the delivery and consumption of audio content. At the macro, level, such changes can involve alterations to levels of support provided, or in terms of the regulatory environment within which the sector operates.

A specific area of interest to the author concerns the issue of broadcasting spectrum and the technologies used to deliver programme content. Over recent years, this has become a contentious issue, not only in terms of access to broadcast radio spectrum, but also in relation to changing patterns of media consumption and the gradual, albeit sometimes exaggerated, impact of Internet-based delivery mechanisms.

Research Sources

Despite its diverse nature, Community Radio is a subject that, even today, in formal terms remains somewhat under-researched, particularly when compared to the canon of works relating to Public Service Broadcasting. Although a range of relevant and useful UK-specific academic research into Community Radio does exist, inevitably, given its relatively recent arrival in the United Kingdom, this paucity of material applies particularly in relation to the British experience. In an attempt to compensate for such limitations and to enhance the range of materials available, the research carried out in

relation to this thesis also draws upon a range of non-traditional sources, as set out below.

Primary Research - Formal Semi-Structured Interviews

At the heart of this PhD are a number of formal semi-structured interviews designed to obtain primary data for subsequent analysis. These interviews have been carried out with a range of campaigners, practitioners, regulators and others involved or interested in the development and delivery of Community Radio broadcasting.

The approach taken in relation to the gathering of primary interviews sought to ensure that their contents could be triangulated against the content of other primary interviews and in relation to other research materials. Early primary interviews were conducted with individuals involved in the operation and management of Community Radio services. These were followed by further primary interviews with those involved in the oversight of such broadcasters, primarily regulators and sector support bodies.

A further reason for selecting the specific interviewees involved in this research concerns the author's own background in, and knowledge of, the sector. As a long-term Community Radio campaigner and current Community Radio practitioner, as well as a former Community Radio regulator at Ofcom, the author considers himself to have a reasonably wide-ranging knowledge of the sector, both historical and current. When interviewing staff at Ofcom, the Community Media Association, Future Radio, or the Broadcasting Authority of Ireland, these tended to be former colleagues, selected by the author because, in his opinion, they were considered to be particularly knowledgeable about Community Radio.

The technique of gathering semi-structured primary interviews from a range of interested parties was designed to provide a degree of data diversity, such that, in conjunction with other data sources (both primary and secondary), a level of *"subtypes of data triangulation"* (Denzin, quoted in Flick, 2002: 226) could be achieved. The main triangulation points of the semi-structured interviews were between the perspectives of practitioners, regulators and the auto-ethnographic experiences of

practice obtained by the researcher. Further triangulation was sought through the inclusion of international comparator interviews, which, in particular, focused on issues of Community Radio regulation.

Primary Research - Additional PhD Data Collection

Data collection specifically for this thesis includes a range of other material beyond the core semi-structured interviews (above). Various academic journal articles, historical and industry-related writings and reports were all acquired with the writing of the PhD in mind, as were academic and industry conference proceedings and other publications.

Working in related areas, and having other interests connected with the research topic resulted in various opportunities for informal conversations, note taking and e-mail correspondence with interested parties. On occasion, a chance meeting would lead to further discussions and correspondence relevant to the research topic at hand.

Primary Research - Personal Involvement

Since my early adult years, I have been involved in various aspects of radio broadcasting, primarily in the United Kingdom, but also in Ireland and other parts of Europe. My interest in Community Radio dates back to the end of the 1970s and includes direct experience of working on community services in the United Kingdom and elsewhere. Inevitably, therefore, my approach to this research is, to some extent, influenced by my proximity to, and direct involvement in, the campaign for the introduction of such services in the United Kingdom.

My 'lived experience' in relation to the above has provided part of the framework within which this research has developed, adding as it does, a reflexive element to the overall thesis. However, first hand personal experience does not constitute research in the traditional sense; rather, it requires framing within what is known as an 'auto-ethnographical' approach, which *"challenges canonical ways of doing research and representing others and treats research as a political, socially-just and socially-conscious act"* (Spry (2001) & Adams and Holman Jones (2008) cited in Ellis *et al.*, 2011). Within such an auto-ethnographic approach, there is an implicit

recognition of "*the innumerable ways* [in which] *personal experience influences the research process*" (*ibid.*).

A long-standing involvement within the sphere of Community Radio broadcasting, campaigning and regulation has also provided me with opportunities to develop research approaches that take into account some of the elements of 'naturalistic inquiry', through which "*persistent observation provides depth*" (Erlandson *et al.*, 1993: 137). This is particularly the case in relation to both the workings of one particular Community Radio station (Future Radio in Norwich) and those of the British broadcast radio regulator, Ofcom.

Primary Research - Informal Sources

My personal involvement in the campaign for Community Radio in the United Kingdom has included various formal and semi-formal roles. During the 1980s, I served for several years on the national committee of the Community Radio Association and I was also a director of the Radio Academy (1991 to 1995). Having worked as the formal liaison between The Radio Authority and the Community Media Association in relation to the Community Radio Experiment (2001 – 2003), I later became a director of Future Projects in Norwich, the charity that holds the current Community Radio Broadcasting Licence for the Norwich area. As well as being a director of Future Projects, I have also developed close personal contacts within the Irish Community Radio organisation (CRAOL), as well as with the Community Media Forum Europe (CMFE) and with AMARC Europe (AMARC-E).

One immediate impact of such long-term 'personal experience' and involvement in the research topic is that it provides a variety of opportunities to obtain direct access to information that traditional research approaches might not unearth or might otherwise be impossible to find. For example, access to e-mail lists (such as those operated by the Community Media Association) and to various organisational and individual archives has often been facilitated through long-established links with the various parties involved. Most important, however, are the personal contacts developed with both practitioners and other academic researchers in the field. Meeting with such individuals,

often on an informal basis, for example on the periphery of meetings, provided multiple opportunities to discuss key issues and to discover a variety of opinions and experiences from a diverse range of viewpoints.

Secondary Research - Formal Academic Literature

Formal academic literature used in this thesis has been drawn from a varied range of areas of study and research. Beyond specific literature about the subject of Community Radio in particular, books and journal articles focusing on wider community media, broadcasting and its history and regulation are also referred to. More broadly still, titles covering such diverse areas as sociology, media theory, community development and communications technology, not forgetting research methods, have also been referred to.

Secondary Research - Industry Literature

The main source of industry literature, which this thesis draws upon, is publications by Ofcom, the UK broadcast and media regulator. Additional materials from other regulators have also been referred to, as have historical publications from previous regulators. Publications by national campaigning bodies and responses to official enquiries and consultations have been used, as have documents from supranational bodies such as the European Broadcasting Union and AMARC (the World Association of Community Radio Broadcasters).

Secondary Research - 'Grey' Sources

The term 'grey literature' *"traditionally covers three categories of documents – conference proceedings, reports and doctoral theses – often printed in small numbers"* (Farace *et al.* (Editors), 2010: 2). However, this definition is perhaps rather too narrow and, today, is often taken to encompass *"a body of materials that cannot be found easily through conventional channels such as publishing"* (Huffine, 2010). Often falling outside formal categorisation systems, such materials can comprise a rich source of information. This is particularly the case in relation to subjects such as Community Radio, which have tended to develop outside the mainstream. Individual examples used in researching this thesis include various personal

archive papers, acquired over the years at meetings and events and materials from other specialist archives, such as the Peter Lewis Collection, now held by the London School of Economics library, or the materials available on-line from TX Magazine (Hebditch 2014).

The primary benefit of using such grey literature and other grey sources, such as audio recordings, videos and web-sites is that they can often provide alternative viewpoints concerning the theoretical and practical development of the subject matter under study. Indeed, in some cases, grey materials can provide the only recorded source of evidence concerning particular developments in the field. A useful example here would be the emergence of unlicensed proto-community services, such as Radio AMY (Rollings 1979).

More generally, the plethora of grey sources available can provide alternative viewpoints, which can help to triangulate particular arguments and to confirm (or counter) evidence and opinions that have arisen from other, more traditional, research sources.

Research Sources - Categorisation Issues

It should be noted that the categorisation of individual items of research material might not always be absolute. For example, some of the research materials published by Ofcom concerning Community Radio may well include materials written by me during my time working for the regulator. In general, it is Ofcom's policy not to publish the names of individual authors who worked on particular projects or documents.

A specific example here involves research commissioned by Ofcom concerning the degree to which the listening public value the outputs of Community Radio services (and of small-scale commercial stations) (Essential Research, 2011). Although this report, entitled *The Future of Small Scale Radio*, was written by the staff of Essential Research, it was ordered by and planned in conjunction with Ofcom. Being, for a time, in 2010 / 2011, the primary radio team member at Ofcom for this research, the author was responsible for leading discussions about its structure, and concerning the selection of the individual stations surveyed. Thereafter, the author also helped in the design of

the core questionnaire and in the collection of raw data, specifically at the workshops for listeners to Future Radio in Norwich.

Selection of Primary Research Interviewees

The range of interviewees selected for inclusion in the set of semi-structured interviews conducted for this research was designed to ensure a diversity of views and experience. Because this PhD thesis is concerned with the practice of Community Radio broadcasting, a prime constituent of the semi-structured interview cohort is that of those involved directly in the delivery of Community Radio services.

Examples of such interviewees include: Tom Buckham, the first Station Manager at Future Radio in Norwich; Andrew David, ex BBC local radio and the first Managing Editor of SIREN FM, the Community Radio station based at the University of Lincoln; Taari Sian, founder and Managing Director of NuSound Radio, an ethnic minority Community Radio service for East London; and David Hatherley, the Station Manager at rural Community Radio service, Wayland Radio in Norfolk.

Rather than select interviewees from various positions within individual Community Radio services, it was a deliberate decision to focus on those involved in their management. Typically, it was felt that such individuals would be expected to provide an overview of the particular services that they managed, as well as some degree of broader sectoral knowledge or relevance to this research.

A second cohort of interviewees came from the regulatory sector, those involved in the design and implementation of regulation required by statute law. Such interviews included not only individuals with direct responsibility for Community Radio regulation at the micro level, but also senior regulators responsible for driving high-level policy decision making.

Examples of such interviewees include: Ed Richards, former Chief Executive Officer at Ofcom, responsible for the development of Community Radio policy following its earlier introduction during the term of his predecessor, Stephen Carter; Philip Graf,

Member of the Ofcom Board and Member / Chair of the organisation's Radio Licensing Committee, responsible for approving licensing policy and for the licensing of individual Community Radio services; and Susan Williams, Senior Radio Executive with long-term overall responsibility for the development, implementation and delivery of Community Radio licencing and sector liaison.

Further to the two central sets of semi-structured interviews, there is another group of interviews with individuals who bring an international perspective. These include broadcasters and regulators from The Republic of Ireland, Norway and the United States of America. These are further supplemented by interviews carried out with practitioners who have an international perspective, for example, Steve Buckley, the long-standing former Chair of the Community Media Association in the UK and, more recently, President of the international Community Radio campaign body, AMARC and consultant to the World Bank.

The selection of interviewees is intended to provide a broad range of viewpoints and expertise. For example, those selected because of their involvement in the management of Community Radio services were chosen from a diverse range of community services, including, those serving a community of place (urban or rural etc.), specific age demographic or ethnic grouping. Meanwhile, regulators were chosen for their particular involvement in oversight of Community Radio operations, whilst other interviewees were selected for their perceived knowledge base and particular perspectives.

Research Hypothesis

This PhD is fundamentally about the relationship between Community Radio and wider society. My hypothesis is that, the role of legislation and regulation is crucial in facilitating the ability of Community Radio services to pursue their stated objectives. This PhD explores how such legislation and regulation frames Community Radio and its relationship with wider society. Because Community Radio is a technological medium, the impacts of technological developments also play a role in framing this debate.

Exploring the process by which Community Radio developed and the factors that influenced such development has the potential to reveal much about the sector's nature and its relationship with the government, as part of a regulated medium. Exploring current practice has the potential to provide opportunities for examining where legislation and regulation appear to be beneficial to the sector and where they may constrain its ability to act.

At the macro level, this PhD is concerned with the ability of the sector to deliver against its perceived socio-economic and cultural objectives. At the micro-level, it is concerned with the embedded nature of Community Radio services and the degree to which individual services are able to integrate with their target communities.

As a central tenet, at both levels, this hypothesis considers the importance of community as being dominant over that of radio. In other words, the success of any Community Radio service needs to be judged first and foremost by the degree to which it benefits members of its target community.

Contribution to Knowledge

This research is intended to help contribute to an improved understanding of the relative positioning of Community Radio, both within broadcasting and, more widely, within the communities that such stations seek to serve, and wider society as a whole.

The following chapters of this thesis seek to make an original contribution to knowledge through, in particular (although not exclusively), the analysis of the various primary and secondary research sources detailed earlier in this chapter.

Specifically, this PhD seeks to demonstrate the crucial role played by legislation, regulation and technology in defining the 'place' for Community Radio. In part, this is done through the research of historical and current literature and other research sources (as set out above), drawing on some sources that have not previously been explored or have not been explored in such detail in relation to the emergence of Community Radio in the United Kingdom.

The main contribution to knowledge is intended to be analytical. Drawing on primary and secondary research sources this thesis seeks to answer the following research questions:

- *What role has been played by broadcast radio history in shaping the current form of Community Radio in the United Kingdom?*
- *How do broadcast radio policies in general and Community Radio policy in particular impact on the delivery of Community Radio services in the United Kingdom? How is the sector (a) facilitated by such policies, or (b) constrained by such policies, and (c) how might policy developments influence the sector in the near future?*

In addition to primary materials gathered specifically for this PhD, the broad range of regulatory documentation (from Ofcom sources in particular) as well as the author's professional knowledge of both broadcast regulation and Community Radio campaigning and operation, provides opportunities to obtain new perspectives in this area.

Ethical Considerations

The various interviews carried out in relation to the completion of this thesis were all arranged, in advance, in person or by either telephone or e-mail. Approval was also sought and obtained in advance of visits to individual Community Radio stations and other organisations.

Funding for my research came in the form of a scholarship provided by my research institute (CAMRI), supplemented by my own resources. I neither sought nor received any other financial support for the work involved.

All interviewees were aged 18 or over at the time they were spoken with. In some cases, for example in relation to interviews with senior Ofcom staff and Board members, I was asked to check with them before publication of any material obtained during formal one-to-one interviews. Whilst this was agreed to and implemented, it did not result in

any requests for amendments to my original wording, which, as a result, remains unaltered in this thesis.

Conclusions

The purpose of collecting additional qualitative research data, alongside the gathering and collating of a variety of existing research materials, is to provide the author with opportunities to explore the delivery of Community Radio from a variety of perspectives. In particular, this approach is intended to provide data relevant to our understanding of the development of media policy (particularly concerning the emergence of Community Radio in the UK) and in relation to the historical development of this most recent type of broadcast radio delivery.

As a relatively small and relatively young sector, the author is of the view that Community Radio in general, and its various UK based incarnations in particular, remains under researched in comparison to other forms of broadcast radio delivery. Although various recent titles have begun to pay more attention to Community Radio (such as Mansell & Raboy, 2014), it remains the case that some generic textbooks, which purport to discuss broadcasting theory, policy and practice in detail, still fail to include specific references to the Community Radio sector, or even to wider alternative media (see, for example, Hardy, 2008 and Mills & Barlow, 2012).

The remaining chapters of this thesis are concerned with the practice (and theory) of Community Radio in the United Kingdom, and two specific elements that impact directly on the delivery of such services: regulation and technology are examined in some detail. Whilst the chapter concerned with regulation attempts to contextualise official oversight of the sector in terms of both its internal viability and its external impacts on the wider broadcast radio ecology, the chapter concerned with technology pays particular attention to recent developments in both broadcast and non-broadcast delivery systems. Although specifically focused on the United Kingdom experience, where considered appropriate, some international elements are also introduced.

Chapter Five explores the development of Community Radio policy, legislation and regulation as these relate to Community Radio in the United Kingdom. It considers particular factors that have influenced the development of policy and how such policy has both facilitated and constrained the Community Radio Sector.

This chapter also considers the importance of the relationship between the Community Radio sector and its regulators, exploring the changing nature of this relationship and how this impacts upon the activities of both parties.

Chapter Six examines the technologies that underpin the broadcasting element of Community Radio and the wider delivery of programming content to members of target communities. Inevitably linked to particular regulatory issues, it considers factors such as relative spectrum availability and, in particular, the issue of digital broadcasting opportunities on DAB.

The recent Small Scale, Low Power DAB trials are explored within the wider context of radio broadcasting's planned migration to digital, and the possible eventual closure of analogue AM and FM radio broadcasting.

In terms of the changing patterns of audio consumption, this chapter also examines the impact of non-broadcast Internet audio delivery. Attempting to assess the relative importance of such platforms, it considers how these might impact on the relationship between Community Radio stations and their listeners as well as between such broadcasters and their regulators.

Chapter Seven draws elements of the preceding chapters together, providing a summary of the research carried out and an opportunity for overall conclusions to be drawn in the context of this thesis. The conclusions drawn are supplemented by observations concerning opportunities for possible additional research in future.

(5,998).

CHAPTER FIVE:

Regulation in the Community Radio Sector

Introduction

So far in this thesis, I have examined the positioning of Community Radio at the macro level, that is to say in terms of how the sector as a whole is triangulated in relation to legislation and regulation as well as in relation to the public service and commercial broadcasting sectors. In this chapter, I will be examining the positioning of the sector at the micro level, that is to say, in relation to the activities of individual stations.

For individual Community Radio stations, broadcast regulation and the underlying legislation upon which it is based helps define various operational parameters. These include, not only station outputs (primarily in terms of programming, although additionally including other non-broadcast elements, such as the delivery of 'social gain'), but also the various inputs required to deliver such outputs (such as licences and sources of funding).

In order to explore the impacts of Community Radio legislation and regulation on individual Community Radio stations, this chapter includes references to various individual stations and examples. These help explain both the input and the output elements of such regulation and help to demonstrate how these have the capacity to both facilitate and constrain the activities of individual stations.

Fieldwork Stations

A number of factors were considered when selecting the various Community Radio stations to be used as primary research sources for this thesis. Each was chosen to be representative of a particular type of service and for having particular characteristics. The author was particularly concerned to include stations, which (a) had differing audience foci (in particular geographic, ethnic and special interest); (b) represented between them services based in various types of location (for example rural or urban); and (c) represented between them both self-supporting (stand-alone) organisations, and services operated as part of larger, multi-focused, organisations. Although such criteria were the

uppermost considerations, the practical issue of access to relevant personnel also played a part in the selection of stations as case studies.

Four stations are at the core of this research, namely:

1. **Future Radio Norwich**¹ - Suburban / urban location, geographically focused and part of a larger organisation;
2. **NuSound Radio** (East London) - Urban location, ethnic minority focus and a stand-alone organisation;
3. **SIREN FM** (Lincoln) - Urban (campus) location, special interest focus and part of a larger organisation;
4. **Wayland Radio** (Norfolk) - Rural location, geographically based and a stand-alone organisation.

