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THE EVOLUTION OF INTERNET RADIO BROADCASTING

Davian Vlad
Assistant Professor, PhD, University of Craiova

Abstract

The journalistic paradigm has experienced profound transformations over the last thirty years as the Internet became more and more accessible to an increasingly larger part of the world population. Traditional media was forced to comply with the changes induced by the digital revolution which led to the establishment of a social environment with ever-changing rules, practices, and attitudes. Radio stations across the world were therefore forced to adapt to the new media landscape by adjusting their editorial and technical strategies. All of them now broadcast their programmes online, some of them online-only and not just on their websites, but on different other platforms as well. The boom of Internet radios occurred in the mid-1990s and that was the dawn of an age that provided a wide range of opportunities for the traditional stations which profited from the availability of the new means of reaching different target groups. The Internet might have been considered at first an enemy to the traditional media, but it ended up being an extraordinarily effective platform that shaped the media world of today.

Keywords: *Internet, radio, multimedia, streaming, technology*

The emergence of the World Wide Web caused a dramatic change of paradigm which eventually led to the creation of a new media landscape in which almost everyone could find a way of disseminating news and opinions. For the traditional press it was a turning point and the institutionalised media had to make some structural strategic changes in order to keep up with the New Media. Thus the Internet has proven to be a provider of new means of transmitting media content and not only a parallel informational highway, but a reliable platform that can be used in order to reach new target groups by the press institutions. That was also the case for the traditional radio which found a new way of transmitting content to groups of people that had developed new habits of listening. Moreover, the possibility of spreading content in other ways (written news, photographs, videos etc.) expanded the area of action for the radio stations and provided the essential tools to reach new target groups formed of people, especially young ones, who usually had never listened to the traditional radio programmes before.

Therefore radio has become a multimedia/hypermedia player which revived not only the dominance of sound of yore, but also the classical radio genres such as features or documentaries. A suggestive example in this regard was offered by a 2013 study on Australian radio documentaries and the audience they attracted, including podcast and social media listeners who would recommend and share radio stories. A positive trend for radio producers which should however be closely observed in order to detect any future changes in listening behaviors, as Mia Lindgren (University of Tasmania) and Siobhan McHugh (University of Wollongong) stated in the cited study: "While this steadily growing interest in the radio documentary form is a positive development for the industry, there are questions about the long-term impact on radio broadcasters, especially if young listeners are not forming habits of listening to the radio. The implications of the renaissance in long-form radio exemplified by TAL (This American Life) and Radiolab, and the globalised context in which it occurs, are still in play both internationally and in Australia."⁴

⁴ Mia Lindgren, Siobhan McHugh, *Not Dead Yet: Emerging Trends in Radio Documentary Forms in Australia and the US*, p.109, <https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=&httpsredir=1&article=2104&context=lhapapers&unstamped=1>, accessed May 9, 2023



Photo: <https://www.thisamericanlife.org/>

The first attempts to move radio transmissions on the Internet were recorded in the early 1990s, and Carl Malamud was the one to create the first Internet radio back in 1993. The station was launched in order to capitalise on the expanding popularity of online technologies and was a projection of the future development of the digital media world. Carl's radio channel, which used the Mbone ("multicast backbone") technology, was called "Internet Talk Radio" and featured interviews with people from fields like technology and science rather than top 40 hits and other music productions.⁵

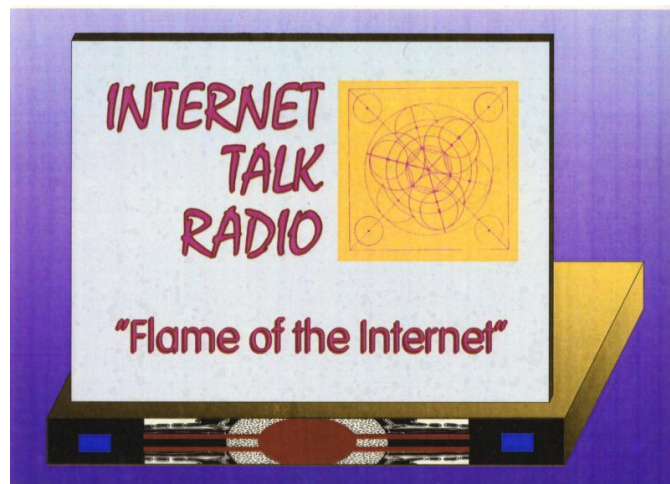


Photo: <https://archive.org/details/RTFM-D-19930301-itr/mode/2up>

As Andrew J. Bottomley emphasises, Malamud was a trailblazer who sensed the huge potential of the web: "Internet radio was actually only one amongst a series of initiatives Malamud engaged in under the Internet Multicasting Service name, all of them seeking to demonstrate new uses for computers and the internet. While the organization started with radio and typically referred to itself as 'a non-profit radio station in cyberspace', on occasion Malamud defined the IMS more broadly as 'an organization that is providing large-scale dissemination of data onto the Internet'."⁶ So Carl Malamud was well aware of the imminent change of media paradigm and foresaw the huge potential of the Internet as a universal data vehicle that would eventually make different types of media to converge: "We call this radio, but it is a different kind of radio."⁷

