Radio: the resilient medium in today's increasingly diverse multi-platform media environment.

Introduction

The resilience of radio as a medium has been demonstrated consistently over the last ninety years. As a medium of mass communication, some might say it has already had its heyday but it is now destined to decline significantly in popularity, eclipsed perhaps by newer media and devices which offer greater levels of interactivity and customisation, given images and text-based content. However, the history of radio, both distant and recent, would suggest otherwise: radio has demonstrated a remarkable resilience in response to new sources of competition in the past and there is evidence in the ways in which it is adapting now to the developing environment which suggest that resilience may again prove decisive in the future. This paper examines some of that evidence and hypothesises that radio as a medium may prove more resilient than the receiving device known colloquially as the radio set.

The original broadcast of the Canadian inventor, Reginald Fessenden, on 24 December 1906, is recognised by some in the west as the first ever radio programme of speech and music (Starkey, 2007: 159). The Italian, Guglielmo Marconi, is more commonly recognised in Europe for his early demonstrations of radio broadcasting technology, but he was slow to realise its potential for reaching mass audiences, at first perceiving 'wireless' transmissions as a means to send messages from point to point and probably of most use to the military and for ship-to-shore communication (Crisell, 1994: 17-18). This was in itself remarkable at the time, because simultaneous communication over long distances was then confined to telegraphy or telephony along wires. If there wasn't a direct wired link between two places, then such instant communication was not possible.

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Marconi did, however, later emerge as a pioneer of broadcasting when he relocated to England and adopted Fessenden's model of transmitting content that might be of interest to a wider audience than that envisaged by those who were using the technology to communicate with distant individuals. 'Scattering' content over a wide area so it may be received by any number of people in an invisible 'audience' suddenly caught on. Broadcasting content and publicising its availability would encourage consumers to buy receivers, and it was in making and selling receivers that entrepreneurs like Marconi would derive an income from the practice. Thanks to the Marconi Company and others, by the early 1920s *experimental* radio broadcasting was being replaced by *regular* services from many of the European capitals. Among them was the first British radio station, with its 'call-sign', or identifier, 2LO, which began broadcasting from London on 14 November 1922 (Street, 2002: 11-26). As manufacturers merged, 2LO soon became part of the British Broadcasting Company, and this privately-owned company was then renamed the British Broadcasting Corporation in 1927 when it was established as a publicly-owned body with a public-service obligation. Its history has been recorded in detail in Briggs (1961) and subsequent volumes, as well as by others including Crisell (1997), Hendy (2007) and Street (2002). In 2013 the BBC celebrated on air ninety years since the birth of regular broadcasting in the United Kingdom, with programmes of commentary mixed with archive recordings designed to mark the importance of the anniversary. Around the world, and with varying degrees of alacrity, regular 'wireless' broadcasting began in other cities, so that this brand new medium began to find large audiences, eager to enjoy this new experience of hearing voices, music and other sounds from long distances away.

The transmission technology, requiring the modulation of radio waves emanating from a transmitter, was known in the English language as 'wireless' (Crisell, 1994: 17). Since

then it has changed little, although it has been put to new uses because modulation can be achieved in different ways. Amplitude modulation, as first developed by the pioneers of radio, produces acceptable sound quality that certainly impressed the medium's initial audiences. The first receiving equipment was bulky (Street, 2002: 16), as was studio and transmission equipment, so radio was a relatively static medium. It could not easily move out of the studio in the way that the press and cinematography could show images from such locations and events as battlefields or civic occasions. Neither could the wireless receiver be easily moved from its central place in the living room, so families would gather round it in order to listen – often in awe – to what they could hear (Chignell, 2009: 97). Yet, as the technology developed, as is often the case today with new communication devices, it became simpler and more portable, (although it is worth noting that advances in the technology have tended to occur sporadically over time, rather than with any consistency). Better quality sound became achievable through the development of frequency modulation, albeit for transmissions over relatively shorter distances, and of course what we now refer to as 'analogue' wireless transmissions encoded with much larger amounts of information began to carry pictures, too, as an even newer medium, television, was born. The 'digital age' began with early experiments in sampling that information before encoding it as a compressed stream of numerical values, and it is compression that now allows greatly increased amounts of data to be communicated from a central point to suitably-equipped receivers elsewhere. Digital broadcasting is of course portable, whereas today digital data distribution through the internet is almost as restricted to fixed points as was the original wired technology of the turn of the nineteenth century. That is, of course, unless some form of wireless transmission is used to bridge the gap between a fixed point, such as a mobile

phone mast or a router, and the receiver - and that transmission stage is still dependent on the original radio technology first demonstrated by Marconi.