More information about each of the four core stations is provided below. However, in addition to these stations, the author also visited or otherwise engaged with a range of other Community Radio stations to help inform this thesis. These included:

1. **All FM** (South, Central & East Manchester) - Dense urban location, geographical focus, previously linked to a second Community Radio service (Withenshawe FM), through third sector body, Radio Regen (Former 'Access Radio' pilot scheme station);
2. **BCB** (Bradford) - Urban location, geographical focus, stand-alone organisation;
3. **NEAR FM** (Dublin) - Urban location, geographical focus, and a stand-alone organisation;
4. **RadioLab** (Luton) - Urban location, special interest focus and part of a larger organisation;
5. **Raidió Fáilte** (West Belfast) - Urban location, special interest (language) focus and a stand-alone organisation;

¹ The author of this thesis is a Trustee of the NR5 Project Limited (trading as 'Future Projects'). He has worked closely with Future Radio, the station operated by that organisation, since 2004.

6. **Resonance FM** (South Central London) - Dense urban location, special interest focus and a stand-alone organisation;
7. **Radio Reverb** (Brighton) - Urban location, geographic focus and a stand-alone organisation;
8. **RINSE FM** (East Central London) - Dense urban location, specialist music focus and a stand-alone organisation (ex-unlicensed 'pirate' broadcaster);
9. **Sheffield Live!** (Sheffield) - Urban location, geographical focus and a stand-alone organisation;
10. **SoundArt Radio** (Dartington (near Totnes), Devon) - Rural Location, special interest and a stand-alone organisation;
11. **Warminster Community Radio (WCR)** (Wiltshire) - Rural town location, geographical focus and a stand-alone organisation;
12. **Worthy FM** (formerly Radio Avalon²) (Pilton, Somerset) - Rural location, geographical focus and a stand-alone organisation (annual temporary RSL service at the Glastonbury Festival of Music and Performing Arts).

I will now expand briefly upon each of the four stations that constitute the core case studies in this thesis (above):

Future Radio Norwich (107.8 FM & DAB)

Future Radio began broadcasting in May 2004. Using short-term Restricted Service Licences, the station completed six 28-day broadcasts on 105.1 MHz, a frequency allocated for temporary transmissions in the Norwich area. These early transmissions, which provided limited coverage of the West Norwich area, nevertheless allowed the station to develop *"strong linkages within its target community and with statutory and other bodies in Norwich as a whole"* (Ofcom, 2005).

The parent body of the station, the NR5 Project, a registered charity with social development objectives in the West Norwich Area, had a founding Chief Executive (Dawn Jackson MBE), with previous experience of unlicensed broadcasting, who, early on, saw the potential of Community Radio as a useful adjunct to the charity's initial

² The author of this thesis was the co-founder of Radio Avalon in 1983.

primary purpose of providing education to teenagers excluded from mainstream education in the Norwich and wider County of Norfolk area. At the time of writing (September 2015), the station had just started broadcasting on DAB, using the Future Digital Norfolk multiplex, which was set up specifically to take part in Ofcom's small-scale DAB trial scheme.

NuSound Radio, East London (92.0 FM & DAB)

Based near Stratford, in Forrest Gate London N7, NuSound Radio began life some seventeen years earlier, in 1989, as Star Sound Radio. The station operated a number of RSL broadcasts as well as providing programming for the community cable radio station, Radio Thamesmead in South East London, before it was offered a full-time Community Radio licence in February 2006 (Ofcom 2006(a)). According to the regulator, the group's Community Radio licence application demonstrated that it:

has gained much broadcasting experience in its target area by broadcasting on RSLs over many years ... [and] has strong links with local community groups and is actively involved with local community events, ... [a] commitment to training, and previous experience in training volunteers, is [also] evident (ibid.).

After Ofcom's offer of a Community Radio licence, the station took just over a year to start its full-time broadcasts, which commenced in early March 2007 from above a shop on the Romford Road between Stratford and Ilford. More recently, the station has moved to larger premises nearer to Stratford Broadway and, at the time of writing (September 2015), is just about to start broadcasting on DAB using the U-DAB multiplex, which is part of Ofcom's small-scale DAB trial scheme.

Siren FM, Lincoln (107.3 FM)

Broadcasting since August 2007, from purpose-built studios on the University of Lincoln's Brayford Pool campus, Siren FM is intended to serve the young people of Lincoln between the ages of nine and 25 (Siren FM, 2015). Although this includes university students (some elements of its broadcast output are heavily integrated into the

university's teaching curriculum), the station nevertheless makes a point of encouraging volunteers from the wider local community. When offered a licence by Ofcom in March 2006, the regulator noted the applicant's *"well-resourced proposals ... which are carefully focused on the interests of students, school children and young people in the City of Lincoln"* (Ofcom, 2006 (b)).

Managed by a former BBC Radio and local television presenter, the station benefits from financial and material support provided by the university. Since its launch, the station has developed close links with the nearby BBC local radio station and with the main commercial radio station in the county, 'Lincs FM'.

Wayland Radio, Norfolk (107.3 FM)

Also managed by an ex BBC local radio employee and based in the village of Ashill, near Thetford in Norfolk, Wayland Radio broadcast to the rural market towns of Swaffham and Watton in Central Norfolk. After several short-term, temporary 'RSL' broadcasts, the first in early 2006, the station was awarded a full-time Community Radio licence in March 2009, taking to the air just over five months later, at the end of August the same year. In the event, the station only managed to maintain operations for a period of exactly two years, closing down towards the end of August 2011.

The station broadcast programmes designed to be of specific interest and relevance to those living and working in the Breckland area and relative to the lives, interests and opinions of those local listeners. In addition to magazine and speech-based programming during the day, a variety of specialist music programmes were broadcast after 7:00 pm each evening. The station also had wider social gain objectives:

Having a focus on social integration and cultural awareness, the station ... also broadcast programmes in other languages, serving the needs of migrant workers in the area (BBC, 2009).

Although Wayland Radio did not survive, the idea of a Community Radio station to serve the Breckland area of Norfolk has not gone away and in June 2015, Ofcom granted

a new licence for part of the area, this time to 'Brecks FM' (formerly operated on-line, as 'Watton Radio'). The new station:

will provide a locally-focused service for the town of Watton in Norfolk, and surrounding villages, targeting mainly the general population of the area but also providing programmes appealing to local groups that are otherwise underserved (Ofcom, 2015 (b)).

Regulatory Issues

During the course of completing fieldwork for this thesis, a wide variety of issues arose in relation to the regulation of the sector and of individual stations within it. In general the regulatory topics raised can be grouped together under a number of broad headings, namely:

- **Economic** - Resource availability (in particular concerning legislative requirements for a diversity of funding sources and restrictions on available sources of funding) / Revenue Sources (availability and diversity thereof - including the DCMS / Ofcom Community Radio Fund);
- **Operational** - Management (for example of volunteers) / Delivery (of 'social gain' as well as in terms of programming);
- **Licensing Related** - Coverage policy / Equitable treatment (for example in relation to licence duration) / Regulatory liaison (annual reports etc.);
- **Technical** - Spectrum availability / coverage / digitisation etc. (covered in more detail in the next chapter of this thesis).

When such issues were discussed with station staff and volunteers, it was evident that although the relative priority of certain concerns varied according to the specific circumstances of the individual stations involved, the majority of stations tended to have particular concerns across more than one of the above groupings. As will become apparent, there are clear inter-linkages between several of these listed issues. For example, economic considerations are not separate from licencing, or indeed from operational issues. Coverage impacts on both operational and economic capacity and is, of course,

dictated by licensing criteria. By necessity therefore, the various issues are somewhat intertwined below.

Service Delivery

Community Radio services broadcast to a diverse range of communities and, between them, they create a broad range of programming, both speech- and music-based. For traditional commercial broadcasters in particular, programming outputs are, almost exclusively, the only outputs that their operators are concerned with. In fact, arguably, the programming created by such stations is important, not for its own sake, but for its ability to create an audience for the various advertising messages that are integrated into such programming output.

For Community Radio, however, whilst programming outputs may be important, they can also be secondary to wider objectives in relation to the delivery of social gain. For both types of output, Community Radio stations require appropriate resource inputs to provide for their delivery and it is here where one of the greatest tensions between Community Radio operation and regulation can often be found. To deliver outputs effectively, and to meet social gain commitments in particular, requires adequate resources, not just in terms of volunteers, but also in terms of finances. Where such funding can be obtained from, and, indeed, where it cannot be obtained from, is a major concern for the Community Radio sector.

Generating Income

Viability of the Community Radio sector has always been a major concern, not just for stations within the sector itself, but also for politicians, regulators and, not least, other broadcasters, particularly those in the commercial sector, concerned that community-based services might 'poach' revenues from sources that previously contributed to their operational revenue streams.

The BBC as a public service broadcaster has access to a reliable core income stream in the form of the licence fee. A little less secure in terms of its income sources, the commercial radio sector has nevertheless managed to survive and, to some extent, prosper over recent

years, albeit in the face of growing commercial competition from other, mostly Internet-based, audio providers. Whatever the shortcomings of their funding streams (and this author does not doubt that funding pressures on both public service and commercial broadcasters are genuine), such broadcasters do at least have clearly identified core revenue sources, which are easy to determine as a constant, across the operation of the individual sector concerned (PSB or commercial).

For Community Radio broadcasters, the picture is somewhat less clear. Between them, the various stations researched for this thesis had a variety of funding models. These differed in terms of both the range of sources involved and scale of income generation achieved. The legislation governing the funding of Community Radio in the UK requires that when considering Community Radio licence applications:

Ofcom needs to consider whether an applicant either has, or is likely to have, access to sufficient financial and other resources to establish and maintain the proposed service. The application form includes questions on what broadcasting and off-air activities are planned, the cost and resources required, how the applicant intends to fund these, and what human resources are involved, as well as the group's and individual member's relevant experience and what appropriate linkages the applicant has already established (Ofcom, 2015 (c): 6).

Restrictions on Income

However, the legislation is not only concerned with ensuring the viability of any new Community Radio service, it is also concerned with maintaining the viability of existing commercial radio operations, because:

Ofcom must have regard to the need to ensure that any community radio service does not prejudice unduly the economic viability of any other local (commercial) radio service (*ibid.*).

When Community Radio services were first introduced, one of the ways in which the terms of the original secondary legislation, The Community Radio Order (2004) (a Statutory Instrument under the Communications Act (2003)), sought to differentiate the sector from commercial broadcasting, was to ensure that a diversity of funding sources were employed to operate these services. The original Community Radio Order (2004) required that:

OFCOM [sic] shall not grant a community radio licence to any applicant who proposes to receive from - (a) any one person, or (b) from any one person and any other persons connected with him, taken together, more than 50 percent of the income that would be required in each financial year of the applicant to provide the proposed service in that year (HMG UK, 2004: 6-7).

The order also provides specific rules in relation to on-air commercial activities, namely:

*(a) the inclusion in the service provided under that licence of any remunerated advertisement, or
(b) the sponsorship of any programmes included in that service*
(*ibid.*, 7).

Again, the rules in relation to such income require Ofcom to ensure that the amount generated is "50% of... [total] *income or some lesser proportion*" (*ibid.*).

The particular effects of this funding restriction are two-fold. Firstly, a restriction on traditional forms of commercial radio type funding generation automatically requires Community Radio stations to explore and develop alternative income strands. Secondly, this approach automatically provides some protection for the commercial radio sector, concerned about the potential transfer of advertising revenues from its stations to Community Radio services.

Being a 'broad church', the Community Radio sector embraces a diverse range of opinions in relation to how its services might be delivered to best effect. Some operators create programming output that, in many ways, might sound somewhat similar to that of existing commercial broadcasters, whereas others shy away from such an approach in favour of delivering more specialist content and a greater diversity of output overall. Understandably, commercial radio companies generally perceive the former approach as more 'threatening' than the latter. Commercial operators create their particular on-air programming approaches primarily to maximise listenership, and are, perhaps understandably, concerned when similar sounding services appear. Community Radio services may not necessarily consider the maximisation of total listenership to be their primary objective, but some will still use commercial radio broadcasting techniques, believing these to best help deliver their wider social gain and other community-based objectives.

Such concerns were highlighted by the commercial radio sector in its response to Ofcom's *Regulation Of Community Radio Services* consultation in 2008 (Ofcom, 2008 (a)). Formed in 2006, the RadioCentre (sic), as the successor industry body to the Commercial Radio Companies Association, is tasked with maintaining and building "*a strong and successful Commercial Radio industry - in terms of both listening hours and revenues*" (RadioCentre, 2008 (a)). From its starting premise that commercial radio was "*was naturally concerned about the possible impact of Community Radio on existing local services*" (*ibid.*), it argued that regulation of the sector should ensure its unique position is maintained:

We believe that Community Radio's role should be that of a distinct third tier, focused on social gain, participation and community involvement. This will ensure that it makes a contribution to UK life, rather than undermining the economic wellbeing of existing local commercial stations (ibid.).

In spite of such trenchant views from the commercial radio sector, over time, the general direction of travel in terms of Community Radio financial regulation has been for the

government to gradually relax the funding rules for the sector. There are arguably a variety of reasons for such developments, as set out below:

Firstly, given the high levels of demand for Community Radio licences, the government has faced resultant calls for increases in the sector's central funding support (see, for example, Buckley, 2010). Given the general state of the economy since the mid 2000s, successive governments have been disinclined to accede to such demands. The alternative of making commercial funding more easily accessible is one way of being seen to be supportive of the sector but, importantly, one that comes without a cost overhead for the government.

Secondly, since the launch of the permanent Community Radio sector in 2004, commercial radio broadcasting has continued the process of acquisitions and mergers, which started in earnest in the early 1990s. Larger groupings and networked outputs have seen the continuation of cuts to locally produced outputs and a reduced importance of local commercial revenues. Hence, the perceived 'threat' of Community Radio from a commercial radio perspective has tended to reduce.

Thirdly, there is the evidence of practice. With very few exceptions, Community Radio broadcasters have not attempted to duplicate small-scale, local commercial radio. The regulation applied to the sector undoubtedly helps to ensure that this remains the case. However, Daniel Nathan, involved in both commercial and community-based broadcasting in Brighton, thinks the key here is the gradually evolving culture of the sector. As this becomes more established and defined through practice, he suggests that the level of detailed scrutiny that Ofcom may feel is necessary to apply to the Community Radio sector may gradually reduce (Nathan, 2015). At the time of writing however, the blank application form for a Community Radio licence remains detailed, running to 21 pages (Ofcom, 2015 (l)).

Although most stations visited, or otherwise engaged with, during the research for this thesis sought, to a greater or lesser extent, to generate commercial revenues (through the sale of spot-advertising and / or sponsorship opportunities) as part of their overall

operational funding mix, some, such as Siren FM and BCB proactively chose not to generate any such income.

Mary Dowson, the long-serving station manager at BCB in Bradford, explained to the author that this position was taken as a matter of principle and in relation to practice. Giving the example of a campaign run by the station to keep open a local supermarket, she questioned what might have happened had the station been carrying advertising from competing retailers, suggesting that, at the very least, income from such sources might have tempered the way in which the station ran its campaign.

The Warminster Example

By comparison, Warminster Community Radio (WCR), a station that is not ideologically opposed to generating commercial revenues, was until recently prevented from doing so by legislation. The story of WCR's quest to obtain a full time Community Radio licence, as summarised below, highlights the direction of travel in relation to Community Radio legislation in the United Kingdom, in particular in relation to the impacts of legislation on potential service viability.

Now a registered charity and originally founded in 1996, the station carried out a number of short-term Restricted Service Licence broadcasts to the Warminster area between 1996 and 2009. It has also been providing a full time service via the Internet since May 2007 (Mole, 2015). The organisation started to pursue the idea of a full time licence when the Radio Authority's Access Radio experiment was announced in 2000 (*ibid.*). As the first RSL broadcast had generated some £14,000 of advertising income, the station believed that it could use such commercial revenues as a major contributor to its modest operational costs, which today total between approximately £20,000 and £24,000 per year (*ibid.*).

When asked about the early licensing attempts of WCR, the station's founder, Barry Mole, now Managing Director of WRC Community Radio Limited, as well as Chairman of Trustees at the organisation's charitable body, the Friends of WCR, explained that:

WCR pushed for a licence for the area in 2000, when we were the only show in town and only commercial licences were available - sadly the big commercial boys came out of the woodwork and pulled the rug from under our limited funded enterprise. When, [in 2004], the law changed to allow the third tier of radio, we were ready to apply, [but were] foiled yet again by an eleventh hour spoiler by the CRCA banning a licence in areas where a [small-scale] commercial station existed (Mole, 2015).

The legislative restriction, as referred to above, which prevented WCR being licensed in 2004 was contained within the first Community Radio Order, which came into force that same year. Lobbying by the Commercial Radio Companies Association (CRCA) resulted in a restriction, which stated:

OfCOM [sic] shall not grant a licence to provide a community radio service in any case where the licence, if granted, would overlap with another local licence for a service, other than a community radio service, the potential audience of which includes no more than 50,000 persons who have attained the age of 15 years (HMG UK, 2004).

However, when the original Community Radio Order (2004) was replaced by the Community Radio (Amendment) Order (2010), this particular restriction was removed and WCR was at last able to apply for a full time Community Radio licence, which it was subsequently awarded in September 2011 (Ofcom, 2011 (c)), taking to the air towards the end of March 2012. At this point, however, the station's new licence still prevented it from generating "*income from the sale of advertising or programme or station sponsorship*" (Mole, 2015).

The legislative restriction carried over in modified form into the Community Radio (Amendment) Order (2010) states:

[E]very licence to provide a community radio service that overlaps with any other local licence for a service, other than a community radio service, the potential audience of which includes no more than 150,000 persons who have attained the age of 15 years, must contain such conditions as appear to OFCOM [sic] to be appropriate for prohibiting -

(i) the inclusion in that service of any remunerated advertisement, and

(ii) the sponsorship of any programmes included in that service
(HMG UK, 2010).

Thus, when WCR began broadcasting as a full time Community Radio service, it had to rely on sources of income that were not related to broadcast commercial activities. In particular, the station managed to negotiate a 'Service Level Agreement' with the Warminster Town Council (approximately £20,000 per annum) promoting council information and events, also generating additional off-air commercial revenues through the provision of *"CD recordings, PA system hire, DVD production and broadcaster training courses"* (Mole, 2015).

Whilst clearly an unsatisfactory position from the broadcaster's perspective, it could be argued that the imposition of such restrictions on the income generation opportunities of WCR may, in some ways at least, have benefitted the organisation in the longer term. The development of a mutually beneficial relationship between the broadcaster and its local authority as well as the expansion of commercial and training activities, all of which might broadly be considered to strengthen the station's links with its target community and to strengthen its delivery of 'social gain', resulted, at least in part, from the urgent need to develop alternative funding streams.

