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Dwyer, P.

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Online Radio: A Social Media Business?

Dr Paul Dwyer

Course Leader, MA International Media Business

CAMRI, University of Westminster

“As marketers and media companies struggle to make sense of their role in this transformed media landscape, the idea that media might “go viral”... has emerged as a popular cultural logic... The promise is simple if deceptive- create a media virus and watch it infect the public” (Green and Jenkins 2011, p114)

Introduction

Digitisation and the internet have enabled the emergence of free digital music streaming services, like Last.fm, Spotify and We-7, and online-only radio services like Mixcloud, which disintermediate the traditional broadcast radio station’s role as a gatekeeper between the music industry and the listener (Weichmann, 2009). UK radio broadcasters have responded to these challengers with their own webcasting and with a platform – Radioplayer – created by a unique collaboration between BBC and commercial radio stations. Although online listening is still small compared to broadcast audiences, the potential exists for social media to transform the way audiences listen to music online and on mobile devices (Ofcom, 2011).

This chapter proposes a new analytical framework to analyse the different services offered by traditional and digital radio and music services and to evaluate their performance,

from an audience perspective. Having differentiated the various services within a competitive field, the chapter gives a more detailed examination to two innovative companies – Radioplayer and Mixcloud - which are attempting to redefine radio services online, on mobile and on social media. The particular focus of the final part of the chapter is in applying the analytical framework to analyse and evaluate the performance of the social media applications implemented by these companies, in comparison with a key competitor, Spotify.

Analytical Framework

Digital media present audiences with a wide array of new choices, and pose significant challenges to existing media management practices. For radio producers and broadcasters, the challenges are such that many academic commentators now argue that the concept of radio is itself obsolete. Digital production and distribution of audio content via the internet has enabled the development of new services which are clearly not technically ‘radio’ (they do not use radio waves) and which some academics have argued are ‘radiogenic’ (Tacchi, 2000b: 292), or ‘radioesque’ (Berry, 2006: 155; Jones, 2002: 226) or ‘radio-style’ (Coyle, 2000: 59)). However, the persistence with which media managers (and audiences) describe these services as radio demonstrates that they are using some of the thinking from the broadcast era to navigate a path through the emerging digital landscape.

This definitional debate highlights a fundamental problem facing practitioners, audiences and researchers in attempting to understand the changes (and continuities) in management, production and cultural practices which have followed the emergence of digital and online media alongside traditional broadcast media. As digital and online media have emerged, an array of new terms and concepts has arisen to describe and analyse their operation, which differ

significantly from their broadcast counterparts. Concepts like schedules, programming and formatting, for example, are central to broadcasting but can become marginal or even redundant in the online space (Lotz, 2007).

This chapter attempts to deal with this conceptual problem by creating an analytical framework using concepts from the digital space to enable better description and comparison of the practices of the broadcast and online arenas. Four central concepts drawn from the online world - linear streaming, on-demand, aggregation and curation – are defined as the extremes of two continua. As figure 1 shows, linear streaming and on-demand are opposite poles of a continuum of *user interaction* with a music/radio service; aggregation and curation are opposite ends of a continuum of practices of *content creation, selection and scheduling* (see Figure 1)

Linear Streaming and On-Demand: This distinction goes to the heart of the definitional debate about ‘radio’. Because the difference between on-demand *downloading* and on-demand *streaming* of music tracks is, for the listener, relatively small, the music industry demands significantly higher copyright payments from services which allow on-demand streaming (see IPO, 2007 and below). Copyright bodies tend to accept that music services are not competing with downloading services to the extent that they are ‘radio-like’, that is that the stream of music is controllable by the listener only to the extent that they can in using the dial on the traditional radio receiver. Thus, broadcast radio can be considered to have similar features to streamed, minimally-interactive internet music services.

Curation and Aggregation: Museum and gallery curators are subject-matter experts who collect and literally “take care of” valuable art and artefacts. The size of and diversity of the content of

most collections means that curators have to identify the most relevant or important pieces to be acquired and/or displayed in exhibition (Proctor 2007). This recognition of the importance of selecting and presenting content has produced the neologism ‘curation’ to describe the work done by (among others) journalists and film-makers in the online world (Jarvis, 2011, Rosenbaum, 2011). Bhargava (2009) defined content curation as “the act of finding, grouping, organizing or sharing the best and most relevant content on a specific issue”.

Digitisation enables the aggregation of content in databases across the internet. As Bhargva (2011) notes, aggregation is at the opposite end of a continuum of practices of content curation; “the act of curating the most relevant information about a particular topic into a single location... you still may have hundreds of pieces of source material - but just the fact that it is in a single location and not millions of pieces of information has a high value for people interested in a particular topic.”

