

Pandora Part II

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by **Richard Greenfield** — [POSTS](#) | [DISCLAIMER](#) [Twitter](#) [RSS](#) [Email](#) Phone: 646-450-8680 [Chat with rgreenfieldbtig](#)

On July 6, 2012, Pandora updated its iPhone app to version 3.2 (additional update to version 3.2.1 on July 10th). The focus of the update was a new app design to add artist bios, song history, lyrics, the ability to rate tracks easily and the ability to start a new station directly from the now playing screen. Pandora also pushed the volume control function into a pull-down menu that requires an extra click (*see the three bars shown in the picture embedded to the right – you need to touch that*).

The app update was clearly focused on increasing engagement with Pandora and in turn, increasing the opportunities to serve display advertising as a user clicks around the app. Essentially, the updates give users more to do with the Pandora app to offset declines in users need to rate songs over time. We continue to believe that rating songs happens rapidly for new users but once you have refined your playlists you are less apt to interact with Pandora and, in turn, be exposed to ads (you have not seen this impact Pandora's results because new active users have been growing so fast). While more displays ads damage the user experience, Pandora still makes a majority of its earnings from display ads (digital audio ads remain in their infancy).

- The screenshot to the right shows the new Pandora iOS app screen. Clicking the upper-right downward-left pointing arrow show artist bios and lyrics and sometimes triggers ads, such as this one we saw today.
- We also feel like closing the ad is getting harder with the “x” getting tinier and touching anywhere on the ad inadvertently causes the ad to fire up and take over the entire screen.

Unfortunately for Pandora, its users appear to be reacting quite negatively to the latest update. They appear frustrated by the layout change, the need for an extra click to change the volume, what appears to be a “buggy” app and excessive display advertising.

- While we are confident the bugs in Pandora's app are all fixable, the question becomes what is taking Pandora so long to address the problems and how will addressing consumers problems impact advertising opportunities going forward?

34% of Reviews are Now 1 or 2 Stars with Overall Rating Falling Within the iOS store today, 34% of reviews for Pandora version 3.2.1 are only 1 or 2 stars. We have embedded some of the recent user comments detailing their issues/problems with the latest version, but it is worth taking the time to read a wider array on either an iPhone or iPad.

- Pandora's ratings in the iOS store (both iPhone and iPad) are falling, now only 3.5 stars, which is in-line with iHeartRadio and now further below Spotify (5 stars).
- Interestingly, Pandora has now fallen to #34 in the free app store (has rarely been in the 30s since it launched)

Read more: <http://www.btigresearch.com/2012/07/19/why-do-consumers-hate-pandoras-latest-iphone-update-and-why-is-it-taking-company-so-long-to-fix/#ixzz216ZVGp6p>

Little Growth in Use of Internet Music Streams from 2011 to 2012

Listen to Custom Music Streams On the Internet		
	<u>2011</u>	<u>2012</u>
Weekly	42.1%	48.8%
Daily	22.1%	25.8%

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How Much Do You Like the Music

iHeart vs Pandora

	Total	Radio on Radio HVY	Cstm Music Streams HVY	Pandora Users
iHeart Radio	8.4	8.7	8.9	8.4
Pandora	8.4	8.6	8.8	8.4

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Heavy Streamers are Heavy Consumers of Media

	Total	Cstm Music Streams HVY	Index
Watch television	3:30	3:45	107
Facebook	2:00	3:00	150
Websites	3:15	4:15	131
Radio Websites	1:15	2:00	160
Twitter	1:15	1:30	120
Listen to AM/FM radio on a radio	1:45	2:30	128
Listen to online stream of AM/FM Radio	1:30	2:30	150
Listen to AM/FM on your cell	1:30	2:00	160

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ALAN BURNS AND ASSOCIATES CEO ALAN BURNS has added additional insight to this week's findings, exclusively for ALL ACCESS. BURNS notes:

I think when it comes to music streaming services versus radio, this data is the equivalent of turning on the night light, dragging the Boogie Man out from under the bed, and discovering he's not so scary after all. The heavy users of PANDORA even tell us they're listening to more radio lately.

But the popularity of PANDORA, etc., should make us more attentive to something listeners have been telling us for decades, which is that they'd like to be able to influence the music we play.

For the second year in a row we've asked women to score the music on their favorite radio station on a 1-10 scale and, if they use PANDORA, to rate the music they get on PANDORA on the same scale. Both years, PANDORA's music was rated exactly -- and only -- 5% better. That's not a very big gap for something that's causing so much commotion.

So if the ability to customize the music you hear only results in only a 5% better music product, what's the big deal? I think it's this: the knowledge that you can control the music may be more important than the actual

control. Consumers are all about control, customization, and convenience, and PANDORA, etc., give them two or more of those (not to mention fewer commercials and the ability to skip songs

7/12 DVR for radio hooks up with wireless HiFi manufacturer. Time-shifted radio shows can now be played on Sonos wireless home hi-fi systems, thanks to a new app from Dar.fm. "Sonos has been great for music with Pandora and TuneIn and now it is also ideal for news, politics and other talk and music shows," Dar.fm CEO Michael Robertson says. Launched in February 2011, DAR.fm is a cloud-based platform that allows users to time-shift radio on digital devices. Of the 20,000 shows it offers, 16,000 originate in the U.S., including popular talk shows like Rush Limbaugh, "Fresh Air" and Phil Hendrie. "These aren't obscure navel-gazing podcasts, but nearly every AM/FM/network radio show in the U.S. and many non-U.S., like the entire BBC lineup," Robertson says. The service has been compared to a DVR for radio but has yet to turn a profit. In June it launched mobile apps for Android and Apple devices that allow users to download what they've recorded and listen to it on their smartphone.

7/12 Burns study: Online listening "exploding." A quarter of women surveyed by Alan Burns & Associates say they've listened to internet radio, with younger demos even more digitally-focused. One-third of 18-34 year old females said their listening habits take them online, compared to 16% among 35-54 year olds. "Online listening TSL has exploded in the past year," Alan Burns & Associates SVP Jeff Johnson says. A single app may deserve the credit, he says. "A large part of this online radio increase is coming from iHeartRadio," Johnson says, pointing out their survey of CHR and AC listeners shows women are not only more aware of the app, but are also listening to it more. "Usage has more than doubled for iHeartRadio — it kind of shows what radio can do when we put our mind to it," he continues. Another big growth story for radio is cell phone listening, which

Johnson says has seen “significant growth” since the programming consultancy’s 2011 research was done. Nine-in-ten women with a smartphone reported downloading at least one application. “Even Pandora users are listening on the cell phone to a radio app,” Johnson says. While the new platforms are seeing growth, the Burns survey was less rosy about on-air listening. It shows declines in Time Spent Listening to radio on the radio, as well as a drop in weekly come. Johnson says when digital listening is factored in radio listening hasn’t declined — in fact it’s up 1.9%. While that is within the margin of error, at worst he believes listening is flat. “Radio really is resilient, but we’re just in that transition mode of shifting devices,” he says.