When discussing the issue of financial viability, Barry Mole noted that, despite the various restrictions placed upon the commercial activities of WCR, the local commercial

broadcaster (currently operating as 'The Breeze') has had something of a chequered history both financially and in terms of changing ownership and on-air identity. He noted that when discussing radio in the area with members of the local community, they tended to appreciate the fact that "*WCR were here before commercial radio came along*" (*ibid.*) and that the station has continued to maintain a very clear local focus, even as the commercial station has come to rely increasingly on networked programming from outside the local area.

Early in 2015, the Community Radio (Amendment) Order (2010) was replaced by a further revised Community Radio (Amendment) Order (2015). The various amendments in the new statutory instrument are complex, but its accompanying explanatory notes are clear, stating:

The amendments also permit a community radio licence which overlaps with a small commercial station to raise up to £15,000 per annum from remunerated advertising or sponsorship (HMG UK, 2015).

As a result, WCR has now begun to add on-air commercial revenue generation to its range of revenue streams. However, the opportunity to develop such income streams may come at the cost of decreased support from the local authority, anxious to reduce expenditure at a time of declining central government support.

The above example clearly demonstrates how the direct legislative restrictions on Community Radio funding have been gradually reduced in the decade or so since the sector was established on a permanent basis. In Barry Mole's view:

[W]e are now where we wished to be in 2000 but due to continued interference tactics from the commercial sector, our progress has been delayed, not halted and now, 12 years on, all of the feared implications the CRCA were so adamant about have proven to be groundless (Mole, 2015).

It should be noted here that during the course of my fieldwork, it was rarely, if ever, the case that Community Radio broadcasters were arguing for the freedom to generate all their income from traditional commercial radio sources. Overall, the feeling was that the 50% limit on such income was acceptable, but that it should have been countered by the provision of a larger Community Radio Fund. Soo Williams at Ofcom agrees:

I know that many people in the sector feel that they've, [the] government's pulled a fast one, in that it introduced restrictions on advertising and areas where we could license community radio stations and they felt that in return, they would have a fund that would really help to get community radio stations...to keep them funded for a small period of years anyway, at a decent level, to help them get started with a station manager or whatever, and that's just not happened. That's just not happened, so I feel that the sector has – to some extent – been let down there. But it's not just the DCMS funding for the Community Radio fund that is the issue. It's public funding in general (Williams interview, 2010).

Funding concerns for Community Radio are not limited to the United Kingdom alone. In the Republic of Ireland, the situation is, in many ways, similar. Obtaining operational funding remains a constant concern. Jack Byrne, a long time campaigner for Community Radio and founder of the well-established NEAR FM in North Dublin, is blunt about the issue, observing that, even for a long established service, such as his:

a lot of the weaknesses that are inherent in our operation, and I'm sure in all the other community stations, is [due to] this constant scrambling for funding (Byrne interview, 2010).

British Community Radio legislation is, as previously discussed, strict about ensuring a diversity of income sources, in particular limiting on-air commercial advertising and sponsorship (taken together) to a maximum of 50% of income. The result of this rule is that some stations find their total income limited because they are unable to obtain other

sources of income to match that which can be generated as a result of such traditional commercial activities. As well as including grant support and so-called 'Service Level Agreements' (SLAs), alternative sources of income can also include a monetary value attached to volunteer inputs, both managerial and programming related (Ofcom, 2010 (b)).

The Wayland Radio Case

One station, which encountered problems with such regulations, was Wayland Radio. When it launched in 2010, this station was fortunate enough to obtain some £24,000 worth of funding from the local council (Breckland, Norfolk) (Hatherley interview, 2010), which it could then match against advertising and sponsorship revenues that, even during the recession, it found reasonably easy to obtain (*ibid.*), perhaps because there is no small commercial station to be found operating in the immediate vicinity.

David Hatherly, interviewed for this thesis before the station he managed was forced to close after just two years on air, envisaged a future of mixed funding from a variety of grant and SLA sources, balanced by commercial revenues. Stressing that Wayland Radio was not a commercial radio station, but taking the view that small-scale businesses are part of the local geographical community, he recognised that achieving a diverse mix of funding would always be something of "*a balancing act*" (*ibid.*).

In the event, it was a balancing act that could not be maintained. Non-commercial revenues declined and the value of volunteer inputs was too small, such that the knock-on effect was to constrain commercial revenues to an unsustainably low level. Although the station successfully delivered against its licence objectives, in terms of programming and social gain, in the year 2010 - 2011 (Ofcom, 2011 (f)), it was clear that, after a well-managed start, the economic recession was beginning to cause serious problems. Under the heading 'Significant Difficulties', which the station chose not to keep confidential, it was noted that:

The current financial situation has caused us difficulties in two areas.

Firstly Financial: As grants are fewer in number, the competition for them has become greater. In the past our local district council (and other agencies) have been financially supportive, but now there is no money to spare. Cash flow is an on-going issue.

Secondly Communication: As local government agencies try to reduce their budgets, through staffing changes and reductions, many previous links have been lost. We are having to work hard to re-establish lines of communication, many of which had been in place for several years (ibid.).

In the Warminster example (above), changes to the licensing regime under the revisions instigated by the Community Radio (Amendment) Order 2015 (HMG UK, 2015) were explained in the context of Community Radio in areas where small-scale commercial stations operate. Of particular relevance here is the rule allowing the generation of a baseline amount of commercial funding (currently £15,000) outside the established 50% limits as set out above (DCMS, 2015). This applies to all Community Radio stations and is a clear example of how regulation is, to some degree, becoming more appropriate to the sector's needs and less driven by the concerns of commercial operators. Although impossible to prove, were this rule to have been in place in 2011, it is entirely possible that Wayland Radio could have generated enough income to continue broadcasting.

Sector Funding Support

Another finance-related policy area of interest to individual radio stations is that of centralised funding support. When Community Radio was provided for, under the terms of the Communications Act, 2003, the same legislation also provided for the provision of Community Radio Fund. The Act states "*Ofcom may make such grants as they consider appropriate to the provider of any [Community Radio] service*" (HMG UK, 2003: 316).

Each year, since the financial year 2005 / 2006, the government, through the Department for Culture, Media and Sport (DCMS), has made available approximately

£500,000 (Ofcom, 2014 (a)) to be dispersed by Ofcom through an awards process established in 2005 (*ibid*). This fund is, theoretically at least, available to all Community Radio Licence holders, with invitations to apply for funding typically being made twice per year (Ofcom, 2015 (m)).

The Community Radio Fund has very specific objectives. Having "*been established to give grants to help fund the core costs of running community radio stations*" (*ibid*), the fund is specifically focused on providing help with "*the essential core work* [for which it is] *the most difficult ... to find funding*" (Ofcom, 2014 (a)). Noting that some things, such as training can be easier to fund from other sources, Ofcom gives examples of the types of things that are considered appropriate to fund, namely:

- *fundraising to support the station (e.g. grants, commercial funding)*
- *management*
- *administration*
- *financial management & reporting*
- *community outreach*
- *volunteer organisation and support (ibid).*

In bold type within the notes of guidance from Ofcom about the fund, the regulator stresses that the panel responsible for funding decisions "*considers promoting long-term sustainability a critical, core activity*" (*ibid*).

Future Radio has made various applications for support from Ofcom's Community Radio Fund, but has met with limited success. Tom Buckham argues that this is because of the station's relative stability and successful track record:

[Y]ou think perhaps it is in the sense that if you're a bigger organisation perhaps, um, producing more outputs, social gain wise and otherwise, involving more volunteers, you're deemed to be, perhaps deemed to be successful and therefore not, um, you can't apply [successfully] for the grant, which is understandable in the sense that we

know there are places that operate on a lot smaller budgets with less staff, but, at the same time, should you really be penalised for over, over, you know, achieving (Buckham interview, 2010).

The fact that that Community Radio Fund has not increased since 2005 (and in real terms, after inflation has been taken into account it has, in fact, reduced) must also be taken in the context of how much the sector it serves has grown over the intervening years. As Buckham puts it:

I mean, you just need to look at the facts and see that the fund hasn't increased from when it was initially kicked off for about twenty stations, fifteen Access Stations, or something like that, um and now you've got, you know, almost ten times the amount of stations and it hasn't increased (ibid.).

Since the interview with Buckham was completed, the total number of full-time Community Radio services operating in the United Kingdom has expanded further still, with over 230 being operational in September 2015 (Ofcom, 2015 (a)), which means that, divided pro-rata, the amount of direct government funding available to each Community Radio station would be under £2,200 per year as compared to well over £30,000 available per station for the initial fifteen services back in 2005.

When Professor Anthony Everitt reported on funding as part of his review of the Access Radio experiment, his recommendation was that:

[T]he government should establish an Access Radio Fund, which would support the fund-raising capacity of Access Radio stations and the employment of a station manager at a level of £30,000 per annum (Radio Authority, 2003).

Former CMA Director, Steve Buckley, who also has direct experience of the management of Community Radio station, 'Sheffield Live!', has been particularly vehement in his

criticisms of government policy towards funding for Community Radio services. His central argument, that the legal limits placed on the availability of commercial funding should be countered by the provision of alternative sources of funding, has considerable currency within the wider Community Radio sector. He observed, when interviewed for this thesis, that:

[T]he size of the funding mechanism at the moment is very small; it has become very small from starting off at a reasonable level ... Professor Anthony Everitt recommended a fund that would provide round about 30,000 a year per station. So we started off at more or less that level and what went wrong is that it was not increased in line with the growth of the number of services (Buckley interview, 2010).

In a paper published in 2010, which discusses the funding of Community Radio in some detail, he noted that the:

Growing concern at the lack of adequate public funding for community radio has been reflected in the support of 152 MPs for a Parliamentary Early Day Motion in 2007; in repeated calls by Ofcom's Community Radio Fund Panel for an increase in government support for the Community Radio Fund and, in 2009, a joint letter signed by 60 station managers (Buckley, 2010: 1).

When it was suggested to Buckley that the limitation on the size of the Community Radio Fund was primarily an economic issue, at least in part due to the impacts of the global recession, which began soon after the sector began to grow substantially in 2006, he disagreed:

Actually, I don't think so. I think it's political. I think the sums of money involved are really rather small, and very small, compared to the – I would say – social benefit and public interest, in having a good, viable, community broadcasting sector. What [we] are talking

about – at £30,000 a year, times 200 stations, [is] six million quid a year, compared to three billion for the BBC. It's not a lot; it's really not a lot. Per head of population, what does that come to? About ten pence per year, something like that. So these are not large sums of money, really. The problem, I think, is one of political will, rather than economic ability of the government to invest in this sector. I think if you made an objective cost-benefit analysis of this sector, alongside many other broadly similar areas of public investment, a fund at a proper level would be perfectly justifiable. The difficulty appears to be persuading politicians to properly fund it and that may be a case of needing there to more pressure on the government to put more money into the fund, but I think it's perfectly affordable, even in this present economic climate (Buckley interview, 2010).

From an operational, regulatory perspective, when interviewed for this thesis, Soo Williams MBE, Ofcom's Community Radio Manager, was of the view that Community Radio is *"in a strong place, generally speaking, but I do worry about the funding side"* (Williams interview, 2010). When it comes to a thorough understanding of the day-to-day operation of, and issues with, Community Radio services, Williams is perhaps the most experienced and knowledgeable person at Ofcom. After moving from the Independent Broadcasting Authority, she became responsible for RSL licensing at the Radio Authority during the 1990s and was heavily involved in developing and implementing the Authority's Access Radio pilot scheme from 2000 onwards. Her involvement in Community Radio at Ofcom has been consistent and dates back to the sector's pre-launch phase, when the regulator took over the tail end of the Access Radio experiment in 2003.

Specifically, considering the Community Radio Fund, Williams was not optimistic that it would be increased in the foreseeable future (and indeed, since the interview, to date, this has proven to be the case): *"We don't know what's going to happen to that fund, but I can't see it increasing. I cannot see it increasing. That is a very, very great shame"* (*ibid.*).

At board level, within Ofcom, inevitably somewhat distanced from day to day interaction with individual Community Radio stations, support for the Community Radio Fund is tempered by a similar view of the current economic circumstances. Ofcom's Chief Executive, Ed Richards, describes Community Radio as *"one of the greatest and most important innovations that we've had in the sector over the last decade"* (Richards interview, 2010) but is nevertheless not optimistic about possible improvements in the funding regime:

It's not a good time to be asking for loads more money, umm, but I think that Community Radio is regarded as a success. Whenever I get asked about it by ministers, I trumpet it and say this is a huge success that's very exciting and I support it. So it's in reasonable, a reasonably good position, but probably not in a position to advance claims for a huge increase in funding (ibid.).

Speaking in a personal capacity in 2010, when holding the positions of Ofcom's Deputy Chairman, Chair of the regulator's Content Board, and most importantly of all in this context, Chairman of the Radio Licensing Committee, Philip Graf was careful to define the objective of the Community Radio Fund as a provider of seed-corn funding rather than long-term operational support:

I think there's an argument for having a fund, provided that fund is about teaching people how, you know, is, you know it's the old story about, you know, teaching people about how to plant seeds, rather than supplying them with the stuff, right? And I think that's what, what any fund has got, has got to be about and I think there's still a case, a case for having, for having it ... effectively first year seed money for people to, to build capacity rather than subsidise, umm, services (Graf interview, 2010).

Beyond current funding from the DCMS, Graf did suggest that more support might be forthcoming from the devolved administrations within the United Kingdom (*ibid.*) but it is clear that, from the perspective of all three Ofcom interviewees, the possibility of obtaining additional central government support for the sector is, for the moment at least, considered highly unlikely.

The observation from Philip Graf that the Community Radio Fund should be seen as a provider of short-term set-up and capacity-building finance, rather than as a provider of recurrent operational support highlights a key difference of opinion between the regulator and the majority of those operating Community Radio services. Steve Buckley, who has also served as President of the international Community Radio organisation, AMARC, noted how some other jurisdictions are much more supportive of the sector, particularly in terms of providing long-term support:

The main difference between the UK and countries which have a more supportive enabling environment, is the existence of structural funding mechanisms to support the sector. So, for example, in France, there is a large fund called 'Fonds de Soutien à L'Expression Radiophonique', which accounts for something like 50% of the revenue of the Community Radio stations in France, and [this] helps to sustain round about 600 community radio stations. Similarly, in Denmark, there is also a large fund drawn principally from the licence fee, collected for the purpose of funding public service broadcasting, but also part of it is used to fund community broadcasting. Again, it's fairly generous and it guarantees a certain level of income, plus there is a competitive funding mechanism that stations can also apply to for some extra top-up funding, but again, it accounts for a significant part of their income. In this country, there is almost no such thing. There is a fund, provided for in the law, but it's not adequately financed to provide any significant degree of structural support to the sector, at the moment, in terms of the relationship between the size of the fund and the number of stations (Buckley interview, 2010).

Even though Future Radio has received only minimal support from the Community Radio Fund, Soo Williams takes the view that it is an example of the type of station perhaps best able to survive an economic downturn and public spending squeeze:

The ones that have been most successful in raising funding up to now are the bigger stations that are part of a larger operation that might be offering lots of different ways of engaging with their local community: Shmu FM up in Aberdeen, Future Radio in Norwich are examples where there were pre-existing organisations [that] had already built up expertise, connections, track record with the local community, for offering various, different opportunities for training – that kind of thing, and they have therefore been successful in attracting large grants from various organisations. So they feel like they have got the expertise in-house and the experience and the background and the track-record to continue to attract funding, but on the other hand, they are reliant on public funding, so they will be subject to a squeeze on their spending, I suspect, but they may be able to ride it out (Williams interview, 2010).

As for the wider Community Radio sector, Williams thinks that it is the medium-sized station that is perhaps the most vulnerable:

At the other end of the scale, we do have some stations that really operate on some very, very small-scale funding models, entirely run by volunteers and low overheads and maybe they will be able to ride it out. Maybe it's the ones in the middle that are going to be more vulnerable (ibid.).

As Steve Buckley also observed in his 2010 paper, in spite of the limited availability of centralised funding, the government nevertheless does recognise that if it is to facilitate

the development of a mature and stable Community Radio sector, this does have to be done on some sort of stable footing:

if the community radio sector is to grow and prepare itself for a more fundamental role in the future radio landscape it must also be given the certainty to invest in its future (DCMS, 2009: 101).

To achieve this successfully, Buckley argues for core funding support for the sector:

If the UK community radio sector is to have the certainty needed to invest in its future, then the regulatory restrictions on commercial funding need to be complemented by adequate public funding investment to assure core costs can be met and to reward community radio stations that are most effective in providing public service content (Buckley interview, 2010).

Under the 2010-2015 Conservative and Liberal Democrat Government, no progress was made in this area and, politically, it seems highly unlikely that a fully Conservative government would be willing to countenance such an approach, particularly off the back of a major recession. However, the government has at least recognised the difficulties being encountered by the sector, stating in 2013 that:

We are ... very conscious of the position of the community radio sector. More than 200 community stations operate around the UK and they have a very positive impact on local engagement and volunteering. However, financial pressures have left many stations struggling to survive. There are a variety of reasons why the sector has seen a fall in revenues, but the complex and restrictive financing regulations, which were put in place to ensure community radio remains distinct from commercial radio are particularly damaging. These restrictions need to reflect the more challenging climate in which community radio now operates (DCMS, 2013: 30).

Being conscious of the problem is a useful start, but it remains to be seen how this problem might be solved in the future. The fact that the Community Radio (Amendment) Order (2015) was relatively cautious in its approach to relaxing the rules around the funding of Community Radio services is perhaps indicative of the degree to which the sector still has battles to fight in relation to its long-term sustainability.

Volunteer Inputs

Although many aspects of running a Community Radio service are similar to those encountered in other forms of radio broadcasting, as we have seen above, there are marked differences in relation to income generation. Another area of difference results from the sector's use of, and reliance upon, volunteer support. If obtaining funding is a time-consuming and on-going exercise, for many Community Radio stations, managing volunteers can be equally resource intensive.

A fundamental element of British Community Radio broadcasting is its use of volunteer inputs in relation to its operation. In some cases, stations may be operated on an entirely voluntary basis, whilst in others, the volunteer base might be supported by a number of paid staff. Where this is the case, there can be an economic dynamic at play, with the number of paid staff varying in accordance with available financial resources.

Some stations, such as WCR in Warminster operate without any paid staff at all, whereas other stations such as Wayland Radio in Norfolk and Radio Reverb in Brighton are (or were) able to provide a very limited amount of paid support for their volunteers. At stations such as Future Radio in Norwich, the number of paid staff was found to be higher, but so was the number of volunteers regularly involved in the station's operation. Elsewhere, as in the case of Resonance FM in London, the ratio of volunteers to paid staff was also noted to be particularly high. Educational stations, such as Siren FM in Lincoln and RadioLaB in Luton were unusual in that the volunteer base was supported not only by paid staff, but also by students required to produce programmes or be otherwise involved as part of their educational studies.

