

'And I Swear...' – Profanity In Pop Music Lyrics On The American Billboard Charts 2009-2018 And The Effect On Youtube Popularity

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Abstract: The Billboard Chart tracks the sales and popularity of popular music in the United States of America. Due to the cross-cultural appeal of the music, the Billboard Chart is the de facto international chart. A concern among cultural commentators was the prevalence of swearing in songs by artists who were previously regarded as suitable content for the youth or 'pop' market. The researchers studied songs on the Billboard Top 10 from 2009 to 2018 and checked each song for profanities. The study found that 'pop', a sub-genre of 'popular music' did contain profanities; the most profane genre, 'Hip-hop/Rap' accounted for 76% of swearing over the ten-year period. A relationship between amount of profanity and YouTube popularity was moderately supported. The researchers recommended adapting a scale used by the British television regulator Ofcom to measure the gravity of swearing per song.

Index Terms: Billboard charts, popularity, profanity, Soundcloud, swearing, YouTube.

1 INTRODUCTION

1.1 The American Billboard Charts and 'Hot 100'

The Billboard Chart of popular music was first created in 1936 to archive the details of sales of phonographic records in the United States [1]. Its current incarnation, the 'Billboard Hot 100' did not come into being until mid-1958 [2]. The charts are compiled using "not only music stores and the music departments at electronics and department stores, but also direct-to-consumer transactions and internet sales (both physical albums via the internet, and ones bought via digital downloads)" [3]. Popular music, commonly referred to as 'pop music', is indicative of the tastes of the record-buying public at that time. Contrary to popular opinion, which places youth at the forefront of popular tastes and trends, most music in the 21st century is bought by the over 45-year old population who have more money to spend; "younger people mostly buy singles because they have far less disposable income" [4]. Songs need to have more 'hook' than ever before in order to catch the fleeting, gadget-attendant attention of Millennials, but at what cost?

1.2 Swearing Research

Given the ubiquity of swearing in human history, swearing is remarkably under-researched. As Van Lancker and Cummings [5] stated "public awareness of swearing is far keener than, say, interest in relative clauses or the semantic features of nouns, yet the topic is much less studied" (p. 2).

In her book 'Swearing Is Good for You: The Amazing Science of Bad Language', [6] defines swearing as "a) words people use when they are highly emotional and (b) words that refer to something taboo" (p. 6).

Ipsos Mori [7] the regulator of British television said that profane language fell into two main categories: (a) general swear words and those with clear links to body parts, sexual references, and offensive gestures; and (b) specifically discriminatory language, whether directed at older people, people of particular religions, people with mental health issues or a disability, LGBT people, or people from an ethnic minority (p. 43). Racial insults, disability and gender-based slurs were regarded as the top tier of unacceptable swear-words, while generally the British public did not regard contextual post-watershed swearing as problematic. The watershed was the point at which children were expected to be in bed and no longer watching television or listening to radio. Timothy Jay is one of the most cited researchers in the field of swearing and curse words. As [8] point out, research into swearing has applications in society regarding "the use of taboo words in television, advertising, professional sports, radio, music, and film". Van Lancker and Cummings [5] said "swearing and related verbal usage has ubiquitous social, legal and political implications, which have touched each and every person at some time or other (p. 2)". Van Lancker and Cummings [5] described "the neurobiological foundation of various types of swearing behaviors". Stephens, Atkins and Kingston [9] studied the use of swearing as a response to pain. They asserted that "swearing, the use of offensive or obscene language, occurs in most human cultures. People swear to let off steam, to shock or insult, or out of habit". Stapleton [10] researched the effect gender roles had on perceptions of swearing and was found that "women who engage in such behavior may be seen as transgressing cultural stereotypes and expectations of femininity, wherein they are positioned variously as deferent, polite, nurturing, and oriented towards the needs/feelings of others". This suggests a societal repression of women's urge to swear which could have unhealthy implications; it is, after all, important to express emotions within reason. According to [5] "the main purpose of swearing is to express emotions, especially anger and frustration". There is a long and storied history of protest through modern popular music from Bob Dylan to Rage Against the Machine among others, so it is unsurprising that popular music features incidences of anger and frustration.

