Pop music these days: it all sounds the same, survey reveals

Pop music is too loud and melodies have become more similar, according to a study of songs from the past 50 years conducted by Spanish scientists.

Sean Michaels
guardian.co.uk, Friday 27 July 2012 15.32 BST

A sea of homogeneity? … revellers at the park stage at Glastonbury 2011. Photograph: Adrian Dennis/AFP/Getty Images

Pop music is too loud and it all sounds the same. That’s the conclusion of scientists at the Spanish National Research Council, who have published a new report on songs released between 1955 and 2010, showing the “diversity of … note combinations … has consistently diminished in the last 50 years”.

Measuring the Evolution of Contemporary Western Popular Music, by Joan Serrà, Álvaro Corral, Marián Boguñá, Martín Haro and Josep Ll Arcos, appears in the journal Scientific Reports. The researchers used a dataset of 464,411 music recordings to analyse what has changed – and what has stayed the same – over the past half-century of song. “Many of [music’s] patterns and metrics have been consistently stable for [this] period,” they wrote. “However, we prove important changes or trends related to the restriction of pitch transitions, the homogenisation of the timbral palette, and the growing loudness levels.”

When researchers write about “pitch transitions”, they mean the way notes are used – the variety of intervals, and the difference between one melody and another. Melodies are becoming more and more similar, Serra explained to Reuters. “We obtained numerical indicators that the diversity of transitions between note combinations … has consistently diminished in the last 50 years.”

Not only are the melodies of songs more similar than they used to be, the timbral palette employed – the sounds of the instruments – has also grown narrower. A trumpet’s sound, its “timbre”, is very different to the sound of an electric guitar or electric piano. But now, apparently, songs are relying on a much smaller range of timbres than in the past. When so many instruments are synthesised, perhaps, or rely on digital processing, the trumpet begins to lose its trumpet-ness.

Finally, the research team found scientific evidence for the so-called “loudness war”. Owing to mastering and compression techniques, new songs are literally louder than old songs. Or, as the scientists put it: “The empiric median of the loudness values x grows from −22 dBFS to −13 dBFS as the period,” they wrote. “However, we prove important changes or trends related to the restriction of pitch transitions, the homogenisation of the timbral palette, and the growing loudness levels.”
dBFS, with a least squares linear regression yielding a slope of 0.13
dB/year (p < 0.01, t-test).“ Despite this fact, the Spanish team also found
that songs’ “absolute dynamic variability has been conserved” over the
years. In other words, the overall dynamic range of recordings – the
distance between a song’s quietest and loudest moments – has
remained more or less the same.

Comments
74 comments, displaying Oldest first

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MarshallStack
27 July 2012 3:39PM

All modern music is pants.
Thank God we've still got Quo.

SDGrange
27 July 2012 3:55PM

Why bother trying to create fresh hits for the pop princesses of the future? Just use
the X Factor/generic talent show method and recreate fan favourites.
I can't wait to hear this years X Factor winner cover the 2009 Christmas no1

RustyTheDuck
27 July 2012 3:58PM

I always thought that was the point of pop music, to be safe, familiar, accessible,
unchallenging, catchy but ultimately forgettable. If you want more out of your music,
try digging a bit deeper :)

joeygrimlock
27 July 2012 3:59PM

I just came on here to say Phil Collins is a legend.

bassmonkey1980
27 July 2012 4:00PM

The point of pop music is to be safe, familiar, accessible, unchallenging,
catchy but ultimately forgettable. If you want more out of your music,
try digging a bit deeper :)
A cover of 'Rage Against the Machine'? Treason sir!

Drumbo
27 July 2012 4:01PM

I don't have anything against hip-hop, but would things be better if they removed hip-hop from the study? Because it is all rather similar, even the good stuff.

Drumbo
27 July 2012 4:01PM

What was the criteria by which they chose the songs they evaluated? If they just analysed top 10 singles then of course it's all homogenised garbage. But if they actually went beyond the factory produced x-factor trash one might hear on the morning drive show on Capital FM or whatever, they would probably find that the range of different melodic and rhythmic variation available on record to the average consumer today is lightyears ahead of what it was 50 years ago.

Werthersoriginal
27 July 2012 4:02PM

Damn my dad was right!

Werthersoriginal
27 July 2012 4:02PM

Response to Drumbo, 27 July 2012 4:01PM

are you suggesting that Aesop Rock is "rather similar" to Dizzee Rascal? Or do you just not know that much about hip-hop?