As with other elements of Community Radio practice, the model of volunteer use was found to be elastic, varying in light of local circumstances and over time, as Tom Buckham, the former Station Manager at Future Radio, explained:

It's changed, changed over the years. I mean, we started off with, when it was RSLs, with just myself and then when we went full-time, we moved to four, four members of staff and there's been some sort of movements around that but now we have three full-time staff and two part-time [staff] and that seems to be a quite an optimum amount for us, basically, by having enough flexibility and cover (Buckham interview, 2010).

Having access to a willing volunteer base is, however, not the only issue. For volunteers to get the maximum out of their involvement, effective training is required. Some larger stations, such as NEAR FM in Dublin have formalised an induction process for new volunteers. According to the station's founder, Jack Byrne, *"every year we have about 30, 40 new volunteers and we do a ten-week induction course"* (Byrne, 2010). Future Radio in Norwich trains volunteers in batches throughout the year and operates a mentoring scheme whereby new volunteers are given the opportunity to 'shadow' more experienced colleagues, building up competence and confidence as a result (Fisichella, 2015). The station has recently begun offering specialist training in areas such as local news, editing, sports and production support (Future Radio, 2015 (a)).

Some other stations were a great deal less formal in their approach to volunteer training with smaller stations in particular tending to have more *ad-hoc* arrangements, partly as a result of smaller volunteer numbers and partly because of limited resources. Despite having a formal induction process in place, Byrne was also clear that there exists *"a need for on-going training, more advanced training"* (Byrne, 2010). Despite its relatively large volunteer pool, at Resonance FM, Ed Baxter, the station's Managing Director explained that the station's preferred approach is individualised, *"responding to the needs of individual volunteers as they come through the door"* (Baxter, 2015). Operating with a full-time staff of four, each week some 150 volunteers are

involved in operations at Resonance, this number including some twenty volunteer engineer / producers who work with the 50% or so of programme makers who are not, or not yet, capable of producing their output material unassisted (*ibid.*).

The roles that volunteers can fulfil also vary, not only according to requirements, but also in terms of what individual volunteers are willing to commit to. Perhaps because it has been operational for longer than any UK-based Community Radio station, in Dublin, NEAR FM has proactively 'shaped' its volunteer body:

You get a lot of young men with their collections of CDs of dance music and, ... so you have to beat some of them away with a stick! You know, there, there's just too many of them, you cull them, we always cull them. Er, I, I'm gratified lately, over the past couple of years the people coming forward have heard the sort of tenor of the station, the sort of programming it's putting out and we're not getting as many ... young men, young women seem to be more practical about these things... (Byrne interview, 2010).

As Buckham explains, a key issue for Community Radio station operators is one of balance, of trying to ensure an adequate return on training investment:

We've got about around 160, 170 volunteers, [a number] which is ... fluctuating all the time and obviously, in terms of ratio, that amount of volunteers to the staff we have, is, is quite high, so we have to have systems in place, to try and manage that. ... You need to gauge whether these people are, sort of, going to be sort of fairly transient or whether they're going to stick around, because obviously the more time you expend on them, [the more] you really want something back (Buckham interview, 2010).

Volunteering at a Community Radio station can also provide long-term benefits for individuals. Not only do some volunteers end up in paid staff positions at the

Community Radio station involved, some also end up employed by public service and commercial broadcasters. Former volunteer at Resonance FM, Chris Weaver, became employed as the station's Production Manager (Baxter, 2015), whilst former volunteer at Future Radio, Greg James, is currently the afternoon presenter on BBC Radio 1 (Lee, 2014). These are but two examples of many similar ones that the author encountered during research for this thesis; others include former volunteers working in BBC local radio, commercial radio and even as producers at the BBC World service.

Volunteer inputs are not only a critical pre-requisite for the delivery of Community Radio, they are also a clear manifestation of the way in which the sector delivers 'social gain' to individuals at a variety of levels. Outcomes are dependent upon individual circumstances and attitudes and on the particular support mechanisms that the Community Radio station is able to provide, but it is obvious from the above that managing volunteers and attempting to ensure that their involvement returns mutual benefits is a key concern.

A final example of a volunteer now working at Future Radio shows just how much effect volunteering at a Community Radio station can have:

I had had zero experience in not only the field of radio but media in general. Zero. My studies were not media related. I had never considered entering this domain, because it had never previously occurred to me. Upon volunteering at Future Radio I realised I had discovered something that I loved to do. I made it clear that if an employment opportunity surfaced I would love to be considered. One did and I was (Nomvula Smith, 2015).

Licensing-related Issues

British Community Radio licences are unusual. In particular, they are effectively protected from commercial takeover by the terms of the Community Radio Order (HMG UK, 2004) and its subsequent amendments, which state *"No body corporate may hold more than one community radio licence at any one time"* (ibid.).

Legislation also requires that the operator of such a licence "*does not do so in order to make a financial profit*" (*ibid.*). Taken together, these two requirements provide a robust defence against commercial takeover, which had previously been missing.

However, such licences are not without their problems. When full-time Community Radio services were given the go-ahead in 2004, the legislation provided for a single five-year broadcasting licence, but did not include measures to permit subsequent renewal (DCMS, 2004). From the outset, two issues have therefore been at the heart of concerns around licensing: licence duration and licence renewal.

Whereas Community Radio licences are issued for an initial period of five years, local commercial radio licences by comparison have traditionally been issued for an initial period of twelve (Ofcom, 2010 (c)). John Mottram, formerly responsible for radio broadcasting policy at DCMS, justified the difference in licence durations on the basis that commercial stations need longevity precisely because of the commercial nature of their activities (Mottram, 2010). By comparison, when Community Radio was first licensed, there seemed to be little understanding of the sector's own need for long-term stability. Indeed, as Soo Williams at Ofcom noted, there was a belief that some Community Radio stations would operate within a shorter, pre-defined, operational life span:

I think there was a feeling that in some cases, we would get specific projects that had a finite life span, maybe because of particular funding or some other particular reason, and so that we might get some projects for which the shorter license period might be suitable but I actually haven't really seen any evidence of that (Williams interview, 2010).

Having responsibility for, what was in 2004, a completely new sector of broadcast radio, it is perhaps not surprising that both the government and the regulator took such a cautious approach. Had the sector not lived up to expectations, or if it had been considered a failure in some particular respect, the initial five-year licences could have

simply been allowed to expire and the sector closed. That said, such an outcome was, in the light of pre-existing international experience, highly unlikely.

However, one unintended outcome of such an approach was that Community Radio stations encountered difficulties in securing long-term funding deals and have since had to go through one or more re-licensing process(es) (Ofcom, 2015 (k)) in order to continue broadcasting. Taari Sian at NuSound Radio in London felt that it took some three years for the station to become properly established, by which time it was already becoming concerned about the end of its first licence period (Sian, 2010).

Summarising the strategic position in 2010, which, small-scale DAB trials aside, remains materially similar today, Steve Buckley highlighted the key issue:

Existing five-year licence holders will be able to apply for another five-year extension, but beyond that, we're still in a great deal of uncertainty about what happens next. So, there are some risks, ... at some point in the future, in a different political context, we might find ourselves squeezed off the FM spectrum, without a digital place to go [to instead] (Buckley interview, 2010).

When the Community Radio (Amendment) Order (2010) was finalised, it included the opportunity for a single renewal of Community Radio licences; it did not provide for any subsequent renewals (HMG UK, 2010). Seven years, later the next iteration of the legislation, the Community Radio (Amendment) order (2015) did the same, still not providing for 'rolling' repeat renewals (HMG UK, 2015).

The key issue here is the government's wider uncertainty as to the longer-term future of broadcast radio services, in particular its long-term ambition to migrate the majority of stations to digital broadcasting platforms. This topic has been extensively discussed by both DCMS (see, for example, the *Digital Britain Interim* and *Final Reports* (DCMS, 2009 and DCMS, 2009 (a)) respectively, as well as, more recently, the latest *Digital Radio Action Plan* (DCMS, 2014)) and by Ofcom (see, for example, the various 'Future

of Radio' documents, including Ofcom, 2004 (b), Ofcom 2005 (b), Ofcom, 2006 (d), Ofcom, 2007 (e) & (f), Ofcom 2008 (b), Ofcom & Essential Research, 2010, as well as, more recently, the various *Annual Digital Radio Reports*, up to and including Ofcom 2014 (c)).

In spite of all the above research and preparation, speaking earlier this year (2015), the Minister responsible for radio policy, Ed Vaizey, said "*it was too early to put a precise date on 'digital switchover'*" (reported in Sherwin, 2015), which, in any event, is not intended to be total, as the definition provided by the government clearly states:

Digital Radio Switchover is the point at which all national and large local stations broadcasting on both DAB and analogue frequencies will cease to broadcast on analogue, and small local and community stations will populate the vacated FM spectrum (Ofcom, 2014 (c): 38).

The plain language of the above definition plays down the political significance of small-scale broadcasting, recognised specifically, by the Minister at the GO (sic) Digital conference at the end of 2013:

We all know how much people love their small local commercial and community radio stations. That is why we have always said that we will reserve a part of the FM spectrum for as long as it is needed for those stations that are too small to make the switch to digital (DCMS, 2013 (a)).

Even though this is the case, for the government, the question raised is how to regulate the remaining analogue radio broadcasters. At the time of writing however (Autumn 2015), this question remains largely unanswered. The Digital Radio Action Plan requires the completion of work to "*Assess the role and character of the small local and community stations remaining on FM and make recommendations on the future regulatory regimes*" (DCMS, 2014: 12). However, the final version of the

plan (January 2014) also stated that: *"Further work would be needed to assess what small local and community stations require in terms of a regulatory regime in event of future switchover"* (*ibid.*).

Although, in the Foreword to this document, Vaizey declared that *"The work of the Digital Radio Action Plan is complete"* (*ibid.*, 3) the work required on post digital switch over analogue broadcasting is one of many items left outstanding for completion, nearer to as and when such a switchover may eventually occur. Some items have been partly completed (see for example DCMS, 2013) and others may need to wait until closer to such time, but for Community Radio broadcasters (and indeed for small-scale commercial stations) the lack of clarity over their future is not helpful.

Steve Buckley at AMARC takes the view that, for the moment at least, Community Radio is fortunate not to be centrally involved in debates over the future of broadcast radio transmission platforms:

In the main, community radio broadcast[ers] are going to [be] happiest sitting around on FM and developing their Internet presence, in the knowledge that most of their current digital broadcasting technologies on offer are going to be obsolete long before the Internet becomes obsolete (Buckley interview, 2010).

The current work on small-scale DAB transmissions (dealt with in more detail in the next chapter) has at least the potential to change the way in which the sector considers its future. However, in some respects at least, it also further complicates an already unclear time ahead.

Coverage Issues

Arguably, the issue of geographical coverage lies at the heart of Community Radio policy and at the intersection between regulatory ambitions and technical opportunities. The regulatory approach here is one that strives to achieve a balance between what, in broadly political terms, is desired and what, in broadly technical terms, is achievable. Although

policy must eventually accommodate the technical realities of frequency availability, such availability is not absolutely fixed. In part at least, it is also defined by political decisions, past and present, about how best to distribute limited spectrum resources.

The Future Radio Case

When Ofcom first offered permanent Community Radio licenses, the NR5 Project backed an application by Future Radio and the station was awarded a permanent Community Radio licence in September 2005 (Ofcom, 2005). The group applied for a small-scale licence for parts of West Norwich, focused on the North Earlham and Larkman districts of the city. However, when interviewed for this thesis, the station's former Station Manager, Tom Buckham, who worked for the station from its earliest temporary broadcasts through until 2012, explained how Ofcom had foreseen that its coverage proposals were inadequate:

We were such a fledgling group and we actually applied for a NELM licence and in the space of getting set up we'd gone, we'd journeyed so far already that, you know, that we, we needed a bigger licence, and fortunately, they actually gave us a West Norwich licence, 'cause I think they, Ofcom actually had the foresight to, the way we didn't at the time, to see that we needed a bigger coverage area (Buckham interview, 2010).

The result was the award of a wider West Norwich licence, with the station starting its full-time broadcasts in August 2007 (Future Radio, 2015) on a new FM frequency of 96.9MHz and from a different transmitter site, such that coverage of West Norwich was somewhat improved over that previously achieved during the station's earlier temporary broadcasts.

Although Ofcom provided some additional coverage for Future Radio, due to the application of Ofcom rules designed to protect a recently launched local commercial station, additional limitations were, however, placed on the technical characteristics of the new permanent transmissions, beyond those that define the typical coverage of all

such services across the United Kingdom. As a result, the coverage provided by the new licence was still less than that which it would have been technically possible to deliver from the new transmission site. Although Future Radio was granted the standard transmission power for Community Radio services, this was attenuated towards the commercial City Centre of Norwich.

In 2005, Ofcom had awarded a new commercial radio licence for the Greater Norwich area to '99.9 Radio Norwich' and this station had commenced broadcasting in June 2006. Section 105 (3) of the Broadcasting Act (1990) as amended by the Community Radio Orders (2004 onwards) states that:

Ofcom shall have regard to "the need to ensure that any service provided under [a community radio licence] does not prejudice unduly the economic viability of any other local service" (quoted in Ofcom, 2007 (e): 146).

Because this station had only been broadcasting for just over a year when Future Radio was due to launch, the regulator decided, in line with stated policy, to place additional technical restrictions on the coverage that the station would be able to achieve. Although Future Radio was granted the standard transmission power for a Community Radio service, these technical restrictions deliberately downgraded Future Radio's coverage towards the commercially important centre of the city (Ofcom, 2007 (d)). Moreover, Ofcom engineers also selected a less than optimal frequency (96.9 MHz) for the service (*ibid.*), meaning that the signal was often further degraded by incoming interference from high-power commercial radio transmissions on the same frequency in the Hull area (Viking FM).

By 2009, 99.9 Radio Norwich, the local commercial station, which had launched in 2006, had been on air for long enough that, were a new Community Radio station to be licensed in Norwich, Ofcom policy would no longer have required the imposition of additional restrictions upon its coverage. However, because Ofcom's licencing

regulations provided no mechanism by which the regulator could remove the additional restrictions that had been placed upon Future Radio earlier, these had to remain in place.

Ofcom's assumption that Future Radio would need greater coverage than it originally asked for proved correct:

So, we got the West Norwich licence, um, but, in reality, that, even by the time we were, sort of, launching, very soon after that, we were working with people across Norwich anyway, do you know what I mean, we, even though we have the NELM NR5 bias, we've always said community radio for Norwich really, um, 'cause that's what we're trying to do (Buckham interview, 2010).

In August 2008, Ofcom offered a further opportunity for additional Community Radio services to be licensed in the East of England (Ofcom, 2009 (a)). By that time, as Buckham suggests (above), Future Radio was increasingly working across the whole city and in surrounding areas. Because of the increasing impact of problems caused by poor coverage of central and East Norwich on its original permanent frequency, and because of Ofcom's inability to modify the station's original technical parameters, (or, perhaps, its unwillingness to create a potentially difficult precedent), this resulted in Future Radio deciding to apply for a completely new Norwich-wide Community Radio licence, as Buckham explains:

So the re-applying process was really just about trying to be acknowledged as a Norwich-wide service, to remove the restriction on the transmitter and ideally to have some more power, because ultimately it's very frustrating to, sort of, be on a restricted power output when other services in our area are not, even though they're a city wide service as well, essentially (*ibid.*).

The application satisfied the regulator, which, in March 2009, noting that the station had "*provided evidence of local demand for the service including the findings*

of a detailed survey" (Ofcom, 2009 (a)), awarded it a new licence with all the previous additional coverage restrictions removed. The new licence was also allocated to a new frequency (107.8 MHz), which, because of its close proximity to aircraft band frequencies, is not used by high-power commercial services and, as a result, was (and remains) far less susceptible to problems caused by incoming interference.

Despite the improvement in coverage achieved through the revised conditions of its second licence, Future Radio still takes the view that its coverage is less than optimal. When interviewed, Buckham was, as suggested above, particularly concerned about the imbalance of frequency resources allocated to community services in relation to commercial stations:

... a commercial station which is deemed to be a city-wide service will be given more power. Now, if you were to put that on the table to someone who had no knowledge of radio, or anything like that, who wasn't involved in the sector, I can guarantee you they would immediately say, "Well, why is that the case?", because, it's that simple, it doesn't, it shouldn't be the case, if, if you've got two stations operating as city-wide services, why should one get more power than the other? (Buckham interview, 2010).

Another issue identified by Buckham is the way in which Ofcom's current approach to Community Radio licensing fails to take into account the actual situation regarding frequency availability in a specific area. Reflecting a widely held view across the sector, he questioned why Ofcom does not take a more nuanced approach:

... it's quite restricting to be honest ... I don't really see why that has to be the case. ... I don't think you can have a one size fits all policy ... at the end of the day, Ofcom [is] responsible for licensing, [its] engineers should be able to look at an area and say, "This amount of power is available for this area" (ibid.).

This example highlights a key concern for individual Community Radio stations, and a source of continuing tension between the sector and the regulator caused, as previously discussed, by the imbalance between demand and supply for broadcast radio frequencies. Although Ofcom's policy for Community Radio stations is that *"stations on FM in urban areas will generally be licensed for a coverage radius of up to 5km"* (Ofcom, 2004(a): 8), this does not always lead to a service for what station operators consider to be the totality of their target community. As noted above, there can also be a further difficulty where a community broadcaster's own definition of what it considers to be its target community varies over time (as in the case of Future Radio (above)), with a consequent impact on the appropriateness of the coverage provided to serve it.

In fact, Ofcom finds itself in an intrinsically difficult situation when it comes to allocating analogue frequencies for Community Radio, primarily because of the limited spectrum resources remaining available to it. Limiting typical coverage to a five-kilometre radius both allows individual frequencies to be used a greater number of times across the country and provides some additional frequencies which can only be used for such very limited coverage services. To Buckham's point about a 'one size fits all policy', it is undoubtedly also the case that such an approach reduces engineering overheads and has the advantage of being extremely clear. As a result, it minimises potential issues of precedent, where providing greater coverage where frequency resources do permit could lead to demands from other broadcasters that it would not be possible to meet.

Ofcom's policy makes clear where Community Radio comes in the hierarchy of broadcast radio services, that is to say, firmly towards the bottom of the 'pecking order', using only those frequencies *"which could not support commercially sustainable services"* (Ofcom, 2004(a): 7). The nub of the issue here is that, in Ofcom's view, frequencies that *"are not likely to be able to support economically viable commercial radio services"* (*ibid.*), are nevertheless in the opinion of the regulator considered to be *"suitable for community radio services"* (*ibid.*). As can be seen from the comments of Buckham (above), such an approach is not always favourably received.

