

The FUTURE of Internet Radio

By Elizabeth Welsh

In 1922, 17 years after Jules Verne's death, the oft-recognized "father of radio" Guglielmo Marconi eulogized the "father of science fiction" by saying, "Jules Verne made people see visions, wish they could do things, and stimulated them to do them."

Through Verne's novels, readers were dazzled by prophecies. He introduced the beau ideal of technology that would enrich our lives, expanding our reach beyond our reality and the known world. Figments of the author's imagination often led to grand innovations—for example, his concept of a worldwide communications network, better known today as the internet.

We often credit fiction for sparking advances deemed incredulous even by forward-thinking inventors such as Lord Kelvin, who, in the 1890s, famously declared, "Radio has no future." We may have scoffed, but as the medium creeps toward extinction, could there have been a grain of truth to this?

It was only a century ago, in 1907, that the first commercial transatlantic radio service was established. Here in Madison, Wis., which neighbors *Streaming Media's* editorial base, the University of Wisconsin's WHA station broadcast the first human speech to the public. Madisonians still tune in today. 1920 brought the first known radio news broadcast on station 8MK, and Pittsburgh's KDKA received the first "limited commercial" broadcasting license.

The controversies surrounding the birth of radio are a striking parallel to internet radio's current growing pains. History buffs will recall that in the nascent days of radio, record companies feared a profit loss, and rightly so. With this new, free music delivery medium, they argued, why would Duke Ellington fans spring for his latest LP? And what right did radio stations have to turn a profit from on-air ads while broadcasting free music? Others adopted an optimistic outlook, hoping radio would promote the very musicians whose intellectual property the music recording industry was vying to protect.

Fast-forward to the 21st century, where the battleground for artist remuneration is online. Webcasters (and now over-the-air stations too) sweat as the Recording Industry Association of America (RIAA) tries to push through Congress its *coup de grâce*: a hike in performance royalties that some speculate would finish internet radio as we know it.

Does internet radio have a future? Webcasters anxiously await Congress' ruling on the royalty decision, arguably the most significant issue pertaining to internet radio's future. The viability of pure internet radio plays such as Last.fm, Live365, Pandora, Slacker, and WOXY—to name a few—hinges on mobility and customizability. Tests for so-called terrestrial, or over-the-air, stations' simulcasting include how they can remain relevant to their communities, whether they can push on-air listeners to their streams during nonpeak hours, how easy-to-use the streams are for the "Bob and Tom demographic," and, finally, the quality of the content. And we can't forget the sat-caster Sirius/XM hybrid (can it come down from the clouds in time to ride the wave of success that internet radio hopes to enjoy?) or the all-important

While a royalty hike threatens internet radio's very existence, webcasters look for new ways to let the music play on.



question of money. Which revenue models will prove successful? Will listeners tolerate advertising or will they pony up for paid subscriptions, and, if so, for how long?

This article will try to paint a picture of what the future holds for internet radio. There are no inventors or sci-fi authors weighing in with crystal-ball answers. But the general consensus from internet radio's major players represented here is that radio—over-the-air, satellite, and internet radio pure plays—will find its destiny online, that tweens and Baby Boomers will join the more than 30 million Gen X and Gen Y internet radio listeners in the U.S. and the nearly 15 million listeners in the U.K., a death knell for terrestrial radio signals and extraterrestrial satellite signals alike.

it? Then purchase the song in one touch through AmazonMP3.com or the iTunes Store. You can listen to Pandora on your iPhone or iPod Touch or any Slim Devices or SONOS device. In this article, Pandora CEO Joe Kennedy weighs pure plays against over-the-air simulcasters and discusses what each must do to keep from sinking.

Representing over-the-air simulcasters are the CEOs of two major streaming solutions providers that are helping on-air stations transition to online and deal with RIAA reporting—Zackary Lewis of Liquid Compass (www.liquidcompass.net) and Mike King of Abacast (www.abacast.com)—and a handful of their clients. Liquid Compass hosts more than 700 over-the-air broadcasters on its



Live365's Jason Stoddard is bullish on internet radio's future, for internet radio pure plays as well as terrestrial and satellite players.



Unless webcasting royalty rates change, says Pandora CEO Joe Kennedy, "internet radio as we know it will end."