Optimistic96
27 July 2012 4:04PM

I hope this means modern music as in Katy Perry and whatnot, rather than ALL MODERN MUSIC IN EXISTENCE EVER.

Optimistic96
27 July 2012 4:04PM

Because that'd be complete bullshit.

If it does mean the shite pop music listened to by teenage girls who like Twilight etc. etc., then I agree.

And what's the Park Stage at Glastonbury 2011 got to do with it all?

okilydokily
27 July 2012 4:04PM

Nonsense - two of the greatest UK pop acts of recent years, Steps and S Club 7, sound as different as...
Then again, they did use "a dataset of 464,411 music recordings". To be honest they sound like the world's most boring people.

stoduky
27 July 2012 4:08PM

Anyone who thinks pop music is getting worse clearly hasn't heard Ali Campbell's reggae cover of He Ain't Heavy, He's My Brother.

Sparkling stuff right there.

steviary1
27 July 2012 4:10PM


All modern "commercial music" is pants, there are still wonderful musicians out there who are very successful both aesthetically and financially, although not in the quick flash way of pop stars. Derek Trucks, Joe Bonamassa, Jim Campilongo, should all sound good to the ears of any guitar player.

Nicoise
27 July 2012 4:11PM

Response to jonotheintrepid, 27 July 2012 4:02PM

The researchers used a dataset of 464,411 music recordings to analyse what has changed...

POPRAT
27 July 2012 4:13PM

I blame Dave Cameron

jantomrukthefirst
27 July 2012 4:15PM

Response to cortazar, 27 July 2012 4:05PM

Goldie? Really? do you mean simon cowell or simon groom?

fracturedpelvis
27 July 2012 4:15PM

big music festivals are now the domain of non-music fans who merely want to be seen at a festival and tell their mates about the experience.

grazia's 2 page "how to dress at a festival": time to get out your bo-ho flower child gear!

OtherMeans
27 July 2012 4:17PM

Have a look at the "Amen Break" sometime...

willonone
27 July 2012 4:17PM

Any talentless twat with a voice sync program and a few hundred quid's worth of software can make the average tune in the charts. Because there is no care or craft going into the music, the value of music diminishes and every year we inch closer the dystopian nightmare Simon Cowell planned every day since he released Power Rangers upon us.
Pop music is too loud and it all sounds the same. My Mum could have told you that. Why didn't they give the research grant straight to her?

Response to joeygrimlock, 27 July 2012 3:59PM
I just came on here to say Phil Collins is a legend.

Agreed!

I thought it was the previous governments fault, the eurocrisis and the weather's fault!

The influence of hip hop has shifted the emphasis to bass and beats.

I find this quite interesting, because I've definitely noticed in recent years that pop music seems to borrow passages and chord progressions from other very recent chart tracks. It's noticeable to the point where I suspect it's actually a concerted effort by pop songwriters to 'hook' listeners with familiar sounds.

Listen to Katy Perry's 'Last Friday Night' and then Jessie J's 'Domino'. Almost identical backing tracks, including the little breakdown in the middle. Then there's that Professor Green track with Emilie Sande which sounds very, very similar to that track by Tinie Tempah and some beardy fellow. I struggle to remember more (I only really hear this sort of music in the gym or my girlfriend's car), but I'm always spotting these similarities.

I'd be very interested to hear from someone who works in the industry as to whether this is a widely-known sales technique, so to speak, or just a by-product of lazy composers.

But, as one or two commenters have pointed out, the depth of independent music has grown exponentially over the last few decades. Whenever I read a 'is rock dead?' article I can't help but wonder whether the writer actually listens to music.

I'm surprised the industry hasn't tapped into the market for music that hasn't been mastered for maximum loudness. Some people have decent hi fi equipment, and aren't listening to the music on a radio or mp3 player... so why not sell the standard modern mastered tracks, but also a separate edition with the true dynamic range intact? Sure there'd be more mastering costs upfront, but a higher inventory.

..and before that rock and roll, blues and jazz did the same.

Things are recorded louder than before. When I listen to music when running I listen to lots of rock, old and new. The newer the recording, the louder it is. DRums and base also have a lot more whack than in the past. The drummers of some rock bands from the the early 70s sound as if they were playing on biscuit tins.
Prime example of reading the first paragraph then skipping straight to the comment box?

I'm currently working on covers of songs that haven't yet been recorded. Is that a second?

