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California State University, Monterey Bay

Video Game Music and Legitimacy

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MPA 475: Senior Capstone

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Introduction

From the single-tone *Pong* (1972) to the meticulous composition and instrumentation in *Legend of Zelda: Breath of the Wild's* (2017) soundtrack, video game music has garnered great popularity amongst video game consumers, developing into its own genre of music with subsequent branching subgenres. Yet, is video game music a legitimate musical genre and market or a fad amongst game consumers? What can video game music offer to the music industry? Can the genre change the music industry as it stands today? What kinds of influences has video games and video game music had not only on popular music of today but also music business as a whole?

When compared to its other entertainment counterparts, video games are the newest form of media, and gaming has grown at a significant rate in both advancement in technology and popularity over the past several years. There are 2.5 billion gamers from around the world. In the United States alone, 64% of the general populace are considered gamers. A marker of the market's growth is its worth, which is projected to be over 90 billion U.S. dollars by 2020 (qtd. in "2019 Video Game Industry Statistics"). With this growth, video game music (referred to as VGM below) and its subgenres have risen in popularity.

In this paper, I will first go over a brief synopsis of the history of VGM to establish the overall development video games and VGM has made from the early 1970's to present day. I will then discuss arguments against and support for VGM's legitimacy. I will then go into VGM's influence and legacy in popular music and in music business to answer whether VGM is a legitimate force in music today. Finally, I will discuss upcoming business ventures that blend gaming and other industries together.

A Brief History of Video Game Music

Overtime, VGM has evolved—in sound and role—parallel to the technological limitations of video games. In the beginning, with games such as Pong there wasn't much music in video games. The onomatopoeic sound made when the ball hits the player's bar was as much as video games could offer in the realm of sound. Other games, such as Space Invaders (1978), included sound's influence of the player and their reaction to their enemies. As the space ships got closer and moved faster towards the player, the sound itself got faster. This would be the first example of atmospheric music in video games. In studies comparing the experience of Space Invaders with and without sound, people do not panic as much when there is no sound ("The Evolution of Video Game Music"). Arguably, the approach of the aliens and its associated sound is the first use of melody within video games and VGM ("Diggin' in the Carts). as well as one of the first instances of continuous music in video games (Collins 12). Rally-X was released by Namco in 1980 and offered a fast-paced melody to accompany its raceway aesthetics and featured another instance of continuous music in video games (Collins 12). Released in the same year, *Pac-Man* debuted in arcades and became a smashing hit with its introductory melody and Pac-Man's two-tone sound effect becoming iconic to the world ("Diggin' in the Carts").

In the same year, manufacturers began to include dedicated sound chips known as programmable sound generators (PSGs) into their circuit boards (Collins 12). The Nintendo Entertainment System (NES) was released in 1983 and was one of the first home consoles to utilize PSGs. With the PSGs, no longer would developers have to

create individual sound chips for individual consoles. These newer systems provided a sound chip within the system that allowed for an easier composition process. Unlike traditional music score, however, composers would have to input data to be played back into musical pieces. These new home consoles became the gateway in which video games and their iconic soundtracks were brought into homes around the world ("Diggin' in the Carts").

An iconic VGM composer of this time, Junko Ozawa was one of the first Namco composers. Ozawa worked on games such as *Gaplus* (1984), *The Tower of Druaga* (1984), and *The Return of Ishtar* (1986). *The Tower of Druaga*'s entire soundtrack was coded into a single CPU out of the many on the circuit board for the game. Ozawa's process would be a solo task, composing music on the staff, translating the notes into numbers, and programming the numbers into the CPU dedicated for the music ("Diggin' in the Carts"). Another iconic composer of this time is Hirokazu "Hip" Tanaka, one of Nintendo's original composers. While his current works revolve around cultural giants like *Pokemon*, Tanaka started his career with Nintendo and games such as *Balloon Fight* (1984) and *Kid Icarus* (1986). Tanaka states that during his career in the 80s, his process involved old synthesizers and "cut & try"—soldering components together and working with them in a trial-and-error style ("Diggin' in the Carts").

Video games took influence from a range of musical genres as early as the 1980s, with Tanaka taking influence from reggae into *Balloon Fight* and *Wrecking Crew* (1985) ("Diggin' in the Carts"). Games also sourced traditional and classical pieces of music. Johann Sebastian Bach's Toccata and Fugue In D Minor is a popular piece that is credited in multiple games. Games with this piece include *Dark Castle* (1986) and *Gyruss* (1988) ("Johann Sebastian Bach Video Game Credits (By Year)"). *Tetris* (1984) sourced its iconic melody and music directly from Russian folk song "Korobeiniki" (Shaver).

