On July 6th, 2005 at the Hollywood Bowl in Los Angeles California, thousands gathered to watch a sold-out orchestral concert performed by the LA Philharmonic. These pieces were classics of a new form, something which became clearly evident as the lights dimmed and the orchestra began to play the opening stabs of the Super Mario Bros. theme song. As the event continued, the audience would be treated to rousing performances of the famous, recognizable melodies of Halo and The Legend of Zelda, amongst others. This was the debut showing of what was to become the largest video game music concert in the world, Video Games Live, which has more recently had over 30,000 attendees to a single show. Clearly, this form of music resonated powerfully with that audience, many whom were not even gamers. With the passage of time and the development of the game industry, video game music has become culturally significant. Concerts are only one avenue in which this has been exhibited – large festivals and organizations are specifically dedicated to honoring this music, and popular music and films are being released today that sample and emulate game music for stylistic purposes. Exactly how far, then, has video game music come on the path to being considered serious art? Is there reason enough for the idea to even be considered? The answers to these questions are mixed and have stirred controversy. Regardless, the soundtracks and memorable themes of these games have now integrated themselves into our collective psyche and are inciting cultural change.
WHAT IS VIDEO GAME MUSIC?

In understanding all this, the most important step is to define exactly what video game music is and why it deserves attention. Music within media is often used to provide a deeper level of communication, establishing an emotional link with subtext that may not be directly explained. A 1992 study indicated musical accompaniment as a promotion of the intensification or release of existing emotions, especially when those emotions would ordinarily have been suppressed due to busyness (Sloboda 216). Game music, then, helps to reinforce the emotions and moods which may otherwise be ignored when focusing on the goals of the game. It “should increase a player’s sense of immersion” and help to “achieve the feeling of realism” in establishing a world for the player to invest themselves in (Nielsen 128), creating atmosphere and an emotional interaction with the player to add subconscious detail that was not explicitly communicated. However, game audio is distinguished from many other forms of multimedia because, unlike those forms (in which the audience is a more passive “receiver” of sound), game players take an active role in the triggering of sound events in the game. This sort of interaction is common and takes place in nearly all genres of games, so the uses of music within games are extremely varied. A soundtrack may, for instance, consist of original compositions intended to serve the narrative of the game, or it may feature licensed popular songs simply intended to attract attention or sales to the game. The music could even be the entire focus of the game, guiding the player at every step of gameplay.

Another unique quality of game music is that it will often be collaborative in its implementation into games, while other formats generally allow the composer a greater degree of influence over the content. This was especially true of the earlier generations
of game consoles. “The resulting sound [of early game music] was usually not entirely controlled by the artists who created it,” writes Martin Wilde, a regular publisher in the AES journal. “This power rested rather in the hands of the game programmer who may or may not have known anything about audio, let alone the audition of the composer,” (Wilde 8). This may be an extreme take, but the sentiment is accurate – video games are a fusion of many different forms of communication, not all of which are immediately obvious, and that fusion requires tight collaboration between engineers with specialized skill sets. This can result in a refined, shared vision just as easily as it can become the root of conflicts later in development. Mega-developer Square-Enix was forced to admit as much in a press release when their intended blockbuster *Final Fantasy XIII* (developed by a gigantic team for many years) was ultimately met with lukewarm reviews. Game music has the same risks and benefits as its parent medium because the listener experiences not only the written work of the composer, but also the unique presentation of that music, which usually results from collaboration with the other members of the development team. This has been one of the points of contention regarding the artistic value of the music.

**FUNCTION AND INTERACTION**

The actual function of music within games varies drastically depending on the genre of the game and the intentions of the director. Game genres shift with each new release as boundaries are pushed and redefined, and some critics and researchers now identify as many as 40-50 unique categories (Wolf 117). Most people agree on the broadest of these categorizations, so the Entertainment Software Association has enumerated nine
“supergenres” which encompass most styles of gameplay: fighting, role-playing, children/family, action, adventure, strategy, shooter, racing, and sports. The differences in music implementation between these genres are largely defined by the types of interactivity with the player. Each characteristic has a definite impact on audio functionality and its relationship with the player, both in terms of the game’s narrative and its diegesis (Collins 124). A racing game like F-Zero, for example, increases the tempo and intensity of the music as the player progresses through the race, becoming frantic when he or she reaches the final lap. A role-playing game, on the other hand, features primarily linear music specifically intended to be appropriate to individual environments and situations visited by the player. Some genres allow a player to trigger music at will, such as the Grand Theft Auto series, in which entering a car will turn on its radio (which can then be tuned to a number of different real-time radio stations that provide most of the music in the game), while other games actually have the player perform music, either using an instrument peripheral to play pre-set rhythms onscreen (as in Rock Band or Donkey Konga) or, in a game like Jam Sessions or Wii Music, using a virtual instrument portrayed in the game to play music free-form, offering few concrete objectives. Regardless of genre, in most games music is closely tied to the interactivity of the game in some manner.