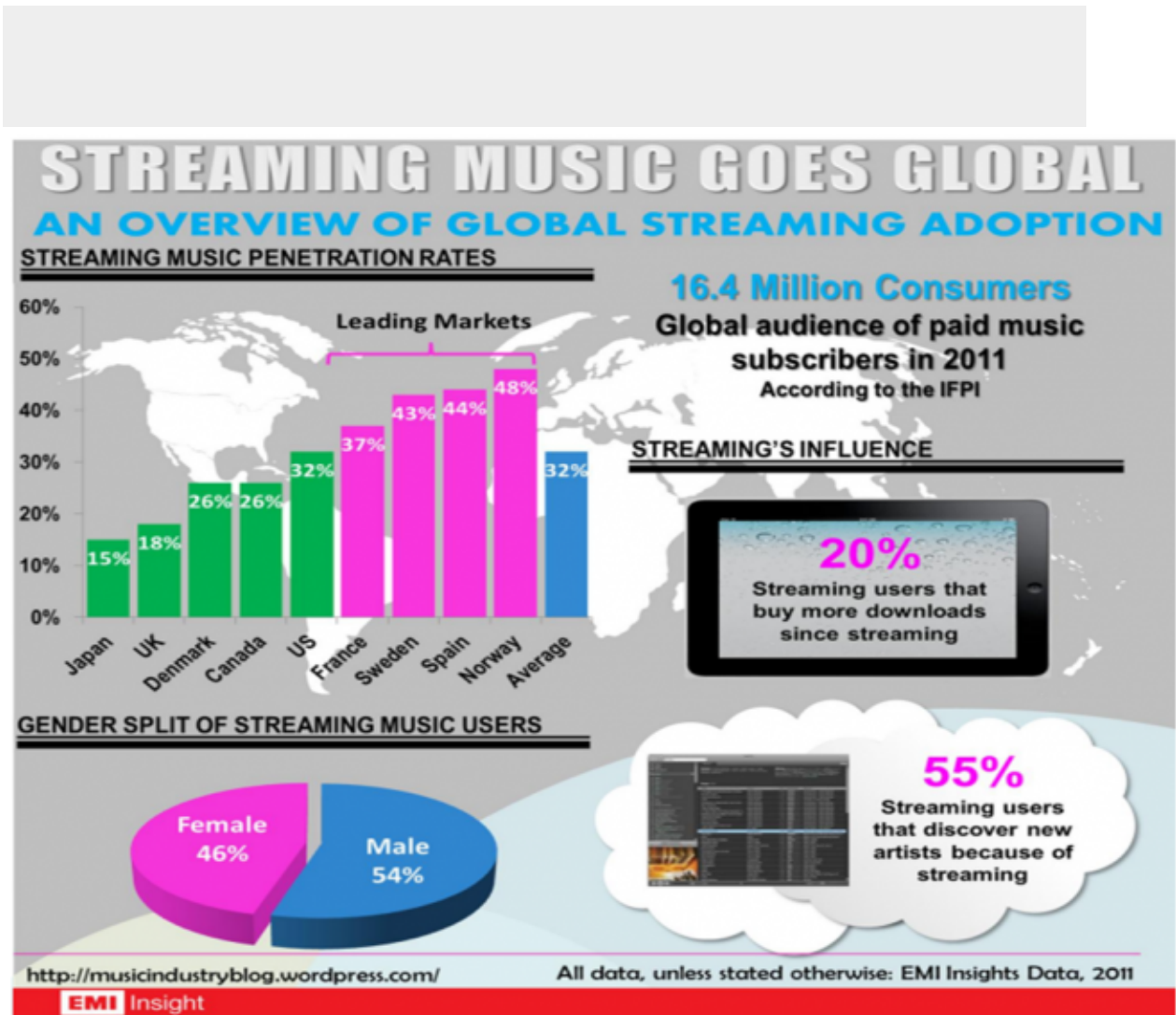
More women are creating their own custom channels, but the rate of growth slows. From iHeartRadio to Pandora, one of the biggest attractions for users is the ability to play digital deejay and create a station of one’s own. A survey of women who listen to CHR and AC formats finds nearly half (49%) of respondents use the custom radio feature. That’s up from 42% a year ago. One-quarter (26%) said they use a custom feature daily, up four points over last year’s survey. But Alan Burns & Associates SVP Jeff Johnson says that’s a slower rate of growth than they’ve logged in previous years. “We may be seeing the tip of the iceberg where custom music streaming has started to plateau,” he says. Roughly one-third of people said FM/AM radio’s advantages are local weather, traffic and news, with one-in-five saying personalities and ease of use. “That’s nothing shocking, but it does reinforce how important localism is to radio over custom streams,” Johnson says. On the flipside, people who used custom channels say they most like the ability to tailor content (56%), song skipping (52%), and what’s typically a lighter spot load (37%). The survey also looked at in-car listening to online radio and found that women who have internet connection in their car are more than twice as likely to listen to a custom music stream on a daily basis. But Alan Burns says women who have a digital dashboard are big consumers of media overall — they listen to more radio each day and

are more than twice as likely to listen to a broadcast radio station's webcast. He says that helps make up for the Time Spent Listening decrease. As for setting FM/AM radio aside for an iPod, 57% of women said they own or use the Apple mp3 player showing little change from 2011 or 2010 surveys. "I think we've seen iPod ownership and use peak," Johnson says. **"And it wasn't long ago that people were saying that iPods were going to destroy radio."**

7/12 Pandora Media, Inc. (NYSE:P): Samsung Electronics (SSNLF) confirmed, within the next few weeks, they will be launching, Music Hug, their digital music service in the U.S. However, they declined to disclose the pricing or launch date for the stateside debut. They are expected to compete with Pandora (NYSE:P), Spotify and others, according to The Los Angeles Times

IMPORTANT- Radio Ink: Here is what they told us about how they came to that conclusion. "We arrive at the calculation using data from Triton Digital, Arbitron and the U.S. Census. The estimated total hours includes satellite radio."

COMMENT: First, you do not need U.S. census data to compute a share
Second, there is no rating data for satellite
Pandora's share is in the lower 4 share range. Not 6.



Pandora struts like Mick Jagger in its [latest financial report](#). The company's audio streams accounted for 6% of the total U.S. radio market (COMMENT: see above explanation re the inaccurate Pandora claim of a 6% share) the and 72% of the top 20 Internet radio services in the most recent quarter. The number of active users on the site grew 53% year **on year to 52 million**, and total listening hours grew 92% to 3.1 billion hours.

That mix of rapid growth and high market share has given Pandora an early lead in streaming audio. Pandora's service is largely ad-supported, giving it an edge over rivals that charge a monthly fee. **(The company offers an ad-free subscription service, but it accounts for only an eighth of total revenue.)** Spotify, MOG and Rdio offer better on-demand streaming options, but they charge \$9.99 a month for streaming to mobile devices.

Free is a big draw for Pandora on mobile. Listeners don't seem to mind the ads or the limits to skipping songs that come with free listening. Most of them seem so weary of commercial radio that they have turned to Pandora instead. And so mobile is big for Pandora: It delivers 70% of its streams to mobile devices.

An [Arbitron survey](#) found that 6% of drivers listened to Pandora on the road in 2011, compared with 8% for Sirius XM. Among drivers between 18 and 24, 19% listen to Pandora. And yet the old AM/FM radio remains the most popular source of music on the road.

Highway to Hell

So why is Pandora's stock price slipping down the charts? The stock went public one year ago, and it has lost a third of its initial value since then. The Nasdaq Composite Index is up 9% during the same period.

Two things have kept investors out of the ticket line. One is the money the company has spent to entice its 52 million active users. The company brought in \$304 million in revenue during the past year, **but it still came up with a \$26 million loss**. The deficit, mostly due to royalties and marketing costs, has mounted in recent quarters.

That kind of spending would make sense if Pandora were cementing its early lead in a market that has high barriers to entry. Alas, the barriers to entry are low. And that brings us to the second of Pandora's problems: Competitors are coming fast and hard, and Pandora may simply be paving the way for them.

New Kids on the Block

Thanks to its duet with Facebook, Spotify – which finally launched in the U.S. in July 2011 – has acquired between 10 million and 20 million active users. ([Facebook claims the latter figure, Spotify the former.](#)) Audiophiles who took to Pandora early on are deciding that it's worth paying a monthly fee for on-demand mobile music through Spotify or established music services such as Rdio and MOG.

Meanwhile, other rivals are laying down fresh riffs. Songza, a free mobile app, plays hand-picked playlists rather than algorithm-selected tunes. It has displaced Pandora as the top-selling music app for iPhones and iPads. And this week, Amazon launched its Cloud Player app that lets users stream to mobile devices music they've bought or stored.

Anthony DiClemente, an analyst at Barclays Capital, issued a [report](#) this week noting Pandora's new competitors. He pointed out that Songza's ad-free, curated playlists offer an attractive alternative and that Amazon's established customer base and ability to give users more freedom in listening to songs could lure Pandora users.

Too Old to Rock and Roll, Too Young to Die

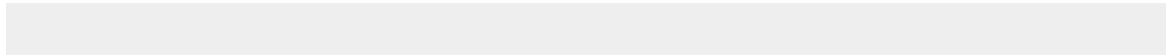
Pandora has done a great job of blasting a sclerotic music industry into the wings with free, streaming music. And the \$81 million it holds in cash and short-term securities gives it the wattage to invest in innovation that could preserve its sizable market share.

But Pandora is losing money to grow in an increasingly crowded and aggressive market. The online music industry is still in its infancy, and Pandora's early lead is no guarantee it will continue to call the tune.