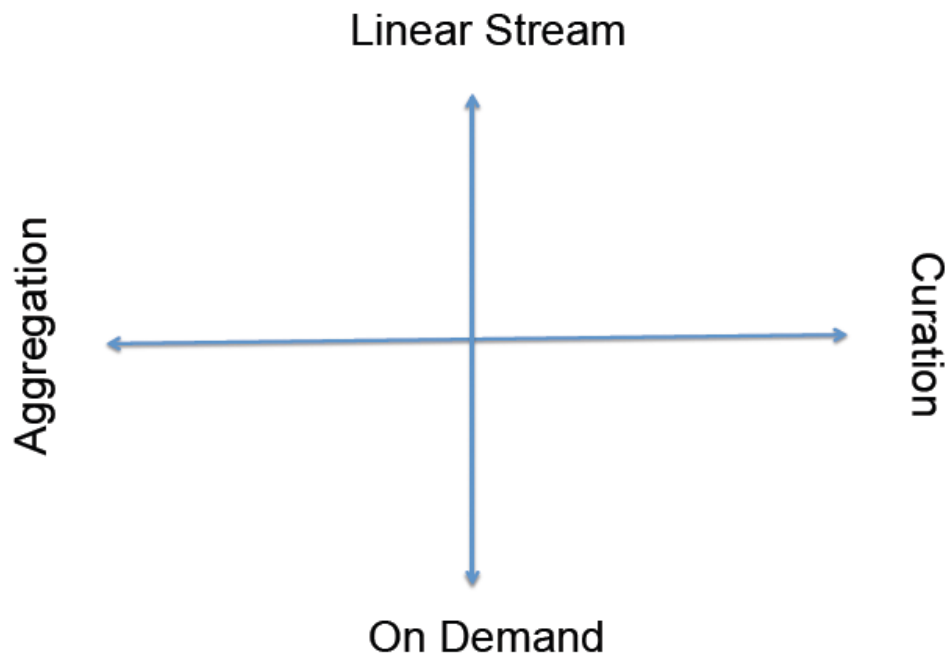


Figure 1: Analytical Framework for Music Radio Services

The matrix framework in Figure 1. will be used to compare and contrast the management practices of broadcast and online music and radio services and identify the key differences between the main players in this sector in the UK. The matrix enables evaluation of these services from an audience’s point of view in terms of four related concepts: audience responsiveness, ease of use, relevance of music recommendation and diversity of content A key additional concept – *barriers to entry* – is used to explain how technology first created, and then gradually removed, barriers to practitioners in operating along the dimensions shown in the matrix (see Demsetz, 1982).

Using this ‘online’ conceptual framework to compare broadcast and online practices will inevitably simplify some of the traditional practices of radio station/network management, and focus attention on some areas at the expense of others. The hope is that losses in detail will be

more than compensated by the gains in clarity in identifying the key similarities and differences between services developed during the broadcast and online eras.

Having identified the differing *modi operandi* of the main UK broadcast and online players, it will be possible to analyse the contrasting approaches to, and results of social media strategies undertaken by two case study radio companies. The first of these – Radioplayer – operates as a bridge between online and broadcast radio. The second – Mixcloud – is online only in its conception and operation.

Methodology: Radio Connected

This chapter is the first publication from an 18-month R&D project – ‘Radio Connected’, which has drawn together the major UK broadcasters, online radio channels, independent radio producers and digital technology companies to conduct R&D on the evolution of radio on connected devices. As a member of the steering committee of the project I have participated in all the key meetings and had the opportunity to interview the key participants. I have also been allowed privileged access to documentary evidence relating to the performance of the participant media organisations. As an academic member of the project, part of my role has been to develop a conceptual framework to conduct a comparative assessment of music and radio services and make an evaluation, from an audience perspective, of the strengths and weaknesses of these services. The four concepts can be used to evaluate the costs and benefits to the audience of the different approaches.

As a first step in the publication and dissemination of results, this chapter outlines the conceptual framework and briefly reports the comparative assessment and the evaluation. The second section of the chapter reports the findings from the experience of two of the project

participants – Radioplayer and Mixcloud in developing social media applications to promote their brands and recommend content. In particular, this section reports on the success of their integration of their online offerings with Facebook.

Linear Streaming

Broadcasters distribute content in a linear stream to radio receivers. The number of hours of streaming (transmission) is determined by factors including the costs (per hour) of production and the size of the available audience (and thus revenue) at different hours of the day, within a geographic area (Briggs, 1985). The techniques of radio station management derived from the barriers to entry created by scarcity of radio spectrum and audio production and distribution technologies (see Coase, 1950). Constraints of spectrum space (available frequencies) and the costs of broadcast technology limited the number of channels which could transmit radio content in any geographical area, and costs of production technology limited the number of content producers and thus the volume and range (within and across genres) of radio content available (Briggs, 1985).

‘Genre Knowledge’ Curation

These barriers to entry tended to give broadcasters have monopoly/oligopolistic control over the distribution of content across a geographical area for a given period of time (Coase, 1950). The number of channels/stations and their hours of streaming created a limit on the hours of content which could be distributed by radio waves. Broadcast management, producers and presenters developed complicated processes of selecting which content to create or acquire and to stream. The traditional metaphor used in media studies is the gatekeeper (or sometimes ‘cultural

intermediary', see Hennion and Meadel, 1986) and so the typical radio professional has been described as "a gatekeeper determining popular taste" (Rothenbuhler and McCourt 1992: 101).

The model of selection was based on the genre knowledge of producers and presenters or DJs. This practice can best be illustrated by reference to the studies of the doyenne of such curators in pop music radio in the UK, John Peel, who broadcast on Radio 1 from its inception in 1967 until his death in 2004. The success of Peel's curatorial approach was partly defined by his ability to identify new artists or sounds (in the 60s The Doors, Love and Judy Collins in the eighties and The Fall and Pulp) which would be liked by a wider audience.

But as Peel recognised, curation cannot be reduced to accuracy in selecting innovative content which would be successful: "that's one of the things I like, the fact that you're so often proven wrong. A lot of the stuff I used to play, in the early 70s in particular – James Taylor and stuff like that – I now find agonizingly embarrassing' (cited in Long 2006). Almost as important as the music selected is the context genre experts can provide audiences for the music selected. Taylor (2003), recalling his time as a DJ at Xfm, noted "the concern for the DJ is that... the individual listener will turn off if a less obvious selection is made. It is vital therefore that the listener is aware of a distinctive context surrounding such a selection". Thus for Taylor, the role of the DJ is "constantly discovering new music and contextualising older music within an ever developing canon" it is "a vocation which requires an historical, cultural and aesthetic knowledge of music, who is qualified to make selections determine the context of those selections". Peel's particular values and rules were his love of the amateurism and ordinariness of many pop groups and "his rejection of the glamour, unmerited privilege and self-obsession of the pop world" (Long, 2006).

Hendy (2000a) shows that in the mid-1990s this approach to curation became the convention at Radio 1. “Many long-standing and familiar presenters left, to be replaced by presenters who were unknown by mainstream radio audiences, but better known in the clubs and specialist music shows of London regional radio stations.” But, as Hendy continues, “selection is in itself only the first stage of music programming: next comes the process of distributing those selected records across the time map of output – the scheduling of each particular record within each programme and across each day and each week.” Hendy shows that since the 1930s, BBC scheduling practices were such that “specialist musics, representing a series of minority tastes, were equated with evening broadcasting, while more familiar and less demanding musics were served before the larger – and therefore more diverse – daytime audiences.”