This interactivity can at times be so complex that it becomes difficult to determine if the music is intended to be diegetic or non-diegetic. Game audio, then, “requires further separation into dynamic and nondynamic sound”, and then still further “into the types of dynamic activity as they relate to the diegesis and to the player” (Collins 125). The term “dynamic”, in this case, refers to the ability of the audio to adapt to the player’s actions.
Nondynamic, linear themes were often heard in early games and are heard today, for example, in introductory cinematic cutscenes. Most modern games, however, feature a soundtrack that adapts in some way to the player’s actions. The groundbreaking *The Legend of Zelda: Ocarina of Time*, for instance, featured a basic form of dynamic music when exploring the world. First, a day-night cycle would trigger various passages of the main adventure theme in a certain order, such as a “morning” melody and a “daytime” theme, all of which were pieces of the same song and would only be played at the appropriate time. Approaching an enemy would trigger a natural transition in the music to a tense theme in a minor key, while escaping or defeating the enemy would cause the music to eventually resolve back to a major key and reintroduce the main melody. In this way, the player’s actions determined the progression of the music played. Composing dynamic music can be difficult because the game may require hundreds of different branching variations to be available depending on the circumstances and when in the song the branch is required. Situations in games may call for the tempo, pitch, rhythm/meter, volume, effects, melodies, harmonies, instrumentation, or mixing to be adjusted according to the player’s actions and depending on how dynamic the soundtrack is (Collins 147). One of the earliest examples of game music, found in *Space Invaders*, was dynamic – a simple descending bassline repeated endlessly as ships descended from above, and the bassline became faster with the speed of the ships. So, interactivity makes game audio unique not only by allowing the player to trigger music, but also by allowing *changes* to the music as the game progresses, creating a unique and adaptive experience with each play.
IS THE SOUNDTRACK IMPORTANT?

One interesting and controversial approach to game music is that the game should allow the player *complete* control of the music at all times. This began largely with portable game systems and the logical approach that “the game should be playable without sounds,” and “there must be a way to switch it off” because the game could likely be played in the presence of others who would not want to hear the game (Nokia 2005). More recently, however, publishers have imposed regulations like these onto developers of home console games. For instance, “Microsoft has insisted that music in every Xbox 360 game should be replaceable with the user’s own music files,” (Harlin 53). This essentially paints all game music as being substitutable and non-integral to the gameplay experience.

The implementation of this rule has provided mixed results for Microsoft. While many games do comply with the feature and allow players to listen to whatever music they like, developers have also retaliated by creating many more games in which “audio is a more integral part of the games experience to ensure that the user does not switch off the sound” (Collins 128). Indeed, in many modern games, playing without music can even be hazardous. For instance, in the game *New Super Mario Bros.*, enemies which ordinarily walk predictably straight ahead will reverse direction or even jump to coincide with rhythmic stabs in the music, *so not* having the musical interactivity actually puts the player at a disadvantage. Other games like *The Legend of Zelda: Twilight Princess* will, for example, suddenly increase the tempo or urgency of the music to indicate that a challenging enemy is temporarily vulnerable, providing strategic cues to the player. In *Hitman Contracts* or *Metal Gear Solid*, the music will change if the situation becomes
critical or a guard notices the player’s presence – an “important feature that works to inform the player about how characters in the environment will react to his/her presence, at the same time as it works to create mood” (Jørgensen 166). An increase in the number of games of this sort on the 360 has decreased the usefulness and the effect of Microsoft’s controversial audio guidelines (both for players and for the industry as a whole). Some games seek a middle ground by basing their musical interactivity upon custom music loaded into the game by the user. Audiosurf, for example, takes a song chosen by a player and generates a 3D roller-coaster-like track to race upon based upon amplitude and frequency changes in the music. Another game called Vib Ribbon actually creates a 2D sidescrolling platformer stage in real-time, structured according to rhythmic hits it detects in the music.

