The songs remain the same (but louder), say scientists

A team led by an AI specialist in Spain declares, shockingly, that pop music is becoming increasingly noisy and homogenized.

by Chris Matyszczyk  |  July 26, 2012 11:17 AM PDT

Homogenized? But Justin's an original, surely.
(Credit: JustinBieber.com Screenshot: Chris Matyszczyk/CNET)

It isn't true until the numbers say so.

That is the mantra of the modern world.

So I bring you news that the figures have been counted and the declaration has been made by unimpeachable scientists: pop songs are becoming noisier and increasingly homogenized.

Yes, should you wonder, on hearing a Lady Gaga song: "Gosh, haven't I heard that somewhere before?" you might well have, but this time it's accompanied by a few more decibels.

You might be wondering what sort of scientists have taken time out of their busy schedules to put a number to the numbness.

Well, Reuters tells me that this research is the work of a team led by Joan Serra at the Spanish National Research Council.

Serra is an expert in artificial intelligence, so he must know real from made-up. Surely, he'd just have to hum a few tunes to reach a conclusion.

But, no. He and his backing band chose songs from as long ago as the '50s up to the present day and poured them through a very fancy algorithm to see how much originality there might now be in terms of chord structure, melody, and noises exclusively invented by Brian Eno. (I paraphrase marginally.)

The study, published in the journal Scientific Reports, is entitled: "Measuring the Evolution of Contemporary Western Popular Music," which sounds like it could be put to music and go straight to No.1 in North Korea.

Serra sang a depressing tune to Reuters: "We found evidence of a progressive homogenization of the musical discourse. In particular, we obtained numerical indicators that the diversity of transitions between note combinations -- roughly speaking, chords plus melodies -- has consistently diminished in the last 50 years."

More Technically Incorrect
ceiling at this hideous news. Yes, you had believed that the special songs written for "American Idol" winners were just that -- special.

Now you are being told that it's the same old song, but with a different meaning since you've grown up a little.

Sadly, I have news that might cause you never to listen to an mp3 again. For Serra also declared that today's pop has become One Dimensional. I am sorry, those last two words should have had small initial letters, but it seems that today's fresh-faced hits are stale-eared. They hit fewer varieties in terms of basic sounds.

They're also louder. Indeed, Serra accuses those venal producers of deliberately ratcheting up the noise in order to get you to cum on, feel it.

The study, though, does offer hope to all those who would want to produce for Bieber, write songs for Bieber, or merely be Bieber.

For it says: "An old tune could perfectly sound novel and fashionable, provided that it consisted of common harmonic progressions, changed the instrumentation, and increased the average loudness."

And that is how Simon Cowell became so successful, perhaps.

Topics: Music, Media, Random, Social networking, Advertising Tags: Technically Incorrect, pop music, Lady Gaga, research, algorithm

About Chris Matyszczyk

Chris Matyszczyk is an award-winning creative director who advises major corporations on content creation and marketing. He brings an irreverent, sarcastic, and sometimes ironic voice to the tech world.
That explains a lot.

Posted by Renegade Knight (11487 comments)
July 26, 2012 11:39 AM (PDT)

My experience: pop is becoming simpler and more homogenized every year. Non-mainstream music is pushing towards ever greater complexity in everything from harmony to lyrics, using techniques such as white noise, dissonants and so on to great effect.

Conclusion: the more complex and brilliant things get, the more the masses go back to simple, easy to digest stuff.

Are pop stars, Apple engineers and mainstream TV makers part of a hidden brotherhood?

Posted by Silmarunya (919 comments)
July 26, 2012 11:43 AM (PDT)

Bullseye!

Posted by Mergatroid Mania (7342 comments)
July 26, 2012 1:51 PM (PDT)

One good example of really old music is Beethoven's Sympony Number Five, First Movement. It takes about five minutes and there is almost no sequence of notes that are duplicated. It has the same dit-dit-dit-dah sound, except that sometimes it goes dah-dah-dah-dit, sometimes it is repeated a half-step higher, faster, slower, and so on. Listen carefully and see if you agree.

Mozart is also good at having extremely comples music.

Posted by Been_there_Saw_it_before (418 comments)
July 26, 2012 2:50 PM (PDT)

That theory is pretty good. Seems to fit.