In 1986, *Castlevania* was released by Konami for the Family Computer Disk System and then later ported to the NES for North America in 1987 and Europe in 1988. Its musical blend of baroque and rock styles of music painted its sonically innovative soundtrack, captivating listeners with infectious melodies. VGM's growth in composition is also present in games such as the *Contra* series ("Diggin' in the Carts"). Sounds during this time were no longer limited to what could be synthesized with chip technology. With the introduction of sampling, sound effects and Foley could now be better portrayed in video games. Vocal samples where also possible and present in games like *Mike Tyson's Punch Out!* (1987) (Collins 26).

Konami also influenced the realm of VGM during this time. Konami made the decision to have an additional sound chip with three additional oscillators to give a more complex sound. With the additional sound chip, you can play both cartridge-imbedded and console-imbedded sounds during gameplay. The sound chip that Konami used to achieve this was the VRC6. The first game utilizing FM synthesis into its cartridge was *Lagrange Point* (1991), published by Konami ("Diggin' in the Carts"). Konami also branched out from solely using their own composers to J-pop artists during this time. The 1980s also saw the birth of PC gaming, beginning with Sierra's graphic and text adventures such as *Mystery House* (1980) and *The Dark Crystal* (1982). In the subsequent years, Sierra would then release the first "3D" graphic adventure game to hit the market with *King's Quest* (1984) (Collins 29).

During the 1990s, video games made the transition from 8-bit to 16-bit. With better graphical quality also came better sonic quality and grander compositions. 16-bit technology allowed for more natural sounds with 16-bit being able to represent more numerical values when compared to 8-bit and, correspondingly, more dynamic range and fidelity. *Street Fighter II* was released in 1991 by Capcom, toting iconic thematic songs such as "Guile's Theme" and memorable voice samplings announcing the winning player. The game was first available for play in arcades and was later ported to the Super Nintendo Entertainment System (SNES) in 1992. Yoko Shimomura's work on *Street Fighter II* shows the artistic strides and creative advancements VGM composers where now able to make. Shimomura's compositions for the game revolved around the themes of each character. Instead of making themes based on the characters themselves, the music was based on the countries that they came from ("Diggin' in the Carts").

The Sega Genesis—also known as the Mega Drive—was first released in Japan in 1988 and internationally from 1989 through 1990. The Genesis used frequency modulation (or FM) synthesis in their console system. *Streets of Rage* was published in 1991 with Yuko Koshino as its musical composer. The *Streets of Rage* soundtrack had music that is comparable to house or club music. Kushino and Sega themed the soundtrack as house music to appeal to the international audience during this time. Koshino effectively used the technology given to him to insert his inspirations from the club scene into *Streets of Rage* ("Diggin' in the Carts"). Koshino continued to compose for the *Streets of Rage* series until the final installment of the series, *Streets of Rage 3* (1994) ("Diggin' in the Carts").

In congruence with the growth of VGM with games that took influence and inspiration from their arcade counterparts came VGM's role in role-playing games (RPGs). VGM would begin to take a more cinematic role in video games as supporting music and audio for the story and drama that would unfold. *Final Fantasy VI* came in 1994 with Nobuo Uematsu as its composer. Uematsu composed for the *Final Fantasy* series from 1987 to 2000. With his work, Uematsu set the stage for what VGM would be and showed the public that VGM could be beautiful ("Diggin' in the Carts").

The 1990s also brought the advancement of the PC gaming experience and VGM. Personal computers (PCs) were now able to support games from floppy discs to CDs. MIDI also experienced an overhaul in protocols by DirectMusic, allowing it more extensive controls in video game sound (Collins 65). During this time, *Myst* (1993) was one of the most popular PC games in the market. A puzzle adventure game, *Myst* featured a unusual type of soundtrack. Instead of incorporating constant melodies and songs to accompany game play, *Myst* featured minimal ambient music and sound effects to create an eerie tone to the video game (Collins 66)

The CD-ROM's use in video game consoles allowed for a new way to make physical copies of games. This also propelled VGM's shift from its chiptune, 8- and 16bit era to a new era of capable sound. No longer were video games faced with great limitations to their sound and music. Not until CD-ROM did video games and VGM start to experience a shift in paradigm. As technology began to become more powerful, music could finally start to become something that resembled live music.

For the console, the *Tekken* series proved to be one of the many games to influence music outside of video games. VGM had now fully begun to take the cinematic

role set by games like *Myst.* Hideo Kojima, director of the series, put great effort into making the *Metal Gear Solid* series like movies. He states that a game is like a movie in that 80 percent of its value is dependent on sound. In the open worlds of the *Metal Gear Solid* franchise, the music not only plays thematic roles but also ambient roles. Kojima's work with the *Metal Gear Solid* series also used movie-related techniques such as Foley to give support to the scene the game portrays, making the scenery more realistic for the player. Background melodies and fully composed songs also help portray this ambiance ("Diggin' in the Carts").