The tension between policy objectives and finite frequency resource availability is particularly highlighted by Ofcom's approach to the allocation of such resources to Community Radio services. As discussed in more detail in the following chapter, in order to maximise its ability to re-use frequencies for as many Community Radio services as possible, Ofcom has chosen to reduce what are known as the protection ratios for these services (ITU, 1998: 2-5). As a result, Ofcom has effectively increased the maximum levels of incoming interference that it considers acceptable for such services. In effect, this means that a signal that Ofcom now considers to be capable of delivering what it deems to be an acceptable service over a five-kilometre radius for a Community Radio service would only be considered acceptable over a smaller radius for a commercial radio station (Ofcom, 2011(b): 7 & 11).

Recognising that, in many areas, there is a level of excess demand over supply for such services, in effect therefore, Ofcom's policy in relation to the licensing of analogue Community Radio services is a case of 'something is better than nothing'. Were Ofcom to apply its commercial radio planning rules to Community Radio, the total number of services it would be able to licence would be further reduced, particularly in major conurbations, where demand for such services is typically at its greatest.

Conclusions

In this chapter, I have demonstrated the importance of specific regulation for the Community Radio sector and highlighted some of the problems that can be caused as a result of prior policy decisions and resource allocations.

In relation to the use of volunteers, the difficulties relating to their training and day-to-day management are countered by examples of participation changing preconceptions of self-identity and changes to the life path of individuals.

It is clear from the examples given, that, although Community Radio legislation protects stations, for example by preventing their takeover by commercial competitors, such protection comes at a cost in terms of restrictions placed upon their ability to generate income or to provide coverage for geographically disparate communities.

Although community-based operators can be critical of particular limitations placed upon their activities throughout my fieldwork, it was clear that the majority of those in the sector broadly agreed with the general thrust of sector regulation. Campaigns for additional core funding may, in the current climate at least, be unrealistic, but the gradual relaxation of income generating rules is providing at least some additional opportunities to obtain financial support from other sources.

(12,640).

CHAPTER 6:

Transmission in the Community Radio Sector

Please Note

Parts of this chapter were previously presented in, or are adapted from, the paper entitled "Democratising Digital Audio Broadcasting" (Hallett, 2014), presented by the author at the International Association for Media and Communications Research (IAMCR) conference in Hyderabad, India in July 2014. The chapter also draws upon materials researched and written by the author in the paper "Community Radio: Collaboration & Regulation (Hallett & Wilson, 2010) and presented at the Media Communication & Cultural Studies Association (MeCCSA) Conference at the London School of Economics in January 2010. Parts of the section on small-scale DAB are adapted from an article written by the author and published under the title "UK Small Scale DAB Trials Move to Next Phase" in Radio World International Magazine, August 2015 (Hallett, 2015). Other elements of this chapter, particularly those that focus more on issues of online delivery and consumption, draw upon the author's chapter "Community Radio In Transition - The Challenge Of Digital Migration" in Digital Radio in Europe, Technologies, Industries and Cultures (O'Neill et al. (Editors), 2010: 175-191).

Introduction

Since around the turn of the century, broadcast radio has experienced a period of fundamental technical change. Internal developments, such as the gradual emergence of digital transmission systems (e.g. EUREKA 147, Digital Audio Broadcasting, usually simply referred to as DAB, and others) (ETSI, 2005, 2009 and 2010) have, arguably, been somewhat over-shadowed by external developments, such as the impact of Internet radio and various music streaming services, most recently including Apple's 'Beats1' (Hepworth, 2015). The 'mixed ecology' of future digital broadcasting, including various methods of Internet delivery, was recognised as early as 2004, for example in the Independent Review of the BBC's Digital Radio Services (Gardam, 2004: 12 & 106).

At the same time as preparing for the introduction of permanent Community Radio services, Ofcom was already looking at the way in which Internet audio was beginning

to have material impacts on traditional radio broadcasting activities. In July 2004, the regulator published *The iPod Generation*, a report that noted how quickly listening habits had begun to change and how radio was being left behind in terms of features and flexibility (Ofcom / The Knowledge Agency, 2004). Over the first decade of permanent Community Radio services in the United Kingdom, for the vast majority of radio broadcasters, online simulcasting of radio services moved from being something of an optional extra to an essential part of the increasingly complex platform mix for content delivery.

Thus, Community Radio launched at a time of considerable insecurity for the wider broadcast radio industry and this was reflected in the attitudes of the BBC and the commercial radio sector. Commercial radio, in particular, sought to restrict the capacity of community services prior to the sector's launch. For example, calling for stronger operational oversight and the imposition of greater externally defined social gain delivery and other requirements, the Commercial Radio Companies Association (CRCA) took the view that: ***"the policy towards Community Radio as set out in the DCMS and Ofcom documents has been based entirely on the views of the community radio sector"*** (CRCA, 2004(a): 1). Although considerably less confrontational in its approach, the BBC also expressed concerns ***"about the possible impact of Community Radio services on the reception of existing BBC services"*** (BBC, 2004).

Analogue Frequency Resource Limitations

One factor that delayed the introduction of permanent Community Radio services into the United Kingdom was the alleged limited availability of analogue radio broadcasting frequencies. As previously discussed, use of this issue as justification for maintenance of the *status quo* has long-standing and questionable 'form'. However, there had been a period of rapid and considerable expansion of analogue broadcast radio from the early 1980s onwards (*New Scientist*, 1983: 151). By the late 1990s, there was a general recognition that analogue broadcast frequency usage levels were genuinely reaching saturation point and, in early 2000, the author was directly involved (as the Community Media Association's representative) in the development of a report commissioned for the government by the Department of Trade and Industry's Radiocommunications Agency.

Taking London and Leeds as case studies, and using existing planning standards, the report highlighted the difficulty in finding frequency resources suitable for providing commercially viable (> 5 kilometre radius) coverage in urban and suburban areas.

The report concluded that there is scope to introduce a number of services with a radius up to 5 km with little or no impact on existing services.

However, it is unlikely that new larger-scale services could be introduced under current planning criteria in the areas examined, without impacting to a greater or lesser extent on existing services, notably by way of the need for frequency changes and / or the loss of coverage (Rudd *et al.*, 2000).

When, soon after, permanent Community Radio services were first introduced in the United Kingdom, in 2004, the broadcast regulator, Ofcom, having already made it clear that there was no room for additional commercial stations in many areas of the country (Ofcom, 2004 (c)), also made it abundantly clear that in terms of remaining frequency resources, the new services would use:

... frequencies which could not support commercially sustainable services but which should be usable for non- or partly-commercially funded stations.

Ofcom considers that frequencies that cannot deliver a coverage area of more than a 5km radius are not likely to be able to support economically viable commercial radio services but however would be suitable for community radio services (Ofcom, 2004 (a): 7).

Although it could be seen as the result of 'first mover advantage' on the part of the BBC and commercial radio, the implication that Community Radio was considered to be of secondary importance was not lost on the community sector. In a briefing paper prepared for politicians, considering the wider provisions of the draft Community Radio Order, (2004), the Community Media Association described its position as one of being "*deeply concerned*" about the "*restraining provisions that impose restrictions on the viability of Community Radio*" (CMA, 2004).

Exploring the theory and practice of analogue broadcast spectrum planning in material detail is outside the scope of this thesis. However, the core objective of such planning is always to maximise the availability of a broad range of broadcast radio services and to minimise interference between such services and between broadcast radio services and other users of the wider radio spectrum. The latest version of Ofcom's document 'Coverage & Planning Policy for Analogue Radio Broadcasting Services' (Ofcom, 2011 (b)) usefully summarises the overall regulatory approach. It makes clear that the Communications Act 2003 requires Ofcom:

... to secure the optimal use for wireless telegraphy of the electro-magnetic spectrum (section 3(2)(a) of the 2003 Act) and the availability throughout the United Kingdom of a wide range of radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests (section 3(2)(c) of the 2003 Act). This requires and enables Ofcom to plan and manage frequencies to form a 'virtual infrastructure' out of the finite and common resource that these frequencies represent (HMG UK, 2003).

By 2004, particularly in non-rural areas, broadcast radio spectrum (AM and FM) was generally heavily occupied. With considerable demand for additional commercial services remaining high, Ofcom felt it necessary to make clear that, following a formal consultation process, the arrival of Community Radio services would not adversely impact on the already severely limited options for licensing additional new local commercial stations (Ofcom, 2004 (c): 2 & 9). In the event however, after working through the list of additional commercial services proposed in 2004, Ofcom has not licensed any further new analogue commercial radio stations since 2007:

Ofcom is not currently undertaking any new commercial analogue (i.e. FM or AM) licensing, and has not been since 2007. This is because of the proposed migration of radio listening in the UK to DAB (Digital Audio Broadcasting), and because, in the case of FM, there are no new frequencies

available in areas of the UK where we think further new commercial radio services could be financially viable (Ofcom, 2015 (e)).

In light of the above, defining typical Community Radio coverage by radius is not as straightforward as it might first appear. Providing effective analogue broadcast coverage of any location is dependent upon a wide range of factors, the most vital of which are summarised below:

- The relative position of the transmitter site used in relation to the desired coverage area;
- The height of the transmitter antenna above average local terrain - *"height is might"* (Ofcom, 2015 (c): 42 & Ofcom, 2015 (i): 9);
- The directional and gain characteristics of the antenna system;
- The radiated power of the transmitted broadcast signals;
- The interference environment on (and around) the broadcast frequency employed.

Not only are Community Radio services typically limited to an arbitrary coverage radius of five kilometres, but Ofcom also notes that, when it licenses Community Radio services, the *"levels of incoming interference may often exceed those considered acceptable for commercial radio"* (*ibid.*, 17). Primary research for this PhD has clearly identified how this approach has been adversely received by the Community Radio sector, which feels that it impacts adversely on the operations of individual Community Radio services. Speaking in a personal capacity, Bill Best, Operations Manager at the CMA in Sheffield, who has witnessed the development of the sector since the time of the Radio Authority's 'Access Radio' pilot scheme, summed up the general view of the sector, stating:

This is a difficulty that does come up from time to time. The Community Media Association understands and agrees with Ofcom's stated position that stations should target a defined community. However, by definition a "one size fits all" policy is not always going to deliver the best solution. Ideally, in

areas where sufficient spectrum is available that would provide enhanced coverage and would better serve a geographic community, it would be helpful if a more bespoke approach to licensing could be taken. However the problem is two-fold: it is recognised that such an individual approach would be more resource intensive and then there is the issue of precedent - it would make the task of licensing very difficult for the regulator if it had to make different decisions about transmission parameters in differing locations (Best, 2015).

In spite of the technical restrictions placed upon the licensing of permanent Community Radio services, the sector grew much faster than the regulator originally envisaged. The regulator's prediction that it would *"expect to licence anything up to 50 services in 2004 / 2005"* (Ofcom, 2004 (d)) proved unduly pessimistic and by the time the first licensing round was finally complete, in early 2006 (running between November 2004 and May 2006), the number of licensed services was in fact 107 (Ofcom, 2006 (c)), a total which clearly exceeded earlier expectations. Recognising the high levels of demand for Community Radio services, even before the first round of licensing was completed in May 2006, Ofcom had already invited 'expressions of interest' for a second round of licensing, receiving some 184 responses by the closing date of Friday, 21st April 2006 (*ibid.*).

Over subsequent years, the Community Radio sector has continued to grow and, by mid 2015, over 230 were operational across the country (Ofcom, 2015 (a)), in addition, approximately 10% of all Community Radio stations (23) had closed between February 2007 and December 2014 and various other community groups have been offered licences but have yet to launch. However, the number of areas where Ofcom considers there are no suitable spectrum resources available, even for additional small-scale Community Radio services, continues to increase (Ofcom, 2011 (d), Annex 2).

With the available analogue spectrum at capacity in many areas, options for addressing the imbalance between demand and supply require access to alternative resources, primarily in relation to spectrum allocated to digital broadcasting and, potentially at

least, consideration of alternative (non-broadcast) platforms.

Digital Audio Broadcasting

Digital Audio Broadcasting (more specifically, Eureka147 DAB) (Bower, 1998) has now been in use for nearly 30 years. From its earliest beginnings, as a European research project, started in 1987 (ETSI, 2010: 4), it has gradually obtained some degree of acceptance within specific jurisdictions (for example, Denmark, Norway and the United Kingdom). However, it has failed to live up to the high expectations of its developers who, for large-scale radio broadcasting at least, clearly envisaged it as a possible international replacement technology for analogue (AM & FM) broadcasting (O'Neill *et al.* (editors), 2010: 18).

Competing or Complementary Technologies?

Over the years, DAB has evolved to encompass the revised DAB+ standard (ETSI, 2010), but it has also faced considerable competition not only from competing digital broadcasting systems (such as the DRM family of standards (ETSI, 2009)) and the American In-Band-On-Channel (IBOC) 'HD' Radio system (Ibiquity web-site, 2015 and Schofield, 2014) but also from Internet delivered radio and 'radio-esque' technologies (streamed audio, podcasting, etc.) discussed in more details later in this chapter. Although the original DAB technical standard, using MPEG 1 Layer II audio compression, pre-dates the delivery of audio over the Internet, its later development into the DAB+ standard was effectively aided by the development of more effective audio coding algorithms, specifically MPEG 4 HE AAC+ v2, (ETSI, 2010). This standard evolved from systems originally developed for the reliable delivery of high-quality audio over limited bandwidth Internet connections.

Expanding Demand for Radio Services

In parallel with the emergence of the various Internet-based methods of audio delivery, traditional radio broadcasting practice has continued to expand and evolve. In the United Kingdom for example, between 1994 and 2012, the number of broadcast radio services increased from some 150 stations to approximately 550 (an increase of well over 350%) (Hallett *et al.*, 2014: 4-5). Not only did the overall number of broadcast radio

services increase, but there was also an expansion in the types of service provided. Although the high watermark of public service broadcasting expansion was past by the time DAB arrived on the scene, commercial broadcasting and, in some countries at least, particularly, new Community Radio services were still emerging and expanding, filling the last corners of the analogue FM band in various European jurisdictions, the United States and elsewhere. In the UK, the number of such stations rose from zero at the turn of the century to well over 200 today (*ibid.*, 4). In some jurisdictions, such as the United Kingdom, part of the reasoning behind the drive towards digital broadcast radio delivery was therefor a desire to solve the decades-old perceived problem of demand for frequencies exceeding supply, which, as noted above, by the early years of the Twenty-First Century had become much more of a reality than hitherto.

Benefits of DAB Technologies

When DAB first emerged, it was arguably at the cutting edge of digital broadcasting. Its 1.536 MHz wide-band multiplex (ETSI, 2005: 14) Coded Orthogonal Frequency Division Multiplex (COFDM) approach to transmission (Bower, 1998), not only allowed a number of services to use the same infrastructure to serve a nominally identical service area, but also provided enhanced operational flexibility (for example through the addition of temporary, supplementary stations) and the ability to re-use the same frequencies time and again within a single transmission network. Compared to analogue systems (AM & FM), it also provided enhanced data carrying capacity and improved resistance against interference (*ibid.*).

System Parameters

The Eureka 147 DAB approach to broadcasting is, however, markedly different from traditional analogue implementations, in which transmission facilities are typically stand-alone individual installations, each with its own specifically tailored coverage area. Although, even critics of DAB may argue that there is nothing wrong with the underlying technology itself (Goddard, 2010: 8), there are clearly some issues that arise from the use of the 'wide-band multiplex' approach. Whilst they retain various digital benefits, the fact that second-generation digital broadcast transmission systems, such as DRM, DRM+ and HD Radio, more closely emulate established analogue approaches to

transmission would seem to indicate a clear recognition of the operational benefits and simplicity such approaches have traditionally provided.

Historical Objectives

Because DAB was developed by the EBU, perhaps not surprisingly, its main objective was to provide spectrally efficient coverage for multiple national and wide area regional services, typical of those offered by national public service broadcasters. Although governments and regulators have previously attempted to use DAB for more localised services (for example by using L-Band microwave frequency allocations (between 1,452 and 1,492 MHz), which, by dint of physics, achieve intrinsically smaller coverage areas), it should be noted that the technology was not originally specifically designed with such smaller-scale implementations in mind. Indeed, in the UK, some of the harshest criticisms of DAB come from the small-scale, independent commercial sector (Goddard, 2010: 226- 232) and from potential, new, community-based services concerned about an apparent lack of DAB-carrying capacity for themselves and other small-scale services.

Broadcast Network Planning

Wide area broadcast radio coverage is almost always achieved by using a number of geographically distributed transmitters, typically a grid of widely spaced, high-power installations, supplemented by a higher number of lower powered sites, used to fill in gaps caused by terrain blocking or densely packed buildings in urban areas. However, without careful planning, mutual interference will result from two or more analogue transmitters operating at, or adjacent to, the same frequency but from different locations. This is the case even if both are broadcasting exactly the same programming outputs. In many situations, it is impossible to 'plan out' such problems, as they are a function of issues such as the scale of the overall coverage required, the relative distances between the transmitters involved, their required operational power levels and the nature of the intervening terrain to be covered (Ofcom, 2011 (b)).

Analogue Broadcast Networks

The solution, in terms of analogue broadcast radio network planning is to use a number of separate frequencies to provide blanket coverage with the minimum of interference

between transmitters operating on the same frequency. To deliver national FM coverage to a large nation state requires multiple frequencies per service. On FM (Band II), a single transmitter occupies 200 kHz of spectrum, but for wider area coverage, that spectrum, and, to a lesser extent, adjacent 200 kHz slices of spectrum, cannot be reused until sufficient geographic distances and in some cases, physical obstructions have intervened. By using 'terrain blocking' (using mountainous terrain to shield transmissions from each other) and other techniques, it can be possible to reduce the required re-use distances involved. Nevertheless, numerous 200 kHz wide spectrum allocations are needed to provide effective national coverage. For example, in the United Kingdom, BBC national (PSB) services and the national commercial radio network, Classic FM, each occupy some 2.2 MHz of FM spectrum in order to achieve the required level of nationwide coverage (Rudd *et al.*, 2000).

DAB Multiplex Networks

By comparison, a DAB multiplex can carry several national services, all within the same 1.536 MHz wide piece of spectrum across the whole of a country; hence the system's much vaunted relative spectral efficiency. However, such benefits are perhaps more limited than they might at first appear, because frequency re-use can *only* occur if all the programming carried on all services across the multiplex network are identical to each other all of the time. It is not possible to deliver 'opt-out' services on selected transmitters in the multiplex without 'breaking' the network and causing interference between overlapping DAB transmissions.