Posted by jfras (12 comments)
July 30, 2012 12:15 AM (PDT)

This is a releif. I thought all pop music was sounding alike to me because I was getting old.

Posted by drewstall (138 comments)
July 26, 2012 11:49 AM (PDT)

Pop sucks.

Metal!!!!!!!!!
Music sucks because of the RIAA. I have said this before. If the big music production organizations were to disappear there would be a new renaissance through the internet. There would be an explosion of art and music on a scale the world has never experienced. In the process we get rid of the the brainwashing that the music industry contributes to society and the messages that these songs send forth that reduce our culture to animals. Just IMO.

These organizations are detrimental to the youth, and to society as a whole.

Yeah, right. Because the RIAA prevents people from putting their music on the Internet...oh, wait....

The RIAA prevents new artists from putting their own stuff free on the Internet? Really?

Better rethink that.

The only music the RIAA controls is that which they own. The artist that holds the rights to his/her own music is more than welcome to upload it to the Internet.

Duh, guys. Mergatroid was being sarcastic.

There is a reason why two-thirds of Rolling Stone magazine's lists of the Top 500 Songs and Top 500 albums come from the 1960s and 1970s. This supports what I have told my daughter for years - music was better when I was young. Some years ago, when she was younger, Santana's "Smooth" was playing on the car radio. I said, "That sounds like Santana." My daughter said, "Oh, Daddy, you don't know anything about Santana." So, when we got home, I showed her my 33-1/3 rpm, vinyl album of "Abraxis."

Forty years from now, will the current young generation remember any of the music they listen to today?

Yes. As with Every generation of music, only the best ones will be remembered.

There was a lot of god damned awful, incredibly annoying music in the 60s and 70s. The past always looks better because the radio only plays the good stuff and we only remember the good stuff.
I agree. Most vocalists today are not unique in style or sound. Like you, I can distinguish singers and guitar players based on their style and sound. The first time I heard a track from the new VH release, I knew it was VH without anyone telling me. If Mick Jagger replaced Steven Tyler and recorded an Aerosmith tune, I would be able to tell you it was Jagger on the vocals just by hearing it. I'd also be able to tell you it was Joe Perry on guitar.

On the other hand, replace the singer from just about any pop act, and I would be hard pressed to hear the difference. The vocals are all auto-tuned, and much of the music is sampled. There is very little difference in sound or style among today's pop groups.

Posted by One-Eared Gundark (500 comments)
July 26, 2012 2:41 PM (PDT)

@OniOokamiAllador
There is a lot of truth there. When I had Sirius I got hooked on the 50's channel. What was interesting was how much of the music was left behind. I knew a lot of it but a lot of it (which was perfectly good music) didn't survive the decade. When I got the whole picture you could see Rock and Roll evolving and trying things (not all of which worked). Experimentation was all over the place and you could see it in the music, but not until I was listening to all of the era's music.

Posted by Renegade Knight (11487 comments)
July 27, 2012 9:02 AM (PDT)

As long as there has been music people have always complained “Back in my days music was original. Now it’s all the same”

Don’t believe me ask you parents or grandparents if they were told that by the older generation.

Posted by Oleg Simkin (51 comments)
July 26, 2012 12:13 PM (PDT)

I disagree. In the 50s and 60, parents were saying that Rock and Roll was the Devil's music. None of them said “back in my day music was original” because Rock was original compared to what came before it.

When I was growing up in the 70s and 80s, I never heard anyone claim Rock and other current music was not original. In fact, it wasn’t until Disco came out that people started complaining about the crap it was.

Now, when I listen to newer stuff, it reminds me of that crappy disco.

There are still good bands around, but no one has been able to equal the awesomeness of rock and roll bands from the 50s to the 2010s.

Even if a band like, say, Van Halen came out with a new album, and it sucked compared to their older stuff, it would still be better than 90% of the crap they create today.

No one EVER said “Rock and Roll is not original”. It evolved from its roots, and it is what it is.

As for sound levels, I have a feeling whoever tested them has never been to a Van Halen concert, especially one from back late last century. My ears are still ringing.

Posted by Mergatroid Mania (7342 comments)
July 26, 2012 2:00 PM (PDT)

200 years from now people will still know The Beatles, Stones and Elvis.