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1.3 Swearing in Popular Music

Swearing in popular songs is not a new phenomenon; pianist Eddy Duchin's 1938 cover of Louis Armstrong's 'Old Man Moses', with Patricia Norman providing vocals, proved scandalous for its knowing use of innuendo and is noted as being the first recorded use of the 'f-bomb' albeit through somewhat deliberate mispronunciation [11]. However, commentators are noting the increasing prevalence of swearing in songs specifically aimed at the youth market with previously benign entertainers such as Ariana Grande, Maroon 5, Justin Timberlake and Bruno Mars dropping profanity into the mix [12], [13], [14], [15], [16]. Swearing is a divisive subject when it comes to pop music. Powers [17] blamed the internet for the rise in profanity and crassness, stating: "the web made a space for creative titillation and airings of the collective id". The 'id', according to Freud, is a psychological and instinctual drive that "strives for immediate gratification of all desires, wants, and needs" [18]. Grunenberg [12] singles out the former rock and blues band (and now firmly pop band) Maroon 5 for the unnecessary nature of their swearing and wonders "why profanity has become such a watered-down part of societal dialogue. So much so that Maroon 5... ..has taken the plunge to swearing". Horton [15] bemoaned a cynical shift in music publishing: "for the most recent glut of potty-mouthed pop, however, fruity language has become predictable shorthand for cred". Horton [15] also pointed out that (at the time of his writing) over a quarter of the pop chart was marked as having explicit lyrics in the Apple music store iTunes. Ariana Grande's 'Thank U, Next' broke YouTube records in December 2018 with 55.5 million views in the 24 hours following its release [19]. The song also showcased a more profane side to Grande with nine swear words over the course of the song, a marked change of image for the former Nickelodeon child star. Profanity in pop music represents a dilemma for parents and those charged with defining linguistic boundaries for children: "parents try to balance the reality that their children are increasingly exposed to it with teaching them not to say it" [20]. Hip-hop and rap come in for some of the strongest criticism, as the music contains more swearing than other popular genres: "a common ingredient in many rap lyrics is shameless profanity. No word is off limits. With f-bombs and assorted slurs streaming through popular music, it's no shock that some people are up in arms against rap" [21]. UG Team [22] concurred, stating 'hip-hop has one profanity every 47 words'. The authors are moved to wonder whether this might prove to be a rather conservative estimate in contemporary hip-hop and rap. Bannister [23], studying the prevalence of explicit lyrics in Number 1 songs on the Billboard charts since the chart's inception in 1958, stated that there was an 833% increase in explicit lyrics from 2001 to 2017. Ross [24], studying the report, stated: "With only one exception (2012), there hasn't been a year since 2001 without at least one number one single carrying a parental advisory label (and in every other year there have been at least 10 examples)". Powers [17] highlighted 2011 as a threshold for moral boundaries crossed: "2011 saw so much boundary-breaking in pop that the lines seem forever pulled down"; she elaborated "never have so many artists spilled profanity so blissfully or embraced salaciousness with such ease. There's a sort of carefree, cheerful quality about such naughtiness now". This suggests a linguistic crossing of the profanity Rubicon. Lamere [25] concurred: "is music getting more profane? The answer

is yes. The data shows that the likelihood of a song with [a specific profanity] in the title has more than doubled since the 80s". Virtel [26] stated that Will Smith, previously known for profanity-free rapping, had launched a comeback song after ten years that contained a swearword: "tarnishing his record of a cuss-free discography". UTS [27] in Australia stated the case for those offended by the rise of profanity: "There will always be those who object to swearing in music or on TV. Members of this anti-cussing camp might claim there are more polite or 'educated' ways to express one's discontent". Senthilkumar [28] argues that "using obscene language in music can upset listeners substantially, and it makes it hard for them to go to the picturesque 'happy place' that music creates". Allen [29] comes down firmly on the other side of the debate, presenting a list of 'great swears in music' for the British music magazine 'NME': "Just FYI: swearing is awesome, and it makes everyone think you're really cool". The researchers assume that Allen's exuberance for profanity might be somewhat tongue-in-cheek, but nevertheless this represents a polar opposite to the conservative "anti-cussing camp" and demonstrates that there is a spectrum between those with a propensity for disapproving condemnation and free-speech (and swearing) advocates. Constance-Maxwell [30] argues that Nina Simone historically and Azealia Banks contemporarily empowered themselves by adopting the power of swearing: "both women demonstrate a fearlessness towards breaching existing language taboos, and in doing so demand to be heard". This study seeks to neither condemn nor condone swearing, as the authors want to describe the use of profanity in songs without becoming embroiled in the debate surrounding the morality or otherwise of swearing. Regardless of eras, many people feel that swearing aimed directly at the attention of the youth is a bridge too far; this study aims to demonstrate whether the Billboard charts have become more profane in the last ten years and what genres contain the most profanity.

