

# The influence of electronics in music production



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The purpose of this essay is to provide an account of the metamorphosis of distortion and how it has impacted music, music culture and the world.

Electronics have played a massive part in the transformation of music over the years. There are many devices that we use today that have influenced music in some form or another. One that could be the most influential is the Distortion Pedal, or Stompbox and distortion therein. This one concept is responsible for the creation of different genres like rock, punk and metal.

This essay will discuss distortion in its roots, how it came to be and when it was first used commercially. Following with a brief description of how it was experimented with and how it was used to its full potential. The idea of matching the unique sounds of distortion to its appropriate genre counterpart will also be discussed. Utilizing distortion through the various stages of mixing audio tracks can also provide an artist with the 'x-factor' in their sound as will be mentioned in this piece. The massive impact distortion had on the influence of metal on modern day genres, and how it morphed into its own culture, will be discussed. <http://www.Smarts.Org/index.PH?Go=217> <http://WV.Marts.Org/lender.PH?Go=217> Whether it is a subtle undertone in the background of a song or in a screaming guitar solo, distortion has become a major part of today's music. It has altered many styles as well as created many genres and sub-genres based around its unique sound. Ian R. Sinclair published in the Audio and Hi-Fi Handbook that, the term 'distortion' can be most broadly used to describe (unwanted) audible differences between reproduced sound and the original sound source' (1998, p. ). However, more specifically the 'distortion' referred to in this essay is 'clipping' See image on the right. Clipping occurs when a waveform is put

through a power amplifier which is made to produce levels that exceed its maximum voltage or current requirements (White 2005; Davis 1989). The creation of the fuzzy 'distorted' effect was stumbled upon in the early 1950s. Artists, by accident had damaged their amplifiers by dropping them or through weather damage which changed the way the sound was projected.

The effect of ruined equipment began the music phenomenon that is now called distortion. But it wasn't until the late 1950s that the distorted sound began to gain more attention from the masses as artists began deliberately damaging their equipment in search of replicating this sound (Carlton, 2003). Link Wray used this sound as an effect in the 1958 song "Rumble" by putting a pencil through his speaker cone, and the guitarist from The Kinks used a razorblade to cut into his speaker cone for the recording of 'You Really Got Me' in 1964 (Carlton, 2003).

With this sound becoming more acceptable and gaining more attention artists began to experiment with their equipment. It wasn't long before 'electronic distortion devices were developed to enable musicians to produce and control these effects by the use of foot pedals' (Carlton, 2003, p. 198). The credit for developing the first such devices can be given to Glen Snoods. Snoods designed the first of these devices and pitched his idea to Gibson, a musical instrument company, in the early 1950s. Gibson then bought the design and the Maestro Fuzz-Tone was born, see the image to the left.

Gibson released the Fuzz-Tone in 1964 for public use (Hicks, 2000). However it was not until later that year that it really picked up popularity when the Rolling Stones used it in their hit song 'Satisfaction'. This '... Started a

revolution of guitar sounds the very next year... ' (Josser, 2006, p. 60), stemming the beginning of a new era of music. As this new sound developed, it became more refined. Gradually the technology used became more successful in using transistors and other non-tube technology to simulate the sound of distortion (Ross, 1988, p. 1). Engineers began discovering how to shape this distortion into a much more pleasing sound. More recently there are many different ways to create distortion such as effects devices, amps as well as software (Berger, 2009, p. 63). This sound gained more and more popularity in mainstream music and was mostly used on guitars in rock, punk and metal genres. Though, 'even genres like dance, chart-pop or trip-hop might involve a certain degree of distortion on more than a few tracks' (Khaki, 2008, p. 451).

This proves the versatility of distortion as a creative tool within many different music themes. Distortion is a method of musical expression used by engineers, guitarists, singers and drummers alike to produce something unique. Many fans of popular music react positively to an expressive amount of distortion within almost any genre (Case, 2011 , up. 75-76). Musicians are constantly trying to seek the right kind of distortion to suit heir style. Distortion can be used on any audio signal for a variety of reasons for example, by bringing more 'reality to a digital sound.