Evaluation of Genre Knowledge Curation

For 90 years, UK broadcasters have provided reliable, high quality linear streamed music services which are exceptionally easy to use. From an audience perspective, the principle criticism of genre knowledge curation is control of content selection and scheduling by an elite which may be unrepresentative of, or indifferent to, audience demand. The ‘gatekeeper’ concept was imported from social research into media analysis to highlight the necessarily partial representation by media channels of culture, politics or society (Lewin 1941, Breed 1955, Glasgow Media Group 1976). This critique was particularly effective when applied to Public Service media where much of ‘popular’ culture was defined by a small elite (many of the most celebrated BBC radio 1 DJs, including Peel, were educated at elite private schools, see Farsides, A. forthcoming). From an audience perspective we can see that this is essentially a critique of the limited relevance of the content recommendations produced by this form of curation, or what

critics of Peel have called “the amount of gristle in his shows, his soft-headedness in the face of mediocrity” (Stubbs, 2004).

Curation by Formats

The main alternative to genre knowledge as a basis for curation is some calculation of audience demand. For many years broadcasters curated content to meet the demands of an imagined ‘typical’ audience member (Alhkvist, 2001). In this model, the DJs or presenters are not involved in music curation but are ‘emotive’ personality-presenters, more inclined to talk about themselves or other topics which make for companionable listening (Crisell, 1994, Montgomery, 1991). This ‘typical-audience-member’ approach has been criticised for its reliance on unscientific, solipsistic or stereotypical assumptions about audiences (Ang 1991, Mitchell, 2000).

Technological change reduced the barriers to entry created by spectrum scarcity and production costs and the licensing of advertising funded (‘commercial’) radio in the UK 1973 was followed by significant waves of market entry (see Lister, *et al.* 2009).

As deregulation removed ownership restrictions, radio companies sought to limit competition for audiences and advertisers, and achieve efficiencies, by creating networks of stations. Radio networks achieved economies of scale by spreading costs (including curation) across stations in different markets. Thus commercial radio networks developed a centralized system of curation based on audience research methods (Alhkvist and Faulkner, 2001).

Radio advertising sales were based on audience research organisations’ measurements of unduplicated audience members listening to a station in any quarter hour segment. “The logic of commercial radio is against discrete programmes (which stop and therefore cue stopping

listening) and more in favour of ‘flow’” (Deegan, 2011). Radio networks replaced scheduling – of discrete, curated ‘programmes’ or ‘shows’ - with curation of the linear stream by formats based on radio ‘clocks’ – quarter hourly repetitions of content elements (such as news, weather, travel and station identifications). Rather than scheduling a range of content genres throughout the day, networks filled the entire stream with a single form of content (either a musical genre or genre ‘mix’ or various forms of news and talk content). Channel/station managers identified a target audience based on potential advertising revenue and local competition, tried to predict which genre(s) would be most relevant to this audience and adopted or developed a format of music or speech which would deliver this on a consistent basis throughout the linear stream. To communicate these formats, channels developed brand identities which audiences would recognise and recall, when searching for content. In 2005 Graham Bryce, MD of the UK’s Capital Radio Group stations observed that “listeners by and large choose ‘radio stations, not programmes’ (cited in Berry, 2006).

Curation by Playlist

Formats replace the scheduling aspect of genre-knowledge curation and assure audiences of the predictability of the content throughout the linear stream. The weekly playlists of songs replaces the genre-knowledge selection of individual music tracks and thus provides the variety. Playlists still involve selection from musical genres, but guided by audience research and music industry sales lists and ranking systems, rather than the uncertainty, risk (and creativity) of genre knowledge.

Hesbacher et al. (1975) define a radio playlist as “ 25-40 rank-ordered recordings currently presumed to be popular and one to eight ‘pick hits’ chosen from among recent new

releases”. As Taylor (2003) noted of his time at Xfm “playlists became the key programming tool and output was carefully controlled to ensure the brand identity of the product was not undermined... The presenter was given “a scheduled list of the tracks... together with specific instructions concerning the ... duration and basic content of each speech break.” Taylor also describes how Selector, a software system common in the US, has been used in the UK to determine the proximity of tracks “due to their style, pace, instrumentation or vocal timbre” and thus to automate curation. This form of algorithm based music selection prefigured the forms of automated curation and smart aggregation discussed below.

Curation based on enduring formats and changing playlists has proved a more predictable and cost-efficient way of delivering target audience demographics (and therefore advertising revenues) than the uncertainties and risks of ‘genre knowledge’. This competitive advantage (greater revenue potential and lower costs) has enabled the most popular formats to succeed at the expense of those commercial stations and small networks which persisted with ‘genre knowledge’ or adopted less-popular formats (see Lister *et al.* 2009). Globally, some of the most successful formats are - Top 40 or All Hit Radio (CHR), Country, Album Oriented Rock (AOR), Adult Contemporary (AC), and Urban (Alkvhist and Fisher, 2000). Figure 2 compares the BBC genre knowledge approach to the format/playlist approach of the largest UK commercial radio group, Global Radio, in its Capital Radio network.