In the 1920s and 1930s radio replaced the music hall in Britain as one of the most popular forms of mass entertainment (Starkey, 2014: 165, 166), and staying in to listen to 'the wireless' became a more popular evening activity than going to a public venue to be entertained by performers on stage (Crisell, 1994: 19). In the 1950s and 1960s radio appeared to be threatened by television, and the bulky radio receiver was in many households moved from its prime position in the living room to make space for the television set (Starkey and Crisell, 2009: 7-8). Then, as now, there were widespread predictions of radio's impending demise, because it was thought that audiences would desert radio and the exclusively auditory nature of its content that has been compared to 'blindness' (Starkey, 2014: 25-6). They would naturally prefer television, with its already-constructed images, shown on screen and making no demands upon the imagination for the audience to 'see' what is being shown (Paulu, 1961: 155). Similarly, we might think today that the interactivity of broadband, fibre-optic and mobile-platform-delivered content is far too compelling an offer for audiences to remain stuck in the past with such an 'old' medium as radio. This could be, a turning point for radio: the moment when its fate is sealed and it begins a steady decline into obsolescence.

Paradoxically, there is a good deal of evidence that – today at least - that decline is far from being a certainty. In the 1950s and 1960s it was largely technological advance that rescued radio from oblivion. One great leap forward was the development of the transistor, an electrical component that allowed large, more delicate components to be discarded from the circuitry of the radio receiver, was a significant factor (Fleming, 2002: 25). The physical size of radio sets reduced dramatically, from the size of a small

piece of living-room furniture, to that of a box of chocolates, which could be carried almost anywhere. It could be powered by small batteries, bought over the counter in shops, and easily changed as soon as they began to run out of power. Most importantly, a 'transistor radio' could be fitted into the dashboard of a car, and with the help of an external aerial on the bonnet or on the roof, radio could accompany its audience on the road. The television set, though, remained until very recently anchored to the living room and to the mains power it derived from being plugged in at the wall, as well as to the wired connection to the highly-directional rooftop aerial that supplied it with modulated electro-magnetic radio waves it could translate into sound and vision (Fleming, 2002: 25). For many the TV became the prime focus of the evening (Starkey and Crisell, 2009: 7-8), but it simply could not replicate the portability and the versatility of the medium that was now truly 'wireless': radio.

The essential characteristics of radio

What, then, confounded those early predictions of the end of radio? The answer lies in the essential characteristics of radio, which also suggest to many commentators that it may in practice remain a much more resilient medium in our near futures than some others are predicting. It is true that, in terms of mass media consumption, from the 1960s television ruled the evening. However, radio was still able to dominate the use of electronic media for the rest of the day (Barnard, 2000: 101). The new portability of radio played a large part in this, of course. It was no longer necessary to be in one particular place in order to listen to it, and additional transistor radios began to appear in different rooms around the house, so listening could occur in the kitchen, the bedroom and even the bathroom. It was also no longer necessary to negotiate with other family members what radio station the receiver should be tuned to, because as people went

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about their daily routines, they could find themselves listening alone in almost any room of the house (Crisell 1994: 12-14). Therefore, if their tastes in music or speech programming were not shared by others, it now mattered less because a single person controlled the radio receiver and a consensus on what to listen to was unnecessary. This coincided with a significant fragmentation of the traditional family unit in many of the Western capitalist countries during the 1950s and 1960s. They were experiencing a 'cultural revolution' of their own, in which the teenage generation developed a cultural identity that was distinct from that of older generations. Western teenagers began to actively seek to express that distinctiveness in a number of ways – one of which was musical taste.

Of course, this trend developed in the United States, and was inspired by the introduction to more mainstream stations targeted at white audiences of music previously played exclusively on radio stations serving black people. Significantly, at first the songs and musical styles of the black artists were emulated by emerging white performers – and therefore 'sanitised' for a white audience, in a country which still discriminated in many ways between citizens of different ethnic origins. One American radio presenter or 'disc jockey' in particular, Alan Freed, is credited with initiating this cultural change. As white American teenage audiences for the new phenomenon of 'rock and roll' developed rapidly, so this phenomenon spread to other countries. It was imitated most successfully in the United Kingdom, which of course shared English as a first language with the United States, and it was there that the international success of The Beatles and The Rolling Stones began (Wall, 2003). There, the BBC was slow to realise the size and importance of this audience, and its only real competitor, Radio Luxembourg, broadcast in English only in the evenings. Until 1964 Luxembourg was the only real competition faced by BBC radio, transmitted across the English Channel

