

International Media Action

The Radio, The Internet, and The Jetsons

Posted on **October 12, 2013**

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LOW POWER RADIO'S TIME HAS FINALLY COME.

BUT HAS RADIO'S TIME ALREADY COME AND GONE?

Activists fought over fifteen years for this moment. In October, community groups across the country got the opportunity to apply for a Low Power FM (LPFM) radio license from the Federal Communications Commission.

Doubts abound. Now that 12-year-olds have cell phones and Google knows us better than we know ourselves, those of us who invested years of our lives for this opportunity have to wonder: Was it worth it? There were over 2800 applications and it should lead to the largest expansion of community radio in U.S. history. This will be the first time that a significant number of new community radio stations are started in the top 50 urban markets since the '70s, and most cities have between three and seven new channels available. Some cities have dozens of competitors for these channels. The grassroots struggle for legal, local (low power) community radio in the United States started in the 1990s and, finally, FM radio is opening for participatory, community use.

Did we succeed in winning a sliver of a solution to the 1996 problem of media concentration— in 2013? Will FM go the way of 8 track tape, just when we have managed to win more democracy on the FM dial? Once the Internet is widely accessible on the car dashboard, will the bottom fall out of FM? Has time defeated us?

Looking So Far Ahead That You Trip On The Ground Beneath Your Feet:

In recent US history, technology has created more change in the way we live our lives than any changes arising from our stalemated political system. We see technological change all around us that appears to move us forward, while the politicians seem to only run around in circles. But we often focus more on the dramatic technological changes and forget how many things have stayed surprisingly the same, and that can cloud our analysis about how technology will affect our lives in the future. Back in 1975, it was pretty obvious to everyone

that, given the rate we were going, we would have outposts on the Moon and Mars by 2013...

The former president of NPR, Vivian Schiller, caused a big stink among her network of stations when she said in [an interview](#): “Radio towers are going away within 10 years, and Internet radio will take their place.” This was met with guffaws from engineers and radio folks everywhere; one compared her statement to *The Jetsons*, the old cartoon show which glibly predicted fantastic technological innovation with flying saucer cars and robotic appliances. *The Jetsons* is much more demonstrative of the blithe values of the early 60s than predictive of the future.

Because we are fascinated with how technology is going to change our lives and also because companies like to get insight into how to get products to market, there is a great deal of study on the diffusion and adoption of new technologies. Yet, there is not nearly so much study of what keeps us using older ones. 93% of Americans over the age of twelve listen to at least two hours of radio a week, but if people can listen to whatever, whenever they want online, why would anyone still use radio?

For that matter: Why use a hammer when nail guns are available, and why continue using pencils in light of computer word processing? Often when a new technology moves into use, people get excited about the pluses and tend to overlook some of the places where the old technology still does a better job. A hammer cannot only put in a nail, but it can also take one out—you can’t do that with a nail gun. Pencils can write upside down on almost any surface in any language in places you would not want to carry your computer and portable printer. Older technologies tend to lose their dominance, yet retain niches that their replacements were not designed to address. Radio will never again have the power that it did in the 1940s. But that does not mean that FM will not remain in the media mix or that the coming wave of community radio across America will not have an impact.

We start with a list of internet audio’s clear advantages over radio and describe the ways that internet audio will likely displace radio. Next, we offer seven reasons why there will still be FM radio towers in ten years. And we close with five predictions on where radio will maintain a strong presence.

Internet audio is just so much better because:

1. Time Shifting: With FM, you have to plan your life around hearing your favorite show. With podcasts and playlists, you can hear it any time that is good for you. It allows the listener to access her favorite programs anytime from anywhere with an internet connection.

2. Choice abounds: The infinite variety of content that is available online dwarfs local FM band offerings that have no more than 40 channels on the air in a typical city. The Internet also allows you to aggregate listeners from around the world, so even if there are only a handful of people in your city who would like to listen to the newest Reggae Opera fusion band, one can find thousands of people around the world who listen to them online.

3. Low Startup Cost: From a producer's perspective, the Internet can also be an inviting place to host content, considering there are not the brick-and-mortar costs of studio space and there's no need for an FCC license. This allows you to try something, even if you are not sure it will be a winner.

4. As Quirky As You Want To Be: And of course, internet services like Spotify and all the others allow you to customize the programming you hear too, so if you want to listen to Japanese surf music—you don't have to find a station that happens to be playing it. And search functions allow you to ask for anything you want and it appears.

5. Your Cellular Swiss Army Knife: Internet listening is integrated into a device that you use for lots of other things—like making a call, banking, using video, email, dictionaries, maps, a digital carpenter's level, playing games, or texting your friends about being late.

There Will Still be Radio Towers in Ten Years Because:

Radio might be outpaced by the Internet in many ways, but it's certainly not obsolete.

