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COEXISTENT PERSPECTIVES

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UNINTENDED CONSEQUENCES OF DESIGN:

HOW DIGITAL MUSIC UNINTENTIONALLY CHANGED THE MUSIC
INDUSTRY

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INTRODUCTION:

This essay will highlight how the digital era of music such as iTunes and streaming platforms such as Spotify have changed the music industry and how the development led to the unintended consequences of its design. Focusing on how the design of these platforms has led to the music that was released in the late 1990s and early 2000s before iTunes emerged being sufficiently more artistic and of higher quality than the music produced and released since the streaming platforms were introduced. Now a brief introduction to how the music industry got to where it is now from the earliest forms of written music to iTunes.

Before the digital age roughly 1,000 years ago when sheet music or a very early version of it was created by the western churches and this music 'Gregorian chant' or 'Plainchant' was named after Gregory the Great who was pope during 590 AD until his death in 604 AD. The notes being put on the sheet music were underneath. The words being sung to indicate the pitch of the words being sung by the choirs ***"Many of the earliest music notations were for choral music, with the notes being typically indicated above the word or syllable of the text being sung"*** (Paterson, J. 2022) The Sheet music we know and are familiar with within classical music and other genres was devised in Italy by an Italian monk Guido of Arezzo ***"In "Micrologus" a treatise on music notation, he also used the initial letters of a hymn to define musical pitches. These letters were ut, re mi, fa, sol, la. In most countries "Ut" became "Do" and centuries later with the addition of "ti" the system came to be called the sol-fa notation which was taught in many schools. When Gregorian Chant became more complex, its notation followed suit"*** (Paterson, J. 2022) with this creation became the sheet music we know today and therefore became the first instance of recorded music, as music typically was not recorded in such a way before this invention by Guido.

Then 2001 came along, and Apple released its ground-breaking music consumption platform 'iTunes'. ***"Along with the iPod, the MP3 player Apple released later in 2001, iTunes revolutionized the music industry, providing consumers with a simple, portable way of listening to a large library of music."*** (History. 2019). This statement made by editors at History states that the introduction of the iPod and iTunes revolutionized the music industry. iTunes and the iPod allowed the listener to listen to their entire music library on the go whilst the iPod not being more than 12

centimetres in length. How did iTunes work? It was rather simple before iTunes music consumers would have to physically insert their CD's into their laptops to burn them into mp3 files and then would have to drag and drop the files onto their mp3 players or individual CD's to access their personal libraries on the go. iTunes was very similar in that sense, but the service made the process easier for the user, by loading up the application, and inserting the CD you wish to burn iTunes would automatically burn the tracks into the application and sort them alphabetically and by their album. If the listener had an iPod the music could be 'synced' up and downloaded onto the device with ease, all with a click of a button. ***"Sleek and focused on a simplified user experience, iTunes made it easy for users to burn CDs and to manage digital music files." (History. 2019).*** With this the music industry was losing money due to the rise of internet piracy, Apple founder Steve Jobs struck a deal with the five leading record labels at the time to allow them to sell their records via the iTunes store, ***"Seeing that music was easier to access than ever, but that record labels were losing money due to internet piracy, Jobs made a deal with the five major record labels to sell their content via iTunes. The fact that it was above-board and profitable for the music industry, combined with the cultural cache of its companion product, the iPod, made iTunes an unqualified success." (History. 2019)*** what set iTunes apart was that the software could be used by not just MacOS and apple users, but also Windows and Linux users, making it vastly accessible to everyone and not just a niche group of consumers ***"iTunes was also one of the rare products that Apple allowed to run outside of its ecosystem. Apple brought iTunes to Windows in 2003." (Liao, S. 2019).*** How did the introduction of iTunes affect the music industry?

As stated in the quote by Shannon Liao for CNN, ***"Before iTunes, the music industry preferred physical CDs, cassette tapes, and vinyl records. Napster, file piracy, and listening to music on Windows Music Player were all for a time common ways for listeners to get their music, but it was iTunes that fast-tracked the popularity of digital downloads — at least paid ones. It signed up the major music labels to bring exclusive tracks from artists like the Black Eyed Peas, Mary J. Blige, The Rolling Stones, and Yo-Yo Ma to Apple devices." (Liao, S. 2019)*** iTunes fast-tracked the industry by adopting

digital downloads and the purchase of single tracks and albums on its service. By 2012 iTunes had killed the CD-purchasing market as the music sales were digitality dominated at 75% ***“By 2012, over 75% of all music-related transactions were digital singles, according to the RIAA.” (Liao, S. 2019)*** this was due to the fact iTunes allowed consumers to purchase new albums for \$10 USD and singles for \$0.98 USD. Another key feature of iTunes was to be able to create a unique playlist that features the songs you wish to include ***“There was a time when every Mac had iTunes running full-time. For me, that time was college. iTunes was never perfect, but I vividly remember spending hours organizing playlists,” (Liao, S. 2019).*** With this idea in mind iTunes in evidently created the streaming service known as Spotify and this would be one of its key features as well as other streaming services in the future.