from the Grand Duchy of Luxembourg on the European continent. However, just as nature is often said to fill a vacuum, between 1964 and 1967 daytime competition for the BBC emerged from pirate radio stations (Stoller, 2010: 20). Their signals could be received during the day, because they were much closer in geographical terms, broadcasting from specially-converted ships anchored off the coast, and disused, abandoned military forts in the Thames estuary. These stations, unlike the BBC, broadcast pop music all day, and so attracted large numbers of listeners, as the teenagers of the 1950s grew into adulthood. It is well documented that large numbers of teenagers would secretly listen to Luxembourg or the offshore pirates on their own transistor radio sets after bedtime, in defiance of their parents who thought they had by then gone to sleep (Chignell, 2009: 67).

Apart from technological and sociological change, though, the essential characteristics of radio that guaranteed its survival fifty years ago relate to the ways in which it may be consumed. Sitting immobile in front of a receiver works particularly well in terms of consuming television, which presents its audiences with 'given' pictures that they may consume without even having to use their imagination. Engaging fully with television broadcasts requires the use of both eyes and ears, leaving little scope for the viewer to do much else. Radio, however, can be fully experienced while a listener is engaged in a wide range of other activities, including dressing, bathing, cleaning, cooking, ironing or washing up in the home, and operating machinery or driving a vehicle of whatever size outside it. It is partly this 'secondary' nature of radio listening, as it has been called (Crisell, 1994: 12-13), that has allowed the medium to reach much larger numbers of people early in the morning, during the working day and at weekends than can fully devote themselves at those times to watching television. The term 'secondary' almost implies inferiority, as if radio were inferior to television because one is a secondary

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medium and the other is a primary medium. Far from being a disadvantage, though, this is a real advantage in a competitive media marketplace. In fact, radio's ability to provide a soundtrack to the performance of mentally undemanding, repetitive or mundane tasks saved it from extinction in the 1950s and 1960s, and – most importantly – may well save it again in this multi-platform digital age of exponentially-increasing media proliferation. It is worth noting here that some early academic research demonstrated that often television does not have viewers' full attention, and when their activities were recorded by a concealed camera underneath the television set, it was noted that groups studied were instead at times reading, talking or even making love on the settee rather than watching its pictures (Collett and Lamb, 1986).

A further essential characteristic of radio is its ability to work symbiotically with listeners' own cognitive functions. This means that radio has the ability not just to be experienced as a secondary medium while a listener is performing another, primary task. It can actually be enjoyed and meet some human needs as defined by Maslow (1954) and rationalised by early uses and gratifications theory (Blumler and Katz 1974). Even if listeners are physically doing something else at the same time, radio can precipitate parallel cognitive activity in a number of ways. These include:

- providing entertainment - stimulating the brain with music or humour and providing a distraction from everyday tasks;

- conveying information – from simple news items, traffic bulletins or weather forecasts to concepts, argument, polemic or rebuttal;

- creating imagery – in the way each individual listener will form mental images when assimilating description conveyed aurally in anything from a simple narration to a complex drama production

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- suggesting friendship or intimacy – which might at least simulate a closeness with a disembodied voice that has become trusted, familiar or simply recognisable as a person.

Aural imagery is a particularly interesting phenomenon. Without having to focus our attention on a screen, the act of listening – or even the fact of hearing – sounds on the radio can produce meaning that is every bit as vivid and emotive as the given images provided by visual media on a screen or on a page (Crisell, 1994: 42-63). This should not be very surprising, because otherwise, the novel as a literary form would probably not have become such a great success and been able to provide absorbing reading for generations of readers, even today. With only the printed word and, perhaps, a given image on its front cover, a novel has to convey location, action, characterisation, emotion and plot by using only words. Even sounds or music have to be described for the reader in words. Radio works in much the same way, but it has the great advantage over the novel of being heard not just as a sequence of words, but also as a combination of sounds (Shingler and Wieringa 1998). Individual sounds may stand alone or be mixed with others, and might evoke in the listener a sense of location and action far more quickly than could be achieved by using only words to describe them. Some of those sounds may be human speech with the potential to convey far more immediately characterisation, emotion and plot than a laborious description could, in printed prose alone. For example, the combined sounds of seagulls and seawash might instantly convey a sense of being on a beach. Add a single gunshot and perhaps a cry, and it is immediately apparent to a listener that all is not well at the seaside. Because the listener's presence at the scene is only virtual, though, more information is needed to resolve the enigma of who shot whom and why. A skilful radio drama producer might then proceed to use further sounds to explain the situation, or alternatively to sustain the