Areas of Low Demand

Where insufficient services exist to fill a complete DAB multiplex, or in areas where the coverage requirements of individual services diverge considerably, the effective spectral efficiency of DAB multiplexes inevitably declines. Because the spectral occupancy of a DAB multiplex is always 1.536 MHz, unless a sufficient number of services are using it, in any given area, it might remain more spectrally efficient to stick with traditional analogue FM delivery instead. For services covering divergent geographical areas, a DAB multiplex has to deliver all services to the entirety of the geographical area concerned, occupying spectrum unnecessarily and delivering services beyond their

required service areas at an inevitable additional cost to each of the broadcasters involved.

Other Issues with DAB Technologies

Despite its various apparent advantages, the wide-band multiplex approach of DAB is not therefore without its problems. The multiplex approach, which forces all stations into achieving similar coverage, can variously result in the creation of both regulatory and competitive economic issues.

For example, in a major analogue broadcasting market, some stations will typically have benefitted from better frequencies (less impacted by interference) and achieved better coverage than others (due to greater permitted transmitted power and / or higher site(s)), facts often reflected in such stations achieving a larger share of the available audience and consequently, for commercial stations in particular, creating a greater market value for themselves. Were this analogue market to be replicated in the digital domain, using DAB, it would result in a complete change in the established order within it. Those established technical competitive advantages, based primarily on the relative scale of individual station coverage, would be removed at a stroke, 'levelling the playing field' to the benefit of previously smaller stations. It is perhaps primarily this issue that made the American National Association of Broadcasters (NAB), after originally expressing an interest in DAB, eventually come out against its introduction in the USA (Anderson, 2011: 40).

Where it has taken place, the introduction of DAB was, at least in part, often driven by the need for additional broadcast radio carrying capacity. However, although DAB can increase the number of services available in a given area, its introduction does not make availability of frequencies unlimited. From a regulatory perspective, because of competing demands from non-broadcast spectrum users (mobile phone companies / Internet service providers / television broadcasters / safety of life systems / military communications etc.) the number of DAB multiplexes available in a given area will inevitably be constrained by wider spectrum allocation policy.

Although it may be possible to provide some new local licences beyond those that traditional analogue systems could provide, delivering these stations precisely towards their individual target audiences within the overall geographical areas served by the multiplex becomes impossible. Because every station in a multiplex serves a similar service area, coverage can be either inadequate or overspill into unwanted areas. In some cases, it can be weak in some wanted areas and overspill into conversely unwanted areas, sometimes encountering both such issues at one and the same time.

DAB 'Gatekeepers'

Another regulatory concern is often described as the 'gatekeeper issue'. Because all stations broadcast within a particular multiplex, their signals must first be combined into a single stream of data for onward transmission, typically by a third party transmission provider or multiplex provider. This party has direct control over the programming content of the individual broadcaster before it reaches the transmitter site(s).

Not only do such gatekeepers ultimately have the ability to control access to the airwaves, but they may also use their position to impose additional operational costs onto individual broadcasters. Although it would be possible for broadcasters, on a shared basis, to be the owners and operators of their own DAB transmission facilities, in relation to existing DAB multiplexes, the standard practice in the UK is that a third-party technical service provider typically plays both such roles. Such operators have advantages of scale and capacity, which are difficult to replicate within smaller organisations.

Contracting out technical support to a third party certainly has its advantages (for example, in terms of reduced in-house technical capacity requirements), but it inevitably comes at an added recurrent operational cost for the broadcaster concerned. This is particularly the case where circumstances result in a single such entity dominating the market. In the United Kingdom, following a review of the market by Ofcom during 2004 and early 2005 (Ofcom, 2005 (a)), in 2008, the Competition Commission allowed the merger of National Grid Wireless and Arqiva (Arqiva, 2015), bringing the former BBC transmission network and other former public sector communications

network infrastructure under the same ownership as that which already controlled the former Independent Broadcasting Authority's technical networks. This despite the fact that the commission had concluded that:

the merger of the two companies would lead to a “substantial lessening” of competition in broadcast transmission services [and] would lead to a worsening in the price and non-price factors ... in the provision ... to radio broadcasters (OTA - BTS, 2008).

From a systems perspective, multiplex DAB transmission technology is inherently more complex than are the stand-alone analogue transmission platforms it is intended to supplement, or, eventually, replace. Individual broadcasters (especially smaller ones) can often lack the required technical competencies and financial capacities to own and operate such systems themselves, preferring instead to 'contract out' such responsibilities. As a result, facilities providers (such as Arqiva) are in a strong position to be able to operate such systems at considerable profit. In some cases, as a result, the third-party transmission provider may, potentially, become the *de facto* single point of profit extraction in the value chain.

Thus, this provision of transmission facilities on a for-profit basis to individual broadcast stations and radio groups can result in the broadcaster running at a loss, but the transmission provider can always ensure its income stream is prioritised because no alternative delivery solution is available to the broadcaster. Even when scaled down for reduced geographical coverage, this traditional approach is still considered by many operators to be too expensive for their smaller scale commercial or community-based, not-for-profit, operations.

Audio Quality

Leaving to one side, arguments about the relative merits of analogue and digital sound outputs, even using the original MPEG 1 Layer II audio standard, it is perfectly possible to deliver very high quality audio programming over DAB. However, because commercial transmission providers will typically charge per bit-rate used, broadcasters

will often attempt to save money by reducing the bit rate at which they broadcast at the expense of received audio quality.

"The promise of DAB was that it would provide better technical quality than FM"

(Pickering, 2002: 27), and early documentation envisaged DAB multiplexes carrying most stereo services operating at 192 k/bits per second, with mono services consuming up to 96 k/bits per second (Bower, 1998). Today however, the typical bit-rates used are considerably lower. For example, in the United Kingdom, Ofcom will permit the use of 128 k/bits per second for full-bandwidth stereo services and will allow restricted bandwidth speech-based services to operate using as few as 48 k/bits per second (Ofcom, 2012: 6).

The Digital Cliff Edge

One final fundamental difference between DAB and analogue transmission systems is the existence of the so-called 'digital cliff edge'. Traditional analogue radio services deliver what is known as a 'graceful fade', which means that as a radio signal becomes weaker, it typically becomes noisier and noisier before fading completely into the background noise (hiss) on its operating frequency. All forms of digital transmission system (including DAB) do not exhibit such behaviour. The received quality of digital transmissions typically remains consistently high (without audible background noise) in all locations where the transmitted signal strength is greater than a specific minimum level and where unwanted levels of interference are below a specified maximum level. As soon as that transmitted signal strength, or field strength, falls below the required minimum level, reception fails very rapidly – the signal falls over the 'digital cliff edge' and is no longer audible.

For broadcast planners, this fundamental difference in behaviour creates specific practical difficulties, particularly on frequencies that are used to deliver separate sets of programming to different geographical areas. As previously noted, separate transmitters, each broadcasting an identical set of programming within a DAB multiplex, can all operate on the same 1.536 MHz block of frequencies. If the same block is used to broadcast different sets of programming to different geographical locations, the

unwanted signals from one area need to be very weak within the coverage area of the wanted signals or interference and signal degradation will result.

The problem for planners is that the level of unwanted signals that can damage a set of wanted signals is significantly lower than the signal level at which DAB signals become impossible to receive on a standard DAB radio (the useable reception radius is smaller than the signal's impact radius). In practical terms, this means that a given block of frequencies can only be re-used to broadcast different programme content a significant distance from the original transmission coverage area. Once again, therefore, the spectral efficiency of the DAB model becomes degraded as a result of this requirement.

Intellectual Property Issues

When the original DAB standard was introduced, the MPEG 1 Layer II (MUSICAM) Audio compression system it uses was considered advanced and was covered by intellectual property rights, which required a royalty to be paid for its use by broadcasters. This royalty was recovered through a charge paid by transmitter manufacturers and through a levy on each individual receiver chip-set. Although the more modern MPEG IV AAC+ audio compression standard used in DAB+ remains protected through intellectual property rights, this is no longer the case for MPEG 1 Layer II audio. More broadly, the last patent relating to the original Eureka 147 DAB standard expired in January 2013; as a result, transmitter manufacturers can now build DAB equipment royalty free (WorldDMB, 2013).

Maturing Technology

Not only can DAB transmitters be manufactured without intellectual property overheads, in the twenty or so years since its introduction, DAB signals have become substantially easier to generate, largely due to various advances in the wider field of computing. Taken together, these factors have substantially reduced the economic and technical barriers to entry for those interested in implementing DAB transmissions.

Continued Demand

Although radio broadcasting continues to face an increasing number of challenges in terms of alternative methods of audio delivery, as a medium, it remains stubbornly popular. For example, between 2007 and 2012, levels of weekly listening, or 'weekly reach' (the percentage of the total population listening to radio in a week), reduced from 89.8% to 89.6%. In 2010 and 2011, it was actually higher at 90.6% and 90.8% respectively (Radio Joint Audience Research (RAJAR), quoted in Ofcom, 2013: 213). Specifically in relation to DAB, listening to services via the platform accounted for 22.5% of all UK radio listening during the first quarter of 2013 (*ibid.*, 227), whilst receiver ownership in the UK has increased from 8.1% in early 2005 to 44.3% in early 2013 (*ibid.*, 228).

New Approaches to DAB Broadcasting

It is clear from the above that the environment in which DAB broadcasting operates has changed dramatically over the lifespan of the technology to date. Demand for access to broadcast radio frequencies remains strong and DAB technology in its basic form is now both mature and devoid of intellectual property rights issues. As a result, new approaches to the use of DAB have emerged, both in terms of technical and policy approaches.

Small-scale Digital Audio Broadcasting

By 2004, DAB was well established across the United Kingdom, with a considerable number of both BBC and commercial radio services available to the vast majority of the population (Ofcom, 2004(e): 28-38). However, given the various limitations discussed above, there were no clear opportunities to employ the technology effectively for smaller scale broadcasters. As a result, from the outset, Community Radio found itself limited to what little broadcasting spectrum remained available within the analogue broadcasting domain.

Legislative Approaches

In legislative terms, because the Community Radio Order (2004 and subsequent iterations) is secondary legislation amending the Broadcasting Act (1990), it only permits the initial licencing of such services on analogue spectrum. This is because the

1990 act provides the legislative framework for UK analogue radio broadcasting only; the parallel Broadcasting Act (1996), which provides the equivalent legislative framework for the licensing of digital (DAB) broadcast radio services, has not, to date, been amended to facilitate the licensing of digital Community Radio services.

That said, because of the way in which DAB licencing operates in the United Kingdom, any Community Radio broadcasters (with or without an analogue Community Radio licence) could still apply to operate on DAB. The interrelated practical barriers to take-up have always been in relation to availability, cost and scale, gaining access to available DAB capacity on a multiplex providing appropriate coverage and at a realistically sustainable cost. If these can all be overcome, obtaining the required Digital Sound Programme Service (DSPS) licence is a relatively simple administrative process, merely requiring the completion of a short application form and the payment of a minimal application fee and subsequent annual licensing fee.

Practical Obstacles

In practice, however, such opportunities as exist have rarely been taken advantage of and, at the time of writing, only three Community Radio stations were broadcasting on permanent DAB multiplexes in the United Kingdom. As Ofcom recognises, historically, DAB capacity has been limited, coverage has been of large-scale areas (typically county-sized and above) and annual rental costs have typically been in the range of £3,500 to £5,000 per month (*GetMeOnDigitalRadio*, 2015), far higher than the equivalent cost of achieving similar coverage using analogue, FM, transmissions.

The various limitations and issues intrinsic to traditional approaches of DAB delivery (as summarised above) have, to date, made its application to small-scale commercial and community-based broadcasting problematic. However, from a regulatory perspective, the result is a tranche of stations with no apparent access to digital broadcasting spectrum:

There are currently around 350 licensed community and small scale local commercial radio services in the UK that are not currently broadcasting on

DAB. This is primarily because either there is no capacity available on a local multiplex, or the cost of carriage is beyond the means of small stations. In addition, the coverage facilitated by the existing local multiplexes is usually significantly greater than the existing analogue coverage areas of smaller radio services. As such, these stations do not currently have a viable means to access the DAB platform, should they wish to do so
(Ofcom, 2014 (b): 1).

With analogue frequency resources virtually exhausted and the traditional approach to DAB transmissions proving an unpopular and impractical option for the vast majority of smaller scale broadcast providers (both community-based services and private commercial stations), demand for broadcast radio licences nevertheless continues to show no sign of abating. Looking for ways of satisfying such demand, in 2011, Ofcom began experimenting with possible alternative approaches to DAB delivery, exploring options that might be more cost-effective for small-scale broadcasters.

New Technological Approaches

Over recent years, the military, along with licenced radio amateurs and others have been experimenting with so-called 'Software Defined Radio (SDR) systems. These allow a computer, often a laptop, typically running a flavour of the Linux operating system, to act either as a radio receiver or as a radio transmitter (or both).

In receiver mode, an analogue to digital convertor, connected to a suitable antenna, would convert incoming radio frequency (RF) signals into a data-stream for onward decoding into audio, etc. One of the key benefits of the SDR approach is cost. In terms of receivers, for UK £10.00 (under US\$20.00), it is already possible to purchase a USB 'dongle' capable of receiving DAB and FM signals (along with DTV) on frequencies anywhere between 64 MHz and 1.7 GHz (Antoniewicz, 2012). Because, in spite of its low cost, this is a genuine SDR, it can be reconfigured through software alterations, to perform a variety of different tasks.

In transmission mode, a digital signal processor would convert audio into a stream of numeric data that would then be sent to a digital to analogue convertor. This would then output a very low-power RF signal, which would then be amplified to a useful level and filtered to remove unwanted frequencies before being radiated from a suitable antenna. There exist a variety of SDR hardware capable of creating low-power DAB signals suitable for amplification and subsequent broadcast. For example, the US-based company, Ettus Research (a subsidiary of National Instruments), offers a variety of hardware that can be used to generate DAB signals (Ettus Research, 2014).

SDR DAB Experiment - Brighton

Between late 2012 and early 2013, the UK broadcast regulator, Ofcom, allowed one of its engineers, Rashid Mustapha, to operate experimental DAB transmissions from a single transmitter in Central Brighton under a non-operational Test & Development Licence (Ray, 2013 and Mustapha, 2013). Taking an open-source technology, software radio-based approach, the equipment used was primarily based on software originally developed by the Canadian Government-funded Communications Research Centre and released under a GPL in 2009 (Mustapha, 2013: 6). Although the CRC project is now defunct, its work has been taken over and further developed by Open Digital Radio (ODR, 2015) (www.opendigitalradio.org/) a non-profit association based in Geneva, Switzerland, which has also worked closely with the European Broadcasting Union to take the project further forward (EBU, 2010).

Hardware Considerations

The objective of the experiment was "*to inform policy makers of the practicalities of low cost DAB solutions when used to serve small areas, particularly from a single transmitter*" (Mustapha, 2013: 1). Beyond the use of low-cost SDR equipment, crucially, the experiment also considered the wider transmission infrastructure required, right through to the antenna and including traditional high-value capital items, such as power amplifiers and RF filters (*ibid.*, 8-10).

Regulatory Compliance

International regulation requires that all DAB transmissions must fit within a defined 'spectral mask', in other words radiated RF energy must be constrained to specific maximum levels across a range of frequencies. Any energy radiated outside the spectral mask makes the installation non-compliant. Energy radiated outside the confines of the spectral mask is deemed to risk causing interference to other licensed spectrum users.

High-power DAB Compliance

By their very nature, high-power transmission systems inevitably have the ability to cause greater levels of unwanted interference to other spectrum users than low-power installations are intrinsically capable of. Again, by their very nature, high-power transmission systems also consume more power than smaller installations, so system efficiency becomes a key consideration. In traditional high-power DAB transmission systems, it is therefore essential to employ efficient amplification followed by complex (and therefore expensive) RF filtering. However, the 'law of diminishing returns' applies, and the capital costs associated with maximising efficiency, whilst still minimising the potential for interference, are inevitably high.

Low-power DAB Compliance

In a low-power context, there are, as the Brighton experiment showed, ways to reduce the capital costs involved. Operating RF amplifiers at considerably below their rated power output minimises unwanted RF signals; however, it is inefficient in terms of power consumption. In high-power systems, such an approach would be very expensive in terms of both the capital costs involved (building power amplifiers with considerably greater maximum power capacity than would be used in practice) and in terms of electrical supply consumption in use. However, at lower power levels of, say, below approximately 100 Watts, the extra capital costs are not particularly great and overall power consumption not too high either (*ibid.*).

Transmission Site Considerations

The experimental installation was co-sited with a local FM commercial radio transmitter on top of a large residential tower block in the Centre of Brighton on the South Coast of England. The transmitter was fed at different times via either a low-cost Wi-Fi link

or via a public Internet connection (*ibid.*, 12). One of the key conclusions of the report published after the experiment was "*the importance of 'site over might'*" (*ibid.*, 1):

Low power transmitters sited in urban population centres can often deliver the field strengths required for reliable indoor reception much more effectively than might be achieved with a higher-powered site on the periphery of the population centre (ibid.).

Because the site was in the centre of a built-up urban area, there were concerns that the presence of this new DAB signal might degrade local reception of existing DAB services being broadcast on near adjacent frequencies, resulting in Adjacent Channel Interference (ACI). However, the report into the experiment found that although such issues were:

... anticipated and thoroughly checked for, ... none was (sic) found. It seems that ACI 'holes' are not created by low power DAB transmitters sited in an area where the wanted signal levels from other multiplex services transmitted from elsewhere are sufficiently high (ibid.).

Cost Considerations

In terms of operational costs (incorporating initial capital outlay over the period of operation), the Brighton study notes that:

Small scale FM stations spend circa £10,000 per annum on FM transmission which is many times less than the current DAB network carriage costs - even for a low quality monophonic digital service (ibid., 22).

The study goes on to suggest that using similar techniques to those employed in Brighton, a complete single-site, low-power DAB installation should be able to operate at similar cost to an equivalent FM installation (*ibid.* p 23). Taking such a software-based approach results in the capital costs of DAB installations becoming dramatically

lower than was previously the case when using traditional bespoke hardware implementations.

Typical costs of a software-based multiplexer, transmitter, filters and antenna for a simple, single-site installation are now estimated to total only around UK £6,000 (under US\$10,000). Ofcom estimates that the total annual operating costs of a small-scale DAB multiplex (using a single 100-Watt transmitter) total just under UK £9,000 (under US \$15,000) (*ibid.*, 23). If these costs were to be shared across a number of stations, they could result in per-station annual costs of around UK £1,400.00 per annum (approx. US \$2,000.00) for a relatively high quality service (at, say, 160 k/bits per second) (*ibid.*).

Critically, the initial Brighton test gave Ofcom the confidence to state that:

The experiment demonstrated that a stand-alone Software Defined Radio approach to DAB multiplexing and transmission can deliver high availability and high quality results at costs that are near to parity with an FM transmitter system carrying a single service (ibid.).