1.4 YouTube – A Video-Sharing Hub

YouTube is a video-sharing website with over 1.9 billion logged-in users per month, who watch over a billion hours of video footage per day [31]. In the past, new music was disseminated by radio, with television shows showcasing breakthrough artists and new songs from established artists. Nowadays, consumers from Generation Z would be more likely to receive their prompts about new music in the form of URL links from friends on popular social networking sites such as YouTube. Founded by Chad Hurley, Steve Chen, and Jawed Karim in 2005, YouTube is one of the most popular video sites on the web [32], and it is the second largest search engine in the world [33]. With more than 400 hours of video uploaded every minute we can find and share a wide variety of videos from cute animals to DIY tutorials. Every day, people watch 150 million hours of YouTube, and it attracts one third of internet users [34]. In 2006, YouTube was bought by Google for \$1.65 billion. In March 2019, YouTube was serving 88 countries in 76 languages [35]. Spotify, the market leader of music streaming, by comparison, reaches 200 million people every month, only 12.5% of the size of YouTube's music audience, while Apple Music reaches 60 million, 3.8% of the size of YouTube's music audience [36]. YouTube is a gateway to music and a portal for breakthrough artists; many music stars made their debut on YouTube such as 5 Seconds of Summer, Carly Rae Jepsen, Shawn Mendes, Alessia Cara,

Justin Bieber, Charlie Puth, The Weeknd, and Ed Sheeran [37]. These artists have enjoyed longevity since they started being recognized on YouTube. Artists make money from uploading their music videos to YouTube. By uploading their music video on the platform, they will get views from their fans. Those views then translate into remuneration, essentially making YouTube an extension of the music industry. On average, YouTube will pay the artists \$1000 to \$2000 per million views [38]. If the music video was posted on Vevo (the leading all-premium music video and entertainment platform) channel, the artists will get higher ad rates. YouTube reaches beyond the constraints of normative English language-centric societal parameters. Of the YouTube Top 10 biggest songs of 2018, eight were in the Spanish language [36]. The top view count for a music video in YouTube at the time of writing was 'Despacito' (one such Spanish-language song) with more than 6 billion views. The meteoric rise of K-Pop was aided by the popularity of novelty breakout hit 'Gangnam Style' by PSY in 2012. It held the record for YouTube views until it was pushed to number 5 in the all-time biggest music videos by the following artists:

Table 1. Highest Number of Views for Music Videos

1	Luis Fonsi featuring Daddy Yankee	Despacito	6.22 billion
2	Ed Sheeran	Shape of You	4.23 billion
3	Wiz Khalifa featuring Charlie Puth	See You Again	4.01 billion
4	Mark Ronson featuring Bruno Mars	Uptown Funk	3.57 billion
5	PSY	Gangnam Style	3.55 billion

(Source: YouTube)

As explained above, popularity on YouTube is important for contemporary artists' exposure and therefore is useful as a barometer of cultural moods and influence.

1.5 SoundCloud's Influence on Popular Music

SoundCloud was founded by Alexander Ljung and Eric Wahlforss in 2007 and launched a year later [39]. SoundCloud is used for the distribution of audio tracks, making it easier for musicians to share their music and ideas with each other [40]. In 2019, SoundCloud had 76 million user per month, and 12 hours of music uploaded every minute [41]. In 2017, SoundCloud earned \$94.2 million revenue and its value was estimated at \$700 million [42]. Due to its purpose as a collaboration platform, SoundCloud was renowned for so-called 'outlaw' music on the web, such as "DJ sets, remixes, mashups, underground hip hop mixtapes, and sound collages" [43]. Some of the artists that broke through from SoundCloud into the mainstream were Lil Peep, Lil Pump, Lil Tracy, Lil Uzi Vert, Lil Yachty and XXXTentacion [44]. SoundCloud's popularity not just because of the ease of sharing and collaborating with other musicians' creations, but also because it became well-known for being the channel to hear new music before it was released on mainstream music platforms [45]. It was also claimed to be more user-friendly among its users because their motivation was to build a following and not to focus on monetization [46]. SoundCloud was associated with budding rappers; they did not need a record label or distributor to be heard like they did on major streaming services like Apple Music and Spotify. These artists essentially side-stepped the record company route by releasing their music on SoundCloud and "succeeding at a

pace that the traditional music industry couldn't keep up with" [47]. With SoundCloud, new music styles are now recognized in today's cultural landscape such as: Dubstep, Chillwave/Glo-Fi, Vaporwave, EDM, Witch House, Deep House, and SoundCloud rap [43].