Extremely Important:

Consumers report higher awareness of audio commercials on broadcast radio than on Pandora. New data released by Bridge Ratings from a survey conducted in the first quarter 2012 finds a low perception of audio commercials among Pandora listeners compared to listeners of broadcast radio. The study also finds that perception of commercial messages on Pandora deteriorates over time — the longer a consumer has used Pandora, the less aware they are of its commercial messaging. The findings are based on a sample of 4,339 heavy Pandora listeners and 4,440 heavy broadcast radio listeners between January 3-March 15. Heavy listeners are defined as those who listen at least an hour a day. [Bridge reports nine of](#)

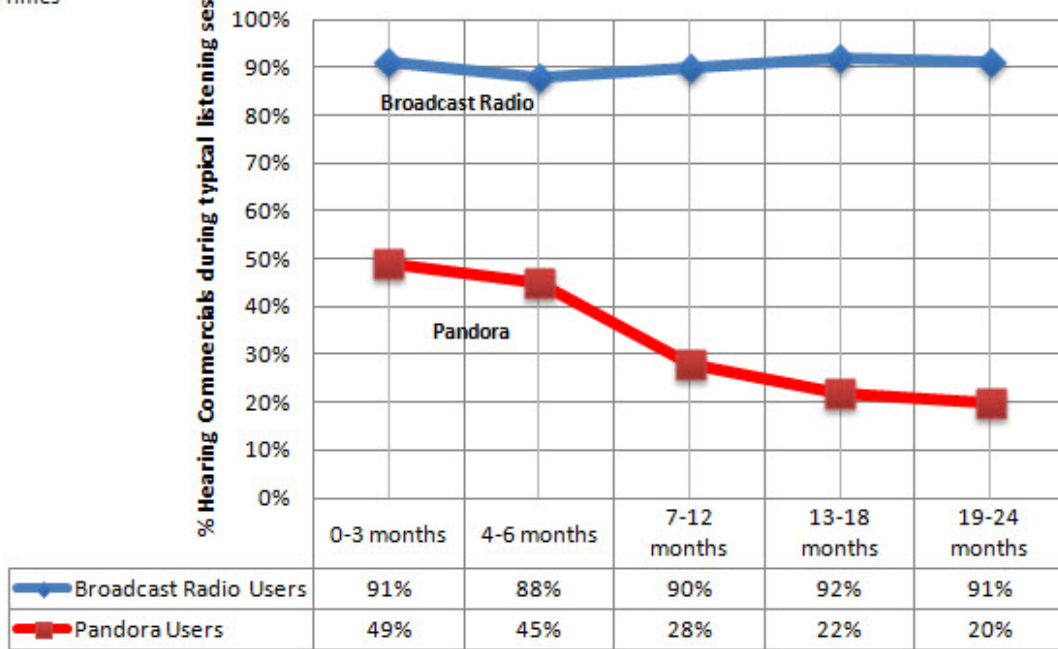
ten broadcast radio listeners recalled hearing commercials during a typical listening session and that percentage remained consistent over time, regardless of how long the consumer has been a heavy radio listener. But percentages of Pandora listeners who reported hearing audio commercials during a typical listening session fell from 50% among consumers who had been listening to Pandora for three months or less to 28% for those who had been listening for seven-12 months to 20% among those listening for 19 months-two years. "These low perception scores may be linked to the presentation as well as both the length and hourly quantity of commercial messages that were evident during the time this study was fielded in the first quarter of 2012," Bridge Ratings president Dave Van Dyke says. "Nonetheless, as an environment that positively supports commercial messaging, broadcast radio has high scores for awareness of advertising." The study didn't look at recall of display or video advertising on Pandora or any advertising on broadcast radio streams.



© Bridge Ratings

Sample: 4339 Pandora
'Primes'
4400 Broadcast Radio
'Primes'

Commercial Advertisement Awareness Trends Pandora Users vs. Broadcast Radio Users Over Time



A 100% Certain Way to Lose Millions

By Eric Bleeker and Jeremy Phillips, The Motley Fool

Posted 2:52PM 05/26/12

The following video is part of our "Motley Fool Conversations" series, in which Chief Technology Officer Jeremy Phillips and senior technology analyst Eric Bleeker discuss topics across the investing world.

After Pandora's less-than-stellar earnings, the stock popped more than 10% on stronger-than-expected top-line growth. There was only one problem, though, its losses tripled. In this

video, Jeremy and Eric discuss the inherent flaw in Pandora's business model, and other players that don't own the intellectual property on which their business is based.

<http://www.dailyfinance.com/2012/05/26/a-100-certain-way-to-lose-millions/>

5/12 Customizable radio, like the offerings from Slacker, iHeartRadio, Pandora and others, is a "**combination of art and science**," members of the "Personalizable Radio" panel at RAIN Summit West explained. The discussion was one of the most popular and thought-provoking of the conference.

The "**art and science**" metaphor was first put forward by **Owen Grover**, SVP of iHeartRadio. On the one hand, there's the "science": data from companies like The Echo Nest and Rovi about what artists are similar to other artists, what vocalists sound the same, what guitar solos are related and so on.

But then there's the "**art**" of also taking into account the much more complicated "cultural" factors, explained Rovi Director of Architecture & Innovation **Michael Papish**. That is, linking artists and songs that don't necessarily relate to one another scientifically, but that are tied together in popular culture. "There's a lot more going on than just saying 'these two songs sound alike, therefore we should play them together.' There's a lot more behind why humans like different types of music," said Papish.

Both Grover and Slacker CEO Jim Cady spoke to the power of having an emotional connection within the stream as well. "**There has to be humans behind it**," said Cady. Slacker employs 75 programmers to give their streams that human touch. Otherwise, "there's a missing emotional connection." He says most users want that "lean-back," curated experience (as long as they can "lean-forward" when need be to customize the stream). Grover said Clear Channel has seen their Custom Radio service

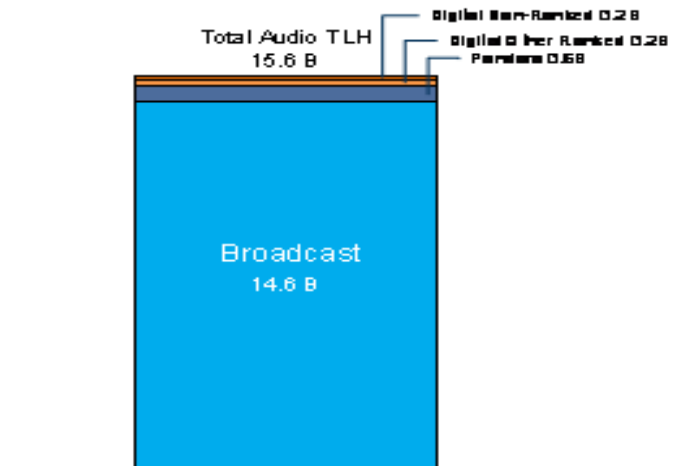
actually push new listeners to the traditional AM/FM streams (which are all curation and virtually no personalization).

Indeed, data about artist similarity can only take you so far, said Grover. "You don't want to start making too big leaps of faith around data," he explained. "A thumbs down on a Lady Gaga song **doesn't necessarily tell you much of anything** about that song, that listener, or Lady Gaga." Perhaps the sequence of songs wasn't quite right, or the time of day had an impact, or the listener may have just heard the song 50 times already. More information is needed.

"**We may have hit** the wall in terms of what we can do with either thumbs up/down, or ratings," mused Papish. "We need to figure out **new, better ways of actually asking our listeners what they like.**" That process is still on-going. "We are just getting started identifying the individual listener," said Lucchese. Papish shared that Rovi, for example, is looking for better ways to have the listener explicitly share preferences with music services. One idea is to use **gamification elements** to make sharing that information more fun and engaging.

Total listening time by platform

Average Monthly THL (Million Hours)		
Total Audio	15,592	100.0%
Total Broadcast	14,600	93.6%
Total Digital	992	6.4%
Pandora	579	3.7%
Other Ranked	240	1.5%
Other Non-Ranked	173	1.1%



Source: Arbitron RADAR March 20 02, (M-Su 6a-3m), Triton Digital Jan 02-Mar 02 Domestic Pandora (M-Su 6a-3m)
 Note: Triton data for Pandora includes their premium (no non-commercial) service

As shown above, all digital listening comprises less than 6.5% of radio-plus-streaming hours spent listening per month; the total is a combination of all streaming radio and streaming music collections. This analysis shows that the largest digital-only music service, Pandora, accounts for 3.7% of total listening time (which includes their non-commercial premium listening).

Digital is still a small fraction of overall combined listening.

Per Jacobs Tech Survey #8:

7% of Pandora's subscribers signed up but don't listen- based upon 150,000,000 subscribers this equates to 10,500,000

11% responded rarely listen. Equates to 16,500,00 subscribers

10% responded that they listen 1x/month. Equates to 15,000,000 subscriber

18% responded 1x/week. Equates to 27,000,000 subscribers

Above combined equals 69,000,000 who listen 1x/week or less....or 46% listening 1x/week or less.

72% of those that stream audio listen to specifically to Pandora less than 1x/week

90% of those that stream audio, listen Pandora less than daily



**Nearly 3 in 10
"Streamies"
listen to
Pandora weekly
or more**

More people are liking Pandora less. Interesting in slide below that those who mentioned that they listen to Pandora, twice as many mentioned that they listen "same- infrequently" (36%) versus those that mentioned they listen "same- frequently" (18%).

4/12 New research released by Mark Kassof & Co. says Pandora listeners perceive FM radio **as more different than similar to Pandora**, and that the choice and control Pandora gives them is the biggest difference. Kassof based his findings on 1,177 online surveys with 18-64-year-old Pandora listeners in the U.S., conducted from April 10-12, 2012.

In the survey, Pandora listeners compared seven music sources to Pandora. Of them, iHeartRadio is most like Pandora; FM radio ranks fifth. Forty-nine percent (of those who have an opinion) rate FM a “one” or “two” on a scale where one means “Totally different from Pandora” and five means “Exactly the same as Pandora.” Twenty-nine percent rate FM one, while only 10% rate it five.