From where we are to where we've come from, VGM has grown in scope and capability. VGM transcends genre-type, taking influence from classical to Latin jazz to club music. Many big-budget games now source orchestras and choirs to help record their music. Game composers, however, do not limit themselves to strictly larger-scale instrumentation. Recent indie games in the industry have shown the reemergence of 8-and 16-bit styles of games. Notable games like *Celeste* (2018) and *Undertale* (2015) have graphics, gameplay, and music that replicate the era of limitation. There are also genres and artists which take inspiration from this era: genres such as chiptune, nerdcore, and lo-fi as well as artists such as Snail's House and Anamanaguchi. We've come into an era in which VGM now takes the role of influencer to popular music of today. Despite this, in comparison to other art forms of music, VGM is still in a relatively pubescent era. Does this youth disqualify it from being considered a legitimate genre?

Against Legitimacy

A basis to the study of the legitimacy of VGM is any argument that can be made against it and its rebuttal. First and foremost, instrumentation of VGM and its derivative

genres are often limited to the "bleeps" and "bloops" of retro games. Its music is not authentic in the sense that its instrumentation does not contain true, organic sound. Can VGM truly be music if limited to inorganic instrumentation?

Many arguments have been made online on VGM's legitimacy. Reddit user Natrtatr on the forum post "Let's Talk: Video game music, legitimacy and the 'classical' label" states that VGM's legitimacy does not compare to the legitimacy of classical or western art music. Western art music was composed as standalone pieces. Their purpose was to be the main feature that the audience members came to hear. Unlike this, VGM is made to accompany the main subject of consumption. It is not standalone and works to support the main subject, which is the video game. Therefore, its legitimacy is incomparable to western art music.

What about when the music is detached from the video game? If a player has great sentimental value placed in a video game, the player is more likely to listen to and enjoy the music outside of the game due to nostalgia. From personal example, I have spent countless days to months to years on the *Animal Crossing* series, and I spend personal time listening to—and even learning—its music outside of its video game context. Can VGM be enjoyed to the same caliber between someone who has experienced the video game and someone who has not? If a person has yet to develop the same sentiment that a player has towards a video game, is the value in the music lost?

Another argument from a deleted user on the same post is that limitations in time and budget constraints severely affect the scope of what VGM can be. As previously stated, VGM is not often the main subject of the video game and therefore composition

and production of the music must abide by release dates and production goals set for the video game. Even more so, VGM from its retro era experienced the limitations set by 8- and 16-bit quality. Therefore, VGM cannot reach its true potential when compared to western art music due to the limited resources allocated to it in the development process according to this argument.

For Legitimacy

With a budget to handle the cost, AAA games have incorporated game scoring with live orchestras with big-name composers. *Journey* (2012) involved the Macedonia Radio Orchestra Symphony with a score composed by Austin Wintory, who has also worked on games such as *Assassins' Creed: Syndicate* (2015) and *Abzû* (2016). *Bloodborne* (2015) incorporates a 65-piece orchestra and a 32-member choir in its chilling soundtrack. Other games that include live instrumentation include *The Elder Scrolls V: Skyrim* (2011), The *Witcher 3: Wild Hunt* (2015), and *Legend of Zelda: Breath of the Wild* (2017).

In the aforementioned "Let's Talk Music" forum post, reddit user dylnbrown9 points out the historical development in cultural consumption of jazz music and compares it to video games and VGM's progression. They state that, after World War II, jazz moved from being the current popular style of music to an "artistic subculture." Therefore, VGM's legitimacy can be correlated to whether video games are forms of art, which many may argue it to be with art games such as *That Dragon, Cancer* (2016) and *Journey*.

An argument that VGM cannot live without its video game counterpart can be flipped. Reddit user maximumoverbite argues that the way that the music is incorporated creates more memories of the video game than if the video game was by itself. They express that songs like "Exodus" from *Modern Warfare 2* (2009) and "Rules of Nature" from *Metal Gear Rising* (2013) supply the gusto and heroic sense a player feels when involving themselves in the story of the protagonist. A game's atmosphere can be driven strictly by the music, thus making the music integral and capable of being a standalone product. The same argument can be made for rhythm action games, where music is the sole focus of the video game. Notable titles include the *Dance Dance Revolution, Rhythm Heaven,* and *Guitar Hero* series. If this is the case, VGM can thrive outside of its primary medium.