1.6 Problem Statement

Different eras have differing expectations of what constitutes normality and decency. In the same way, profanity is a product of its age. This study seeks to understand whether profanity is more prevalent and if particular genres are influencing this change. In the light of this, the researchers have formulated the following research question: RQ 1: Has there been an increasing in swearing across the time period and across genres? Therefore, the following is the first hypothesis:

H1: There was a significant increase overall in the frequency of profanity in the period of analysis.

From even anecdotal analysis, there is an obvious presence of swearing whether significantly increased or otherwise in the current charts. As stated by [21], [22], and [48], Hip-hop/Rap has been labelled the genre with the most profanity. Therefore, the following hypothesis aims to test that assertion:

H2: Hip-hop/Rap was the most profane genre in the period of analysis.

Grunenberg [12], Roxborough [13], Cross [14], Horton [15], and Lamb [16] all expressed disdain or discomfort at the level of swearing by artists that are primarily marketed at the youth market. The genre of 'pop', as opposed to the wider overall designation 'popular music', was accused of becoming more profane. The third hypothesis will seek to determine if that is true:

H3: The genre 'pop' has become more profane during the period of analysis.

The record industry depends on sales of their product in the marketplace; if swearing were proven to turn off customers, record company executives would not reward artists who use profanity with lucrative contracts. As 47% of all music streaming on the internet is on YouTube – the majority of the market – popularity on the platform plays an important role in granting music artists exposure [49]. It is worth considering then if there is a correlation between the amount of profanity and popularity (measure by 'views') on YouTube. Hence, the researcher will ask the following research question:

RQ2: Does the level of swearing in songs positively influence their popularity on YouTube? Therefore, the final hypothesis for this research is as follows:

H4: Songs with more instances of profanity will have more popularity on YouTube.

This research will continue with the following section describing the methodology, Chapter 3 explaining the results and Chapter 4 containing discussion on the implications of the results. Chapter 5 concludes the research with recommendations for future studies.

2 METHODOLOGY

The researchers listed all of the songs from the Billboard Charts Top 10s from 5 January 2009 to 29 December 2018. The data was checked for profanity by two researchers working — independently initially — during March 2019, before the data was combined and re-analyzed in April 2019. The Top 10 was chosen due to it being a measure of the increased popularity and exposure of the songs, as arbitrarily decided by the American record-buying public, rather than through a researcher-chosen sampling process. The Top 40 and Hot 100 were both deemed by the researchers to yield an unwieldy amount of data points which would be difficult to usefully and consistently analyze. In order to standardize the recurring nature of songs across a large time span — Carly Rae Jepsen’s ‘Call Me Maybe’ stayed in the charts from April 2012 to September 2012 — each song was noted for its entry date into the first top 10 chronologically and then ignored for the rest of its sales run in order to measure the number of profanities in a given year unaffected by the longevity of that songs tenure in the Top 10. This means that a song that straddled more than one calendar year was adjudged to have its origin in the year of release and was not counted for the subsequent year in order to prevent duplication. Since some artists chose to euphemize their swearing (effing, effer, etc.), these were not considered strong enough to make the cut. Likewise, references to partying and general youthful behavior were not considered to be worth recording. Direct references to controlled substances or abuseable medicines such as opioids were recorded, given the current opioid epidemic in America [50], [51]. Genius.com was used as the repository for song lyrics as it carried both ‘clean’ and uncensored versions of the lyrics. These were checked by the two researchers and then cross-checked against a MusixMatch profanity list adapted from Google projects as the final say [48]. Each song was checked for swearing, strong references to drug/alcohol misuse, racism, sexism, overt sexuality and homophobia (these are referred to throughout as swearing/profanities). Genres were assigned to the songs according to the song data provided by Google on its main search page. This study uses descriptive analysis and correlations analysis to test the four hypotheses mentioned in Chapter 1. The software SPSS v16 was used to extract the data which will be discussed in Chapter 4.