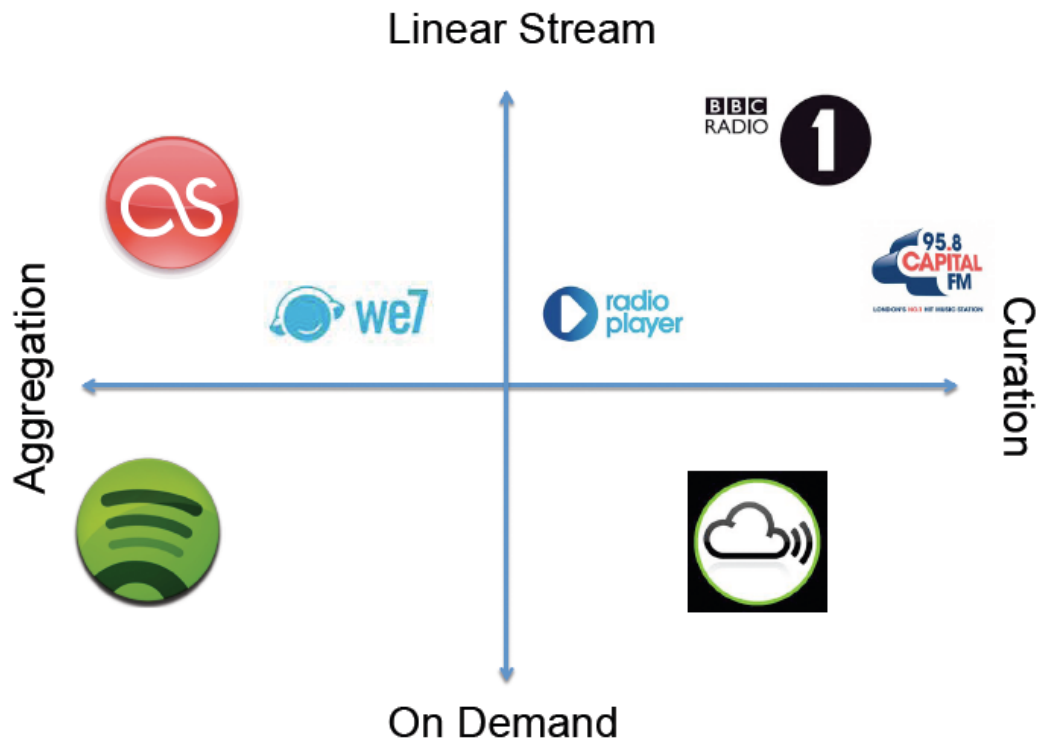


Figure 2: Music and Radio Services Compared

Evaluation of Curation by Format

From an audience perspective, the problem with curation by format is the severe limits to the diversity of the formats and - within formats - of the length of the playlists. Much research suggests market entry and deregulation have produced playlists which are shorter and more similar to other stations (Alkhvist and Fisher 2000). Deegan (2010) has shown that in a given week, Capital played 89 different tracks, compared with BBC Radio 1's 443. "Capital's playlist isn't designed to help discovery of the music long-tail" (Deegan, 2011). In fact, theAs Radio 1 Controller Matthew Bannister, argued in the mid-1990s "A combination of demographics and economics is driving commercial radio towards the middle-aged middle-class. And, in a sweeping generalization, what those middle-aged middle-class listeners want is comfort – music

they already know or that sounds like something they already know . . . [commercial stations] are moving towards the middle ground, playing more established classic hits and taking fewer and fewer risks with new music and artists.” (cited in Garfield, 1998: 92–3)

Aggregation and On-Demand

Digitisation further removes technological barriers to entry to music curation and streaming and, in enabling aggregation, in theory, solves the problems identified with both methods of curation discussed – the scarcity of the schedule or playlist is replaced by the abundance of the catalogue. Crucially, digitisation enables audiences to interact with the stream, and so take control over curation- each audience member can select and schedule his/her own music stream ‘on-demand’. Elite curation and commercial curation of standardised formats with limited playlists for mass audiences are replaced by ‘mass, customisation’ of individual playlists using huge aggregations of diverse content (see Pine, 1993). Spotify, for example, is a UK-based music service offering streaming of around 15 million tracks, on-demand (either free with advertising or for a subscription) from a range of major and independent record labels. Music can be searched and browsed by title, artist, album, record label, genre or playlist. Figure 2 shows the relationship between Spotify and BBC and commercial radio.

Evaluation of Aggregation and On-Demand

One of the key advantages of Spotify - for users and the music companies – is its ease of use. Music companies have negotiated copyright agreements with Spotify because they hope audiences will find Spotify easier to use than illegal sites (Greely, 2011). But for the audience, sheer aggregation of content can create the ‘paradox of choice’ (Schwarz, 2005). By removing

curation from the process, the listener has no guide to which parts of the extensive ‘long tail’ are worth ‘customizing’. Most aggregators try to help users customise playlists by providing “smart aggregation” systems which replicate some of the processes of curation (Celma, 2010). Music recommendation engines are designed to anticipate a user’s musical desires by correlating expressed user preferences with ‘inherent’ qualities of the music or sound file (content-based approaches), aggregating user ratings (collaborative filtering), or a combination of these methods. Many recommendation systems are based on collaborative filtering – the system identifies similar users based on data collected from their previous consumption/listening choices, and then recommends content popular with these users to new, similar users - Amazon is one such system (Celma, 2010).

Aggregation and Linear Streaming

Content aggregation strategies depend on the willingness of the content owners – the music companies – to allow their content to be aggregated. The music companies clearly hope that people will choose services like Spotify – which do provide a (very modest) return, rather than using pirated digital music sharing services (Greely, 2011).

But the music companies face a dilemma because, from a user experience perspective, the differences between ‘on-demand streaming’ and ‘download’ are slight. For practical purposes the definition of ‘radio’ in an online context centres on the degree of interactivity, the degree to which the service “enables the user to influence the playlist” (IPO, 2007). US copyright bodies treat linear broadcast and internet music streams as equivalent subject to the same copyright rules (see *Arista vs Launch Media* 2009). In the UK, the copyright bodies drew a distinction between internet music streams and broadcast streams, based on the degree of interactivity (IPO, 2007).

So streamed radio broadcasters pay the same low copyright fees for real-time internet 'simulcasts' of their live broadcast output, because these are treated as non-interactive. Copyright charges for internet-only radio stations - like last.fm and We-7 (and including some Radioplayer stations like totallyradio.com) - are a third more expensive and are most expensive for on-demand services like Spotify. The BBC was the only UK broadcaster with an agreement to make music programmes available on-demand, until Mixcloud made its own agreement with the copyright body PRS.

Last fm

Last.fm (UK) has aggregated more than 12 million songs, but ended its on-demand service in 2010 (Last.fm, 2010). The service does not allow streaming of individual songs 'on-demand' but although the stream is linear, the scope for audiences to indicate their demands is clearly greater than in broadcast radio. Content is selected and scheduled not by 'curation' but by what Foremski (2011) and others have called 'smart aggregation' (see Figure 2.). Last.fm's 'smart aggregation' is based on a collaborative filtering, recommendation system - the "Audioscrobbler"- which collects data about listening habits on a computer, ipod or other media players. Listeners can also influence ('customise') the stream ('tag radio') manually using folksonomies, tagging, "love" and "ban" buttons. These two smart aggregation systems enable Last.fm to generate a stream of music which is tagged as similar to the user's profile or preferences. Users can skip recommended tracks which are not relevant but cannot pause the stream. Martin Stiskel, one of the co-founders of Last.fm argued that the linear streaming and smart aggregation aspects of the service gave it an advantage over on-demand services like Spotify; "Last.fm always had an emphasis on making you discover new music. On demand is not about discovery" (cited in Moscote Friere 2008). In

making this argument, Stiskel is drawing attention to the ‘paradox of choice’ problem of on-demand aggregation, and arguing that users prefer smart aggregation.