Let's Be Friends

2007 Streaming Media Reader's Choice Awards winner Live365.com (www.live365.com/broadcast) is perhaps the most popular internet radio network for amateur webcasters with niche tastes to create their own Tift Merritt or Liam Finn stations. Fans of Fleet Foxes and other similar bands can tune in using a variety of media players, including the free Live365 Player, or connect via TiVo, Slim Devices' Squeezebox, or other hardware devices. In this article, Jason Stoddard, director of broadcasting sales at Live365, shares his prognosis for internet radio.

Based in the U.K., Last.fm (www.last.fm) is the online destination for those seeking to expand their musical horizons. Once its Audioscrobbler technology sees that you like bands such as Girl Talk and SwitchFocus, it will recommend that you give DJ Danger Mouse a try, for example. The site can be accessed through myriad media players, and an application for the iPhone or iPod Touch is available for download. Last.fm PR manager Christian Ward tempers the RIAA conversation with a U.K. point of view and ponders internet radio's future in this article.

Using a song's genetic make-up, Pandora (www.pandora.com) finds the common denominator among your musical tastes. If you like "Pumpkin Soup" by Kate Nash, odds are you'll like Milli Vanilli's "More Than You'll Ever Know." No? Give it the thumbs down and you won't hear it again. Love

network, including ABC Radio, Clear Channel, Entercom, NBC/Cannett, and others, and provides ad-trafficking solutions for clients through its TrafficMyAds service. Abacast, with an estimated 400 clients, provides stations with revenue-generating features such as its Ad Injection System, Subscription Systems, and AdSync.

Held Up Without a Gun

Bruce Springsteen recently said, "I'm old-school in that I think you should pay for your music." Paying homage to the wisdom of The Boss, in March 2007, the Copyright Royalty Board (CRB) increased the royalty rates webcasters have been ordered to pay SoundExchange, the nonprofit RIAA spinoff charged with distributing the money to artists. Thanks to a legal loophole, the increase did not apply to over-the-air broadcasters. *[For a more in-depth history of the royalties issue, see Streaming Media's previous articles on the topic at www.streamingmedia.com/research/center.asp?id=30. —Ed.]*

Webcasters such as Kennedy are lobbying Congress to nullify the CRB's order, claiming that the hike will wipe them out.

"Very simply, unless the rates change, internet radio as we know it will end," he says.

The royalty rates, according to Kennedy, hit pure plays harder than simulcasters.

"For those of us who lack the ability to subsidize losses based on other businesses, it remains a life or death threat," he says.

But despite that pending doom, webcasters sound strangely Pollyanna-ish. On the bright side, says Stoddard, the threat has brought out his company's prudent side.

"Hopefully, in the end, [the rate hikes are] a good thing," he says, adding that Live365 strives to understand "the best way of delivering [programming] and the most cost-conscious way of delivering it."

Though royalty collection in the U.K. is less complicated than in the U.S., a quarter of Last.fm's listenership accesses the site from the U.S., so the company could commiserate—but it doesn't.

"We've been working hard since day one to ensure that all artists, labels, and rights-holders receive their relevant royalties," says Ward. "As a leading music website, this is an absolutely necessary process for us."

Over-the-air stations are exempt from the raised rates for now, but that is expected to change. Stoddard acknowledges that "the terrestrial guys are learning now that it's not just an internet radio issue. It's an issue for everyone."

"As soon as one set of music distributors is paying a certain amount that's so much more than anyone else, well, guess what? That just means that your rates are going up, too," he says. "Not to mention that everybody is moving into IP-based delivery anyway."

King speculates that the impact of the rate hike will speed over-the-air's transition to online-only. He predicts that "most of the small-town radio stations will go out of business" if said stations are asked to shell out beaucoup bucks, which is a move he supports.

"It will be interesting to see how that affects Abacast radio customers because it may well be that they shut down their terrestrial operations and simply go online, where things are cheaper to distribute, and become much smaller organizations," he says, adding that "there is no doubt that's the direction consumer music consumption is going. The question is how fast it gets there."

Simulcasters are already feeling the pain, says Lewis. "Terrestrial broadcasters were hit quite hard by the introduction of royalties," and the company's business model has had to change quickly.

"Prior to 2003, we were focused on building out our delivery network and getting our feet wet with next-generation media players," he says. "When the first round of royalties hit, we needed to adapt quickly to prove to stations that they could make money by using ad replacement technology and enhanced media player tools to attract a new breed of advertisers."