It can also be used to compensate for the cleanness and 'boringly preciseness' of a digital sound (Khaki, 2008, p. 470). Engineers use distortion to add some cutting-edge to digital audio by introducing some degree of an 'appealing error' (Khaki, 2008, p. 470). Another point is, as time goes on popular music tends to become more aggressive, by adding some harmonic

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distortion to the mix this fulfills the masses' need for raw edginess. Cleverly used distortion can be used in the mixing process as well. Distortion can be used to highlight or emphasize a particular section, phrase, or instrument.

Alex Case wrote in *Mix Smart: Pro Audio Tips for Your Multicast Mix*, that 'nothing draws attention to a track better than distortion' by mixing in a little to better 'orchestrate the emotional contour of the tone'; by doing so this it can also 'enhance the performance of the band' (Case, 2011, p 77). Aside from the previously mentioned guitar and vocals, distortion mixing can be utilized in all sorts of different instruments as a way of enhancing and highlighting a track. For example; the timbre may sound fine whilst mixing a bass guitar, it can still get lost in the mix.

The best way to pull it to the front of the mix, if there is no volume to spare, is to mix in small p. 388). Distortion can be used as a subtle highlight during certain sections of music or it can be used as an obvious effect. Another example of Utilizing distortion to its fullest potential is, in the dance track 'Autobahn' by Jerkwater they have the sound of a speeding car. This sound is created by using an 'almost distorted Winchester' (Labile & Patties, 2011, p. 388). Distortion has many different purposes in music. It can bring edginess to the music, in any way it is used.

As a result of this, new genres and an entirely new culture and way of life were created. Distortion is responsible for influencing the way music is played, the audience that listens and the sound of different genres and sub-genres. Heavy metal would be one of the largest genres formed from the discovery and experimentation of distortion with Michael Campbell

publishing that 'distortion is the sound signature of heavy metal' (2009, p. 14). By saying this he is inferring that without distortion the entire genre of 'Heavy Metal' wouldn't even exist as it is today.

As singers in heavy metal music have a very distinctive sound, some vocals in heavy metal music have been altered in some way by the use of distortion. Instead of singing the melody the way it has been done in other genres, heavy metalists seem to prefer to growl and/or snarl (Weinstein, 2000, p. 51). Some artists of the genre even went as far as using a small amount of distortion on the vocals. The 1967 song 'Born to Be Wild' by Steppenwolf, had distortion on both the guitars and the vocals. It can also be said that the distortion on the vocals is just as important as on the guitars (Weinstein, 2000, pp. 9-20). Again, reiterating that distortion is more than just an effect used on instruments, but one that can be widely used on a wide range of musical elements. Distortion is more than just an effect. It's a way of life. It is an entire culture in itself. Alex Case states that 'When a device is overloaded, something exciting must be happening. Someone is misbehaving. Rules are being bent or broken' (2011, p. 75). Distortion brings something extra, something fun and something naughty to the music. It has influenced and altered music like no other effect.

Metal is just one of the genres created through the use of distortion. There is also punk, rock and grunge to name a few. Although metal has many more sub genres created inside the metal than that of the other genres, it still remains the most influenced by the evolution of distortion (Hodgkin, 2010). So much so, that the modern day culture of metal involves a somewhat 'distorted' reality that metal fans live compared to the norm of society. The <https://assignbuster.com/the-influence-of-electronics-in-music-production/>

edginess distortion adds to most metal music has attracted thousands of the younger generation to the sound.

The appeal of edgy-hard sound has allured a whole new group of people to the metal culture, involving more than just music to listen to, but the 'act' and 'appearance' of metal (Leads, 2010). The accidental discovery of audio distortion has impacted an entire modern day culture of metal listeners. So many genres of music owe everything they are to the creation of distortion. This one element in music is responsible for influencing so many people and more genres breakages of equipment, to being the founding blocks of one of the most powerful genres; distortion has added that special 'something' to just about every aspect of it.

Distortion can be used in so many ways whether it is in mixing or for live performance. Of all devices that are used in today's music, distortion is one that has impacted on multitudes of people and many genres. Distortion is more than just an effect; it's a way of life.