1. Haves and Have Nots: The Internet is not as available as we'd like to think. One third of U.S. adults lack a reliable broadband connection. America ranks 28th in the world in broadband penetration and 8th in the world when it comes to Internet speed. The digital divide is a problem still in want of fixing, as internet service providers refuse to build out in areas where a profit cannot be predicted—despite receiving public subsidies—and high school students sit in the parking lot of McDonald's to go online to complete their homework. Although there is finally now a comprehensive national broadband plan, the U.S. is years behind our global counterparts.

2. Listening to a radio station is not rocket science: A radio receiver has two dials: one for channel and the other for volume. Radio doesn't necessitate technological literacy or expensive equipment. It's as easy for the young as it is for the old and only requires a power source. The average American household has five FM radios in it. They all most likely work as well as the day that they were bought—unlike computers, which become outdated in three years, or phones that break in 18 months, if you are lucky. Someone who turns on a radio to listen to it can rest assured that they will not push the wrong button and get hacked or get their radio infected with a virus and end up with their bank account drained.

3. Internet radio is only cheap if your station has few listeners:

Each person that tunes in to your webstream requires their own channel of data coming to them, and their own connection to your stations servers. Hardware and bandwidth costs add up for every additional listener. If radio stations made a complete transition to the web, in order to continue to reach their listener base, they would be paying a fortune in Internet bills to host those connections, the streaming equipment, and the higher price of royalties

for online streaming. A public radio executive, William Kling, brought up this example at a hearing at the FCC.

... we can reach 14 million people in Los Angeles with a transmitter that runs on 600 watts of power. If we tried to reach million people with broadband as somebody said earlier we'd be bankrupt. We spend now \$500,000 a year in our company alone on broadband spectrum in order to serve the audience... I don't think everybody realizes that every time someone does that it's a collect call to us, and if you can keep that in mind and think about the devil's in the details, but how could you as part of a regulatory environment where certain gifts of broadband regulation are made to people, what could you take back for public interest?

FM has a high start-up cost, but it costs nothing to the station every time a listener tunes in. As audiences grow, FM is far more economical and efficient than internet.

4. The Royalty: While radio has thus far been exempted from certain forms of intellectual property payments, the regime for payment of royalties for streaming copyrighted materials on the Internet has been a perpetual mess. 80% of Pandora's revenue is dished out to music licensing companies. The prices are so high that the streaming music website [just purchased a small station](#) in Rapid City, South Dakota in order to try to classify as a radio station to save on their royalty payments. It is important and fair to pay artists for what they create. But the constant haggling over rates, the extremely high demands of content owners, and the record keeping and legal ambiguity around the issue have crippled streaming internet audio and hampered creativity in the new medium. In the early days of streaming, many colleges shut down their streams because they were afraid to stream when they did not know how much content owners would demand from them.

5. The NSA Knows When You Listen To Public Enemy: Radio listeners don't get spied on. That's a big plus considering today's headlines about government surveillance and corporate data mining. Neither the broadcast company nor the government can trace your listening habits in the way that an internet company or the federal government collects records of online behavior in the hopes of either pinning you as a suspect or flashing you creepy, contextual ads based on the content of your emails.

6. In A Crisis, Keep It Simple: You can turn on a radio in the dark and run it off of a battery. Radio is connected to the Emergency Alert Service, and let's be real: How often does your Internet cut out? When the cell phone towers go down and the televisions don't have electricity, radio remains the number one communication technology in times of emergency. With radio, everyone listens to the same thing at the same time- a crucial aspect of emergency information that is, most importantly, current and not inconsistent. All radios stations in the US are connected to the Emergency Alert System, a national warning system run by the federal government.

7. The Internet Is Like The Wild West, *But The West Was Eventually Tamed*: While we are accustomed to relatively free expression on the internet, there are [several major efforts](#) underway that are attempting to transform the internet into a much more closed experience. Internet service providers are trying to further monetize the internet by favoring web

products that they own or that pay a fee to reach users faster than other websites. Companies like Google record your every move online and try to direct you to sites of advertisers. And all the while, people around the world live in countries where the internet is filtered, disproving the 1990s myth that the Internet is immune to censorship. There are far more threats to Internet freedom today than there were in the 1990s and those threats are only escalating.

The Internet will undoubtedly upset part of radio's applecart. Eventually, much of what is now on the radio will move to some form of the web. But the problems with the Internet we have described are not trivial and will not go away with hand-waving and wishful thinking. Chances are good that, for one reason or another, many people will still use an analog FM radio ten years from now for some of their listening.

And Finally, 7 Niches Where FM Will Survive:

FM will take a big hit in the coming years, but since 93 % of Americans listen every week, it has a long way to fall before it is dead. Here are some of the ways it will keep making an impact as some listeners move to internet:

1) Hello? It's Free.

People who don't want to pay by the byte are going to keep listening to radio. While many will go online to satisfy a niche taste, many others will not see this as worth the expense when they can listen to one of the local channels (which, after all, carry the 40-50 most popular types of programming) for free.