Among those who see FM as clearly different from Pandora (the “ones” and “twos”), Pandora’s ability to let them choose what they want to hear is the #1 difference, at 31%. More specific choices -- for example, the ability to select genres, select artists and skip songs -- also relate to the control they think Pandora gives them that FM doesn’t.

Control Freaks — that what you might call Pandora listeners. Because the choices and control it offers is the difference they perceive between Pandora and FM radio.

And yes, Pandora and radio are quite different. Last month’s ListenerThink research among Pandora listeners revealed that they’d be as likely to use other music sources (like iPods) as radio, if Pandora wasn’t available. This month, we sought to quantify the difference between FM and Pandora...

We conducted an online survey April 10-12 2012, netting 1,177 Pandora listeners age 18-64. (To qualify, they answered “yes” to the question: Do you listen to Pandora?) We asked them to rate seven music sources on a 1 to 5 scale... “one” meaning “Totally different from Pandora”; “five” meaning “Exactly the same as Pandora.”

Of the sources we tested, Pandora listeners see iHeartRadio as most like Pandora, YouTube least like it. (In itself, this revealed that last month’s “substitution” research was not a proxy for similarity...it showed YouTube as the #1 alternative if Pandora wasn’t available.)

Most important to us, we learned that FM is more different than similar to Pandora:

Here's the percentage breakout for iHeartRadio...

iHeartRadio vs. Pandora

1: Totally different 13%
2: 10%
3: 25%
4: 32%
5: Exactly the same 21%

And the breakout for FM:

FM RADIO vs. Pandora

1: Totally different 29%
2: 20%
3: 23%
4: 17%
5: Exactly the same 10%

3x as many people responded that AM/FM radio was totally different as thought it was exactly the same

Note that the averages shown in the graph and percentages in the table are among those who have an opinion. For FM, 5% of 18-64 Pandora listeners respond "not sure" to how different or alike it and Pandora are. For iHeartRadio, 36% are not sure...due primarily (we think) to their lack of familiarity with iHeartRadio.

So, nearly half of those who have an opinion see FM as quite different from Pandora. But what is the difference???

We asked them. Responses were unaided — volunteered by respondents — and coded into categories for tabulation. Multiple responses were permitted...that's why they add up to more than 100%:

In what way (or ways) do you think FM radio is DIFFERENT from Pandora?

Not as much choice (in what I listen to) 31%

More/Too many commercials 26%

Can't select genre 8%

Can't choose artist(s) 6%

Not personalized 5%

Less variety 4%

More/Too much repetition 4%

Can't skip songs 4%

More/Too much talk 4%

Has DJs 3%

Has More Variety 2%

Doesn't require internet/PC 2%

Not as good sound quality 2%

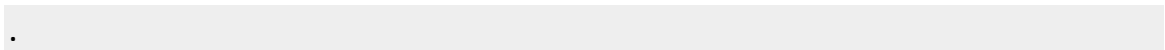
Other 30%

Don't know 1%

Among those who rate FM "1" or "2" – CHOICE is the key difference. Pandora listeners think it gives them more choices, more control over what they hear than FM does. Not only is choice the #1 response...many of the other comments reflect the same idea...with FM you can't select genre, can't choose artists, can't skip songs, etc.

FM’s commercials are the #2 response. And the older listeners are, the more likely they are to see commercials as a difference between FM and Pandora. Only 14% of 18-24’s say FM’s commercials are the difference, rising steadily to 39% among 55-64’s. And, surprisingly, it is 55-64’s who perceive the biggest difference between FM and Pandora...39% of them say FM is “totally different,” and only 5% say it’s “exactly the same.”

Regardless of the age group, most of FM’s differences are clearly negative for these Pandora listeners. So it’s no surprise that the differences they perceive skew heavily in Pandora’s favor:



Kassof & Co. also asked Pandora listeners: If you couldn’t listen to Pandora — for example, if its site was down for some reason — what would you be listening to instead? In other words, what sources of music does Pandora take the place of when you listen to it?

What we learned is: Pandora certainly competes with terrestrial radio, along with *many other* sources of music:

Laptop/Computer	55%
YouTube	52%
iPod/mp3 player	49%
FM/AM Radio	49%
Phone	39%
TV	36%
CDs	34%
Other Internet Radio/Podcast	20%
Satellite Radio/Sirius/XM	19%
Tablet	16%
Other	2%
None/Nothing	2%

Survey finds a fatigue factor for Pandora. Unlike a subscription service where users may feel they have an *incentive to use a product*, the vast majority of Pandora listeners don't pay. *That may be impacting how long people stay engaged with the service.* Bridge Ratings surveyed Pandora listeners and concluded the longer they've been using it, the less they're "highly satisfied" with the service. Nearly eight-in-ten people who've been using Pandora for six months or less gave Pandora top marks. But that number fell to just one-third among people who've been using Pandora for three years or more.

People said they find themselves logging on to Pandora less over time, and when they do use the service they don't listen as long. "The highest satisfaction comes from an immediate involvement with Pandora," Bridge Ratings president Dave Van Dyke says. "It's like a lot of things, over time you start lessening your love and passion and Pandora is no different." The survey also shows the fatigue factor has grown over the past seven years. Bridge quizzed people who've been using Pandora for a year or more about how dissatisfied they are. The level of dissatisfaction grew the most among 18-34 year olds, with the number who said they find themselves not tuning into Pandora as much tripling from 10% in 2006 to 31% in 2012. Even among 35-54 year olds the rate doubled. "A person who has been using Pandora up to six times a day, after a year and a half to two years may only be tuning in only two or three times a day," Van Dyke explains. The fall off may have been expected. Pandora has a much larger base that includes more casual users. There are also a lot more streaming music options today than in 2006. While Bridge asked about Pandora specifically, Van Dyke says it's likely other streaming apps face similar usage patterns. He thinks the music selection algorithm may become too adventurous for some users, who find their stations just don't sound like they once did.

Bridge: Advertising not a big a turn-off for Pandora users. Compared to broadcast radio, Pandora dedicates a tiny amount of airtime to advertising each hour. It's one of the most-cited reasons for people to use the online music website. Yet Bridge Ratings president Dave Van Dyke says their research shows it also brings a cautionary tale to marketers. *"Over time listeners say they aren't as aware of commercials as they were initially," he says. That's because people report using Pandora differently over time. "It becomes a much more background experience — so much so that they don't even notice the commercials." Van Dyke says. While that subliminal environment may work for brand marketing, whether it will appeal long-term to call-to-action advertisers remains to be seen.* Bridge based its March 2012 findings on a sample of 4,339 internet users

Per Bridge Ratings commercial awareness to broadcast radio stations is almost 5x that of Pandora for those Pandora listeners who have been listening over 19 months:

Mary Beth Garber article

When it comes to how spend advertising dollars, it always seems to come down to research. When it comes to research, it all comes down to definition and methodology, doesn't it. And when it comes to publicity, it's all about headlines -- how can you get the biggest gasp. Radio Ink's article Wednesday is a pretty good example of that.

As you note, there are little liars, there are big liars and then there are statisticians. Anyone can make numbers say anything. So let's look at methodology and conclusions -- and let's look at reality.

The Media Audit's first mistake was to classify Pandora as a radio station. No one else does – not the analysts in their blogs, and not the users themselves if today's article by Mark Kasso <http://kassof.com/?cat=6> is accurate.

Pandora is a collection of individual playlists, it's not Radio. When asked, users consider it to be most like other internet music playlist sites, then comparable to private collections on iPods, MP3 players, etc. Users have a different expectation of an entertainment experience when they turn on radio vs when they use a music playlist site. When people want control over what they hear, they go to their music collection (think stacks of 45s, then cassettes, then CDs, iPods, MP3 players programmed or on random, and now playlist services, etc) to escape from the world.

The problem is that people don't want advertising running in their music collection. Think about it: if they did, the record companies would have put ads between tracks on albums long ago. In fact, the newest Bridge Ratings LLC survey of Pandora users shows that commercials are one of the primary causes for growing user dissatisfaction with Pandora over time. Listeners go to radio not to escape, but to be part of the world, part of a social experience, and that experience includes the information that comes from commercials and the messages they hear from their favorite DJs and personalities.

The Media Audit's second mistake was comparing the aggregation of Pandora's individualized streams to individual local radio stations. That's just silly — not to mention a really misleading comparison of apples and oranges. The idea that a combination of individual hip hop, classical, rock, contemporary hits, classic hits, or comedy playlists with no local or personal connections could ever deliver the same audience environment as one single, focused local radio station is absurd. To come even remotely closer to an apples to apples comparison, Pandora should compare its numbers to an entire station group, say CBS or Clear Channel. But of course they don't,

because they would be crushed. And if Pandora uses geographic or any other targeting refinements for an advertiser, those purported ratings would be even more invalid.

The Media Audit's survey in October 2011 was a phone poll – self reported estimates of what people did without benefit of notations or passive measurement concurrent with their actions. Advertisers have long regarded phone polls as informative but not accurate enough to use as a basis for buying. That's why a coalition of advertisers and agencies pressed Nielsen and Arbitron into adopting passive electronic measurement systems years ago.