VGM as a genre does not limit itself to one sound or form. The genre involves a wide scope of genres from classical to jazz to electronica. The only true distinction or difference in some pieces of VGM when compared to other popular genres is that the music is made for a video game. Its style can be tied to any other genre outside of video games. If one is to assume that VGM is illegitimate, does that mean the style that it is in is illegitimate as well, even if it is well-established in the musical realm?

Regarding the limitations set on VGM, especially during the earlier years of 16-bit and FM synthesis, there have been many amazing works produced with this technology. Memorable soundtracks from the *Streets of Rage* and *Final Fantasy* series have been and continue to be enjoyed by audiences. There have even been orchestral renditions of *Final Fantasy* soundtracks (Square Enix CO. LTD).

Finally, legitimacy in music is a judgement based on personal perception rather than factual, quantitative characteristics or qualities. One can argue that another's judgement of illegitimacy is based upon their preference of music following a "standard" form, like what is considered popular music at the time. It is unfair to assume VGM is not legitimate simply because someone doesn't like the genre or its characteristics.

The Legacy of Video Game Music on Popular Music Today

VGM not only serves its purpose in exemplifying the game experience, but also has had great influence on popular music. On February 2nd, 2019—following the release of Kingdom Hearts III on January 29th, 2019-Hikaru Utada landed her first spot on the US Hot 100s Billboard list with her Skrillex collaboration "Face My Fears" at #98. The song has even found itself at #1 on US World Digital Song Sales and #9 on US Hot Dance/Electronic Songs. "Face My Fears" serves as the opening theme for Kingdom Hearts III. In addition to this, "Simple and Clean"—the opening theme for Kingdom Hearts I (2002) which was also sung by Utada—also reemerged and landed itself at #21 on U.S. World Digital Song Sales. Utada's breakthrough into the charts has not been the only influence VGM has had in popular music. VGM has also made its presence in awards for achievements in the music industry. In 2013, Journey was nominated for a Grammy in Best Score Soundtrack for Visual Media, the first Grammy nomination for VGM. In 2015, Christopher Tin's "Baba Yetu"—the theme song for *Civilization IV* (2005)—won the Grammy for Best Instrumental Arrangement Accompanying Vocalists after appearing on Tin's separate album in 2011.

Many songs have sampled from video games such as the Mario series, Chrono *Trigger* (1995) and *Contra* (1987). While some pieces feature short snippets of game audio—such as the coin chime from Super Mario—others feature phrases from choruses or instrumentals as support for the artist's own vocals. Aubrey Drake Graham, otherwise known as Drake, has sampled from video games in a few of his songs. Examples of this are "6 God" and "KMT." "6 God" sampled from Donkey Kong Country 2: Diddy's Kong Quest's song "Haunted Chase." "6 God" uses "Haunted Chase"'s underlying melodic arpeggiation throughout the entire song (CrashXd1). This was confirmed on Twitter by SykSense, a producer who worked with Drake on the song. In "KMT," Drake samples "His World" from Sonic the Hedgehog. "KMT" also uses the underlying melodic arpeggiation present throughout "His World" at a lower pitch and faster tempo. This is confirmed in the liner notes for "KMT" (WhoSampled 15). Another example of video game sound and music being sampled by popular artists and their songs is Lil Yacty's "Run/Running." The song samples from Super Mario 64 (1996) with the use of the coin chime and jump noise in the game. "Run/Running" also uses the file select music as an instrumental throughout the entire song (Slings). Chrono Trigger's "Corridors of Time" has also been sampled by Logic in "Used to Hate It." Like the previous examples, its underlying melodic arpeggiation is used as part of the instrumental for "Used to Hate It" (Etoiles).

VGM is not only limited to music strictly composed for use inside of a video game. It also branches from inspiration to the catalyst of careers. Many artists have found success through the creation of fan projects. Some have even dedicated bands to all that is video game and nerdcore. Starbomb is a comedy music group comprised of

lead singer Dan Avidan of Ninja Sex Party, internet personality Arin Hanson, and physicist Dr. Brian Wecht—who is also Ninja Brian from Ninja Sex Party. Starbomb composes and produces comedy songs about video games, parodying them and their stories. Together, the trio has produced three albums: Starbomb (2013), Player Select (2014), and The TryForce (2019). Albums Starbomb and Player Select both peaked at number 1 on Billboard's Comedy Albums charts in 2014 and 2015 respectively (Prometheus Global Media). One of their most notable songs, "It's Dangerous to Go Alone," was nominated for Best Fan Creation for the 2014 Game Awards (Sakar). The song's animated music video has over 40 million views on YouTube and over 10 million streams on Spotify. "It's Dangerous to Go Alone" serves as a comedic type of commentary on the old man from the cave in which Link gets his sword from in Legend of Zelda (Egoraptor). This is done by painting the old man as a sexual predator out to get Link for his own advances. Another popular song from the group is "Luigi's Ballad." As of writing, the song has 37 million views on YouTube. The song serves a comedic reflection of Mario overshadowing Luigi, portraying Mario as a self-glorified, misogynistic hero who ruins Luigi's advances towards any potential love interest (Egoraptor).