"Pop music" is literally "popular music" and the styles of what are deemed popular are wide a varied, even if that music can sound very alike within its genre. I could never understand why ABBA was so popular, when to me it sounded like elevator music, until I noted the fan base - grannies and grand-kids add big time to a wide demographic. If there's been any major change over the decades since Herman's Hermits I think the biggest change, to my ear at least, has been the loss of the drums and bass variation. A lot of popular music, across several genres, now use synthetic drum and bass stables, which leads to a boring bass tempo that rarely changes - this means even live performances (on the rare occasions they aren't dubbed) sound like the studio recording, which is boring. Live bands used to do all sorts of improvisations depending on how and on what the drummer/bass player was whacked, you won't see too many drum machines having a sneaky puff, or a double Jack Daniels before a gig these days.

I could never understand why ABBA was so popular, when to me it sounded like elevator music, until I noted the fan base.

The study concluded that ABBA's fan base was much broader in countries with a high concentration of lifts.

Anyone who thinks pop music is getting worse clearly hasn't heard Ali Campbell's reggae cover of He Ain't Heavy, He's My Brother.

Just to clarify that one:

Anyone who thinks pop music is getting worse could illustrate their point with Ali Campbell's reggae cover of the 40-odd-year-old He Ain't Heavy, He's My Brother.

Sparkling old stuff right there.

Has the world changed or have I changed?

Interesting article. Thanks.

Music doesn't get worse, you get older.
Things are recorded louder than before. When I listen to music when running I listen to lots of rock, old and new. The newer the recording, the louder it is. Drums and base also have a lot more whock than in the past. The drummers of some rock bands from the the early 70's sound as if they were playing on biscuit tins.

Yeah, that is spot on. I always thought Mr. Moon sounded a bit latching on my Dad's old vinyl. Charlie Watts always sounded paper thin, and wasn't even a very good musician.

Oh, and worst of the bunch, John Bloody Bonham. It's like he's playing ghost drums in his own private reverie! Now there's a bloke who couldn't get a good sound onto tape.

In another, related study, academics have discovered that music of the classical period sounds pretty much the same. Despite great claims that fans make for newer, hipper composers like Beethoven, the study found that composers tended to rely on the same forms and styles as their predecessors. One professor commented, 'I know we have equal tuning and a clear division of orchestral forces, but if I have to hear another slight variation on the standard sonata form, I'm gonna go postal.'

A third study, into folk music in Britain, uncovered an equal paucity of fresh material. 'Fundamentally, it's embarrassingly simplistic,' a concerned ethnomusicologist commented. 'New songs are minute variations of older songs, and many singers can't seem to grasp even the basics of rhythm. They're very suspicious of anything that smacks of innovation and change. We gave them a Roland keyboard, to see what happened, they muttered something about the Devil, and then they hit it with a stick.'

In other words, the overall dynamic range of recordings – the distance between a song's quietest and loudest moments – has remained more or less the same.

That's not hard when most songs end with a fade out. At what point do you consider the song to have finished? Try "A Day in The Life" for example. That fade out lasts about a minute, if not more. Towards the end, the hum of the studio equipment is as loud as the piano(s).

Bloody brilliant drummer but on 70s recordings (haven't heard the remixes) drums (and base) aren't given the same weight as they are on a recording today. Compare any Led Zep album to, say, the latest Foo Fighters (not talking of comparative merits of music) - just the % levels given to drum and bass.

Agreed. As his drum sound got better (slightly) he stopped being the powerhouse he'd been. The Knebworth gig just shows him as sounding bored. The Danmark TV gig, on the other hand...
This synth siren sounds like a weirder and more credible version of Enya, all ethereal vocals and meandering melodies.

Nostalgia is just not what it used to be!

Great news! Now when I tell people in their twenties that their music is utter rubbish, instead of sounding like an old fart I can back it up with legitimate scientific research. How awesome is that?

Can't argue with that.

Music just seemed to have more highpoints in my youth. There was an awful lot of dross as well, Tina bloody Charles and David Soul come to mind, as Johnnie Walker baptised it, "monotonous disco fodder" but there were bands like Camel, the Ramones, Jethro Tull, The Sex Pistols, a vast array of others that had energy, vitality and above all originality.

I just don’t find that nowadays. Its the call of the music industry that says you’re only a ‘success’ if you sell so many records. Musical success is about legacy as well as how many platinum discs you get. Last night on Radio 6 the discussion was about the best instrumental of all time, the most popular being ‘Sylvia’ by Focus. Who, other than me remembers seeing Focus? I actually worked for them once and yet they left two or three amazing pieces of music for us to enjoy and marvel at. Can I name one piece from the 2012’s that I would think will still be around in thirty years time?

Nope.

Don’t think Sir Cliff would comment - but he could drive a double decker at the same time!