Further Testing

Although these early tests "*demonstrated that it is feasible to deliver DAB transmission infrastructure at much lower cost than currently required*" (*ibid.*, 1) and could work reliably, there were elements of the prototype system that required more work in order to meet the operational requirements of professional broadcasting.

Importantly, aside from the technical developments achieved by building on the international development of open source approaches to DAB transmission, the 2012 / 2013 Brighton Experiment also successfully interfaced such work with the interests of a national broadcast regulator. The report is clear that more regulatory work also needed to be done in various areas (for example in relation the availability of suitable spectrum (*ibid.*, 1)). As a result, in early June 2014, the UK broadcast regulator, Ofcom, announced at a 'Small Scale DAB Stakeholder Event' that such further work would be

carried out over the coming two years, through into 2016. The regulator formally consulted on the issue four months later, in October 2014 (Ofcom 2014 (b)).

At the 'Small-Scale DAB Stakeholder Event', the objectives of the next stage of research were stated as being:

- (1) *To further test the practicality of implementing the approach used in the Brighton trial.*
- (2) *To design an appropriate licensing framework which would enable small-scale DAB services to be broadcast* (Ofcom, 2014 (d): slide 3).

After completion of the consultation process and discussions with the Department for Culture, Media and Sport (DCMS) (the government department responsible for overall broadcasting policy), early in 2015, Ofcom gave the go-ahead for a further series of ten public trials of low-cost, small-scale DAB across the UK (Ofcom, 2015 (f)). The trials, carrying a range of community-based services and commercial stations, were initially expected to operate for a period of nine months, through into early 2016. Noting that *"There's been huge interest in these trials, which are another step in bringing new local services to digital radio listeners"*, Peter Davies, Ofcom's Director of Content Policy, observed that *"Ofcom is helping unlock the potential of this new approach and, if it proves successful, millions of radio listeners could benefit right across the UK"* (*ibid.*).

In order to move forward with the possible development of permanent small-scale DAB services quickly, Ofcom wanted to evaluate low-cost approaches to its delivery, on a time-limited basis. The regulator therefore took the view that even at the minimal levels of capital outlay required (as above), it would be unreasonable and economically unviable to ask potential operators to invest in equipment that might only be used for a brief period of time.

In order to expedite the establishment of the trials, Ofcom will provide licensees of the trial with the majority of the equipment needed to establish

the multiplex and each transmitter. ... we want to ensure that small services are not prevented from applying to participate in the trials by the cost of procuring the radio equipment (Ofcom, 2014 (b): 21).

This move certainly provided Community Radio broadcasters with a greater confidence to become involved in the trials, but it was only made possible due to the fact that the proposals for these trials fitted neatly within wider government objectives to promote the uptake of digital broadcasting technologies. As a result, the DCMS provided *"funding to Ofcom over two years to build on the work of a trial of low cost DAB technology conducted in Brighton"* (*ibid.*). This financial support was dispersed through Ofcom, to cover the vast majority of capital infrastructure costs, as well as contributing to one of the most significant on-going operational costs, that of reliable Internet streaming connectivity between individual broadcasters and their DAB multiplex transmission site(s) (Ofcom, 2015 (g)).

When, in 2014, Ofcom first proposed additional trials of small-scale DAB, the intention was that these would take place at only three locations. The increase to ten came as the result of industry pressure in response to the formal consultation undertaken by the regulator:

The most frequent comment from respondents was that three trials are not sufficient to constitute a robust evidence base, ... In light of the responses and interest from stakeholders, we agree that conducting more trials would strengthen the sample size and provide us with more data (Ofcom, 2014 (b): 7).

Increasing the number of trial installations not only provided the regulator with greater opportunities to gain more experience of the operations of software-based DAB transmission systems, but also, it provided more opportunities for Community Radio operators to become involved and learn from the experience. Some, such as Future Radio in Norwich and NuSound Radio in East London 'contracted out' their DAB delivery to a third party. Others, such as Angel Radio in Portsmouth and British Forces

Broadcasting Service (BFBS) in Aldershot, chose to take direct control of the multiplex themselves.

Since the completion of the original Brighton test, considerable technical improvements have been made in the transmission software used. For example, it is now possible to operate the software to deliver single frequency network (SFN) operations, using multiple transmitters on the same frequency at diverse locations, to enhance overall coverage. Technically, the expansion in the number of trials also provided greater opportunities to test such operations as well as the use of on-channel repeaters. In addition to the various single transmitter systems being used, the trials operated by U-DAB in London and Scrimshaw's Information Directories in Glasgow both broadcast via a two-transmitter SFN. Meanwhile, in Cambridge, the trial operated by UK Radio Developments (UKRD) employed an on-channel repeater to fill specific gaps in predicted coverage from the main transmitter (Ofcom, 2015 (h)). For small-scale DAB to be successful in the longer term, the robust operation of such operational techniques is an essential prerequisite.

Technical developments aside, Ofcom also had to consider longer-term approaches to the licensing of smaller scale DAB services. Part of the reason for running a diverse range of trials was therefore to explore alternative operating structures and financial models. For example, the trial in Portsmouth (Hampshire) is being operated by the local Community Radio service, Angel Radio. Conversely, along the coast, in Brighton (Sussex), the tests are being operated by the local, small-scale commercial radio operator, Brighton and Hove Radio. Meanwhile, the tests in Norwich (Norfolk) are being managed by a separate, not-for-profit company, Future Digital Norfolk Limited,¹ set up specifically to operate small-scale DAB facilities in the East of England (*ibid.*).

The core, underlying justification for completing these trials is the degree to which demand for small-scale broadcasting opportunities continues to outstrip supply. As previously discussed, with analogue (FM) spectrum now filled to capacity in most urban

¹ The author is a Director of Future Digital Norfolk Limited, the not-for-profit company set up to provide DAB services for Norwich as part of the Ofcom small-scale DAB trials.

and suburban locations across the UK, small-scale DAB offers at least the potential to help redress the balance, by improving supply-side capacity. According to Ofcom, ***"If the trials are successful, UK listeners could benefit from hundreds more local and community radio stations on digital radio in the future"*** (*ibid.*).

Across the ten DAB trials, Ofcom expected some 60 individual radio services to be broadcast. This means an average of six services per multiplex, an occupancy rate notably below the average number of services carried on the majority of established multiplexes. For example, the national BBC multiplex typically carries between nine and twelve services (depending upon programming demands). The lower number of services carried provides opportunities for broadcasts at higher bit rates, improving audio quality as a result. In discussions with the author, Future Digital Norfolk's Managing Director (and Chair of Future Projects, the charity operating Future Radio), Mike Stonard, explained:

Because we're a not-for-profit company, using low bit rates to squeeze in as many services as possible is not our objective. We believe that listeners appreciate high quality audio. All of our permanent services will typically operate at between 128 and 192 kilobits per second (Stonard, 2015).

From the date on which Ofcom offered licences, in mid June 2015, operators were given a maximum of twelve weeks to launch their respective trial services. Installations were carried out by individual licence holders, typically with the aid of third-party engineering support and inputs from Ofcom engineers. Each of the multiplex operators is reporting to Ofcom on a regular basis and the regulator is also running a series of its own independent technical compliance checks, for example to ensure that reception of existing DAB services is not impacted by receiver overload or adjacent channel interference (ACI) close to any of the new transmission sites. A decision on how best to move forward with long-term, small-scale DAB licensing is expected to be taken after the trials are completed, in 2016.

In structuring the current DAB trials, Ofcom has clearly been mindful of not appearing to prejudice them in favour of either Community Radio services or private commercial radio stations. The stations' broadcast across the ten trial multiplexes are split quite evenly between these two types, supplanted by a variety of new services (e.g. Angel Xtra and Future Plus), established Internet stations (e.g. Solar Radio and CDNX) and student broadcasters (e.g. Brighton City Student Radio) (Ofcom, 2015 (h)). From a Community Radio perspective, the trials have not only benefitted various current stations already broadcasting on FM; more fundamentally, if successful, the trials offer a potential route for a wider expansion of the sector and a way out of the potential 'analogue backwater', should DAB become the dominant broadcast radio platform in years to come.

DAB Summary

Since its emergence in the mid 1990s, DAB has made material progress in a number of jurisdictions. A limiting factor has been the fact that 'bolting on' DAB to network topographies originally designed for use by traditional analogue FM transmissions inherently limits the availability and suitable spectrum, and the flexibility in its use. Taking a more 'cellular' approach to the provision of small-scale DAB transmissions looks as though it might overcome some of these limits and finally allow low-power, community-based and independent commercial services to find space on a broadcast digital radio platform.

The work being carried out in the UK, as well as more widely internationally, will help both define the degree to which small-scale DAB services may be implemented in the future and will continue to enhance the performance and cost effectiveness of low-cost, alternative methods of DAB transmission. Spectrum availability issues remain of some concern, and there is no suggestion that the possible introduction of low-power DAB transmissions would be a panacea for the Community Radio sector, or for independent, small-scale commercial broadcasters, currently unable to access a digital radio broadcasting platform. However, in some cases at least, it may create additional broadcasting opportunities, which would not otherwise exist for some such operators.

The transition to digital technologies "*creates both opportunities and challenges for community broadcasting*" (Hallett & Hintz, 2010: 159); however, changing technologies "*may also create space for new regulatory regimes that could benefit community radio and grassroots media practices*" (*ibid.*). The established mainstream approach to DAB radio has tended to "*contradict the low-cost, bottom-up and participatory approach of community radio*" (*ibid.*). Now, however, it appears that circumstances have the potential to change, perhaps making a modified form of DAB a great deal more suitable for use by the Community Radio sector.

Online Delivery

Alongside the development of platforms specifically designed for broadcasting purposes, new media technologies have also been impacting on the operation of broadcast radio. Not only do the Internet and the mobile phone provide alternative platforms for the delivery of linear radio in real time, but they also provide opportunities for the delivery of radio, which is directly linked to other types of media content, and which include 'on-demand' elements that can be both time-shifted and non-linear, such as 'listen again' services and 'podcasts'.

Although the use of such non-broadcast platforms can provide broadcasters with additional flexibility, they do not yet constitute a replacement for traditional broadcast platforms. There are several reasons why this is the case. For example, unlike one-to-many broadcasting platforms, both the Internet (as currently constituted) and the mobile phone networks are primarily designed as one-to-one communications platforms. In addition, for radio station operators, the economics of broadcasting are fundamentally very different from those associated with alternative (non-broadcast) platforms. Whereas broadcasters pay for range regardless of listenership, delivery via the Internet and mobile phone means paying on a per-listener basis regardless of where a particular listener might be in the world.

For the listener, at present, mobile phone and mobile Internet platforms lack universality, and tend towards end-user cost models, which discourage the consumption of large amounts of data. However, it is clear that as the carrying capacity of mobile

phone networks is enhanced, and as improved methods of mobile Internet delivery such as 4G and 5G are implemented fully, this situation will eventually change. In some jurisdictions 'all-you-can-eat' data tariffs are already becoming available (although connectivity and capacity both remain potential stumbling blocks to reliable portable and mobile reception). Nevertheless, convergence between broadcasting and both wired and wireless communications platforms is already happening and as a result, after a long period of relative inertia, radio broadcasting is currently experiencing a period of on-going change.

Although online broadcasting (streaming audio) has increased in popularity over recent years, it remains very much a minority pursuit. According to the latest Ofcom survey figures available for the United Kingdom:

In the 12 months to June 2014 the most widely-used method of listening to digital radio was via a DAB set (65.3% of digital listening), while 16.3% of digital listening was online or via apps (Ofcom, 2014 (c): 4).

Over the same period, ***"digital listening (including DAB, DTV and online) accounted for a 36.3% share of all radio listening hours"*** (*ibid.*), thus 16.3% of digital listening equates to just 5.9% of all measured UK radio listening (analogue and digital). That said, the amount of online listening had almost tripled since Q1 of 2009, when it stood at 2.2% of all radio listening hours (Ofcom, 2010 (a): 10) and the latest Radio Joint Audience Research Limited (RAJAR) data estimates that by Q1 of 2015, this figure had increased to 6.8% of all listening, the equivalent of some 69 million listening hours (RAJAR, 2015).

Earlier data is not in the same format but, according to RAJAR, between March 2000 and June 2004 (the earliest dates for which information is available), the percentage of people who had ever listened to radio online grew from 3.3% to 15% (RAJAR, 2004). However, one thing that all these figures for online listening do not take into account is the arrival of music streaming services, such as Pandora, Last FM, Spotify and, most recently, Apple Music:

Some 14.8 billion tracks were played in 2014 – almost double the level recorded in 2013 – and in the first six months of 2015 the total has already reached 11.5 billion (BPI, 2015).

The above figures show how the establishment of permanent Community Radio services in the UK since 2004, occurred in parallel with the emergence of online radio listening. Specific figures relating to consumption of Community Radio content via the Internet are less easy to come by. However, an analysis of community stations in the United Kingdom, carried out in relation to this thesis, showed that of the 135 full-time community radio stations broadcasting as of May 2009, all but two had websites and no fewer than 120 (89%) were streaming their output in real time. Despite UK copyright restrictions, which prevent community stations from providing 'listen again' services or 'podcasts' that include copyrighted music content, 47 of these stations (35%) also provide some of their output either in 'podcast' form or as streamed 'listen again' output. These figures clearly demonstrate that, despite the costs involved and the legal limitations placed upon certain aspects of Internet programme delivery, at least in a UK context, Community Radio stations are committed to the use of new delivery media alongside traditional analogue broadcasting.

Internet streaming, listen again services and podcasts are fundamentally more than additional ways of delivering broadcast radio audio. Firstly, they provide the potential to enhance the 'listening' experience through the delivery of additional textual and visual materials alongside the original audio content. More importantly, however, because they allow the delivery of broadcast audio beyond the range of the traditional broadcast transmitter, they also change the nature of the audience involved.

Post Switch-over

Working towards the migration of larger radio services to digital radio platforms, such as DAB, the government and Ofcom have been somewhat vague about the exact timescale for such a move, although it is expected within the next decade. However, a 'switch

over' for major broadcasters certainly does not equate to a 'switch off' of analogue radio broadcasting as a whole:

It is anticipated that all large scale radio stations will migrate to digital and eventually cease to broadcast on analogue FM radio. Smaller stations are expected to remain on FM. ... This is expected to free up as much as 50% of the capacity currently used to deliver FM radio services and has raised questions as to what this capacity will be used for (Ofcom, 2011 (e)).

Pressure for a total switching off of all analogue radio broadcasting is limited because, unlike in the case of the spectrum released following the digital switch-off of analogue television when all such services became digital, the spectrum used for analogue FM (and AM) broadcasts falls outside the 'sweet-spot' range of frequencies of greatest utility (and therefore value) to mobile operators. Although this does not mean that there are no alternative uses for the spectrum, it does mean that the opportunity costs of continuing to use it for broadcasting purposes are much reduced.

There are, however, other drivers behind the move to migrate major services to digital, not least pressure from major broadcasters wishing to reduce their operating costs resulting from the concurrent 'simulcasting' of identical outputs on both analogue and digital platforms. Additionally, such organisations are anxious to avoid the capital investment required to replace existing, old (often life expired), high-power analogue broadcasting transmission infrastructure.

One other potential use of the FM spectrum in particular might be for 'white space' devices, which could *"work along side existing smaller FM radio stations"* (Ofcom, 2011 (e)), *"to deliver innovative applications such as mobile broadband in very sparsely populated areas"* (*ibid.*).

Compared with other forms of wireless technology, such as Bluetooth and Wi-Fi, White Space Devices are being designed to use a much wider range of

frequencies, including the lower frequencies that have traditionally been reserved for TV and radio (ibid.).

Pirates Ahoy?

So far in this chapter, the issue of unlicensed, or 'pirate' broadcasting has not been discussed. However, it is already clear that should more FM spectrum become available, there will be those seeking to occupy it without first obtaining a broadcasting licence. Although somewhat presumptive in its use of language in the present tense, there is no doubting that there is some truth in the observation that:

Pirates, however, have refused to go quietly, instead racing to repopulate the FM dial as traditional stations continue to close down (Callaghan, 2015).

Perhaps demonstrating a slight degree of 'regulatory capture', Ofcom's Chief Executive, Ed Richards, also tacitly acknowledged this issue in 2011, observing that such technology could help ensure that it was less likely for the FM band to be:

... backfilled with new commercial and pirate radio stations. ... White Space Devices offer a creative solution that would not only use spectrum to its full capacity, but would also work along side existing smaller FM radio stations. This could be done without causing interference and without any commercial conflict (Ofcom, 2011 (e)).

As part of the process of developing an approach to the future use of the FM spectrum, post a possible 'digital switchover', the fundamental capacity shift will need to be considered carefully. Allowing a large number of new, small-scale commercial stations could damage the viability of some existing services as a result of increased competition for finite advertising revenues. However, if, instead, spectrum capacity were to be allocated to additional Community Radio services, the relevance of a licensing regime originating in a time of spectrum scarcity might be open to question. Coverage areas could potentially be expanded, for example benefiting stations such as NuSound Radio, with its geographically spread ethnic minority target audience. Alternatively, there may

be a case for relaxing licensing rules further and allowing other forms of 'alternative' provision to emerge, perhaps bringing at least some of the current unlicensed broadcasters into formal structures more suited to their approach.

Governments in many parts of the world are now predicting a future in which the vast majority of broadcast radio services will have migrated to digital. For the foreseeable future at least, talk of a complete 'analogue switch off' is wide of the mark, but there is no doubting the sincerity of those in industry and the government, who foresee the closure of expensive high-power AM and FM transmission networks. The net result of any such moves would be an increased availability of FM spectrum for other uses, including, for example, additional Community Radio services as Ofcom noted in 2011:

There must be certainty for smaller and community stations, that do not move across to DAB. These will continue to play their important role, and FM is an appropriate technology for the scale at which they operate (ibid.).

Due to its relative success in rolling out DAB radio services and in building listenership for them, the United Kingdom is one of the countries in the vanguard of digitising its broadcast radio services. The vast majority of jurisdictions have yet to make similar material progress in moving towards digitising their broadcast radio services, but in Norway, the government has articulated a similar approach to that of the United Kingdom, migrating larger scale services, such as NRK and commercial networks, but leaving local and community-based services on FM for the foreseeable future.

Conclusions

This chapter has shown how, from a technical perspective, existing patterns of usage have limited the growth of Community Radio in the United Kingdom during the first years of this century. It has also examined on-going attempts to make the dominant digital radio platform (DAB) more suitable for use by small-scale broadcasters and has additionally explored the impact of non-broadcast delivery methods. Finally, it has attempted to outline how current broadcasting policy may, eventually, make room for a

greater number of Community Radio services using a combination of analogue and digital frequency capacity alongside supportive, secondary non-broadcast platforms.