Dan Bull is an English rapper and songwriter who is known for music about video games amongst his works in hip hop. His music has covered topics ranging from video games to popular *YouTube* gamers such as InTheLittleWood and The Yogscast. Three of his most successful videos on his *YouTube* channel are "MINECRAFT CREEPER RAP" (32 million views), "SKYRIM EPIC RAP" (14 million views), and "OVERWATCH EPIC RAP" (10 million views). Each of these three raps are inspired by elements and characters within their respective games: "MINECRAFT CREEPER RAP" in the

perspective of an enemy mob called a creeper, "SKYRIM EPIC RAP" written to exemplify the Dovahkiin's (dragon-born) epic role within Skyrim, and "OVERWATCH EPIC RAP" written in comment on the power of the 21 original playable characters of *Overwatch* (2016). While Bull is known for his gaming rap career, this does not prevent him from creating more traditional rap songs like "Summer Rain" and songs addressing political topics such as the European Union's Article 13 through his rap "Robocopyright."

Yoav Landau, known as The Living Tombstone, is another musical artist with notable songs with topics relating to video games. Notable songs include "Five Nights at Freddy's" with over 144 million views on YouTube, "Die in a Fire (Feat. EileMonty & Orko)" with over 100 million views, and "No Mercy (Feat. BlackGryphon & LittleJayneyCakes)" with over 30 million views. His Five Nights at Freddy's series of songs are supplementary works to the franchise's overarching story, from the backstory of the animatronic antagonists to a parent's lament of a child lost to the fictional franchise. "No Mercy" serves as an argument between two players spanning over several games of Overwatch in the struggle to fill out a support role-particularly with the character Mercy—that no one wants to fulfill. "No Mercy" itself has become a cultural phenomenon through Tik Tok—a popular media app—as an association with the topic of gamer authenticity: whether one is truly interested in video games or jumping on the bandwagon of video game's cultural success for personal gain (B. Vincent). Through inspiration and influence of video games and its music, artists have found success in the creation of passion projects that reflect upon gaming social culture. Artists have written pieces with themes of experiences unique to games, themes that

supplement the games that inspire them, and themes that comment on both the game and the culture that comes with it.

Wouldn't 8- and 16-bit's technological limitations in sound prove to be ineffective in producing music that would be enjoyed today when music can be organically performed or synthesized to reflect realistic qualities? On the contrary, the 8- and 16-bit sounds have flourished and influenced music and musical genres of today. The sounds of old and "cheap" methods of creation have garnered a charm with age and are uniquely made within these limitations. This sound is the core characteristic of the chiptune genre. Chiptune, otherwise known as chip music or 8-bit music, is a style of music that incorporates the sound of retro arcade and video games that are synthesized from vintage computer parts (Miklewski). The name references the sound chips used in the technology at the time. Its popularity arose with the popularity of video games during the 1980s and with the sounds of the 8-bit and 16-bit systems finding their ways into popular music. An example of this is Buckner & Garcia's hit "Pac-Man Fever" (1984). The song features the start-up melody, eating sounds, and death sound from Pac-Man. While chiptune is purely made of 8-bit or 16-bit sound, bitpop—a derivative genre of chiptune—is a style of music where only part of the music consists of 8-bit or 16-bit sounds. An example of bitpop is Kesha's debut single "Tik Tok." The song features an 8-bit melody that is incorporated throughout the instrumental of the song (Miklewski).

Video games have also reached out and inspired producers who've made songs for artists who have had their fair share of top 100s. Music from video games has inspired many musical artists and producers such as Thundercat and Dizzee Rascal ("Diggin' in the Carts"). Just Blaze has produced for artists like Jay-Z, Eminem, and

Kanye but has also composed for video games like *NBA Street 2, Def Jam*, and *Teenage Mutant Ninja Turtles.* Just Blaze himself has credited the soundtrack of the *Streets of Rage* series as his inspiration in creating music. In his own words:

Out of the hundreds of composers out there, these people did something for me, at a certain point in my life that A.) made me say "This is what I want to do for the rest of my life" and B.), like I said, it's almost etched into your DNA.

The Legacy of Video Game Music in Business

VGM has had great influence in music business. Within the video game industry, companies obtain live orchestration. They also incorporate established composers to video games. Video games have also been a subject of advertisement for music. Artists have also been able to amass revenue and listenership through exposure within video games. VGM have ushered in a new audience of concert and concert hall attendees with music festivals and symphonies playing VGM.