In 20 years, nobody is going to give a rat's arse about Beyonsuck, Amy Crackhead and Justin Beaver.
The great part about having an appreciation for older music that you haven't necessarily grown up with is that society has already weeded out most of the garbage. There will always be crap music.

Posted by jeeves86 (482 comments)  
July 26, 2012 1:39 PM (PDT)

@jeeves86  
Most of the garbage yes. But they loose some gems as well.

Posted by Renegade Knight (11487 comments)  
July 27, 2012 9:03 AM (PDT)

An interesting article that bears fruit by simply turning on an FM radio for 10 minutes....

Posted by jmpetersen (47 comments)  
July 26, 2012 1:17 PM (PDT)

I listen to a Classic Rock station. They play great tunes.

Posted by Mergatroid Mania (7342 comments)  
July 26, 2012 2:01 PM (PDT)

This has been an ongoing argument with my now 18 year old daughter for years. ALL the stuff she listens to on the radio and internet sounds the same. The female vocalists could be interchangeable and no one would know the difference. The male "singers" are even more pathetic. They all sing in the same 5-7 note register and don't seem to have a range of more than one octave. Before she turned 12 she use to like "hippie music", as she termed it. I pray for a return to those days!

Posted by Steve-O68 (16 comments)  
July 26, 2012 1:18 PM (PDT)

You forgot to mention that the singers don't have to be good either. Even the crappy ones can have their voices electronically augmented to artificially make them sound passable.

Posted by Mergatroid Mania (7342 comments)  
July 26, 2012 2:03 PM (PDT)

"Pop" music is an industry product, not an art. Label exects manufacture an image, a persona, and a sound conforming to a standard calculated to appeal to the lowest common denominator, and paste it on a moderately attractive 15-22 year old.

There has been no innovation since they nailed down the formula at least 20 years ago. It's all been 100% derivative since that point.

Posted by OniOokamiAlfador (3931 comments)  
July 26, 2012 1:52 PM (PDT)

Yep. It all started when looking good on MTV (they used to play music videos in those days) became more important than the quality of the music.

Posted by One-Eared Gundark (500 comments)  
July 26, 2012 2:27 PM (PDT)

@OniOokamiAlfador - "Pop" music is an industry product, not an art

Probably the most accurate comment I have read yet. But I would disagree that the entire music industry is this way. You might need to look a little harder for innovation, but it is out there.
I never said the entire music industry was that way. Not sure where you got that impression since I specifically singled out pop music in my comments. I guess I can see why you might take that second statement about innovation to stand on its own. There has been plenty of innovation outside of pop music. Plenty of artists making up the core of legitimate genres have had some great artistic innovations in the past 20 years.

Here is where I disagree.

In the 50's channel i was listening to you could literally year the over produced homogenized 50's studio experiments. They almost all didn't survive the era. The ones that did definitely didn't use the studio formula. That's not universally true, but most of what was fresh and would survive the decade was orginal.

Not sure if it applies to this study, but in general the problem with comparing new music with music from a decade or two or five ago is survivorship bias. Great songs will continue to be known for decades, while marginal ones fade away. So when comparing current songs to songs from the 70's you are comparing a full spectrum (good and bad) to only the good ones from the 70's.

Agreed, to an extent. I'm sure if you go back and look at what really made up "pop" releases in the 70s you'd find that there's tons of crap in there but I guarantee you it still wouldn't be quite as formulaic. Technology and just industry methods as a whole have progressed to a point that about 15-20 years ago, record execs could effectively manufacture a band or single performer to fit a predefined image, using marketing science to determine what sound and look would sell the most records, then use costume, coaching, and some newer tech like advancements in autotuning to make someone they picked off the street fit that mold.

I'll go with Oni's "agreed to an extent".

I find music I like in any era. I found more I liked in the 90's than the 00's and more in the 00's than the 10's. I'm finding less standouts over time. With more rock bands than ever they should be generating more standouts (and with viral hits and you tube more venues to get noticed) but it's not happening at the same rate.

If you listen to pop music you won't care, and if you care you probably don't listen to pop music anyways.

This is all just a process of optimizing the top 40. Science has proven the general 4 chord song resonates the best with the majority. There's still plenty of very good music out there, it's just not as popular as some of the catchy crap on top.
Chris, I'm astonished that you haven't been wading into Mitten's latest book, "101 Ways to Insult Your Friends in Two Days."

It's a best-seller. Backside -- need I say more?