After Malamud, other broadcasters started experimenting with the possibilities of Internet radio transmission. The first online concert was webcast in 1993 by Severe Tire Damage, but the first significant musical event to ever be aired online was a Rolling Stones performance the following year. And Mick Jagger himself extended a "special welcome" to everyone watching online the 1994 concert just before the gig began.⁸

⁵ <https://radiofidelity.com/history-of-internet-radio/>, accessed May 10, 2023

⁶ Andrew J. Bottomley, *Internet Radio: A History of a Medium in Transition*, ProQuest LLC, 2016, p.110

⁷ Carl Malamud, *Lifting Every Voice*, St. Petersburg Times, 7 March 1993, apud Andrew J. Bottomley, *Internet Radio: A History of a Medium in Transition*, ProQuest LLC, 2016, p.114

⁸ <https://radiofidelity.com/history-of-internet-radio/>, accessed May 11, 2023



Photo: <https://www.youtube.com/watch?v=Sbs-xyQaDY0>

The first radio station with traditional origins to start streaming Internet radio was WXYC from North Carolina. The WXYC team began testing in 1994 broadcasts and bandwidth possibilities using an FM radio station connected to a digital system. Atlanta station WREK also started streaming in 1994, utilizing a tailored software solution. And it didn't take long until leading tech firms began to contribute to the development of Internet radio. Thus, free programmes from Microsoft and Nullsoft let people listen to Internet material on their computers. The first radio network to exclusively broadcast on the Internet was established in 1995 when an intrepid person named Scott Bourne launched the website NetRadio.com. Additionally, it was the first network to have a formal Internet streaming service license from the American Society of Composers, Authors and Publishers (ASCAP). NetRadio.com paved the way for a great number of Internet broadcasting superstars well-known even today and made Bourne a trailblazer of his own in radio business.⁹ From then on the radio stations on the Internet would spread swiftly all over the world. For instance, in 1996 Virgin Radio in London began streaming live online the entirety of their shows, and in the same year, when www.bbc.co.uk became the home of the online activities for the British public service, BBC Radio 1 started live streaming on the Internet. From that moment on all the traditional radio stations in the world gradually began to broadcast online, and BBC revealed in December 2022, through the voice of the Director-General Tim Davie, the intention to shut down its traditional radio and TV broadcasts and to become over the next decade an online-only service.¹⁰

The radio industry started experimenting with streaming through HTTP protocols in the early 2000s, which made it simpler to distribute digital content to large audiences. There was an ongoing process of learning how to use bandwidth more sparingly in order to improve the effectiveness of Internet radio.¹¹ The streaming functionality on radio stations' websites gained more and better multimedia capacity in 2012 "when web developers began to put technology like the HTML5 markup language into wide use (an opensource web standard that makes it exceptionally easy to embed audio players within webpages)".¹²

While compared to the traditional terrestrial broadcast, the advantages of streaming radio over the Internet consist of the various means of delivering information in a simple manner. Internet radio laid the foundations for a new style of broadcasting at the same time as DAB radio broadcasting arose as a creative and lucrative substitute for FM and AM frequencies. Compared to other streaming options available on the market, Internet broadcasting offers a great variety and selection. Nowadays, there are thousands and thousands of stations available and the regional restrictions of yesteryear are long gone. You can listen to radio stations on the other side of the world and still get incredible sound quality. Furthermore, the radio stations can broadcast more than just audio online due to the versatility of the World Wide Web. Everything from photographs to animations and films can be shared, a convergent media approach that can only assure added value from both editorial and economic points of view.¹³

However, consumers are less likely to see visual advertisements through Internet radio while on the go, and this context favours the audio transmission. Moreover, the traditional social virtues of radio are to be transported

⁹ <https://radiofidelity.com/history-of-internet-radio/>, accessed May 11, 2023

¹⁰ <https://www.theguardian.com/media/2022/dec/07/bbc-will-go-online-only-by-2030s-says-director-general>, accessed May 11, 2023

¹¹ <https://medium.com/@radiofidelity/going-with-the-flow-the-rise-of-internet-radio-streaming-931242c606dd>, accessed May 12, 2023