Video games have become part of the marketing strategy for musicians and music labels. Steve Schnur, a developer with Electronic Arts, states that soundtracks on *FIFA* games are worked on a year in advance and serve as predictions of what the sound of music will be in a year's time. Schnur also says that "we knew that video games could become what MTV and commercial radio had once been in the 80s and 90s." He also states that the tracks on *FIFA* games—specifically *FIFA19*—are heard billions of times. This type of listenership helps promote the theory that video games

can help predict what kind of music would be popular in the upcoming year, allowing producers and companies to know what to create a year in advance (qtd. in Ombler).

Musicians have also marketed to audiences through *Twitch* in partnership with popular gaming content creators. Tyler Blevins, more commonly known as Ninja, is a popular video game streamer. On March 23rd, Blevins collaborated with Navraj Singh Goraya—also known as Nav—on stream. While the two played together on *Fortnite*, Goraya played songs from his new album *Bad Habits*, which was released on the same day (Music Ally).

From employing their own composers to employing popular artists, video games have been incorporating established names in the music industry into their teams. Edgar Froese, late founder of Tangerine Dream and one of the composers for the *Grand Theft Auto V* soundtrack, said, "I get offers from game companies. I would refuse because the game seemed really stupid." Froese had this thought about his offer from Rockstar to work on *Grand Theft Auto V*. However, when flown out to see what Rockstar was doing, Froese stated that "my first impression was, that game right there puts cinema to shame [as] we know it." *Grand Theft Auto V (GTA V)* was released September 17th, 2013, and with its iconic violence and its "snapshot" of real-life cities comes its music and in-game radio stations. Its final soundtrack includes 241 licensed songs that is distributed amongst the 17 radio stations available in-game. *GTA V*, like many games of its caliber, has artists that are established within popular music and the music industry. *GTA V*'s music and audio credits boasts names like Stephen Pope and Nate Williams from Wavves, Camilo Lara from the Mexican Institute of Sound, Pam

Grier, Bootsy Collins and Kenny Loggins. Mark Jordan, better known as DJ Pooh, hosts the West Coast Classics radio in-game (Shamoon).

Video games have also brought revenue to artists and bands with games themed around the artist and their music. According to Activision CEO Bobby Kotick, *Guitar Hero* has generated more in revenue than any Aerosmith album, merchandise, or concert has ever given them. *Guitar Hero: Aerosmith* was released on June 29, 2008. As of 2018, *Guitar Hero: Aerosmith* sold more than 4 million copies. Aerosmith garnered a new generation of fans through the video game and had an increase in sales by 40% (Wilson).

There have been several other games connected with artists, such as *50 Cent: Bulletproof* (2005) and *50 Cent: Blood on the Sand* (2009). In both *50 Cent: Bulletproof* and *Blood on the Sand*, players play the role of 50 Cent in an action shooter seeking revenge against those who've tried to murder him. Other artists who are featured in the games include Dr. Dre, Eminem, DJ Whoo Kid, Tony Yayo, and Lloyd Banks (Roper 2). *50 Cent: Bulletproof* sold nearly 1.2 million copies overall, *Blood on the Sand* selling 560,000 copies in the US (Hinkle). A soundtrack album titled *Bulletproof* from the first game was released by Shadyville Entertainment in 2007. "Maybe We Crazy," a song on the soundtrack, won Best Original Song" in the 2005 Spike TV Video Game Awards (DeMott).

VGM can be consumed in a variety of forms. With VGM, a demand for vinyl has risen in the form of vinyl remasters of VGM. The music from the *Tekken 1* (1994) and *Tekken 2* (1995) games has been remixed onto vinyl as early as 1996 with N.G.O.'s *Windermere (The Jungle Mixes)*. The tracks featured jungle-style remixes of *Tekken*

music and featured famous jungle artists such as Lemon D ("Diggin' in the Carts"). Data Discs is a record label based in London, England that is solely dedicated to releasing VGM on vinyl. They are currently partnered with companies such as SEGA, Capcom, and Konami. Data Discs has released remasters ranging from the *Streets of Rage* series to *Sonic Mania* (Data Discs). iam8bit is a creative production company based in Los Angeles, California that works in entertainment industries that include video games, film, and music. Like Data Discs, iam8bit offers vinyl remasters of VGM. However, unlike Data Discs, they branch past retro games and offer remasters to music from games such as *Monument Valley* (2014), *Shadow of the Colossus* (2005), and *Warframe* (2013) (iam8bit).