We-7

Steve Purdham, CEO of We7, another UK based music service, has pointed to empirical evidence from the development of this music service which supports Stiskel’s view. We7 attempted a number of service models including free and subscription on-demand music services before, largely because of the copyright fees for on-demand music, it began to operate as an internet radio station in January 2010 (Youngs 2010). When he discovered that more than 55% of tracks on the site were being accessed through the radio feature rather than on-demand, Purdham concluded; “I thought the ultimate music service was one where you get to choose... Actually, users are saying, ‘I can’t be bothered, just entertain me’.” (Andrews, 2010)

Evaluation of Linear Streamed Aggregation

Services based on linear streaming and aggregation attempt to solve the ‘paradox of choice’ by using ‘smart aggregation’ systems to replicate the processes of curation. However there are a number of problems associated with music recommendation systems (see Celma, 2010) which have led some commentators to conclude that curation processes can outperform automated processes in recommending relevant content to audiences (Foremski, 2010).

Mixcloud: On Demand User Curated Content

Further barriers to entry to curation and distribution of music shows were removed with the arrival of production tools like Audacity, ProTools, Adobe Audition, and CoolEdit which enabled

recording and internet distribution of music shows via peer-to-peer networks or linear streaming (Priestman, 2002). The user curated content which has emerged is described by Mixcloud's founder, Nikhil Shah; "Lots of DJs host their own shows on file-sharing services – currently they put their shows on zshare and send out a link – on e mail or on twitter – to that individually hosted show" (Shah, 2010). These 'user curators' work in a similar way, and constitute a similar population to the group of genre knowledge DJs, discussed above, recruited by BBC Radio 1 in the mid-1990s. Gavin Handley, presenter, NTS Radion, says "most music comes to me through long term relationships with producers and labels", Julien, a DJ for Laid Back Radio adds "a lot of our music comes from trusted contacts on Facebook and twitter, and emails from labels we like" (cited in Shah, 2011).

These user curators also apply the 'typical audience member' approach, described above, learning about audience demand through DJ-ing in clubs. "As for ideas, you just have to know your audience and think a lot. And play a bit too, lots of ideas come from playing!" DJ, RarFM, (cited in Shah, 2011)

From an audience perspective, user curation may be more responsive to individual demand because unlike radio stations, user curators do not have oligopolistic control over the production and distribution of music shows -if their recommendations are not relevant, the audience can choose other providers. However, many of these services are not easy for audiences to access. The technical difficulty of finding such online services limits the degree to which this form of curation provides a solution either to problems of elite or format curation in traditional radio or the 'paradox of choice' created by on-demand services. Furthermore, as these platforms enable music listening and even downloading without payment of music copyright, they operate illegally, without the permission of copyright owners.

Aggregation

Mixcloud is a platform which tries to solve the problems identified with existing music services by enabling on-demand access to user curated music, without the ease of use and copyright problems which were associated with this content. Founder Nikhil Shah identified the problem as follows: “On demand content and independent radio content DJ mixes are very distributed across the internet”. Mixcloud uses smart aggregation and ease of on-demand access to try “to build the definitive platform to promote that content to a big audience. We want to replace the individually hosted show with a page on Mixcloud... like YouTube for audio content” (Shah and Perez 2009). Mixcloud enables greater ease of use of this form of content by attaching metadata to the user curated playlists/mixtapes to improve the listener’s ability to search, navigate and inter-relate them.

A crucial part of Mixcloud’s strategy is its agreement with the copyright owners to allow on-demand listening, but not downloading, of tracks, on the basis that it provides a legal alternative to piracy. Rather than DJs sharing their playlists on sites which allow the music content to be illegally downloaded, Mixcloud offers a platform, like Spotify, where audiences can access this music but can’t illegally download/own it. “Not offering downloads has been a challenge for us in terms of persuading the content creators ((i.e. DJs)) to use a platform like ours. What we have to get around for listeners is the idea that they can’t own the file but the experience of listening and streaming on Mixcloud is superior. So it’s very similar to the Spotify model. Spotify’s competitor is illegal downloading and they are trying to cannibalise illegal downloading by offering a streaming-only and superior alternative.” (Shah 2010)

Mixcloud has also negotiated agreements with other content producers, to increase the aggregation of content on the website, and the platform's content now comes from an increasing variety of curators, across a range of genres, in addition to music DJs. Independent podcasters, (e.g. 'Answer Me This' (comedy); 'Hospitality' (music)) speech radio production companies producing syndicated radio shows. (e.g. 'Somethin' Else'; 'The Radio Department'; 'Wise Buddah') radio stations (student, community, hospital, and internet radio stations) and other content creating organisations (such as *The Guardian* newspaper and the Royal Society for the Arts).

Radioplayer: On-Demand Aggregated Curated Linear Stream

This chapter has identified the limited diversity of content curated in linear broadcast streams as a key problem with broadcast radio. A second problem, in the digital context, is ease of use. Whilst many broadcasters have been 'simulcasting' their broadcast streams online for years (see Priestman, 2002) switching between these streams is much more difficult than on a traditional radio receiver and so broadcast radio has been harder to use than other music services on digital platforms. A number of companies have launched 'third party' applications designed to improve the ability find and switch between stations, TuneIn being one of the oldest and most widespread (Dredge, 2012).

Radioplayer is a partnership between the BBC, the UK's main commercial networks (Global Radio, GMG Radio and Absolute) and the industry body the Radio Centre. Radioplayer attempts to solve the diversity and usability problems of broadcast radio on digital platforms. The platform enables traditional radio stations to compete with other music services, and also third party aggregators like Tun3r and Tune-in, by being the definitive aggregator for UK radio. It

address the useability problem by integrating the Radioplayer platform with the digital products of UK radio stations.