3 RESULTS AND DISCUSSION

3.1 Breakdown of Data

Table 1 following describes the breakdown of the song and chart data by year: Each year was analyzed using data from the Billboard website to ascertain which songs were populating the Top 10. In all, 522 separate charts were checked for profanities. The following chart depicts the breakdown of the data across the ten-year period of analysis.

Table 2. Number of Top 10s and Songs Analyzed for Profanity from 2009-2018

YEAR OF CHART	NUMBER OF TOP 10S	NUMBER OF SONGS
2009	52	520
2010	52	520
2011	53*	530
2012	52	520
2013	52	520
2014	52	520
2015	52	520
2016	53*	530
2017	52	520
2018	52	520
TOTAL	522	5220

(Source: Authors’ research)

* Two of the years had 53 charts, with a chart appearing at both the start of January and the end of December

3.2 Analysis of Data

The data was initially filtered to only show new releases in their respective years, not their repeated appearance across multiple weeks. This allowed the authors to test the years’ content and determine the songs as if they had only appeared once. This means that frequency of repetition (longevity) did not influence this data. The songs were categorized according to the frequency of swears per song (n = 546): The categories were: Very Low Frequency (92.31%, n = 504), Low Frequency (5.49%, n = 30), Low to Medium Frequency (1.1%, n = 6), Medium to High Frequency (0.73%, n = 4), High Frequency (0.18, n = 1) and Very High Frequency (0.18, n = 1). More than 92% of the songs had a relatively low swear count relative to the highest swearing songs.

Table 3. Categorization of Songs According to Frequency

VLF (0-21)	LF (22-43)	LMF (44-65)	MHF(66-87)	HF (88-109)	VHF (110-131)
504, 92.31%	30, 5.49%	6, 1.1%	4, 0.73%	1, 0.18%	1, 0.18%

Initial analysis showed that swearing was becoming more prevalent as shown in Figures 1 and 2, notwithstanding a gap for the years 2014 to 2016. The number of profanities in new entries in 2009 was 193, dropping slightly in 2010 to 141. The rate of profanity fluctuated between 2011 and 2013 between 252 and 301. 2014 saw a marked decline in the number of profanities, dropping to 110. 2015 was the lowest number of profanities with only 63. This figure rose sharply in the remaining three years with rates of 182, 510, and 737 for 2016, 2017 and 2018 respectively.

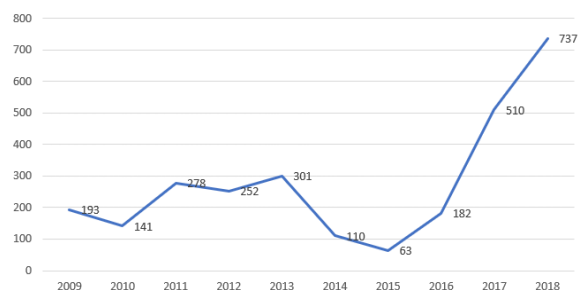


Figure 1. Total Profanities per Year* (n = 2767; source: ...)

Authors' research)

*Disregarding longevity in the top 10 – only new releases
(Source: Authors' research)

In order to gain an understanding of the regularity of swearing, again disregarding repeated entries, the average swears per song were derived by dividing the total numbers of swears per year by the number of new entries. This data can be seen in the following chart (Figure 2):

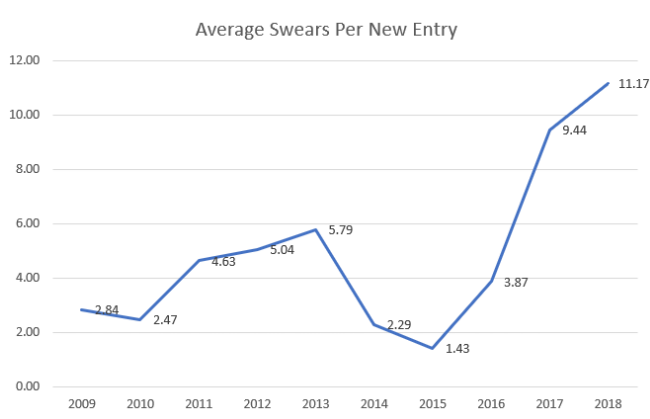


Figure 2. Average Swears per Song by Year* (source: Authors' research)

*Disregarding longevity in the top 10 – only new releases

The level of profanity in 2009 was low (2.84 swears) and dipped in the following year to 2.47 swears in 2010. From there the profanity trend increased over the following three years (2011 to 2013) with 4.63, 5.04 and 5.79 swears respectively. There was then an abrupt downturn over the following two years (2014 and 2015) with 2.29 and 1.43 swears. From this point came a dramatic uptick in the swearing trend with 3.87 swears per song in 2016, 9.44 swears per song in 2017, and 11.7 swears per song in the final year of analysis.