Video games have also offered connectivity to streaming services and soundtrack customizability. An early example of customizability is *Vib Ribbon* (2000), a game focused on an anthropomorphic rabbit that encounters procedurally generated geometric obstacles in their path generated from in-game music. While you can play *Vib Ribbon* with its original soundtrack, it also provided the feature of playing the game with a CD of your choice (Estrada). Another example of customizability is *Beat Fever* (2018), a mobile rhythm-action game that allows players to play along with their favorite music by connecting with services such as Spotify and Apple Music, providing millions of streams from its consumers. With the game's two-week promotion of *Azukita* by Steve Aoki, Aoki's Spotify playlist spiked over 61% and garnered over 2.3 million additional streams (Clark).

VGM has also been the topic of music festivals and concert halls; and where the concert halls find a decline in the consumption of western art music, they've found an

audience with consumers interested in listening to orchestrations of their favorite pieces of VGM. These concerts provide many people with their first concert hall experience (Ombler). The Music and Gaming Festival (MAGFest) is a four-day-long event dedicated to VGM. The event offers many forms of gaming (console, arcade, and tabletop) as well as live video game cover bands, chiptune performances, and much more. MAGFest also hosts other VGM events: MAGStock, MAGWest, and Bit Gen Gamer Fest (Super Magfest). Distant Worlds: Music from Final Fantasy is the official symphonic tour of Final Fantasy music. The symphony is directed by Grammy-winning artist Arnie Roth who has also conducted world renowned orchestras such as the London Symphony Orchestra, Stockholm Philharmonic Orchestra, and Tokyo Philharmonic. Distant Worlds was first started in conjunction with the 20th anniversary of Final Fantasy in 2007. (Square Enix CO. LTD). Video Games Live (VGL) is a series of concert events featuring music from popular video games. Their debut performance in 2005 was performed with the LA Philharmonic and 11,000 people in attendance. They've become the first video game concert in various countries including Canada, England, and Brazil. As of this writing, their 2019 tour consists of visits within the United States, Qatar, China, Bulgaria, and Spain (Mystical Stone Entertainment).

Finally, is there anything that the music industry can learn from the gaming industry? In 2017, Fletcher and several panelists at FastForward—a boutique music business conference—discussed lessons from the gaming industry that the music industry can learn from. He stated that gaming is the biggest industry so far based on 2016 reports. In 2016, the gaming industry raked in \$99.6 billion, while the recorded-

music market took in an estimated \$16 billion and the live-music market made an estimated \$25 billion for \$41 billion combined.

Fletcher presents observations of the consumers within the gaming industry and how gaming enthusiasts value scarcity, exclusivity, and authenticity. Games that offer microtransactions for cosmetic items or loot boxes can garner a great amount of revenue. In the online console market, microtransactions cover an estimated 10.5% of shares from overall profits (Xania News). A great example of the value of scarcity are Counter-Strike: Global-Offensive (CS:GO)'s cosmetic skins and their auction prices. In 2018, a sticker from the EMS Katowice 2014—a CS:GO eSports tournament—Legends capsule sold for \$1,993. This sticker is no longer available in capsules and can now only be obtained via online trading and auctioning (Vincenzo). Video games and their companies also offer merchandise for their players to purchase that either reference or directly source from the video game, and fans value merchandise. Merchandise goes beyond graphic t-shirts and hoodies, with companies like Blizzard selling other types of apparel (dresses, shorts, etc.) with designs that range from references to replicas of characters' outfits, figurines, character-specific nerf guns, prop weapons, and LEGO sets (Blizzard Entertainment). This type of merchandising targets a player's sense of fan authenticity—are they a true fan if they do not represent their favorite game outside of the video game? This can also be done as part of the game experience, as with Blizzard's approach with World of Warcraft merchandise striving to help consumers display pride in their allegiance with either the Alliance or Horde factions (Blizzard Entertainment). Finally, the video game industry offers exclusivity in special editions of their games that offer various additional features, especially with limited edition copies

of their games. An example of a special edition of a game is *Persona 5: Take Your Heart Premium Edition,* which features a collector's box, character plush, school bag modeled after the in-game school bag, soundtrack CD, Steelbook edition, and art book (Amazon).

What can the music industry learn from the gaming industry? Fletcher states that those working in the music industry should offer additional and exclusive content to purchases such as exclusive digital access or even a free t-shirt with an album purchase. This type of business practice is already being implemented within the music business industry. In 2017, Taylor Swift announced her Reputation world tour dates along with a ticket system in collaboration with Ticketmaster titled the Taylor Swift Tix Program. The program was advertised as a method for fans to assure they get tickets instead of ticket bots. To participate, fans would need to collect points in the program to improve their chances of buying a ticket through "unique activities." These unique activities included watching Swift's music videos, signing up for her email list, or purchasing her album or merchandise. The more points a fan would garner, the more priority they were given for ticket purchases. Participation in the program, however, did not guarantee a ticket. So, no matter how much product you purchased, the consumer still ran the risk of not obtaining a ticket. The program itself was controversial and was received as a gamble as tickets were not guaranteed. In fact, many verified fans were unable to purchase tickets through the program. Only 5% of these fans where able to purchase tickets (Sanchez).