By developing an open application interface and a simple ‘DIY’ tool-kit for stations to create their own bespoke player, Radioplayer aims to make it easy for smaller radio stations to develop an online presence. When the platform was launched in Spring 2011 it announced its intention to aggregate the 400 Ofcom-licensed, linear curated UK radio stations on the platform within a year, to create ‘UK Radio in one place’. The BBC’s Tim Davie argued “Successful aggregation of content can only happen when a platform is truly open like Radioplayer is and it has all of the major content partners on board – which this does.” (Barnett, 2011). Currently Radioplayer aggregates streams from 300-stations. By enabling smaller local or community stations to go online and by making online-only stations accessible to a wider audience via a single platform, Radioplayer has increased the diversity of linear curated radio available to audiences.

Copyright conditions limit the amount of on-demand music content traditional broadcasters can offer through Radioplayer - except from the BBC, which has an individual license agreement. But listeners can customise their own stream by combining the broadcast stream with on-demand speech-podcasts by their favourite presenters.

Like other aggregators aware of ‘paradox of choice’ problems, Radioplayer uses smart aggregation techniques. The online Radioplayer is also a downloadable ‘app’ designed to make it easier to find and listen to UK linear streamed curated radio online using a single, standard, pop-up player. The app enables users to find online radio streams using features (such as ‘presets’) similar to those on a traditional radio receiver. The app installs this ‘radio’ on the user’s computer, puts an icon in their ‘Start’ menu (and at the top of Google’s ‘Chrome’ browser) and

launches the Radioplayer with one click, opening at the 'last station listened to'. Listeners can personalise the player, saving their favourite stations using the presets function. But Radioplayer also aggregates metadata from the stations, to enable audiences to search for curated radio streams by brand/station, genre/format, presenter; artists-regularly-played, location, presenter or topic. The player then produces a ranked list of stations which fit the search criteria, and helps listeners find curated radio which is relevant. "If you like Rihanna and One- Direction it will help you find Capital Radio" (Deegan, 2011). There is some evidence this strategy is bringing audiences to streamed radio online – the latest figures, from August 2011, showed Radioplayer attracted around 6.7 million unique users a month (Hill, 2012).

Figure 2. illustrates the different approaches of Radioplayer and Mixcloud to online radio. Mixcloud provides on-demand access to user curated, 'long tail', niche content; Radioplayer enables access to linear streams of professionally curated mass media content.

Social Media Curation and Aggregation

The creation of social media sites, and in particular Facebook, removed many of the final 'barriers to entry' to the curation and distribution of content (Rosenbaum, 2011). While the web enabled sophisticated users, like the Mixcloud DJs, who learned HTML and devoted considerable time to the task, to distribute content, it was Facebook (and its predecessors), which enabled 'anyone' to become a content curator. Users could select content (images, videos, articles, audio, podcasts) by pressing the "Like" button add context by adding a line in a drop down comment box, and publish to their Facebook page.

As well as enabling social curation, social media create 'network effects' as users share content with friends who may share the same content with other friends. This has reduced the

power of 'elite' genre and format curators of the broadcast era – and significantly increased the power of 'users' - to influence popular culture. As Gehl (2011) noted “web 2.0 sites such as Facebook, MySpace, Twitter... have enabled... constant production of content by...users... (who) now have unprecedented power over popular trends on the Web”. The classic case of this power is the 'viral distribution' of the Susan Boyle video (see Joshua and Jenkins, 2011). Viral marketing has been the subject of huge interest (see for example Shuen, 2008) as brands see the potential for social media to drive online audience metrics (visits, return visits, time on site, sales conversions etc.) and provide market research data.

On-demand music services have clearly recognised the potential for social curation to help solve the 'paradox of choice' – likes or comments by friends may offer an even more reliable guide to music recommendation than a genre expert or format DJ. Spotify's early social networking tools included the ability for users to share playlists (hugely longer than anything a radio station could have) with friends who had Spotify accounts.

As we have seen, Mixcloud is built on a process of curation which is more social (because 'user generated') than many other platforms. Communities of expert DJs interact with audiences to find new music content, contextual information and presentation ideas. Mixcloud is thus building on existing 'network effects' rather than seeking to create them through viral marketing. As Shah says “our users were our marketing arm, we didn't have to pay for traffic”. However, as business funded by advertising (and to a much lesser extent e-commerce) the company has developed a marketing team which interacts with users on via e mail as well as on social media platforms to promote the content and the platform. The team have developed their own practical experience about how to optimise social media to bring traffic to the platform. “Be funny, be humourous and ask questions because people will respond. We have a team which is looking for

positive actions (great things people should be sharing) but also things which shouldn't be on the platform – like single tracks and spammy behaviour . They can take certain actions, like deleting posts, but we always explain why we've taken an action, so people don't disengage with the service” (Shah, 2011).

“Facebook is the most important, and then Twitter. You can talk to people you wouldn't normally – engage with big DJs, the biggest content brands in the world via Twitter. But ultimately you have to talk – to cement that relationship. Twitter was amazing at the launch stage – when we ((Mixcloud)) were in private BETA – people sharing their content and links even though the system was in BETA.” (Shah, 2010).

Many of Radioplayer's partner stations have fan pages and group pages on Facebook and some of their presenters have large numbers of followers on Twitter. The role of the presenter as an entertainer (rather than music curator) in the speech elements of radio content is well suited to social media interaction, as Tony Moorey, Absolute Radio Content Director makes clear “There have always been some people who have wanted to interact with a radio station. It started with letters and postcards, then phone, then texts and e-mails etc - Terry Wogan was the biggest and most successful broadcaster in the UK by reading out letters and cards” (Moorey, 2011).