CHAPTER 1

THE UNINTENDED CONSEQUENCES

“An innovation presented in Silicon Valley today, can destroy jobs in Amsterdam tomorrow.”

(Dujardin, A. 2017) Alain Dujardin made this statement in his article ***“The unintended consequences of design”*** with this statement he presents the idea that designers often do not think about the impact of their design on society but solely focus on the problem they are trying to solve with their innovation. Such example of this theory is the mobile phone, on one hand, the mobile phone “DynaTAC” also known by its nickname “The Brick” was designed in 1984 by Motorola to solve the problem of being able to contact anyone, anywhere at any time encase of an emergency happens to a family member, business or anything in between, but instead of simply just solving the problem it also impacted the social aspect of our lives, our mobile phone has changed how we interact with one and other from how we consume media, meet new people and our infrastructure. The social aspect is the unintended consequence of the design of the mobile phone. But could this be predicted by the designers who first introduced the mobile phone in 1984? In 1936 Robert K. Merton coined the concept of ***“unanticipated consequences”*** which later due to social sciences was changed to ***“unintended consequences”*** this conflation often means these two concepts are put together as they seem to be similar concepts but rather fact closely related but not the same. A quote from Merton’s article says as follows ***“These sum-total or concrete consequences may be differentiated into (a) consequences to the actor (s), (b) consequences to other persons mediated through (1) the social structure, (2) the culture and (3) the civilization. (Merton, R. 1936)*** this statement by Merton suggests the concept of consequences of designs whether the consequence is good or bad is down to three aspects how the design is perceived, the social structure around who is using the design, the culture of who and where the design is being used and then the civilization around the design. These three key areas are what determine the consequence of a designer and the consequences of their design. These are also areas where they are out of control of the impact of their work where the consumer who buys and uses their designs determine if there is an unintended or unanticipated consequence. How do these theories fit into how digital music changed the music industry? was the introduction of streaming services such as Spotify the determining factor? Or was it the rise and ground-breaking service iTunes that led to the music industry being altered? With these new services and digital music making

it easier for consumers to access their favourite artists, these services also made it sufficiently easier for new up-and-coming artists to share their art with the world, but also on the other hand it allowed anyone with a PC or laptop to create music in their own home. On one hand, this allowed access to anyone everywhere to create music and share it with the world but on the other hand, the quality of music being produced in the mainstream media has deteriorated compared to the music being produced and released before the digital streaming consumption, this is stated by Marc Henshall in his article ***“Music fans quit streaming in favour of vinyl, CD and digital files?”*** Henshall states that ***“Not only are we missing the physicality and artwork of the physical record, but music has now transitioned from something we own to something we rent (Henshall, M. 2022),*** especially in 2022 and the last few years sufficiently more music consumers are switching back to physical music as the quality is higher but also physical music allows the consumer to connect with their favourite artists better than with digital mediums. Digital consumption has made it commonplace for listeners to skip tracks on new albums because the track doesn’t sound great to the listener, tracks have gotten shorter over time due to the attention span and artists wanting to produce and release as many tracks as possible. As producers and artists release tracks more now than before it is since streams matter more than the quality, as more streams equal more hits and more money for the label as stated by Ditto Music ***“the more streams and fans you can generate on Spotify, the more revenue you’ll return in the form of music royalties.” (Ditto Music, 2022)*** this statement by Ditto Music solidifies the fact the more tracks an artist releases the more streams they get and then, therefore, more revenues of income. Was this an unintended or unanticipated consequence of digital music design? Next, I will analyse two different artists by analysing their first album released before digital music and then their recent album release during the digital era, with this it’ll allow us to see if digital music has had a massive impact on their art or a minute impact, whether they produce and release better quality music now or before the digital era.