At the station level, the challenge lies in creating the reporting required by the RIAA, since the amount owed is figured on a per-listener, per-play fee. Brian Ma, IT director at New Northwest Broadcasters, an Abacast

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client, says one of the biggest headaches has been "creating the reporting that [the RIAA] requires."

"[It took] a lot of man hours at the beginning to try and figure it out, putting down the titles and album names, trying to figure out what they wanted from us," he says. But one man's burden is another's blessing. "If people do their reporting correctly," little-known artists who weren't previously getting paid will get their due, he says.

To ease the burden on its stations, Liquid Compass launched an RIAA Reporter tool that allows stations to receive performance stats within seconds simply by typing in their specific call letters and a specified date range.

In the end, King hopes that cooler heads will prevail and the music industry will see radio as its last bastion of hope.

"That's why it's really tough for guys like Pandora or even your typical independent internet radio broadcaster to really come out on the positive side," he says. "They don't have all of those same sort of revenue generators."

But King believes that over-the-air stations have a leg up on internet radio pure plays such as Live365 because "they usually have an experienced sales force that is able to add banner ads, pre-roll gateway ads, and replacement interstitial ads to their bag of tricks," he says. "They've got five or six guys at some of these groups who are out doing nothing but selling radio ads all day long."

That said, even seasoned salespeople may need coaching when it comes to selling advertisers on internet streaming and explaining to clients what the process



Los Angeles's Indie 103.1 does a great job of keeping ties with local listeners, says Liquid Compass's Zackary Lewis.



Abacast client KPLU's jazz24 ws named the No. 1 jazz web stream worldwide last fall by Webcast Metrics.

"It's like two guys in a sinking ship," he says. "One option is to work together to try to save both of you. The other option is to just beat each other up as the ship goes down. I'm hoping they'll decide that both of them need each other to survive."

Local Heroes

With all of this in mind, over-the-air broadcasters wishing to stream have had to come up with an advertising component to monetize their streaming initiatives. Upon launching Charlotte, N.C.'s WLNK-FM stream, a 10-second preroll ad plays. Prerolls, along with in-stream advertising, static banners, and branded media players have helped this Liquid Compass client create a positive revenue stream that exceeds its royalty and bandwidth costs.

"This station is a great example of a broadcaster that has adapted to the new royalty requirements by maximizing their advertising opportunities," Lewis says. "While we didn't set out to build a division of our company that is now dedicated on training stations on how to effectively monetize their streaming initiative, it has become a valued resource."

Even pure play Live365 counts on three revenue streams for its bread and butter: ad-free paid subscription listening, broadcast services, and advertising (on free subscriptions). A combination of all three is essential to stay out of the red, according to Stoddard.

entails. Ma says that "one of the challenges has been educating our salespeople to be able to take that out to our clients and let them know what streaming is."

Beyond educating salespeople and advertisers, stations say their highest hurdle right now in growing their streams is educating their listeners, many who hear "stream" and think of the watery kind.

"Once, at a focus group, we asked if they knew that our station was streaming online, and one of the ladies thought we were talking about *Field & Stream* the magazine," says Jonathan Mauney, director of new media at Greater Media Charlotte, a Liquid Compass client. "We really have to be careful not to use techie terms to describe what we do online." For example, he is careful to use phrases such as "listen online" or "listen on your computer" instead of streaming, and he'll use "on-demand" in place of podcast.

This kind of cross-promotion drives a tremendous amount of traffic online, according to King.

"Almost all of these stations do a good job of cross-promotion," he says. "Over the air during car drives, they will say, 'Hey, listen to us online during the day while you're at work.'"

And if you're at the office at 8 a.m. and need your Stephanie Miller fix, that's a heck of a motivator to stay with the station throughout the day instead of logging on

to Last.fm when you get to your desk. Listener loyalty and localism are huge for terrestrial stations.

"Since our morning show, *Bob & Sheri*, is syndicated nationwide and is very popular, we'll get a lot of email from listeners if their local radio station drops the show," says Mauney. "We always point them to our stream, and a large part of the audience on WLNK comes from all over the country due to the popularity of *Bob & Sheri*."

King can see this shift taking place from his clients' analytics.

"Most of our internet-only broadcasters have seen a decline since terrestrial radio has come back online in a big way," he says. "Some of our internet-only broadcasters were having four, five, six, ten thousand simultaneous during the midday, and they're down to, like, two or three thousand now because those people have literally gone back to terrestrial radio online instead."