However there is clearly a potential conflict between social media curation and the genre knowledge or format curation represented on Radioplayer. As Matt Deegan (2011) of Radioplayer explains, the link between the linear stream, audience measurement and curation by format and playlist is still paramount: “Commercial radio is about listener hours, not audience reach. It does best out of its P1s - 10% of its audience account for 50% of listener hours”. Encouraging participation and social curation could lose these key listeners or reduce their listening hours “there's a danger that radio could be infected by Twitter, that participation could

ruin your station. There is a tendency to keep the live stream and social media separate – so presenters on Radioplayer stations can get audiences to chat on Facebook messenger” (see Arbitron, 2000)

The ability for social curation - ‘tags’ and ‘likes’ - to generate ‘network’ effects for linear streamed radio is limited compared to on-demand. “Radio stations are live. How do you jump back to that point ((in the stream)) or just upload that segment of the output?” (Deegan, 2011)

Aggregated, Linear Streamed Social Curation

In 2011 Facebook announced ‘deeper integration’ enabling users to access music services including Spotify, within Facebook (Constine 2011). As Facebook’s design strategist Eric Fisher (2011) explains, this is based on a strategy of ‘social design’ which tries to improve recommendations to users by enabling “frictionless” sharing or social curation. Facebook’s Open Graph Protocol means music services can include Open Graph tags (title, type, image, url, and the Like button) on their sites effectively turning them into Facebook pages. When a user clicks a Like button on the website, this appears in the "Likes and Interests" section of the user's profile. This effectively automates social curation - everything the user listens to on Spotify is automatically shared to friends who have also authorised the app. This ‘builds-in’ network effects, moving social curation in the direction of aggregation, aggregating media and social media use and sending it to users’ Facebook sites in a linear stream. Thus, Spotify’s deep integration with Facebook turns user listening habits into a socially curated virtual radio station. Figure 3. shows how Spotify’s Facebook application favours streaming and automated curation rather than social curation.

There is evidence that the integration created network effects which did increase Spotify's user's significantly (Constine, 2011). But there is also evidence that, in automating the process of social curation, frictionless sharing has reduced the relevance of the recommendations significantly. Many users have echoed Loukides (2011) comment "It is meaningful if I tell you that I really like the avant-garde music by Olivier Messiaen. It's also meaningful to confess that I sometimes relax by listening to Pink Floyd. But if this kind of communication is replaced by a constant pipeline of what's queued up in Spotify, it all becomes meaningless... There's something about the friction, the need to work, the one-on-one contact, that makes the sharing real."

From an audience point of view, frictionless sharing does improve the 'ease of use' of social curation, but it does so by removing the actual processes of selection and contextualisation which we have described as fundamental to the value of curation. In so doing, users like Loukides (2011) have found that the value of the recommendations has reduced considerably.

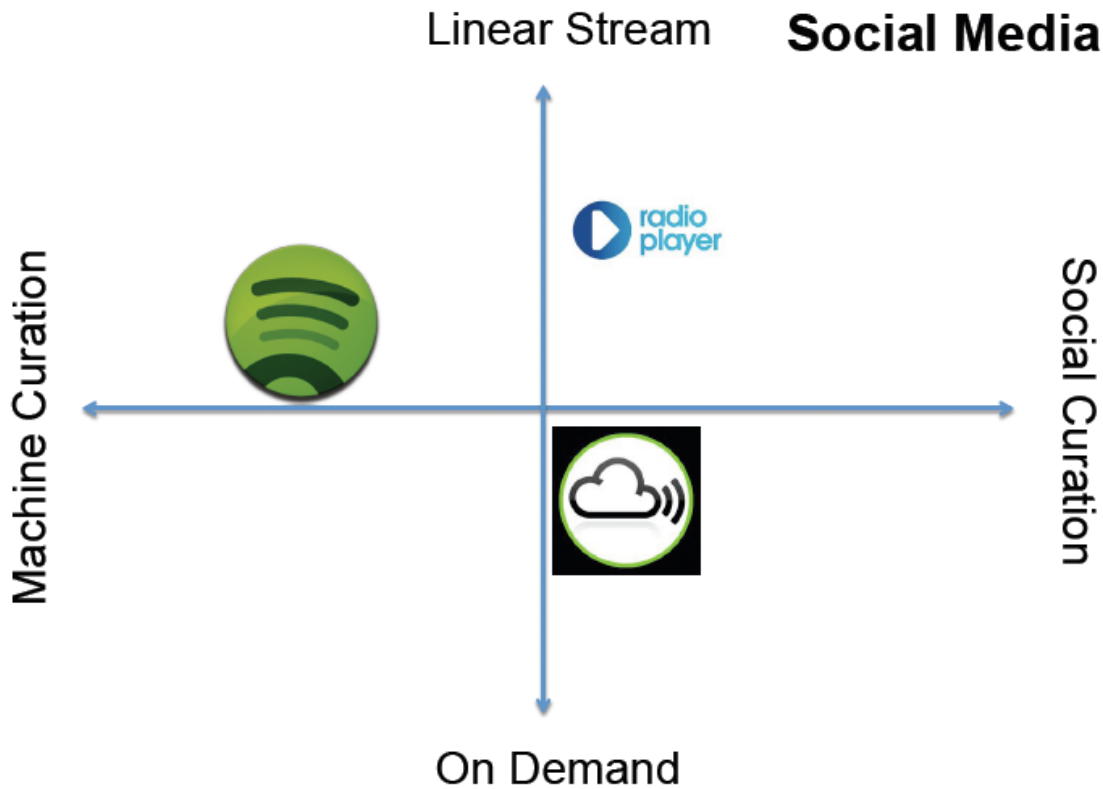


Figure 3. Social Media Strategies Compared

Radioplayer’s initial strategy aimed to use the app to make linear radio easier to use online by embedding it within Facebook. A key problem identified with social media use by most of its radio station partners was that the stations had FB pages which cost money to maintain, but which didn’t enable users to listen to the station (Hill, 2012). The Facebook app combines: the metadata collected from radio stations, and additional information from Media UK, with Facebook’s social graph to create a personalised radio app enabling users to search for and listen to UK Radio stations within Facebook, to recommend/share their favourite stations and programmes with their friends via your wall and to see what their friends are listening to.

This approach to Facebook integration demonstrates first, the potential for social media to build brands. It is estimated that 80% of Radioplayer users access the player via the station

website, rather than the website (Hill, 2011). This reflects the strategy of building usage by making online listening more easy to use -with Radioplayer as a 'plain vanilla' brand providing services. In developing the Facebook app, the aim is partly to build the Radioplayer brand. In its current state of development, Radioplayer's partner stations/brands are embedding the player on their corporate Facebook pages. Listeners who want to play the station within Facebook authorise the Radioplayer App for their Facebook pages and are then made aware of their friends' use of the app to listen to other stations.