¹² Andrew J. Bottomley, *Internet Radio: A History of a Medium in Transition*, ProQuest LLC, 2016, p.62

¹³ <https://medium.com/@radiofidelity/going-with-the-flow-the-rise-of-internet-radio-streaming-931242c606dd>, accessed May 14, 2023

into the online space in a mutual advantageous connection, as Andrew J. Bottomley stresses: "Radio has a special capacity for facilitating community and human connectedness and for bringing the listener a sense of community participation. This sociability transcends a particular technology or platform. It is also a model for the principal components of the internet and digital culture: radio's convergence with the internet has significantly transformed radio, but radio has also impacted the internet, especially through the form of participatory social media."¹⁴ Many Internet radio stations automatically and randomly play music and there are no interventions from a certain host. Such stations are not in fact radios at all, as some analysts, like Chris Priestman, consider, because "intentionality is a defining characteristic of radio, and this host-less computer-generated music stream is labelled non-radio because it is seen as lacking human intention".¹⁵ Although agreeing that intentionality is an essential component of radio's philosophy, Andrew J. Bottomley contradicts Priestman as the professor from The State University of New York College at Oneonta doesn't believe "there always needs to be a human voice present for radio to possess intentionality or sociability".¹⁶

Technically speaking, unlike traditional or terrestrial radio stations, Internet stations are immune to those environmental factors and sources of interference that can distort the listening experience. Going through a tunnel does not automatically mean losing the Internet radio connection. However, listeners should ensure that they always have access to a reliable Internet connection. Internet radio relies on data bandwidth, so this kind of reception implies certain costs. If you are connected to your home Wi-Fi, there will be no extra charge involved. Yet, if you want to listen to the Internet radio while moving, you definitely need mobile data. This means Internet broadcasting can be more expensive for consumers than AM/FM and DAB (Digital Audio Broadcasting), a sole but significant drawback of this new platform for radio broadcast reception.¹⁷

Internet radio represents the streaming of radio programmes over the World Wide Web (WWW). Listeners use radio websites, applications (apps) on smartphones, certain services on computer, or specially designed Internet radio players to receive online radio stations. Listening to radio on the Internet is usually very similar to listening to an FM station. The content cannot be rewound or paused (like on an on-demand file serving such as podcast), but you get the crystal-clear audio quality you would expect from digital audio. In addition to the excellent sound quality, broadcasting over the Internet also has the advantage of an overwhelming range of choices. There are countless stations, each playing different music and programming different genres and types of content. Unlike the traditional radio, which requires the listener to be within a certain distance from the station, Internet radio has no geographical restrictions on access. You are able to listen to programmes from all over the world, no matter where you are at a certain moment. Internet radio streaming also works a little differently than the FM/AM broadcasts in terms of monetisation and advertising. Traditional radio is an audio-only medium. But Internet radio can deliver written and video content through apps and websites. This means that there are many more ways in which the stations can get profits through the Internet radio streaming. In addition to the traditional radio stations' audio-only commercials and sponsorships, Internet radios can also generate significant revenue through pop-up ads, graphic ads and banners.¹⁸

REFERENCES

- Bottomley, Andrew J., *Internet Radio: A History of a Medium in Transition*, ProQuest LLC, 2016
 Bottomley, Andrew J., *Sound Streams: A Cultural History of Radio-Internet Convergence*, University of Michigan Press, 2020
 Hartley, John, *Digital Futures for Cultural and Media Studies*, Wiley-Blackwell, 2012
 McCauley, Michael, *NPR: The Trials and Triumphs of National Public Radio*, Columbia University, 2012
 Priestman, Chris, *Web Radio: Radio Production for Internet Streaming*, Focal, 2002
www.archive.org
www.bbc.co.uk
www.intellectbooks.com
www.medium.com

¹⁴ Andrew J. Bottomley, *Sound Streams: A Cultural History of Radio-Internet Convergence*, University of Michigan Press, 2020, p.25

¹⁵ Chris Priestman, *The Radio Journal – International Studies in Broadcast and Audio Media* 2.2 (2004): 85, apud Andrew J. Bottomley, *Internet Radio: A History of a Medium in Transition*, ProQuest LLC, 2016, p.65

¹⁶ Andrew J. Bottomley, *Internet Radio: A History of a Medium in Transition*, ProQuest LLC, 2016, p.65

¹⁷ <https://medium.com/@radiofidelity/going-with-the-flow-the-rise-of-internet-radio-streaming-931242c606dd>, accessed May 15, 2023

¹⁸ <https://radiofidelity.com/history-of-internet-radio/>, accessed May 19, 2023

www.radiofidelity.com
www.ro.uow.edu.au
www.tampabay.com
www.theguardian.com
www.thisamericanlife.org
www.youtube.com