Lewis concurs, but he warns that terrestrial stations need to remain relevant to listeners and their communities.

"The terrestrial broadcasting industry is faced with an evolving environment where their listening audience is inevitably shifting to a digital medium," he says. "If they are going to keep up, they need to build a more compelling story as to why their listeners need to remain loyal to local radio."

And localism is radio's *raison d'être*, King believes.

"Local personalities who know local places, talk about local things, with local weather and local sports, that part

will continue to drive people to radio," he says. "As long as local radio exists, I think it's going to dominate that space because it is tied to geographic areas that you care about."

Ma echoes King's sentiment, saying, "It gives people something to hold onto. Something that they grew up with or just feel really comfortable with," which is why ex-pats, travelers, or college students often will listen to their hometown stations' streams.

One of Liquid Compass' clients that is doing a great job of keeping ties with local listeners, Lewis points out, is Indie 103.1 out of Los Angeles (www.indie1031.com).

"Their listeners are actually rewarded for their online listening through a new Indie Activist Club, which they launched earlier this summer," he says. "Listeners can also send in music requests directly from their media player, which makes the listening experience all that more personal."

Indie 103.1 is über-accessible to boot, Lewis points out.

"They are making themselves as accessible as they possibly can, offering listeners the ability to access their stream via Silverlight, Windows Media, and MP3," he says.

Where the Bands Are

If you stream it, they will come. But will they stay? That depends on a couple of things: namely, kick-ass content and stream quality.

"Listeners are now expecting an uninterrupted, CD-like quality and the ability to access it anywhere they want," Lewis

Solving the Transcoding Puzzle

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says. "By offering high-bitrate streams in multiple formats, stations can ensure that they are highly accessible."

Mauney believes that "the most important thing is to make the sound good." Historically, simulcasters have struggled with cluttered stop sets and clunky transitions. Because they aren't allowed to use the same commercials they use on-air, stations pad the breaks with fill songs, morning show promos, and PSAs. But these days it's vital to opt for filling those stop sets with quality ad inventory instead.

"We work hard to make sure it's clean and that we don't play station promos or PSAs over and over during the on-air commercial breaks," Mauney says.

Helping their clients adapt are Liquid Compass' TrafficMyAds tool, which handles in-stream ad inventory, and Abacast's Ad Injection 2.0 tool, which permits the webcast of easily switchable streams from over-the-air content to online-only content "in a heartbeat," according to King. These tools have helped stations such as Abacast client KPLU "maintain a strong, solid infrastructure for our streams so we don't have down times," says Craig Coovert, KPLU's web director. Not only does KPLU simulcast its on-air programming, the station also streams a totally automated 24-hour jazz program called jazz24. In a testament to the importance of innovative programming, jazz24 was named the No. 1 jazz web stream worldwide last fall by Webcast Metrics.

Kennedy agrees that jazz24 is an example of damn good content.

"Reminiscent of the Clinton presidential campaign, we have a saying around here: 'It's the playlist, stupid,'" he says. "That's really what people experience, and the degree to which those playlists meet the tastes of listeners is enormously important. I think the great thing about broadband connectivity is that it enables a provider to meet the full range of tastes that characterize this great and vast country, which listens to everything from obscure traditional jazz to 16th century Renaissance motets to Christian hip-hop to heavy metal."

Living in the Future

While education, promotion, and programming are all vital to internet radio's survival, there is one last driver that has proven especially important for pure plays, perhaps because of their already stream-savvy audience. If the battleground for radio is the internet, the next frontier is the mobile space (read: how easily internet radio stations can be accessed from geek-friendly devices such as the iPhone).

Before the Pandora iPhone application stole headlines on July 11, Kennedy said that "Pandora has spread overwhelmingly because of just one thing: Pandora listeners telling other people. That has fueled all of our growth, which has now taken us to over 14 million registered users." But they've had to do some recalculating since then. For the first few days after the application's launch, it was reported that Pandora got a new iPhone listener every 2 seconds.

Mobile music apps are indeed among the fastest growing mobile services, and companies should rush to satisfy listener hunger, Kennedy says.