The differences become quite clear when we compare The Media Audit's data from last October with Arbitron's data for Los Angeles last October. When one measures what people actually did vs what they say they did, the results, as those advertisers and agencies were well aware, are markedly different. In a story in today's Los Angeles Times, The Media Audit reported that Pandora reached 1.9 million people 18+ and that KIIS-FM by itself reached only 1.45 million.

When compared with Arbitron's reported measured reach of Adults 18+ for KIIS-FM of 2.9 million, The Media Audit has understated the PPM measurement for KIIS by an astounding 100%.

If we were to compare the Pandora data to aggregations of radio stations by group or an advertiser's ability to buy stations with a single order through Katz Radio Group Sales, we'd find that just the top 3 groups alone would deliver 9.2 million individual listeners, 500% more listeners than The Media Audit attributed to Pandora's combined streams.

People like Radio for reasons that are quite different from why they like music playlists or collections. And the facts are that the average person listens to Radio 20x a week, at least 5 days a week Radio reaches about 95% of people in Los Angeles – really reaches them. Not because people say it does. Because Arbitron's passive measurement knows that it does.

Listeners measure Radio by how much they like a radio station. Considering that 70% of people in Los Angeles who have a favorite radio

personality follow them or their radio station on some social media service and how much time they spend listening to Radio, I'd say Radio's listeners are engaged and connected. And that that delivers the best environment for commercials to work. It may not make for the most dramatic headline — but it has the benefit of actually being true.

4/12 Similar to what we've seen with Satellite, satisfaction levels decline the longer one uses the Pandora.

-New Bridge Pandora study: Key take away is that listener satisfaction with Pandora is dropping quite steeply the longer they subscribe.

Main reasons behind reduced listening satisfaction:

“(1) Commercial Interruptions spoil mood

(2) Becoming predictable

(3) Song choice is limited

(4) Song choice for my taste not as good

(5) Diminishing number of likeable songs

(6) Repetition of Artists I don't care for.”

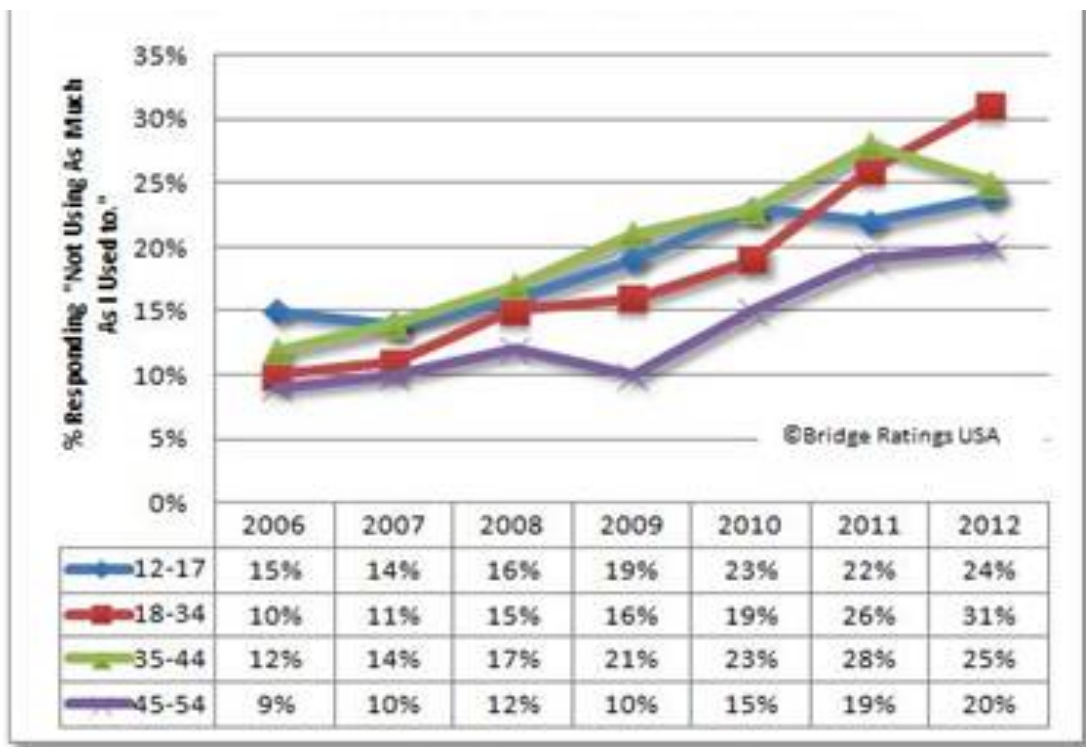
As Pandora increases their commercial load which is what they must do to generate more revenue, (they are already up to 4 per hour) the commercial interruptions will become more annoying and lead to less satisfaction, less usage and lower TSL. TSL has dropped 33% from 60 minutes per session in November 2009 to 39 minutes/session in March 2012.

Pandora will need to increase their commercial load due to their deal with SoundExchange. While their AAS is growing their ability to monetize that

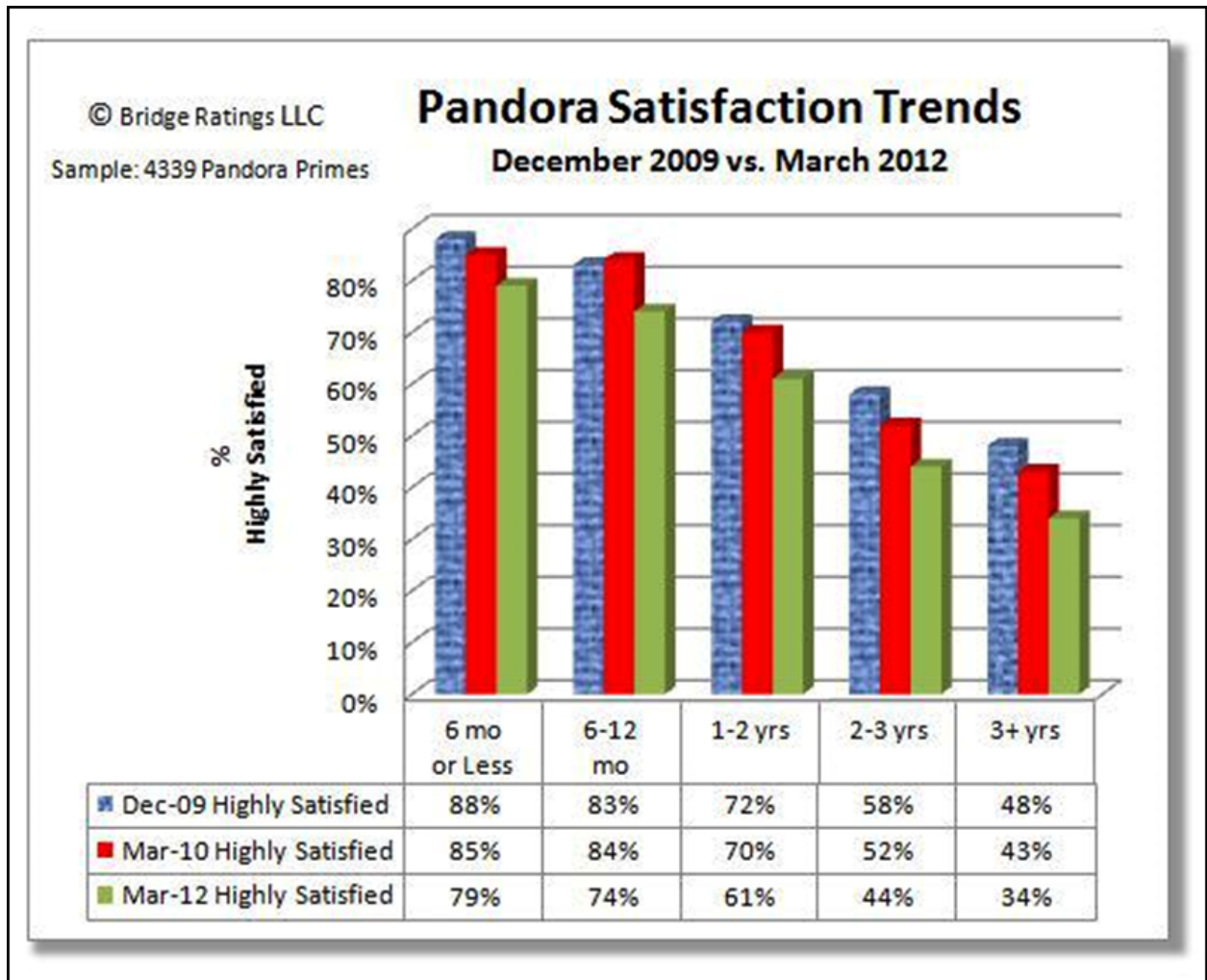
AAS is not keeping pace. Right now close to 55% of Pandora’s revenue is going music licensing fees.