enigma for possible resolution later on (Starkey, 2014: 187-95). The radio producer is also able to exploit the virtual nature of the listener's presence among the action in the scene by avoiding the considerable cost of actually recording on location. Other – visual - media would, however, have to find the ideal location and capture images there or to create it using expensive computer-generated imagery (CGI).

Whether conveying information for entertainment or to satisfy a logistical human need, radio can do this without having to source accompanying images to broadcast on screen. Radio can make assertions with credibility, without losing any impact in the way that television often struggles to find engaging images to show the viewer. For example, while reacting with a mixture of spoken fact and conjecture to some unexpected breaking news story, such as a crime or a natural disaster, a television producer's visual resources are often restricted to still images of a reporter, maps showing locations or archive footage. Even the new possibilities opened up by such developments as Skype often result in grainy, poor quality images that sustain an element of immediacy and authenticity, but nonetheless look inferior in terms of production values to the content which precedes and succeeds it (Starkey and Crisell, 2009: 12-14). In terms of a more sophisticated discourse, in which not merely facts but also ideas, concepts, rhetoric and polemic are presented, Crisell argues that radio is a far superior medium (2004: 7-10). He notes that, unencumbered by given images, the intellectual debate on radio can focus on the syntax and lexicon of the argument, rather than be distracted by the relatively superficial and not always complementary images picked up by a wandering camera or footage that is intended to be illustrative but which often turns out to be tangential.

A further characteristic of radio is the often individual mode of address of the presenter, who – conventionally – refers to the listeners in the singular. Trainers in the techniques

of radio broadcasting commonly recommend that speaking into the microphone as if to a single listener, rather than to a large, obviously unseen group of listeners, is more likely to develop a closer relationship with each one. Again, unencumbered by a given image of the presenter, each listener is stimulated to imagine who is talking directly to him or her. The real appearance of the presenter rarely lives up to the listener's expectations of the imagined one, but the way *most* radio is consumed, that matters very little. An early conclusion we can draw from all this is that radio is a medium with which people mostly engage in quite different ways to other media. The eyes are not necessary, because the *ears* do all the work – if indeed work it is. The full attention of the listener may not be necessary either, because listening is quite likely to be secondary to some other activity, until something heard pulls the listener back to concentrate on what is being heard through the radio set. That listening can occur almost anywhere, and wherever that may be, it is not necessary to take up a required position in a particular place, under particular circumstances, and with the consent of others, as we have already noted. We shall return to the implications for radio's future of these essential characteristics of radio later.

Technological resilience: radio almost everywhere

Earlier, we considered the way scenery, and the creation of the images of location and action on which some forms of storytelling depend, are much easier to achieve in radio than in the other traditional electronic media. Certainly, radio is a cheaper medium for which to produce content than television or cinema, and this means the production and distribution of radio is more accessible to wider numbers of people. A clear illustration of this is the proliferation of local, community and internet-only radio stations in many parts of the world, although their audiences are often small. In the United Kingdom, for

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example, after the offshore pirate stations were made illegal in 1967, legal commercial radio was introduced in 1973, initially allowing only locally-owned and locally-produced stations to finally bring about the end of the BBC's monopoly of domestic radio (Stoller, 2010). By May 2013 the broadcasting regulator, Ofcom, had licensed 338 commercial local radio stations, in a country with a population of only 63 million. There are now eight national radio stations broadcasting on analogue FM or AM frequencies, five of them run by the BBC and three by private companies. The BBC also operates 40 local radio stations of its own, and regional stations for the semi-autonomous regions of Scotland, Wales and Northern Ireland. Many of those commercial local stations share programming because large groups have formed, which own multiple stations. This means that very few of them are programmed locally throughout the daytime, but recent developments have gone some way to compensating audiences for that loss of local production and control (Starkey, 2015: 152-71). By the mid-2015 a relatively new, non-profit making community radio sector run mostly by volunteers had been granted 232 licences to broadcast. In terms of providing production access to the medium by people with limited financial resources, the community radio sector has opened up the radio industry to many hundreds of volunteers who would almost certainly have been unable to gain employment at the BBC or at a commercial, profit-orientated radio station. The voluntary sector itself is not new: in 1926 the first hospital radio station was launched in York, although hospital radio is still mainly distributed by wire to patients' bedsides rather than by broadcast transmissions. Student radio also began in York in 1967, albeit restricted to very low power signals intended to confine their broadcasts to the university campuses.