"Certainly anyone who understands how people listen to radio understands how important mobility is," Kennedy says, pointing to stats that say roughly 80% of all listening takes place away from the laptop or desktop. "People aren't going to change their basic habits about where they listen to radio, and so, obviously, getting internet radio into the car, into the living room, into the kitchen, into a form that can be experienced when walking, jogging, commuting, etc., is absolutely crucial. It's the difference between being able to address 10 to 20% of the market to being able to address 100% of the market."

Ward couldn't agree more.

"Our recent developments have, for the most part, had one goal in mind, which is to bring the Last.fm experience to you wherever you are, not just on the computer," he says. "Our iPhone app and the Logitech integration are just the start, and they've proven hugely successful. Eventually, we want you to be able to access all the music in the world at the click of a button, whether you're at home, on the move, driving your car, everywhere."

"I see that within the next two to five years," says Lewis.

To that end, even over-the-air simulcasters are already thinking about mobile.

"We're currently testing iPhone streams, available at wbt.com/iphone and 1079thelink.com/iphone, and hope to offer streaming to other phones in the near future," Mauney says. "We're just getting started, so it's too early to tell the effect on listenership, but I believe this is going to be huge in the future."

Further on Up the Road

First comes web, then comes mobile, then comes ... what? Since the early 1900s, radio has come a long way. Streaming is clearly the next era in radio's evolution, but it won't be the last, nor should it be. To borrow a phrase from the '90s pop song "Satellite" by the Dave Matthews Band, "Everything good needs replacing." For terrestrial and satellite radio, the question of transitioning to digital-only is, "How soon?" Today, nearly 1,750 out of roughly 13,000 over-the-air stations broadcast digitally in the U.S. Analysts have speculated that the last terrestrial radio transmitter will be turned off by 2020 at the latest in the U.S. and by 2015 in the U.K. Kennedy gives satellite delivery about the same amount of time.

"I think, going forward, five or ten years out, I don't know anyone who thinks that kind of satellite delivery really makes a lot of sense," he says. "I mean, putting satellites in the sky to deliver radio in a world in which there's ubiquitous broadband conductivity really doesn't make sense."

Stoddard agrees, saying, "I think you'll see them just using their brand and moving into the internet radio space like they already have done. They might have to change their motto a little bit and have some sort of a blended subscription advertising model."

All in all, the players are pretty sanguine about the future of radio streamed over the internet. Kennedy acknowledges the myriad listening tastes and habits of radio listeners, and he believes that digital delivery won't cause these to go away.

"There's certainly a segment that loves Howard Stern, there are certainly people who like to listen to MP3s, CDs, and iPods where they, in essence, play their own DJ," he says. "But I think there also is a large and important segment of people who are very interested in the music, who want someone else to play DJ because when someone else plays DJ, it's not just less effort, it involves discovery. It brings serendipity into the experience."

"I think you'll see winners from all sides," Stoddard says. "You'll see satellite moving in there, and you'll see terrestrial there just like you already do. And then there will be some big internet-only players, too. So, I think you'll see all of them on there. It's just when the dust settles, who's going to be around still?"

We may not all have a Jules Verne-like clairvoyance to imagine up radio a century from now, but we can bet on a few things just over the horizon.

"Looking out to 10 years, I see radio towers being converted into WiMAX towers, turning our world into a highly connected digital environment where we can access our favorite radio station through any device, anywhere in the world," says Lewis.

And that "anywhere in the world" may just be our own backyards. Whether through the magic of WiMAX or femtocells or some other marginal or yet-to-come technology, King pictures it this way: "You can imagine

someday you'll be sitting with your grandmother in the yard with a little box that is wirelessly playing music for you, right? But of course, everybody is like, 'Duh, we've had transistor radios forever, there's nothing new about that.' But the difference will be that box then will also play TV, and it will answer your phone calls, and you'll be able to surf the internet on it and buy things directly from it. It is a future of radio to a wireless device, but it will be transmitted over IP, allowing that box to be multifunction."

If there's one thing clear about the future of internet radio, music aficionados will make sure of this: No matter the technology that delivers the music of the bands they love, there will always be some virtual hub to play the part of yet another music industry relic: "The record store. Where true fandom begins," as Cameron Crowe once wrote. "It's the soul of discovery, and the place where you can always return for that mighty buzz."

With fingers crossed, let's hope that the music industry and broadcasters will come together to ensure that internet radio is not one day eulogized with a similar sentiment in the annals of history too.

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