3.3 Most Profane Songs/Artists

The most profane songs follow the same general pattern of appearing in the mid period (2012 and 2013) and the end period of 2017 and 2018 and not appearing in 2014-2016), as can be seen in Table 2:

Table 3. Most Profane Songs and Artists

Song Title	Artist(s)	Swear Count*	Year
Dance (A\$\$)	Big Sean & Nicki Minaj	131	2012
F**kin'	A\$AP Rocky, Drake, 2 Chainz & Kendrick Lamar	98	2013
Rake it Up	Yo Gotti & Nicki Minaj	79	2017
Rack City	Tyga	78	2012
Love Me	Lil Wayne, Drake & Future	74	2013
Mona Lisa	Lil Wayne & Kendrick Lamar	72	2018
Bad & Boujee	Migos & Lil Uzi Vert	63	2017
I Love It	Kanye West & Lil Pump	60	2018
Mo Bamba	Sheck Wes	58	2018
Humble.	Kendrick Lamar	52	2017

*Disregarding longevity in the top 10 – only new releases
(source: Authors' research)

3.4 Most Profane Genre

Hip-hop/Rap was by far the most profane genre, with all of the ten songs in Table 2 above belonging to the genre. Hip-hop/Rap accounted for 14,508 swears out of 18,922 (76.6%) over the ten-year period 2009 to 2018. Pop came second with 2,817 swears (14.9% of the total), and R&B/Soul made up the majority of the remainder (971 swears, 5.1%). Table 3 breaks down the profanities by genre:

Table 4. Most Profane Genres

GENRE	NUMBER OF PROFANITIES 2009-2018 AND PERCENTAGE OF TOTAL
HIP-HOP/RAP	14,508 (76.6%)
POP	2,817 (14.9%)
R&B/SOUL	971 (5.1%)
POP/HIP-HOP/RAP	184 (1%)
ELECTROPOP	140 (0.7%)
FUNK	119 (0.6%)
POP/RAP	52 (0.3%)
MUSICALS	42 (0.1%)

(source: Authors' research)

3.5 Profanity by Genre Over the Ten-Year Period of Analysis

The data was analyzed to determine if one or more genres influenced the overall swearing count per year. This data included songs that stayed in charts for repeated weeks, and each song was represented as an individual unit. Therefore, if a song stayed in the top 10 for four weeks and had 14 swears in the song, it would account for 56 swears. Hip-hop/Rap, Pop, and R&B/Soul were the three most dominant genres. For the ten-year period of analysis Hip-hop/Rap was consistently the most prominent genre for swearing overall; the genre has seen an explosion in profanity since 2015. This can be seen in the following chart:

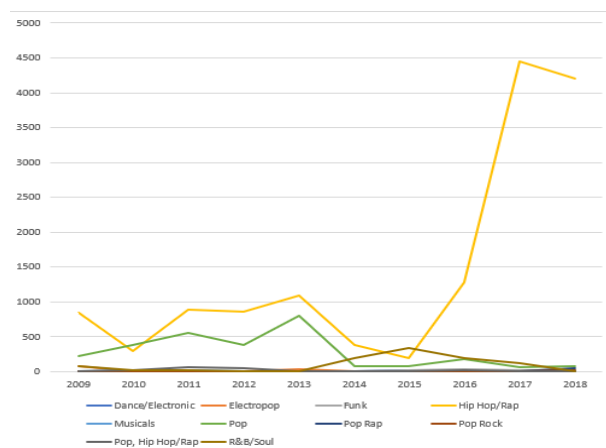


Figure 3. Profanity by Genre over the Ten-Year Period of Analysis (source: Authors' research)

Profanity in the Hip-hop/Rap genre peaked in 2017 (4449 swears) and dipped slightly in 2018 (4211) but was still considerably higher than any other genre during the ten-year period of analysis. The genre 'Pop' peaked in 2013 (803 swears) and has been dropping since then, apart from a brief upturn in 2016 (177). R&B/Soul eclipsed Pop as a profane genre from 2014 to 2017 (190, 342, 192, and 119 respectively). In order to answer research question 2, the songs with no swearing were removed from the data set (n =