Pandora listening is rapidly shifting to having most of their listening done on mobile devices due to smart phone penetration. Over 70% of their AAS is on the smart phone where the impact of display is greatly diminished and CPMs are far lower. Currently much of Pandora’s revenue is coming from digital shops that value display advertising. As more of Pandora’s listening is consumed on smart phones and interaction with the mobile phone becomes more difficult, Pandora becomes less attractive to digital shops

As Pandora increases their commercial load they are becoming more like broadcast radio the medium which they are claiming to “redefine” satisfaction levels decline.



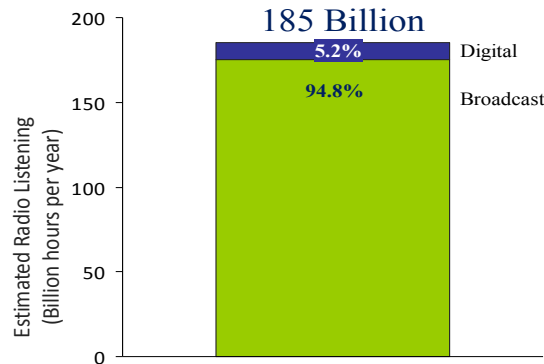
There is a large decrease (about twofold) in satisfaction levels over the past 6 years with Pandora as illustrated in the slide above.



Note only 34% of Pandora users who have been using the service 3+ years are highly satisfied

Digital Is Still Growing, But Broadcast Radio Listening Is By Far Dominant

**Broadcast vs. Digital: Total Listening Hours
(Jan-Dec 2011)**



Digital Is “In Addition To” Not “Instead Of” Broadcast Radio...

*Source: Broadcast uses RADAR 112 March 2012 (January 6, 2011 to December 7, 2011)

**Source: Digital based on Triton Digital Releases Monthly Internet Audio Top 20 Rankers Jan 2011 – Dec 2011

KATZ | RADIO GROUP

Pandora:

About 1/3 of “uniques” tune-in monthly. That is “interest”, not “commitment” to a product

About 67% do not tune in monthly vs average AM/FM broadcast listener tuning in 3.5x/day 5 days per week to radio

Approximately 12-13 million tune-in daily or approximately 8% of their subscribers. Compare this with radio’s 70%+ daily tune-in 3.5x/day

Increasing commercial load: Pandora is adding commercial load to 4 per hour. At the beginning of 2011, Pandora ran 2 commercials per hr. July 2011 Pandora’s commercial load was increased to 3, it’s now 4 per hour. Initially Pandora only accepted :15’s, but as they began competing for Wired Radio \$\$ they began accepting :30’s as well.

Volume? At what volume are people listening- it’s a good question. Loud enough to even hear a commercial- for PPM to pick up? Bridge’s Dave Van Dyke has conducted research indicating that many of the commercials are not even noted by listeners (referenced above).

Is anyone present? If a person walks away with a PPM device, the device no longer records listening to AM/FM. With Pandora a person leaves the room and can no longer hear the Pandora stream, it continues to be counted and is included in their AAS.

Pandora has a “Pac Man” approach to generating impressions, gobbling up impressions...if a Pandora listener is the targeted gender and age that’s often all that’s needed to continue to serving the same message over and over, regardless of day or daypart or the number of times exposed to the message. “Frequency Caps” are often not being utilized by Pandora advertisers resulting in massive frequency exposure to the same listener often resulting in out of whack frequency distributions.

Music Satisfaction: P1 Station vs. Streaming Service

Rated on a 1-10 scale

	Total	Heavy Radio	Weekly Streamers	Pandora Users
P1 Station	8.28	8.52	8.32	8.13
Streaming Service *	8.34	8.55	8.83	8.54

** Respondent’s most-used non-radio music streaming service*

Pandora Ando nationwide TLH figures are inflated due to their paid Premier subscribers listening being included in Ando National AAS figures. Premier listeners are not served advertising.

Questionable Business model: 55% of Pandora's revenue goes to music licensing.

What's the difference between thumbing down a song and changing a station? Not much. Their Genome project playlists are not any better than a well curated radio station- Confirmed by several studies.

Ease of use in car 5 years away, per Pandora

No personalities

Few feet on the street to conduct sampling or overseeing experiential events.

No additional platforms that AM/FM stations provide: podcasts, streams, contesting, personal recommendations (DJ endorsements), experiential events, sampling, etc.

75% of Pandora's streaming is on mobile devices- leaving display ads largely ineffective.

Streaming not cannibalizing broadcast: per Targetspot, ARB/Edison, Burns, USA Touchpoints and other studies. Streaming is a "supplement not a substitute".

Pandora's entire nationwide listening equal to radio listening in LA—Puts Pandora's impact into perspective

The following is far from ideal commercial scheduling: Pandora air check the morning of March 2, 2012 recorded by a 26 year old female:

- **7:02A Discover Morocco**
- **7:17A Discover Morocco**
- **7:32A Discover Morocco**
- **7:48A Discover Morocco**

- 8:02A Ring Central
- 8:19A Soap.com
- 8:37A Discover Morocco
- 8:52A Soap.com
- 9:08A Discover Morocco
- 9:25A Blue Cross Blue Shield
- 9:45A Blue Cross Blue Shield
- 10:03A Blue Cross Blue Shield
- 10:22A Blue Cross Blue Shield
- 10:40A Discover Morocco
- 10:56A Soap.com

The future is not an extension of the present: The convergence of technology and music is moving so fast that even successful innovations are getting left in the dust in a matter of a few years. The current streaming landscape will likely change dramatically.

The importance of ease, simplicity and curation:

Many who utilize addressable music services stop evolving their playlists.

Becomes too much of a hassle. Many, quite simply, realize they don't have time nor inclination to program their own daily soundtrack.

Not everyone wants be their own program director. Many people, including young people, simply choose to listen to what is filtered by others and made available to them.

Many people are busy and aren't THAT much into music

We must also keep in mind having access to a technology doesn't mean that everyone will use it. There are a lot of bells and whistles on devices that we currently own that we rarely or never use.

Why Would You Choose Pandora for audio Campaigns?

Pandora is a passive listening service, you are rarely staring at the screen to be exposed to display/interactive advertising which delivers the majority of their ad revenue. While you may interact with the screen when you first start using the service to set up your playlists, once you have your 5-10 initial playlists and have thumbed up/down a bunch of songs, the greatest benefit of Pandora is that you do not have to do anything - it is pure passive listening, often at low decibel levels.

On a PC, consumers can open Pandora in one tab of a browser and then never look back - beyond a click every once in a while when the computer asks if you are still listening. On mobile, you are even less likely to be interacting with the Pandora screen, especially since the advent of multi-tasking on mobile devices such as the iPhone last year. If you are jogging or have plugged your iPhone into your car, there is no way you are going to be able/interested in clicking on ad, let alone even know that the display ad is on the screen.

RBR-TVBR observation: *It's a "Catch 22" for Pandora. More and more of its audience is going mobile – and it has to pay SoundExchange the same rate for mobile listening as for listening via a computer with a larger screen. But as that audience moves it has to move its advertisers as well, away from display ads to more audio ads, which makes it more like the traditional radio industry which it claims to be "redefining." Converting advertisers to audio isn't happening fast enough for Pandora to keep up with the music royalties it has to pay for mobile listening, so the mobile growth is actually a financial negative in the short-run.

Pandora has recently increased their hourly commercial load to 4 per hour. It's generally acknowledged within the online community that streamers are less tolerant of commercials- the reasons for streaming pureplays differ from the reasons of listening to broadcast radio for a couple of reasons:

- A) The listener has come to expect very few commercials on Pandora and expects commercials on broadcast stations

B) Pureplay listening is “me” time, with listeners not wanting to be interrupted. Broadcast radio is about wanting to be connected to the outside world. Commercials alert and connect the listener to offers that could benefit the listener

Pittman: listeners less tolerant of commercials on custom web radio: Pittman provided a defense for why broadcast radio remains relevant. Web radio listening is a “solitary experience” he said, contrasting it to the social experiences of broadcast radio programming chock full of gossip, time and temperature and air personality chatter. “They’re two radically different experiences,” Pittman said. It’s why he believes consumers won’t be as tolerant of attempts by web audio services to increase their commercial loads. “When I’m in my own world I have got that cone of silence over me, the last thing I expect to hear is a commercial,” he explains. “On radio, a commercial is part of checking in with the outside world — which is why consumers tolerate commercials, and in many cases value them as important information

David Field: Pandora has a fundamental business issue to deal with. They need to either figure out a way to dramatically increase their commercial load – and guess what? People don’t listen to Pandora to hear commercials, because it’s not radio and they’re not used to it. It’s a music playlist service and they don’t want commercial on their iPods, they don’t want commercials on their CD players and they’re not going to want commercials on Pandora and Slacker and so forth.” “So our view is that if they increase the commercial load to make themselves more commercially viable they then will have the problem with their listener appeal.