Internet companies already charge for the amount of data that we use by offering consumers tiered price plans based on how much data they consume each month. Audio streaming uses a lot of data and, if this pricing trend continues, those who stream audio for hours a day will see that reflected in their monthly bill.

2) Stop Fiddling With Your Facebook And Drive! There will be a major disruption to radio when internet really establishes itself in cars. Broadcasting is a one-way technology, while the internet is more designed for interactivity. But we don't want people to interact with the Internet while they drive!! Until most cars drive themselves, internet for cars is going to have to be designed very, very carefully to avoid what has already happened with texting while driving. The laws around texting and driving have fallen into place, and auto manufacturers will have to seriously consider how they will keep safety up when introducing more interactive communications into cars.

3) Immigrants: Radio has long served as a resource for minority language communities to share news and information in languages other than English. And for those who don't read in English, affordable broadcast media, like radio, is an essential service for news, entertainment and information. The internet demands a high level of literacy, both in terms

of technological and reading ability. What's more, the internet is a dangerous place full of scams and charges that catch people who have not developed strong digital literacy skills.

4) Youth: We must be kidding, right? Young people don't know what a radio is anymore, right? Although the homogenized, rather predictable content of commercial radio has led to a general decline of interest and youth listenership in recent years, youth participation in community radio is trending up. Stations that position themselves as community media centers and train young people in audio production are bigger than ever. Stations that include youth in participatory programming will attract a young community that do not just think of themselves as listeners, but as radio producers. And that's cool with us!

5) Strengthening Local Programming: People using an internet audio device will not need their local radio station to hear NPR or Rush Limbaugh. Instead, they'll be able to go straight to the national source. Content providers, like NPR, are working to cut out the radio middlemen, but stations that produce local programming still have something distinct to offer. The sheer expense of delivering a show like "All Things Considered" to its whole audience via the internet would be enormous. Established FM architecture is way cheaper for mass distribution for a show with millions of listeners, which will keep NPR affiliates reliant on the local stations for a number of years to come. FM stations can survive by building local programs that people love and simply cannot get anywhere else.

6) A Media That is Not Just Social, But Participatory and Collaborative. Commercial radio is dying. This is because most of the industry's innovation for the last twenty years has been to come up with cleverer and cleverer ways to cut people out of radio. They've largely axed call-in shows, live DJs, and airtime for local musicians. Listeners will not remain loyal to a robot jukebox. Community radio stations are places where volunteers come together to make programming.

On the news front, look at a station like WORT in Madison. Their all-volunteer news program, In Our Backyards, has won countless journalism awards. With close to a hundred news producers who help report the news in their city, In Our Backyards is not just a lone opinionated blogger sending off dispatches from his bathrobe and fuzzy slippers, and it is also not hundreds of Twitter users sending off duplicative tweets. The newscast is a collaborative production with standards and fact-checking and hundreds of personal connections in the city through their volunteer production team.

7) They Will Come, But When Will You Build it? As described before—FM is ridiculously efficient at bringing audio content from one point to thousands or millions of listeners in a way that the internet cannot be, at least for many years. The expense of the internet buildout of the capacity for everyone to receive what they already receive for free over FM will cost billions. Eventually, broadband infrastructure will reach communities that are not currently online, but that will not happen overnight, and people will not turn off their FM receiver while they are waiting for affordable, reliable internet connections.

So— radio is not dead. It won't last forever, but a lot of people still listen to FM and will continue for the foreseeable future. Clear Channel won't power down their stations for quite

some time, because they still reach a huge number of people and are making billions of dollars. We encourage groups to take advantage of this opportunity to get on the air and use this time well. After all, radio didn't kill newspapers, TV didn't kill radio, the Internet didn't kill TV, and George Jetson cannot yet push a button to fold his spaceship up into a suitcase. Neither internet nor video killed the radio star. This is a time to build community media centers and provide a platform for the local expression and circulation of information necessary to maintain healthy communities, a sense of identity, and local voice. And these new radio stations are going to be so exciting because so many are going to be built in urban areas, where just a hundred watt station can easily reach hundreds of thousands of listeners.

Those of us who fought for this got lucky. The political process is so much slower than the process of innovation that often a reform like LPFM comes too late, after the technology has moved on. If we had been fighting for an expansion of low power TV stations, for example, we would have totally missed the boat by the time our bill passed. Fortunately, the decline of FM will be a slow, drawn out affair- not a sudden shock like some communications technologies have seen.

Your FM station should not stick its head in the sand—you cannot just be an FM station anymore. You need to build in such a way to also put your programs on the web. However, internet-only services simply cannot yet do what FM technology has been able to do for the past sixty years, and it will be quite some time before all the pieces come together for it to replace FM. Start an LPFM station and use the long twilight of this technology to its fullest for community broadcasting!