202); the data was then processed using SPSS v16. The number of swears variable had a mean value of 9.25, with a standard deviation of 7.003. The mean value for YouTube views was 425,506,505.85, with a standard deviation of 519,630,151.7. This can be seen in Table 5, as follows:

Table 5. Descriptive statistics

	Mean	Std. Deviation	N
Number of swears	9.25	7.003	202
YouTube views	425506505.85	519630151.7	202

A moderate correlation was found between the variables (0.593); as the literature states 0.6 is the threshold for a strong correlation, 0.593 is, in essence, a 'strong' moderate correlation. A moderate positive correlation indicates that the number of swears influenced the YouTube views to some extent. The following scatter graph demonstrates that the YouTube views followed a general pattern of alignment with the number of swears, with exception to some outliers. These are shown in Table 4 and Figure 3:

Table 6. Results of Correlations

		Number of swears	YouTube views
Number of swears	Pearson Correlation	1	.593**
	Sig. (2-tailed)		.000
	N	202	202
YouTube views	Pearson Correlation	.593**	1
	Sig. (2-tailed)	.000	
	N	202	202

** Correlation is significant at the 0.01 level (2-tailed).

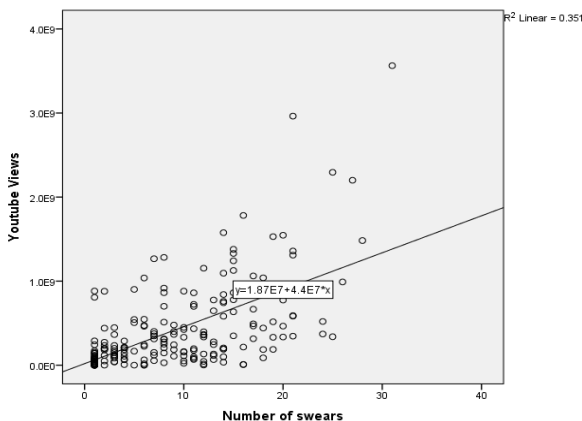


Figure 4. Number of swears and YouTube views

3.7 Discussion

Successive generations of parents have wringed their hands about the state of popular music and whether or not it was a bad influence on their children. This study has not sought to confirm or quash that supposition, but rather to quantify the number of profanities and their frequency in the Billboard Charts. As times change, so does language and its usage, so this era's profanities might be the subsequent era's societal norms. It is disingenuous to suggest that a study on profanities does not occupy a position on the descriptivist versus prescriptivist spectrum. By 'judging' what fits the criteria of

profanity, a prescriptivist assessment is being made. However, this study sought, as much as possible, to err on the side of descriptivism in order to not seem guilty of over-zealous judgments or seeking outrage. While some words or phrases are obviously profane at the time of writing, the authors realize that English is an international language and that swearing has differing values according to background. This is important since the American Billboard Charts is the de facto international chart. For second language speakers "the words are not loaded with cultural associations and personal memories. They are just words with little emotional resonance" [52], [53]. Toivo [53] states: "Many bilinguals report "feeling less" in their second language; it does not bear the same emotional weight as your native language". It is with these caveats in mind that the authors sought to provide a non-prurient depiction of the contemporary Billboard Charts. The results of this research yielded some interesting discoveries. Popular music as a general catch-all term for the genres of Pop, Hip-hop/Rap, R&B/Soul, Dance/Electronic, Alternative Indie, Electropop, Country, Funk, Synth-Pop, Musicals, Rock, Latin Pop, K-Pop, Reggaeton, and Trap (and combinations of the aforementioned) did get more profane over the ten year period of analysis. This means that 'H1: There has been a significant increase overall in the frequency of profanity in the period of analysis' was supported. This does not mean to say that the increase was linear and predictable; there was a notable dip in profanity from 2013 to 2015. It is worth considering that Hip-hop/Rap had a lower number of songs released (8 in 2013, 3 in 2014, and 5 in 2015) as opposed to an average of 17.57 songs across the remaining seven years of analysis. Pop as a genre was enjoying robust stability from 2013 to 2015 (25, 27 and 23 songs respectively) and had a much lower swear count; the remaining seven years had an average of 21.8 Pop releases per year, but appeared to be waning in popularity with only 8 releases in 2018, as opposed to 40 for Hip-Hop/Rap which appears to be in its ascendancy. Hip-Hop/Rap was by far the most profane genre. The genre accounted for 14,508 swears out of 18,922 (76.6%) over the ten-year period 2009 to 2018. This means that "H2: Hip-hop/Rap was the most profane genre in the period of analysis" was supported. Hip-hop/Rap had a consistently high number of swears, with 4449 in 2017, and a low of 189 in 2015. Between 2014 and 2016 Hip-Hop/Rap experienced a downturn in both releases and swears. The lack of releases helps to explain the downturn in swears, but the lack of releases is a curious anomaly. The genre was obviously selling well up until that point, given their strong presence in the Billboard To 10. The explosion of swears in 2017 and 2018 could well have a relationship with artists from SoundCloud artists crossing over into the mainstream. Artists such as Lil Pump, Lil Uzi Vert, Lil Yachty and the late artists XXXTentacion and Lil Peep have become bona fide household name from relative obscurity outside of the SoundCloud ecosystem [54]. Worldwide music tends to look towards the Western world for upcoming trends; while Hip-hop/Rap can hardly be considered a new phenomenon, the trend for profanity-laced music may present a challenge to more conservative societies if the genre crosses over into new territories. It was hypothesized in Chapter 1.4 that: H3: The genre 'pop' has become more profane during the period of analysis. This was not supported by the data gathered in this research. While there was profanity in every year of analysis it fluctuated between a peak of 803 in 2013 and a low of 62 in 2017. The data supported