Despite very low consumer success rate, it is safe to assume that this program did achieve the goals of scarcity, exclusivity, and authenticity that video games

accomplish in their own marketing. The 5% of 'verified fans' that where able to purchase tickets shows the scarcity and exclusivity promoted by this program, and with that these fans can assume themselves to be true Swift fans: they participated in the multiple activities to show their dedication to their goal, which was attending the Reputation Tour.

Conclusion

On July 12th, 2018, the Wu-Tang Clan tweeted the following with pictures of a Wu-Tang Clan shaped controller and their game *Wu-Tang: Shaolin Style*: "[Gaming] is now one of the elements of Hip Hop. That's right you heard it here first." Whether this tweet is a call back to their game or consideration of video games, VGM, and their blend with the music industry, I agree with this statement. Is video game music a legitimate genre of music as well as a legitimate part of the music industry? Yes. The support for VGM's legitimacy can be realized when considering the information presented in this paper.

While the early days of VGM started with limitations in technology, composers worked with these limitations to create great works of art; works of art that are still consumed to this day in countless forms from vinyl remasters to live concert hall performances. In fact, these limitations have inspired new genres and styles of music that are popular today. With video games becoming a home staple during the early 80s with consoles like the Genesis, the accompanying VGM has inspired a generation of producers and composers who incorporate VGM in their music. Some even credit VGM as the reason they had an interest in making music. The genre has also spawned careers out of fan projects that are inspired by video games and VGM. VGM has now

begun to make its way into the charts with songs like "Face My Fears" and "Simple and Clean" ushering in the era of VGM's newfound prominence in popular music. VGM has also gained recognition in awards ceremonies outside of video game-related awards. As of 2010, the Ivor Novello Awards has a category dedicated to VGM. In 2011, video games where finally eligible for Grammy Awards. In 2013, *Journey* was video game's first nomination into the Grammys. In 2015, "Baba Yetu" from *Civilization IV* was video game's first Grammy win, following Tin's release of a separate album in 2011.

Video games and VGM has also become a growing force in the music business side of the industry. Video games are being used as ways of predicting what would be considered popular music in a year's time. On top of this, many video games have been and are employing popular artists and established names to compose or feature in the video game. Video games have also been themed around artists, gaining revenue from their popularity and either popular music that is in the game or music exclusive to that game. Video games and VGM has also been stimulating vinyl purchases as demand for vinyl remasters of games from retro to contemporary. Customizability in game soundtracks has been a feature since the early 2000s and now branches with streaming services. The exposure from video games that offer this streaming connectivity brings traffic to the artists and their work and an increase in listenership is being seen from this feature. VGM has now opened the doors to new live music events which range from music festivals to large, symphonic concerts. Finally, the music industry is now beginning to incorporate video game marketing strategies with programs that reflect the scarcity, exclusivity, and authenticity model. VGM now has an ever-present foothold in music, whether it be in popular music or music business.

Now, the realms of the gaming industry and music industry are already beginning to blend. Many artists have participated in streaming on services like Twitch. In May 2018, Blevins broke the record for most-viewed stream by playing *Fortnite* with JuJu Smith-Schuster, Travis Scott, and Drake (J. Vincent). Other artist who have Twitch channels and stream are Brendon Urie from *Panic! At the Disco* (Mickunas) and Snoop Dogg ("Snoop Dogg Twitch Stream"). On March 25th, 2019, Apple—known for its technology as well as its involvement in the music industry—announced that they will be launching a new game subscription system in Fall 2019. This subscription will feature games exclusive to Apple. Apple has also announced that they are contributing to payment of development costs for these games. Google has also announced their own gaming service: Stadia. Stadia will stream games from a cloud system to the Chrome browser, Chromecast, and Pixel devices. Unlike other services, Stadia will offer instant access to play. Stadia will allow the consumer to view a game clip from a content creator and provide a "play now" button to instantly stream the title (Warren).

With this blend, what will be the future of both gaming and music industries? Will the industries merge into one entertainment market? What about the effects this blend may have on popular music? Will a continual presence of VGM in popular music shift the paradigm? In the next several decades, will VGM overtake other genres in the charts? With the power of these possibilities, VGM and the industry tied with it are now a quintessential element of the music industry.

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