Fact: Per Pandora Hispanics represent nearly a quarter (22%) of all smartphone listeners on Pandora. Media Audit show the same thing.

A 2011 study from Orpheus Media Research found that 54% use music recommendation tools, with 40% utilizing them on a daily or at least weekly basis. However, the accuracy of such tools was criticized. 40% said such services were accurate 50% of the time or less, and many complained about the amount of time one had to invest to make use of them. (Note how many times you end up thumbing up or down on Pandora in spite of their Genome methodology.)

However, the search for information about music discovery showed Radio to be king. Here are two findings from the Orpheus study:

- 57% of the respondents indicated that they most often relied on radio or word of mouth to learn about new music; 14% indicated that they relied on mainstream media

- and 82% identified radio as the greatest single influence of their music listening!

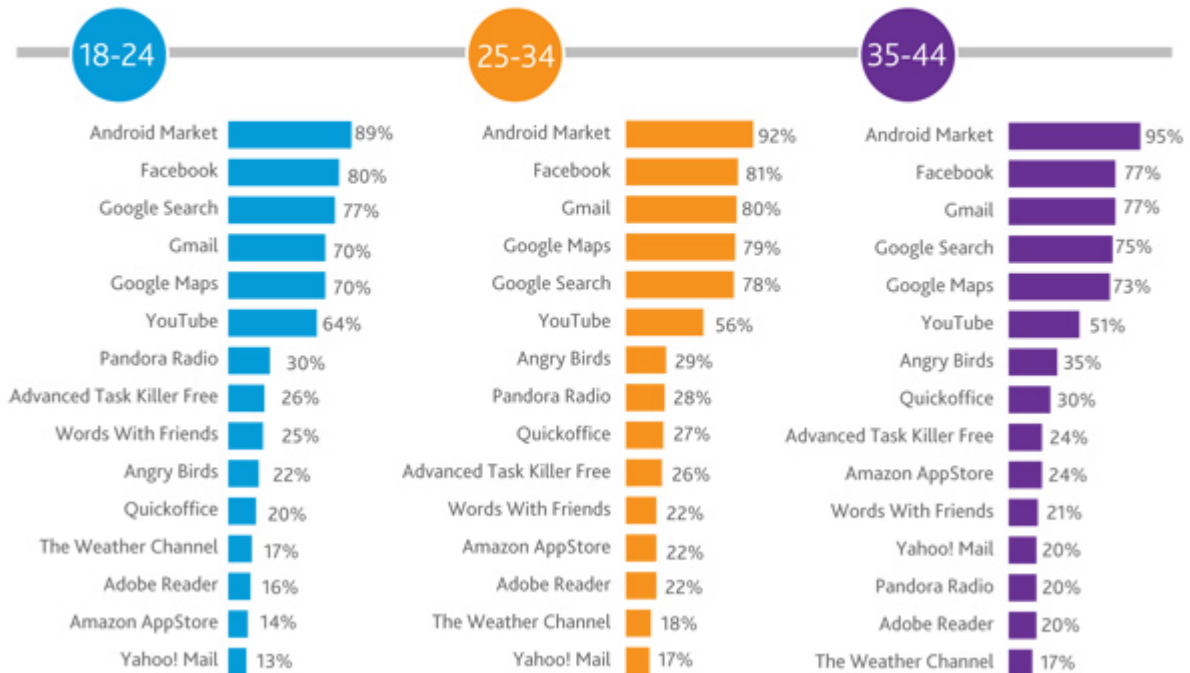
Not everyone who has an Android smartphone is using Pandora

The study made use of Nielsen's proprietary on-device monitoring software, which has been voluntarily installed by thousands of panelists across the country

Facebook and Google properties dominate Android application usage across age groups

Mobile Application Reach by Age

Nielsen Smartphone Analytics, Device Metering Data, September 2011



Source: Nielsen

nielsen

More than half of Country radio P1s have heard of Pandora, according to new data from Edison Research. **About the same percentage point to DJs as one of AM/FM's primary advantages over Internet radio**

Nielsen found 21% of iPad owners report regularly accessing radio through the device. That's nearly as high a percentage as iPhone users — 22% of which tune to streaming radio. Nielsen's survey finds iPad users are young: 63% are under the age of 35. Two-thirds of users are male.

Questioning a Pure Play ad supported business model

Adam Klein/Columbia University Journalism School

“Ad-supported is unsustainable. That I say very assertively. I'm an adjunct professor up at Columbia Journalism School and I teach about the business models of media. No one can show me an ad-only supported business model in the digital space that's sustainable by itself.

If you think about the digital environment, there is an infinite amount of advertising inventory available. Economics 101. In a world of infinite inventory, prices will come down. And that's what has happened. Unless you have other sources of revenue, that's not sustainable.” He might not be wrong. Pandora's and other pureplay music rights will continue to rise thru 2015.

Pandora/Pureplay music rights

Content costs totaled 50.4% of total revenue in fiscal Q3 and SoundExchange rates are set to increase annually through 2015. Content costs will rise from 50% in the fiscal year ended 1/31/11 to 53% in the current fiscal year (1/31/12) and to 55% in the next one (1/31/13).

January 2012 Pandora says it now has 125 million subscribers (May 2012 they say they have 150 million) who listen, on average, 18 hours per month....***this equates to an average of 38 minutes per day- versus AM/FM TSL being 2 hours.***

38 minutes/day is enough to be exposed to two commercials/per day or about 6-7 week with the average Pandora listener tuning in every other day making it difficult to generate an effective ad campaign.

1-5-2012

Joe Kennedy sounded like a traditional radio guy yesterday as he started off a presentation with some strong pro-radio statements at the Citi 2012 Entertainment, Media and Telecommunications Conference; he quoted Arbitron numbers, saying radio remains hugely popular with consumers and that radio still dominates vehicle listening. Radio is still big for two reasons, Kennedy believes: serendipity and ease of use. "Because with radio, we don't know what's coming next," (serendipity/surprise) he said. "And it's an easy experience. We can listen while multi-tasking, while driving, working, partying." While Pandora does offer consumers a free service, it also has a paid premium option, and no effort might be a stretch -- while creating a station is simply a matter of choosing an artist or song, **refining a station to your own taste with likes and dislikes does take some time-- and it's certainly not as effortless as turning on a home or car radio** to listen to your favorite AM or FM station. In fact, Kennedy stated that one of Pandora's goals was to make the service "as easy to use as FM."

Pandora's immediate growth, according to Kennedy, will be coming from mobile, and, despite showing a video from Cadillac touting Pandora -- along with FM radio --* **Kennedy says ease of use in the automobile is at least five years away.**

Pandora's Genome Project

Predictable. Little surprise

Was so predictable, it had to re-programmed to add a wider variety of music. Pandora responded by adding variety, essentially de-tuning their algorithm

Substitute "FM" for "SiriusXM" below for the other 280 million people who don't subscribe to satellite radio. Mark Ramsey wrote:

Okay, so I have weird tastes. I'm the guy whose favorite dishes in restaurants are discontinued for lack of interest. And my music tastes are just as irregular.

But thanks to the Internet you can find anything nowadays, and thanks to personalized radio services you can create what you want out of nothing if you so desire.

It so happens that there's a channel on SiriusXM that gets close enough to one thread of my weird tastes. Also, I created my own version on one of the personalized radio services. And here's what I discovered:

The SiriusXM version is better. The one that is programmed, "curated," if you will. The one that offers you no choices and no skips.

On my personalized service I'm plugging away, adding all the artists which form the core of the SiriusXM channel into my own custom-created channel, and the mix doesn't even come close. And it's a lot of work, tweaking your own channel. I like this, I don't like that. What makes you think I'd like that just because I like this? On and on the tweaking goes, and what I'm left with is still a psychotic version of my SiriusXM channel that seems to be continuously off its meds.

Granted, at least I can skip songs I don't want on the personalized radio services. How I wish I could do that on SiriusXM (especially the streaming version, for which such magic is only a license fee and a user surcharge away; C'mon, SiriusXM).

But here's the thing: Personalization is very valuable but it comes at a cost. Because personalization is fundamentally an exercise in hacking.

Hacking is familiar to anyone who grew up with video games or anyone who writes code (or works with a code-writer). The widget is released into the wild "vaguely right" with tons of "bugs" that need to be swatted away. In personalized radio those "bugs" are every song that's off-center or otherwise not to your liking. And a "skip" or a "thumb down" is our way of swatting away the bugs. This takes time and effort, something you may not be looking for when, say, you just want to hear some good music.

So it seems impossible for me to create a better version of the SiriusXM channel I like unless I embrace the challenge with all the fervor of a second job.

Of course, as I have said before, personalization on these services is an *option*, not a *requirement*. You can do as much or as little as you want.

And the less you do, the more the channel resembles the thing that booms out from every home, work, and car...

...the radio.