Of course, radio has developed since the days of Marconi and Fessenden – yet this has occurred not in isolation, but in parallel with similarly dramatic developments in other

media. Undoubtedly, the rest of the media landscape has changed, too. Colour pictures, teletext, cable distribution, remote controls, satellite transmission, NICAM stereo, the electronic programme guide (EPG), CGI, widescreen pictures, high-definition, the 'red button' and most recently 3D have all dramatically improved the experience of watching television. The television set, meanwhile, has become multi-purpose. Its uses are no longer restricted to watching *broadcasts* produced and controlled from afar. The arrival of the video cassette recorder and the domestic camcorder put timeshifting and content creation in the hands of the viewer. Gaming devices that use the television set merely as a visual display unit and a loudspeaker system have opened up a new industry that sells interactive games to distinctly niche markets. In turn, the multiplex cinema has transformed the experience of going to the movies and introduced choice where initially there was very little. Newspaper and magazine production is quicker and simpler to operate, while printing may be done much closer now to audiences, and international editions more easily published overseas for travellers and expatriates. Telephones, which were once fixed and immobile, dependent on a wired connection to an exchange, are now increasingly portable and multi-purpose in character. They serve not just as cameras, for texting and as music-storage devices, but as platforms for the consumption of text, images and sound for entertainment or informational purposes. Perhaps most significantly, there is the internet: a wired and even wireless community of data exchange offering ever faster connection speeds with the introduction of firstly broadband and then fibre-optic cable to replace the now old-fashioned copper wire.

Behind most of the more recent technological developments listed above, and no doubt many more that are still to come, lies a single revolution in the way content is produced, stored and distributed. Digitisation has sped up, simplified and enhanced content management in many ways which would have been inconceivable even to the farsighted

pioneers of mass communication technology. Just as the storage of sound in an analogue form on a large wax - and later vinyl - disc was quickly superseded by the digitisation of the sound through sampling and encoding beneath the surface of a CD or 'compact disc', so digital data compression and manipulation now lie behind a once unimaginable subsequent proliferation of content and content producers. With more television to watch than ever before, almost unlimited access to text and moving-image content through fixed and portable devices and even time-consuming games to play in virtual worlds with little more real danger to face than potential eye-strain and repetitive stress disorder, how could the relatively simple medium of radio survive?

Despite the increasing competition for audiences' attention, in some parts of the world radio listening is being recorded at record levels. This is particularly so in the UK, where by the end of 2012 76% of the population had access to broadband (Ofcom, 2012). The official audience research organisation, RAJAR, regularly reports high levels of radio listening, with 90% of the adult population listening to radio each week (RAJAR, 2016). One reason for radio's continuing success is its relatively recent emergence on a wide variety of new and established platforms (Rudin, 2011). No longer is radio listening confined to the FM and AM broadcast bands, or even to the relatively new digital terrestrial broadcasting network, Digital Audio Broadcasting (DAB), which has enjoyed steady, if belated, growth since its launch in the early 1990s. Nor should the medium of radio be imagined as being accessible only through a dedicated box that is colloquially termed the radio 'set'. Radio is now commonly available on such platforms as social networking sites, mobile phones, tablets, web sites and television EPGs, and use of these different platforms is increasing. In 2016 RAJAR reported a year-on-year 6% rise in adults over 15 years of age listening to radio via a mobile phone or a tablet at least once a month, to 27% of the population. This followed a period of even more rapid

growth, as exemplified by RAJAR's 2013 survey data, in which listening online was up by 24% to 52 million hours per week, digital listening had grown by 17% to a 34% share of all radio listening and there had been a 5% increase in adults having access to a DAB receiver, meaning a potential DAB audience of 23 million adults (RAJAR 2013). By 2016, online listening totalled 83 million hours per week, digital listening was reported to be 45.3% and ten million adults claimed to actually own at least one DAB receiver (RAJAR 2016). Comparatively of course, different countries have contrasting levels of radio listening, just as their adoption of digital transmission technology varies. In Japan, for example, daytime listening has long been lower than television viewing, because of cultural differences (Heinze, 2011). Similarly, while we might imagine that a significant web presence for radio stations in the poorer countries of Africa might be unlikely, Damome's account (2011), among others, suggests otherwise. Many African radio station web sites include all the features we would expect in the industrialised world, such as: news updates, features, information about presenters, extended interview material without the edits made before broadcast, games, chat rooms, pop-out radio players and ways of timeshifting broadcast content, such as 'listen again'. In Africa as elsewhere, the presence of these additional features, additional content and ways of interacting with the radio station, are adding new layers of complementarity to listeners' overall radio experience.