A multi-platform future for broadcast radio is, primarily, not simply the result of on-going competition between alternative delivery platforms and the undecided results thereof. More importantly, it is a reflection of the expanded scope and diversity of broadcast radio services. It should not come as any sort of surprise that the technical needs of major national broadcasters are, inevitably, different from those of local and Community Radio broadcasters. Just as AM and FM analogue radio systems have complimented each other over several decades, in the transitional hybrid analogue and digital future, one digital platform is unlikely to meet the needs of such a diverse range of broadcasters.

(10,831)

CHAPTER SEVEN:

Conclusions

In the preceding chapters of this thesis, I have examined the emergence of Community Radio in the United Kingdom, tracing its development in terms of both theory and practice and putting this into a wider historical context. I have used various examples to highlight particular issues and, more generally and where considered appropriate, I have also drawn upon my own professional practice and auto-ethnographic research to make specific points and in support, or denial, of particular arguments.

Although the underlying objective of defining the position of Community Radio in terms of its broadcasting and wider operational objectives remained unchanged, throughout, during the process of researching and compiling this thesis, the priorities originally proposed at the outset gradually evolved. As a long-standing practitioner of Community Media and a former regulator of the sector, I was aware of a variety of core issues affecting the sector; however, work in relation to this thesis has allowed me to better understand the relative priorities attached to these by others working in the sector and to more fully understand some of their impacts on other Community Radio services.

Community Radio in Context

As with any other medium, Community Radio does not operate in a vacuum; as well as exploring relevant facets of radio broadcasting history, theory and practice, I have therefore also attempted to contextualise this research in relation to wider socio-economic factors.

Chapter one of this thesis provided a broad historical overview of the emergence of broadcast radio as a technological and social phenomenon. Although concerned with broadcast radio at a time before the arrival of Community Radio, I have sought to demonstrate how developments in practice and policy during the early part of the Twentieth Century have contributed to shaping the wider operational environment within which Community Radio now operates.

Chapter two of this thesis continued the historical analysis, but now with a narrower focus, examining in particular the path taken in the run up to the arrival of Community Radio, considering in particular the earlier debates over the arrival and development of BBC and commercial local radio. Once again, I have sought to focus on the way in which the emergence of practice and policy in relation to local radio, in the period between the mid 1960s and the late 1990s in particular, helped define the approach taken to the introduction of Community Radio in the United Kingdom. Also in this chapter, I have looked more closely at the various unsuccessful attempts to introduce Community Radio either overtly (as in the case of the abandoned 1985 experiment) or as part of wider local radio development (as in the case of the IBA's 'Incremental Radio' experiment a few years later).

A further key focus of this chapter is on the practice of the Community Radio sector itself in the UK, as this relates to the 'community' element of Community Radio in particular. It considers how, more generally, the sector developed in the years leading up to the introduction of permanent Community Radio, examining how earlier, short-term, community broadcasts, in particular, provided opportunities for the development of diverse approaches to community involvement.

Chapters three and four of this thesis have covered the theoretical and methodological aspects of this research. Whereas *chapter three* outlined the development of Community Radio theory, arguing that this has been driven by international practice as well as by local circumstances, *chapter four* looks at the specific research approach taken in relation to this thesis, in particular the sources that have informed this thesis, both secondary and primary.

As I have attempted to show, the theory of Community Radio largely emerged from the development of practice. The practice of Community Radio warrants theories of its own because of the way in which it is so markedly different from that of PSB and, in particular, commercial radio. Thus, from beginnings embedded in other fields of study, it has gradually evolved into a multifaceted and independent area of academic research.

Recognising the contested nature of the concept of 'community', theories of Community Radio continue to develop, taking into account not only the diverse nature of the sector but also seeking to define its core identity and purpose(s).

Methodologically, this thesis was, perhaps, saddled with too many preconceptions at the outset. Although my long-standing involvement in the Community Radio sector and my professional work with Ofcom as the sector's regulatory body were both undoubtedly useful, they were also problematic, bringing with them various opinions, which it might have been better not to have held at the outset of the research process. A good example here might be in relation to my views about commercial radio, which were not as neutral as they perhaps should have been. Having said that, carrying out analytical research has revised and informed my views on the sector, adding a dimension of academic knowledge to my experience as a practitioner and former regulator. I feel that this experience stands me in good stead, for conducting further research, in the future.

Chapter five of this thesis was primarily concerned with regulation. It discussed issues relating to the practice of Community Radio as it has developed in the UK since permanent services were introduced in 2004. Issues such as individual station funding and volunteer inputs as well as capability limitations of individual stations were examined, along with wider sector-related issues, such as relationships with regulators and other broadcasters.

In particular, this chapter focused on the interconnectedness of regulation to the various inputs and outputs of Community Radio. For example, issues of viability (input availability) and output delivery (programmes and 'social gain') are largely dictated by a combination of regulatory requirements and local competences. Because of the fundamental impacts they have on the operation of the sector, elements of Community Radio practice that are more specific to it, such as its unique and diverse funding model as well as its use of volunteers, have been particularly focused upon.

Some clear (and interconnected) tensions are apparent in these areas. For example, the lack of secure funding may impact on the ability of a particular Community Radio station to provide adequate resources for its volunteers, such that the benefits derived by those volunteers (be they personal or professional) are not as great as they might be. However, volunteers are key to a station's ability to deliver its required outputs both in terms of programming and in relation to the delivery of social gain. Economic issues are also interconnected with licensing parameters. Coverage and licence duration issues were explored in terms of how these can limit the degree to which a target community may be adequately served and in terms of the economic uncertainty that can result where coverage is considered inadequate or where licence duration makes the medium- to long-term future of the broadcaster appear insecure.

As has been shown, developments in the various iterations of the *Community Radio Order* have gradually provided Community Radio services with greater access to potential commercial advertising and sponsorship income. Whilst this may benefit some stations greatly (as in the case of Warminster Community Radio) such a policy shift also brings with it the potential for greater conflicts of interest with small-scale commercial broadcasters competing for a finite amount of available commercial revenue. Moreover, in the longer term, changes to the input regime of Community Radio creates at least a degree of risk that this may be reflected in the sector's outputs. Should commercial revenue generation become dominant in the future, might this not be reflected in changes to programme outputs in order to make these more attractive to advertisers?

Chapter six of this thesis was concerned with delivery platforms, examining the use of traditional analogue broadcasting platforms, digital broadcasting platforms and non-broadcast, primarily Internet-based, alternative content delivery mechanisms.

Beginning with an examination of analogue broadcasting, this chapter identified how prior policy decisions constrained the ability of the regulator to accommodate Community Radio and how the sector has been required to make use of spectrum deemed unsuitable for other types of broadcast radio use.

The limitations of established approaches to DAB broadcasting were also explored in this chapter, which then went on to investigate Ofcom's on-going, small-scale DAB trials, which provide the potential to break the current 'log-jam' of frequency availability for Community Radio in the future, provided the current tests prove successful.

Finally, this chapter explored the impact of non-broadcast delivery mechanisms and the way in which these are gradually impacting on radio broadcasting. The increasing importance of such mechanisms since the introduction of Community Radio was noted, as were some of their weaknesses. Taken together, the overarching conclusions of this chapter concerned the way in which the technical future of radio broadcasting remains somewhat unclear, but likely to be more complex than hitherto.

Throughout this thesis, I have also attempted to consider wider socio-economic factors that have impacted the sector. Although the international element of this research has been limited, the influence of pre-existing Community Radio theory and practice, as developed in various other jurisdictions, has also been recognised and taken into account within this thesis.

Although permanent Community Radio services in the United Kingdom are still something of a relatively recent phenomenon, this research argues that it is, in fact, possible to trace elements of its origins back to the earliest days of radio broadcasting. The research has therefore attempted to trace some of the, somewhat complex, variety of external factors that have influenced British Government policy and the regulation of broadcast radio, as these have developed throughout the lifetime of the medium to date.

Historical Considerations

As has been shown, broadcasting policies in different jurisdictions diverged early in the history of the medium. I argue that the broadcasting policy path set out upon by the United Kingdom in the mid 1920s provides, in part, an explanation of why it then took some 80 years for the government to agree to the introduction of Community Radio services. In addition, I have examined some of the various subsequent twists and turns

along that path of broadcast radio development, which I suggest have also played a part in defining the current scope and scale of the United Kingdom's Community Radio sector.

The Impact of the BBC

When considering the various influences on broadcast radio policy in the United Kingdom, the dominant constant has to be the existence of the BBC. From its earliest beginnings, the Corporation has contributed to the development of the government's thinking. Sometimes, such influence has been deliberate, for example, through its contributions to official policy debates. At other times, influence has resulted from its operational practices or through the pursuance of aspects of its own development agenda (an appropriate example here might be the Corporation's desire to maintain exclusive radio broadcasting rights within the United Kingdom, something it succeeded in achieving for nearly 50 years).

Spectrum Availability

A second constant throughout the history of radio broadcasting in the United Kingdom has been the issue of the radio spectrum; how it is used and who may be given access to its various resources. Elsewhere in this thesis, I have noted the way in which the 'spectrum scarcity' argument has been used over many decades. Increasing demand for spectrum from its non-broadcast users has long been a constraint on the expansion of broadcasting, but it has also been a driver of increased efficiency, improving the diversity of services that can be delivered within a given block of frequencies. Although sceptical about early usage of the 'spectrum scarcity' argument, I have also noted that, in more recent times, this has become a more justifiable argument and one that has clearly impacted on the capacity available to develop Community Radio services, in the analogue domain across the United Kingdom.

Commercial Radio

A third and more recent addition to the range of those seeking to influence wider broadcast radio policy is the commercial radio sector. Particularly since the early 1990s, through its various trade bodies, it has maintained trenchant views concerning how

broadcast radio, as a whole, should be developed. Campaigning strongly for greater and greater relaxation of its own regulatory regime, it has tended to hold trenchant views about Community Radio, being opposed to its introduction for many years. However, once recognising that such services would arrive, it then changed tack to argue, initially at least to considerable effect, for strong and distinctive regulation of the new third tier of radio broadcasting.

Whilst the commercial radio sector's views about Community Radio are understandable on the grounds of 'unfair competition', it is my view that its concern over Community Radio has largely proven to be misplaced. Greater threats to commercial radio lie outside traditional broadcasting. Recent examples of collaboration between the commercial stations and Community Radio, for example in relation to the on-going Ofcom small-scale DAB trials, is perhaps indicative of the way in which the relationship between the two sectors may, to a limited extent, gradually be beginning to thaw.

The Wider Policy Environment

At the core of this thesis is the hypothesis that although facilitated by a generally benign legislative framework and regulatory oversight, the current position of Community Radio in the United Kingdom has, to a large extent, been constrained by both wider policy considerations and by the effective application of pressure by third parties with particular interests in broadcast radio.

BBC Radio and Commercial Radio

Before the early 1970s, UK Government policy was to maintain the BBC's monopoly of broadcast radio in the United Kingdom. Thereafter, this policy gradually evolved to support a dual sector approach, firstly at the level of local services and then, later, at the level of national services as well. Crucially for potential Community Radio operators, the rate of expansion (particularly in terms of the growth in the number of commercial radio stations) was such that, by the time such services were introduced, the availability of analogue broadcast radio spectrum was very limited indeed.

From the late 1960s through until the mid to late 1980s, the BBC's approach to the delivery of its local radio services allowed for a high degree of local independence and resulted in the provision of services that involved a variety of elements, which would be familiar within the context of current Community Radio practice. However, budgetary constraints and the centralising tendencies of the Corporation resulted in such practices gradually becoming increasingly side lined in favour of greater corporate branding and more standardised programming approaches.

Similarly, commercial radio, under the auspices of the Independent Broadcasting Authority (IBA) during the 1970s and 1980s, was required to deliver a wide range of programming beyond today's typical fare of mainstream, music-based programming. Again, this approach was eventually abandoned as the sector successfully persuaded the government to allow it greater operational and commercial freedoms. Attempts by the IBA to develop a sub-tier of incremental services including 'community-lite' type stations proved unsuccessful, not least because of a lack of a suitable underlying legislative framework.

The key point here is that the activities of both the BBC and the commercial radio sector, right through until the late 1980s, was such that, from a political perspective, it was possible to argue that the introduction of a third tier of community-based services was unnecessary. Put another way, up until around 1990, the 'space' for Community Radio was perceived to be limited, already occupied by the existing BBC and commercial radio of the day.

The changes to both BBC local radio and to local commercial stations as the Twentieth Century drew to a close meant that the 'space' for new Community Radio Services, to deliver programming no longer provided by existing providers, expanded noticeably. With the BBC concentrating on older local audiences and commercial stations withdrawing from speech-based programming almost entirely, it became increasingly possible to argue for the need for alternative delivery of genuinely localised content.

The Community Radio Order

Once the decision to proceed with the introduction of Community Radio services was made, the introduction of suitable legislative foundations and an appropriate regulatory framework was required to further facilitate the emergence of the new sector. As set out earlier in this thesis, the new legislation (the Community Radio Order (2004)), was not without its flaws, but it did provide a clear definition of Community Radio, marking out a clear 'space' for it in terms of programming and the delivery of social gain, clearly distinguishing it from both the BBC and the commercial radio sector. From the Community Radio sector's perspective, the legislation was however seriously flawed, by its failure to provide a source of guaranteed funding, able to support the core activities of the new stations.

Funding-related Issues

The degree of cross-party support for the introduction of Community Radio has continued as the sector has expanded since. However, both within the government and without, this does not run to the provision of core funding at a level that might, to a material extent, provide an operational base of support for the sector as a whole. Instead, subsequent amendments to the original Community Radio Order of 2004 (HMG UK, 2004) have gradually relaxed funding rules to allow Community Radio services to generate commercial revenues more easily (HMG UK, 2010 and HMG UK, 2015).

On the one hand, by placing various limits on the operational funding of Community Radio services and by requiring that they obtain funding from a diversity of sources, it could be argued that the legislation placed restrictions on the ability of the nascent sector to fund itself adequately. Optimists, on the other hand, might argue that such restrictions force a more open-minded approach to the development of funding support from other than traditional commercial sources. However, particularly as the sector has emerged at a time of economic recession, this has proven to be, at best, a difficult task.

Spectrum Limits Today

Another key limitation on the development of the sector has been its limited access to suitable analogue broadcasting spectrum, the result of earlier policy decisions, which had previously allocated the vast majority of such resources to the BBC and to the commercial radio sector on a long-term basis. However, the pattern of radio consumption is changing, with analogue radio listening in reasonably gentle decline as listeners migrate to other platforms, both broadcast and Internet based.

The 'first mover advantage' of established broadcasters over Community Radio operators on primary broadcast platforms may also be further ameliorated by more recent developments in broadcasting policy as the government seeks to migrate services to digital platforms. It is perhaps a mark of how far Community Radio has come that, with the government's support, Ofcom is now developing the technology and associated regulatory structures to support its migration to DAB.

Small-scale DAB

On-going attempts to increase digital radio listening via DAB, including the 2015 Small Scale DAB experiments in which a number of Community Radio services (including Future Radio in Norwich as researched for this thesis) have taken part, have the potential to provide considerable additional opportunities to deliver Community Radio services, particularly in areas where current analogue broadcasting frequencies are fully occupied.

Furthermore, as in the case of Future Radio in Norwich, access to DAB spectrum has not only provided opportunities to duplicate existing FM outputs but has also allowed stations to develop additional programming streams (such as Future Radio's 'FuturePlus+' service) and additional sources of income (such as Future Radio's 'Future PopUp' service) by offering dedicated temporary channels in support of local events and organisations.

Fears that Community Radio might be left in some kind of 'analogue backwater' may, therefore, yet prove to be unfounded. However, it is too soon to say if this could be the

case due to a successful migration to digital platforms including DAB, or because the life expectancy of analogue broadcast radio platforms (particularly FM) proves to be longer than hoped for by the government and the regulator.

Contribution to Knowledge

The particular contribution to knowledge of this PhD thesis centres on the way in which it contextualises the emergence of Community Radio in the United Kingdom in relation to the operational practices of other broadcasters. In addition, this research has also discovered and made use of historical materials relating to early Community Radio development in the United Kingdom and which, to the best of my knowledge, have not previously been made use of in academic research.

The potential of Ofcom's on-going, small-scale DAB trial to now open up opportunities for Community Radio broadcasting should be treated with some caution and it is too early to predict what policy changes might result from the development of such low-cost digital broadcasting opportunities. This research, I feel, offers something hitherto little explored in academic research, by combining prior experience in and knowledge of the sector from a variety of standpoints and covering a significant historical scope, from the earliest notions and practices of what we would recognise as Community Radio today, to the latest attempts to move to, or add DAB services. From a research perspective, I believe that, at the time of writing, my work in this area is unique and forms a contribution to knowledge in its own right.

Further Research

At the start of my PhD research, I optimistically expected to be able to integrate the core objective of exploring Community Radio development in the United Kingdom into the wider context of Community Radio theory and practice around the world. Although this was achieved to a limited extent, there is more work that could be done, particularly in terms of further comparing regulatory regimes and their impacts.

In terms of technological impacts, my research has highlighted some of the complexities involved in the distribution of frequency resources, inherent in the increasing diversity

of delivery platforms. The pace of change in this area shows no sign of decreasing. For example, the idea that small-scale DAB delivery might be found to be technically and economically viable was considered highly unlikely at the time work on this research began in 2008 (if indeed it was being seriously considered at all). Now, in late 2015, not only has it been proven to work, but it is also being used operationally (albeit on a trial basis) in various locations across the country.

In addition, the relationship between the BBC and Community Radio is certainly worthy of further study. As this thesis has shown, over recent years, Community Radio has provided the Corporation with various pre-trained employees. However, the relationship has also been strained at times, with some Community Radio operators unconvinced that the relationship works equally for both parties. Nevertheless, in terms of ethos, Community Radio undoubtedly remains closer to the PSB ideals of the BBC than it does to the market-orientated approach of commercial broadcasting. The impact of the *Memorandum of Understanding* between the BBC and the Community Media Association on behalf of its Community Radio membership is certainly an area that I consider worthy of specific further investigation.

Whilst British Community Radio has come a long way since the launch of permanent services in 2004, the unpredictability and insecurity of its funding means that the sector remains in a potentially fragile state. Individual stations have prospered, but others, as for example shown in this research, have failed. Nevertheless, it appears that, over time, as the sector continues to grow in number, it is gradually becoming a more accepted part of the wider broadcast radio sector.

In terms of both programming outputs and the delivery of social gain, there is no doubt that Community Radio provides something additional, outside the remit of other radio broadcasters. As this thesis has shown, the history of wider radio broadcasting has contributed to creating the current space for Community Radio. How that space develops will also depend on future developments of radio broadcasting as a whole.

What Frank Gillard would make of modern-day BBC local radio is open to question, but there can be little doubt that he would recognise some of what he was seeking to achieve within the wide range of Community Radio services broadcasting across the United Kingdom today.

(3,999)