Radio vs. Online Pureplays

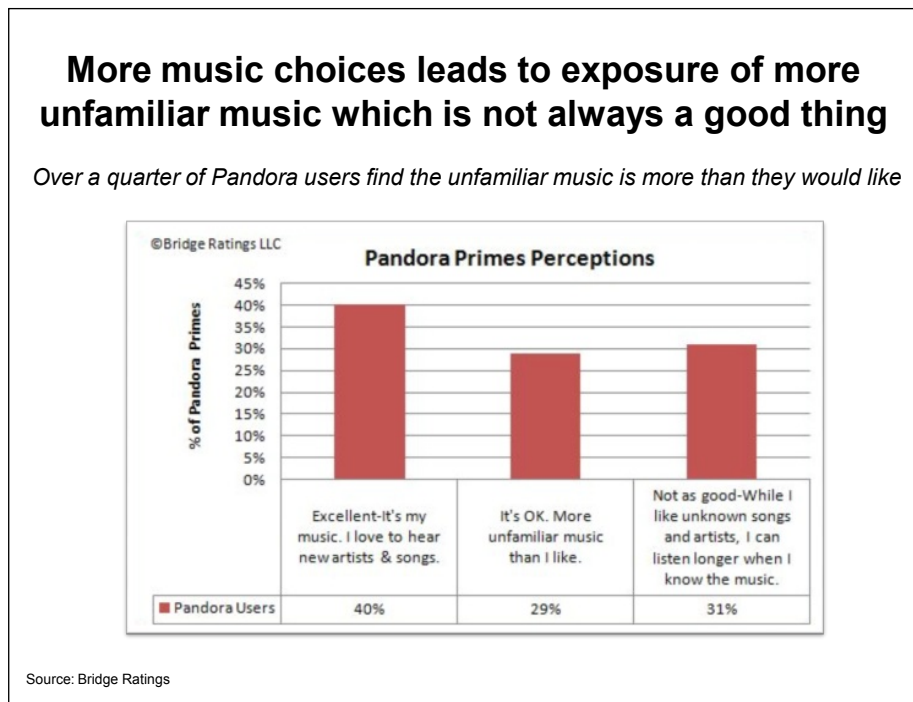
- Radio is on in every car
 - *Broadcast Radio connects with listeners as they drive from point A to point B – key to retail advertisers*
- Radio's multi-platforms provide variety
 - Blogs, podcasts, streams, texting, video, social networking, voting, etc
- Radio has personality and engagement
 - *Personalities and teams matter to listeners*
- Radio offers dynamic targeting
 - *Ads aren't just based on zip codes but audience communities, music taste and cults*
- Pureplays are not in cars
 - *It will take the Pureplays years, if ever, to reach penetration levels in cars similar to broadcast Radio*
- Pureplays are
 - *An internet service only*
 - *Automated based on preferences*
 - *Has no DJs to engage with listeners and*
 - *Currently has no local staff*

Consultant Mark Ramsey brought up an interesting way to think about “personalization” in a recent blog when he wrote, “The fact is that radio – today’s radio – the kind in every home, workplace, and car – can already be personalized.

Every time you hit the button and change the station you have just **personalized** your radio experience. And, like Pandora, the next song you hear can't be predicted based on the one you just "skipped." Indeed, I'm here to tell you that punching the button is the exact same behavior as "skipping" the song.

Besides, I would bet that folks like "thumbing up" and "thumbing down" and "skipping" songs no more than they like changing stations. Yes, everybody wants more variety – and ideally on one station, if at all possible."

60% have an issue with Pandora's unfamiliar music:

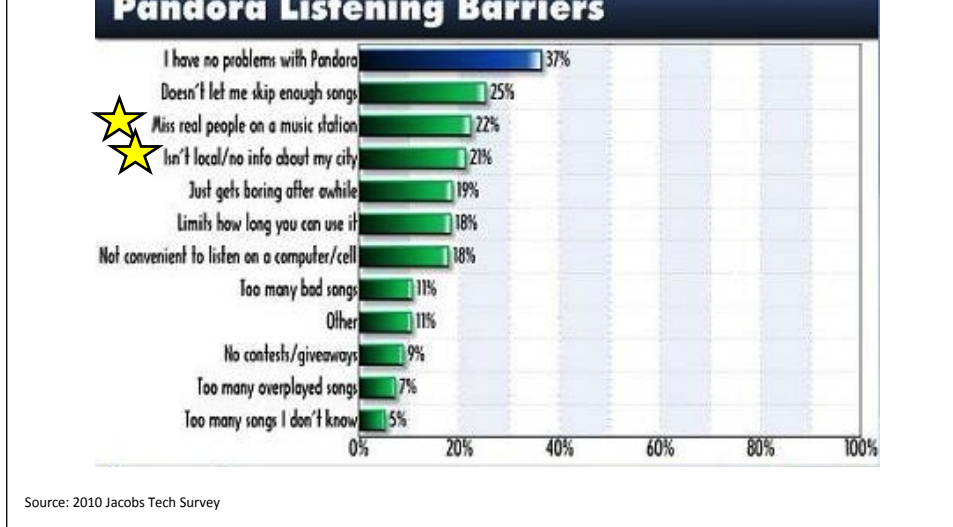


What is a subscriber: Pandora has 150,000,000 of them. A "subscriber" could be anyone who has played a song over the past 10 years on Pandora. How many Pandora subscribers no longer listen to Pandora, have switched to Slacker or some other pureplay streamer? *To be counted in a broadcast audience one has to spend some measured time listening, not the case with*

subscribers. About one-third or about 50 million are characterized as “active” users—why does listening monthly quality as “active”? why not weekly, like AM/FM? One user stated that they have signed up 3-4 times with Pandora as they kept forgetting the password and it was just easier to sign up again under a different name. It seems as if the Pandora listener falls under the **Heath Club scenario**- many sign up, a much smaller number actually use them.

Music without features and personalities wears thin over time. Many miss the personalities and the “localness” of broadcast radio. Targetspot’s 2011 study uncovered fatigue with personalized radio services such as Pandora and Slacker, three in ten (29%) use different internet radio web sites because they get tired of the stations they’ve created.

Elements of traditional radio are missed when listening to Pandora



Several analysts have noted Pandora's vulnerability and broadcaster's effort to compete in the control-variety-choice arena. Alan Gayle, senior investment strategist at RidgeWorth Capital Management in Richmond told Bloomberg "The barriers to entry are not very high, and the innovation is really taking place at the speed of light, they are very susceptible to changing technology and changing consumer preferences.

Mary Beth Garber: Are they present?

With radio, [ARBITRON](#)'s [PPM](#) does not pick up the audio codes if the audio is on mute or the meter is too far away from the audio source to hear the content. Since [PANDORA](#) has no such rules, someone can turn their computer on and walk away, yet still be credited as "listening."

It's obvious that many of the people who registered on [PANDORA](#) either have duplicate (or triplicate, or quadruplicate) registrations, or that close to 2/3 of the people who register for [PANDORA](#) must not like what they hear,

because they don't use the service even once a month. Before anyone gets excited about the latest "total number of registrations" for the service, ask how many of them are actually unique individuals and then ask why so many of them don't bother to come back- weekly or even monthly.

Registrations don't make an [internet music](#) service successful. The [internet](#) is littered with the bodies of [internet](#) companies like [PLAYLIST.COM](#), a failed [music](#) service that claimed to have about 70 million registrations right before it crashed. Regular usage is what makes an [internet](#) site successful, and regular usage is what radio has. Virtually all of Radio's 242 million listeners use Radio at least once a week. About 75% to 80% of them use it daily. As [PANDORA](#) has admitted, and ARB Edison 2011 confirmed approximately 10% of their registrants actually use the site in a week.

Let's say a media buyer was considering a buy targeting 18-49 year olds. They can take one of two approaches: If they were buying multiple markets and the target was simply all the 18-49s available, without regard to the environment or the culture in which the message were delivered, one logical step would be to take proposals from Katz Radio Group Sales, which represents 95% of the radio stations in those markets and would be able to tailor a submission that provided double digit or more delivery of the 18-49s in each of the markets. If the buyer were looking at only one market, the natural comparison would be to take a submission from different radio groups in the market and Pandora. In this case, the aggregation of just one group's appropriate radio stations would deliver an average quarter hour that is 460% greater than that of Pandora. And there are many others available which would, like Pandora, aggregate various formats together to deliver 18-49 year olds. Those are the only fair comparisons that can be made. But that isn't what Pandora is suggesting, and that's why Pandora's claim makes no sense.

If the media buyer, on the other hand, were buying for a product that required targeting with careful regard to the environment where the commercial would run, the buyer would consider individual radio stations for their ability to reach the kinds of 18-49 years olds targeted, in a controlled environment that would be relevant to the message of the commercial. Real radio stations would have the skill set and the capability to do this easily. In order to be comparable, Pandora would have to offer

far more targeted access to its playlists. If Pandora really wants to position itself against, say, a pop music station in NYC, then it would have to generate a rating that includes only the users who are accessing that kind of music on their site in order to compare them.