Radio itself has also proliferated, like the other media with which it is in competition. To the hundreds of official broadcast stations must be added unofficial, pirate stations broadcasting without licences or any form of official sanction. The smaller, more easily transportable technology means pirate broadcasters can operate clandestinely from the rooftops of tower blocks in densely-populated areas without much fear of discovery by the broadcasting regulators. Perhaps the biggest growth, though, and the greatest

diversity of programme content and the demographics of the people launching new radio stations, is on the internet. The relative freedom to launch a station that is only available online means that many have been created to serve some niche taste or interest that is perceived as otherwise underserved. There is no need for such stations to be distributed through any third party, because they can do it themselves through their own web site. However, the online radio consolidator TuneIn announced in May 2013 that it had exceeded one billion hours of listening worldwide to its 70,000 radio stations in the first four months of the current year (2013). Many of those radio stations are also transmitted through the air, but many are not. Shortly after TuneIn's announcement, Apple launched iTunes Radio, in the hope of achieving at least a similar success. As well as being a web site, TuneIn is an app, so that recorded radio listening is shared between computer use and mobile phone listening.

Because the slow migration to digital radio broadcasting in the UK is relatively atypical, unmatched as it is in almost any other country (O'Neill, 2010), radio is widely perceived to be an analogue medium. However, unseen by most listeners, its *production* practices are now firmly situated in the digital domain, except in the most under-developed regions of the world. Producers now benefit from greater studio-quality access to a wider variety of contributors and locations. Using ISDN lines, or even more simply email and FTP approaches to sharing audio files in .wav or .mp3, they can include in their programmes contributions from reporters in distant or inconvenient locations that were previously inaccessible to them. Through their web sites they can also access user-generated content, including listeners' reactions, commentaries, and even information relating to breaking news stories. Any of this material, which often arrives in abundance, can be included in on-air or online content. The need to wait for letters to arrive by the ordinary overland postal service or to use ordinary telephone

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lines to put contributors on air, with the poor-quality sound that usually entails, is now quite rare. This means that new forms of user-generated content now appear in traditional radio genres, within which they are becoming common and as such easily accepted by listeners.

Conclusion

We have seen how radio has adapted itself since the dawning of what we might term the 'digital age', just as much as other established and emerging media have done. Of course, not all evolution is perceived by everyone as being beneficial. Economic and corporate pressures are disrupting old certainties about the provenance of programming, as the production technology now allows the automation of music programming and often listeners are led to believe the presenters they can hear are actually present in the studio when they are not. Syndication of programming and customisation of central hub-based news and programming mean many local stations have become quasi-national ones, with only subtle differences to the output in the different editorial areas they claim to serve. That is, the news or the programme may *sound* local, but in reality it is merely a *version* of one that has been adapted for different audiences in different places. However, the net result of all the changes which radio has undergone is that radio also now offers an unprecedented abundance of choice. It may be consumed in many different ways and in as many different places as in the 1950s, but with better broadcast quality than when AM transmissions were the option. It can also be accompanied by given pictures and additional material. We might even begin to question whether the term 'radio' is still correct, when radio can seem so much like television or an audio-centric version of the internet. That might be problematic for those of us who call ourselves 'radio researchers'.

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Most importantly, though, radio still benefits from its ability to be consumed passively. Amidst today's cacophony of mediatised voices – with or without pictures – radio still does not require the listener's full attention. Accessible though it is via a range of devices, radio does not *have* to be consumed using a keyboard. It does not *need* our eyes to be focused upon it, in order for us to enjoy and to benefit from it to the full. We may continue to perform other tasks, including driving, while listening to the radio, whereas television still demands we watch it and the interactive nature of the internet requires us to keep telling it what we want to experience next. We do not *need* to read radio in text form, nor to glance casually at any still images even if they are on offer. Radio may continue to inform and entertain us aurally, as we consume it passively, allowing it to accompany some other 'primary' activity. Radio may continue to be a 'friend' for many years to come.

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