ARTIST: KANYE WEST



Figure. 1 (The College Dropout, West, K. 2004)



Figure. 2 (Donda, West, K. 2021)

ALBUM 1: THE COLLEGE DROPOUT

Kanye West has influenced a whole generation with his music, art and designs. He started off his music career as a producer for artists such as Jay-Z under his record label Roc-a-fella Records. In 2004 this would change as West would release his first album 'The College Dropout' (**Fig. 1**) Kanye West would produce, rap and mix this album all by himself in Roc-a-fella studios in New York City. One song 'Jesus walks' was rejected by numerous studios' to be released, and the single would win 'Best rap song' at the 2005 Grammy ceremony. What exactly made this album ground-breaking for the hip-hop scene but also for the music industry? In 2004 most hip-hop and rap albums and artists were from poor backgrounds and sold drugs on the streets, whereas Kanye West came from a middle-class background in Chicago he dressed differently from the artists at the time but had clothing that fit him properly. This was one of the underlying factors that made this album innovative and different to what was being released at the time, this is prevalent in the album's leading track "Through the wire" where West raps about overcoming his peers who doubt him but rapping with his mouth being wired shut due to a car crash he sustained ***"Recorded with his mouth still wired shut, the lead track for The College Dropout not only proved that West had talent behind the mic, but it also positioned him as a triumphant underdog, one who was forced to overcome both physical adversity and a perceived lack of respect from his peers, too"*** (Opie, D. 2019). The College Dropout brought a different style compared to what was around at the time by offering samples from Luther Vandross and Chaka Khan, 12 out of the 21 tracks offered on the album incorporated 14 samples across them. ***"Aside from two co-production credits, Kanye single-handedly produced each of these tracks, shifting hip-hop towards a more organic sound that reignited interest in the power of the sample."*** (Opie, D. 2019). West's artistry shine's through on his first album, each track carefully crafted with features and a sample that is incorporated with punchy drums, snares and hi-hats, vocal chops which were a new thing in 2004 and Kanye is the master of using vocals in areas where others would use an instrument or wouldn't have put anything, a clear narrative about overcoming struggles and being undermined by his peers, all these together as well as hard-hitting verses from West creates a new style of hip-hop which is still being felt to this day in other producers tracks and albums. The album was created long before digital streaming platforms came

around therefore this album had to be created within a professional studio at the record label. With this Kanye often had sessions where he had other artists and producers in the studio to bounce ideas off. Innovation was when Kanye introduced his signature sampling style at the time, this sampling style would often be called “chipmunk style” because West would take the sample he was using and speed it up but also pitch the sample up a few semitones ***“The album showcased his unique ‘chipmunk soul’ musical style which gained him instant recognition and popularity” (Hustlersdigest. 2021)*** This would be a trend of his till his third album “Graduation”. The College Dropout sold for \$14.99 in 2004 ***(Cohen, W. 2004)*** and the album sold 3.1million units alone in the US and 4 million units worldwide ***“It is West's best-selling album in the United States, with domestic sales of over 3.1 million copies and worldwide sales of over four million copies” (KanyeWestWiki)***. This means West made a total of \$46,469,000 in the US and \$59,960,000 worldwide. These are the sales he made before digital streaming came into play. The College Dropout remains one of Kanye's best-selling albums to date.

ALBUM 2: DONDA

On the 29th of August 2021, Kanye West released his tenth studio album 'Donda' 17 years after his first studio album 'The College Dropout'. The album is named after his late mother Donda West who passed away on the 10th of November 2007. The passing of his mother deeply affected Kanye West, as he had a close bond with her, and her passing came without warning. This album was West's way of paying tribute to his mother 14 years after her passing. The album consists of 27 tracks, 13 out of the 27 tracks feature samples from Herb and the Spices, Lauryn Hill and DMX just to name a few. The other 14 tracks include original scores from West as well as some tracks featuring his Sunday Service Choir. When released in 2021 the album was hit with heavy criticism from media outlets because the album felt unfinished and rushed in many departments such as the production ***"Donda arrived barely finished and with a lot of baggage. Its 1 hour and 48-minute runtime includes euphoric highs that lack connective tissue, a data dump of songs searching for a higher calling" (Green, D. 2021).*** The reason for this rushed and unfinished feeling about the album is that streaming services such as Spotify and Apple Music released the album without West's approval, resulting in the album being deemed unfinished. Donda consists of many different styles of hip-hop not just one style like The College Dropout, the many styles range from trap and drill to boom-bap and gospel. ***"Strip Donda of most of its context—the constant editing, the laundry list of guests with real-life cases both alleged and confirmed, the last two decades of hip-hop's largest ego—and a significant portion of this album still sounds incomplete, searching for meaning everywhere and coming up impressively short."*** (Green, D. 2021) the quote by Green in his article about West's 10th studio album hits home about the fact there is no clear narrative within the album, no meaning within the tracks bar the name of the album name. The reason for this album being barebones and widely unfinished is because of digital streaming platforms such as Spotify and Apple Music released the album early without West's approval. But because of this how much did West earn from this album? ***"Donda launched with the biggest first-weeks debut of 2021, as his new set amassed more than 341 million streams and close to 37,000 sales. With nearly 313,000 album-equivalent units."*** (Leight, E. 2021). Donda is one of West's most successful albums but that is also down to the fact he is one of the most influential artists in music, the numbers presented in the quote from Leight