As Matt Deegan (2011) explains, in developing the App he was "faced with a question about how much to push sharing or virality. Wall posts are quite intrusive - not so much in terms of privacy, more in terms of the user's Facebook experience". Figure 3 represents this as a choice between social and 'machine' curation. "Radioplayer started with a Spotify-esque experience – publishing each track change to to your wall/sharing as an opt-out rather than opt-in. It was a bit 'spammy' to give it a kick start" (Deegan, 2011)

Radioplayer's initial experience demonstrates the problems with using 'machine' curation, particularly for linear streamed radio. The App was pushed to the closest network (around 200) of Radioplayer enthusiasts and their followers. But after two days, Facebook informed Radioplayer that their systems had identified undesirable patterns of usage and so, briefly, the system shut down the automated message posting (Deegan, 2011) The reasons for this brief imprisonment in 'Facebook gaol' were revealed in the user analytics (Hill 2012). The data suggested users were not 'opting out' of frictionless sharing and so every track they listened to was published to their friends'. When these friends identified these automated posts as largely irrelevant recommendation information they clicked "hide" to stop receiving these posts. Facebook's 'quality control' algorithms identified this as unwanted pattern of usage, largely

because - without a history of use of the App - the sudden surge in posts was identified as unusual. The relatively high percentage of people choosing to hide the posts caused FB to classify a large percentage of them as spam. Unfortunately for Radioplayer, at that time Facebook was taking 48 hours to provide its partners' analytic data, so this pattern of use wasn't apparent until they were informed that frictionless sharing had already been shut down.

Once Radioplayer had received these data they were in a position to evaluate the app. "The system was creating 'boilerplate' messages and posting them to people's walls - clearly this was a dumb listening experience. So virality alone is not a success" (Deegan, 2011). In fact, the decision to hide these posts suggests that the app may not actually have achieved significant network effects (in terms of new users and increased listening) even if frictionless sharing had not been suspended.

The second generation of the Radioplayer app was developed to try to encourage greater social curation and less machine curation. The aim was still to achieve 'viral' promotion of the stations but more through positive comments about the listening experience than by machine curation and frictionless sharing. The App is also useful for brand awareness and recall "it's more about reminding people to listen to Radioplayer or individual stations. So it works well for smaller or digital only stations. You may know and like lots of digital stations but you may not remember them all. (Deagan, 2011).

Mixcloud has had close links with Facebook since it launched its Facebook sign-up app in 2011. Now of 85% Mixcloud users are connected via Facebook and 85% of new users sign up via Facebook. As a founder partner in Facebook's deep integration, Mixcloud's Facebook app also publishes all a user's actions automatically to their friend's pages. However, Mixcloud's experience suggests that frictionless sharing, machine curation, is more relevant to long-form, on-

demand content and to content which already involves a degree of social curation. When a user starts to listen to a podcast, the app generates one automated post, even though the podcast may contain 20 or more tracks. Rather than receiving 20 individual automated posts, their friends will receive one post showing that they are listening to the podcast. The system also deletes a post after a few seconds if the user quickly switches to another podcast.

As a service which was already largely based in Facebook, Mixcloud did not achieve a significant growth in new users following the introduction of the app (Shah, 2012). However, the network effects generated by curation have been significant. Mixcloud has found users curate content in three main ways. Two are social, manual, curation – either from an external site or by copying and paste a link into Facebook. The other is the machine curated post. Although they have had little negative reaction to machine curation, it is clear that the greater network effects are produced by manual social curation. Each machine curated post, on average, produces 0.8 clicks back to the Mixcloud site. Each manual post produces, on average, 6.1 clicks back – and this is higher if the post includes a comment (Shah, 2012).

Because most content is on-demand there is no currently no potential conflict between social media interaction and the content playlist, as there is in live, streamed radio. On Mixcloud the two are always separate. For Mixcloud the question currently is whether the platform should inform the creator about social media conversations about their content, so that they can participate too. This might become more significant as Mixcloud has noticed a trend to live streaming – where presenter/DJs stream their playlists live as they mix them. At present, however the niche audience status means that increased social participation in this form of live stream is unlikely to have the impact it would on mass audience broadcast radio.

Conclusions

This chapter has proposed a new analytical framework to compare digital music services and traditional radio services and evaluate their performance from an audience perspective. The framework has enabled a systematic comparison of the strengths and weaknesses of the main music and radio services in the UK, as barriers to entry have been removed over time. This analysis has made it possible to situate the social media strategies of radio broadcasters and a music service like Spotify within an overall understanding of how social media, and Facebook in particular, may or may not build on the strengths of these services. The chapter has suggested that the ‘machine curation’ of Facebook’s frictionless sharing may enable better recommendations for long-form, on-demand content, but may undermine social curation processes if applied to streamed content.

Green and Jenkins (2011) have argued that the “virus” metaphor routinely applied to social media suggests that “network effects” are more ‘automatic’ than is the case. And this may produce strategies which do not adequately reflect the role of audiences as gatekeepers, deciding which content will be distributed. It is possible that Facebook’s approach to ‘frictionless sharing’ was influenced by the ‘viral’ analysis of social media and thus that this approach led integration partners, like Spotify and Radioplayer to adopt social media policies which, initially at least, caused adverse audience reaction by creating a stream of irrelevant content recommendations. Both companies learned quickly that this ‘machine curation’ had less value to users than social curation.

On the other hand, the smaller scale, on-demand nature of Mixcloud, and its pre-existing base in Facebook meant that frictionless sharing was perceived as relevant. However Mixcloud’s

analysis of the network effects generated by Facebook usage demonstrated that social curation outperformed machine curation by a factor of more than six to one.

As Green and Jenkins observe: “Choosing to spread media involves a series of socially embedded decisions; that the content is worth watching... that the content might interest specific people we know; that the best way to spread that content is through a specific channel of communication; and often that the content should be circulated with a particular message attached” (Green and Jenkins, 2011 p113-114)

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