Posted by gork_platter (1000 comments)
July 26, 2012 2:51 PM (PDT)

Electronic music is the new thing. I LOVE it. Not the loud stuff that the US produces, but European electro and Canadian.

Posted by paisley097 (238 comments)
July 26, 2012 3:06 PM (PDT)

"in order to get you to *** on, feel it." *** ... did I just read that? hahaha

Posted by ehenyo (38 comments)
July 26, 2012 5:04 PM (PDT)

This entire article has a lot of musical word play to it.

Posted by jeeves86 (482 comments)
July 26, 2012 5:43 PM (PDT)

"it's the same old song, but with a different meaning since you've"

Just doesn't come across the same without Levi Stubbs doing it.

Posted by MyopicOne (5 comments)
July 31, 2012 7:03 AM (PDT)

In the 50s and 60s nobody had a clue what the youth demographics were. So a wide diversity of American music dialects hit the national airways to see what would stick. There was the Philadelphia sound, the Motown Sound, Wall of Sound, Country Music, R & B, Folk Music, Swing Jazz, Country Blues, Gospel, and more all crossing over, mixing up. (The Beatles made such mashups their style). Now the 8 or so media moguls who own everything don't allow such experimentation and everything is safely predigested. Every song is Beyonce/Mariah Carey/Christina Aguilera/Blackeye Peas/Zzzzz... But I think that's ok. People listen to music to stimulate their reptilian brains, nothing more. Stop whining.

Posted by schalleratsprynet (5 comments)
July 26, 2012 6:14 PM (PDT)

Somehow, 'pop music', producers forget that the space between the notes is just as important as the notes themselves. I am sure if someone just pointed out that a seamless track is lackluster, no matter how loud it is pumped and compressed, the recording industry would embrace a more interesting and dynamic product. Wouldn't they? You know, put some artistry into their art if they knew better?

Posted by HappyPhil (19 comments)
July 26, 2012 11:08 PM (PDT)

He is full with talent, I love to listen this song again and again.

Posted by jamshedbasar (2 comments)
July 26, 2012 11:30 PM (PDT)

I just realized that most of the new stuff that I actually do like, my kids are finding on YouTube and not on the Radio.

More european music is making it into my collection as a result.
I would agree that "Pop" music is getting more homogenous. I guess everyone's taste is changing in the wrong direction!!!

But the loudness of current pop has to do with the way people listen to music. In the past everyone would listen to music at home with a radio/stereo. Then most people listened in their cars. Now, everyone listens on their computer or MP3 Player with crappy headphones. As a result producers have compensated.

This does not mean that their isn't great music out there. It just isn't popular (i.e. Popular music => pop music).

Pop music is easy to write, easy to sing, easy to listen to, and easy to forget...

Interesting study.
However I don't give a single **** what music others listen to. I don't care at all, not even to the tiniest extent.
It makes you feel good? Listen to it.

i think everyone's forgetting that because of the music of 'back in the day' music is so bad now, music back in the day helped shape what labels found to be easy to market and make a quick million off of. it's easy to see that by just looking at the 'one hit wonders' and nonlegends of a generation. Music of every generation is unoriginal, for you older people, I'd love you to tell me every bubble gum doo-wop and oldies group didn't sound the same. Same for the british invasion bands. And same for the disco groups. Every generation has it's couple of great artists and then 90% crap (look at every hair metal band). Personally, I think many of the 'greats' aren't very great. They were great because of their impact. I've also seen this in groups that I like. I'm a big fan of Nas' Illmatic. At the time it came out it had a huge impact on hip-hop and it's known as one of the greatest hip-hop albums of all time. But compared to today's hip-hop it doesn't seem that amazing because it's been copied by every artist afterwards, even though their copies are not anywhere as good as illmatic (not saying that today's hip-hop is any better because commercial hip-hop is pop garbage). Lastly, the music industry is different today. Back in the day the only music you could find easily was on the radio. Today there are other ways to find music. Just because music on the radio sucks doesn't mean that ALL music of today sucks, it's just that the ways that older people are used to finding music are outdated. Think outside the box and you'll find that music today is not only good but it may be BETTER than what you thought was the best.

Ha, i found a wrong thing in your post. The right page of Justin Bieber is JustinBieberMusic.com, not justinbieber.com, check it out.