in Rolling Stone are for the album's first week of release. Spotify pays an artist \$0.005 USD per stream and Apple Music pays \$0.01 USD per stream (*Dittomusic. 2022*). Donda has 775 million total streams across both Spotify and Apple Music, 442 million on Spotify and 242 million on Apple Music ***“The album accumulated more than 442 million streams on Spotify and 242 million streams on Apple Music across the globe” (Kelly, D. 2021).*** West made \$2,212,000 USD from Spotify streams and \$2,420,000 USD from Apple Music streams, for a total of \$4,630,000 USD. 30% of this revenue will go to Spotify and Apple Music which results in too \$1,389,000 USD and then the 70% that is left over totals \$3,241,000 USD going to Kanye West and the record label. Donda is one of Kanye West’s most successful albums that was released during the digital streaming age.

CONCLUSION

To conclude this essay about how digital music has changed the music industry I will be comparing both albums by Kanye West that was discussed in this essay to see how the albums were affected by the development of digital music and whether has it changed the way artists approach their art compared to before?

The first point to compare is the number of samples and tracks that are present on each album. The College Dropout (**Fig. 1**) has 12 samples that range from Luther Vandross to Chaka Khan across 21 tracks. The Tracks that do not feature a sample are utilized with original scores produced by West himself. This is compared to Donda (**Fig. 2**) which has a total of 13 samples across 27 tracks, which is an increase of 1 sample compared to The College Dropout and additional 6 tracks as well compared to The College Dropout. Often thought that more tracks equal better albums, but in this instance, it is not. Where Donda (**Fig. 2**) has 27 tracks when compared to The College Dropout (**Fig. 1**) has 21 tracks, The College Dropout was nominated for 10 Grammy awards in 2005 and won 3 on this night *“West earned his first career GRAMMYS for 2004 for Best Rap Album (The College Dropout), Best Rap Song (“Jesus Walks”) and Best R&B Song (“You Don’t Know My Name”).” (Grammys, 2021)*. Donda on the other hand was nominated for album of the year at the 64th Grammys ceremony and won 2 awards for the album which were “Best Melodic Rap Performance” for the track “Hurricane” and “Best Rap Song” for the track “Jail” (**Grammys, 2022**). Comparing this means that The College Dropout is of better quality compared to Donda. Secondly, compare the revenue of both albums generated by Kanye West. Donda generated a total of \$4,630,000 from streaming platforms such as Spotify and Apple Music, however, 30% of this revenue is given to the streaming platforms which totalled \$1,389,000 and West took the remaining 70% which was \$3,241,000. The figure is so low because of the streaming platforms paying \$0.005 USD from Spotify and Apple Music paying \$0.01 USD per stream. Comparing this to The College Dropout’s revenue in 2004, as there were no streaming platforms in 2004 the revenue was solely from album sales. The College Dropout generated \$46,469,000 USD from album sales In the United States alone, the worldwide generated sales amounted to \$59,960,000 USD with West taking the majority of the earnings. Both albums were very successful when they were released with both making it to the Billboard top 200, with The College Dropout debuting in second place in its first week, while Donda debuted in first place on the Billboard

top 200 (*KanyeWestWiki*). Both albums reached high on the Billboard top 200 but Donda just tipped The College Dropout on ranking. But this could be down to the fact The College Dropout was West's first Album to be released therefore not having the cult following he has now for when Donda released.

To Conclude this essay on how digital music changed the music industry, was this change due to unintended design? From the evidence gathered and analysing of two albums from Kanye West, one was produced and released before digital music was around which being "The College Dropout" released in 2004 and the second album was produced and released during the digital music streaming era the album being "Donda" which was released in 2021. To highlight the article "*The Unanticipated Consequences of Purposive Social Action*" made by Robert K. Merton, which was published in 1936, the article is discussed in the introduction about the "Unintended" and "Unanticipated" consequences. Translating this into how the music industry has changed due to the emergence of digital music and digital streaming. Digital music such as iTunes was intended to allow the listener to have easy access to their library of music without having hundreds of CDs around their house, then digital streaming such as Spotify and Apple Music made this even easier for listeners to access their favourite artists and music. But with this, it created the consequence of more artists flooding the market with their music as it was made easier now than ever for anyone to release their art to the world and with this, the quality of the music released now has been lowered. This as well as the streaming services paying so little to artists means that artists now release more tracks than before to be able to have multiple sources of income. This I evidenced by Kanye West's album "Donda" (**Fig. 2**) having more tracks and relatively feeling rushed and unfinished compared to his first album "The College Dropout" (**Fig. 1**). Therefore, the actions which have come from the design of digital music are unintended, the companies in which have designed these systems could not predict what their design would lead to compared to what the initial intended purpose was.

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