the claim that 'popular music', which encompasses 'pop' became more profane over the period of analysis due to the popularity of Hip-hop/Rap artists and their contributions to the swear count, but that was not the focus of the original hypothesis. The final hypothesis (H4: Songs with more instances of profanity will have more popularity on YouTube) sought to ascertain whether songs with more instances of profanity indicated a stronger popularity on YouTube. This was moderately supported by the data. The popularity of a YouTube video had a close alignment with the number of swear words. This is not to say that there is causality; Hip-hop/Rap is one of the most popular genres and would therefore be expected to be popular. However, none of the five most watched videos contained swear words; Despacito, when translated from the original Spanish is racy, but contains no actual swearing. This popularity could be due to their universality, and playability in a wide variety of occasions and celebrations. Of the five most viewed songs, four are upbeat ('Despacito', 'Shape of You', 'Uptown Funk', and 'Gangnam Style') and could be used in parties, while the other song, 'See You Again' is more downbeat but, like the rest of the top five, has a catchy chorus.

4 CONCLUSION

While this research did find evidence of an increase in swearing in popular music as a whole, 'pop' has a genre has not been spectacularly profane; this stands in contrast to the anecdotal evidence the researchers noticed upon starting this research. Hip-hop/Rap was markedly profane, which did not surprise the researchers, but the frequency and strength of the swearing was notable. It is for this reason that the researchers would recommend that future research should be performed over two decades to see if the profanities have become more frequent between decades. The researchers would also recommend the use of a scale with which to measure the strength of swear words and slurs in songs in order to see if the stronger swears are being used over time. The British television watchdog in association with [7] created a four-level list of swears based around blasphemy, copulatory, excretory, discriminatory and racist words and phrases. Swears could be assigned a value of one to four based on the severity level of the swear word. This would have to be modified to account for American differences in swearing (ar*e/a*s) and used to give songs a swearing 'value'. It is one thing to know that a song has 67 swears, but quite another to those that of those 67 swears, 60 are words that you probably would not hear in polite company. This might demonstrate that not only has the swearing become more frequent, but more 'quantifiably' profane in its 'offensiveness'. While offensiveness will always be subjective, so too is the nature of 'good music'. In terms of easy access to material that could easily upset parents with delicate sensibilities, YouTube may represent a Sisyphian challenge. As the second biggest search engine that is owned by the biggest search engine, Google, it is unlikely that Google is going to restrict the flow to information under its control. YouTube's obstacles to seeing adult, or profane, content is easy for the average 13-year-old to bypass. It relies on a crosscheck with an adult Google account, but for even the most profane track in the last ten years, "Dance (a\$\$)" by Big Sean and Nicki Minaj (131 swears), there is no check for eligibility. While the researchers do not wish to recommend censorship, it is worth pointing out to parents, particularly in

conservative areas that YouTube's motivations to be even more prolific might be against their best interests if they want to ensure their children are not exposed to profanity.

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