The increasing appearance of popular music has proven to be another incentive for players to leave the background music intact. As music publishers attempt to promote artists through games and game developers attempt to give their games greater appeal by featuring popular artists, marketing costs have been eased and new consumers have been introduced both to games and to new musical talent. Unfortunately, this can also potentially lead to “inappropriate song selection in order to strike deals with the music publishers” (Collins 122), risking a sacrifice of the unique qualities of an original score written specifically for a game. A popular song carries with it all the cultural artifacts and associations it signifies, so using that song in a game will inject all of its meaning and subtext. This can be very successful if done carefully and intentionally, but can also be misguided and distracting to the player. Games like Grand Theft Auto IV and Need for Speed: Carbon implement popular music seamlessly and even allow users to tag songs
they like while playing the game, allowing direct links for easy purchase later. “In sports games and racing games [licensed music] is an obvious choice,” writes composer Garry Schyman. “It works and sounds right. In any game that needs source music, it would make sense to license the songs rather than have the composer write new ones,” (Bridgett 2005). That said, most games today still feature a completely original score and avoid licensed music.

**RHYTHM ACTION**

Among those with soundtracks almost *entirely* comprised of licensed music are music video games, otherwise known as “rhythm action” games. These usually test the player by having him or her reproduce a series of notes or rhythms, sometimes by using a peripheral (like a *Guitar Hero* guitar controller). This music has likely had one of the largest cultural impacts of any form of game music in history, and it has certainly caused the largest impact of video games upon the music industry. This genre of games has been so culturally prevalent that it has been regularly referenced in episodes of TV shows like *South Park* and major films like *Scott Pilgrim vs. The World*. Several games in this genre like *Rock Band* have established a dedicated music store due to their exploding popularity. *Guitar Hero* and *Rock Band* feature similar online store systems, and between the two of them they sold more than 50 million songs online in 2008 as well as drawing in over $1.4 billion in revenue (Bruno Gaming 2009). This wild success has allowed artists to use the game industry as a potential entrance into the music industry.

Unfortunately, due to this success, respective developers Neversoft and Harmonix began to produce franchise sequels more and more rapidly (each of which sold worse
than the last) until the market was completely oversaturated. 2009 alone saw the release of a dozen such sequels, causing music game sales to plummet. Spinoffs like DJ Hero, Band Hero, and Guitar Hero: Van Halen failed to make up for the losses suffered during the year, and the songs they featured did not show any significant increase in sales as a result of their inclusion in each respective game (Bruno Byte 2009). As a result, very few music games were released throughout 2010, and Activision’s Guitar Hero publishing and business unit was disbanded in early 2011.

Though the rock music game genre is undoubtedly the largest music game genre (and was for a time one of the largest game genres in existence), there are also many experimental games that fall into the same category. Rez and Bit.Trip BEAT task the player with shooting and returning volleys to the precise rhythm of music. The better the player performs, the more the music will develop and layer itself with additional instruments. Failing, on the other hand, will eventually strip the music down to a basic, unappealing form. The quality and development of the music therefore becomes a major drive for the player to improve his or her skill. Many games have adopted this concept and are often made available on download services like Xbox Live Arcade, WiiWare, and Playstation Network.

**HISTORICAL PERSPECTIVE**

This is the state of game music today – an enormous variety of techniques, genres, and interconnected methods of presentation across thousands of games. But despite the complexity, composers have it far easier today than they did back when the video game industry was in its infancy. The first video games of the late 1970’s arrived with no
sound at all, and it wasn’t until the early ‘80s that it even became a practical inclusion. Since early game machines did not have either the processing or storage resources to support a set of samples, “they instead settled on using synthesis chips to generate their sounds in real time” (Wilde 92). Many early systems used chips capable of FM synthesis (the same technology used in radio broadcasting, but brought down to the range of human hearing). The sounds synthesized by these chips were rough, harsh, simplistic, and even atonal at times. At this point, “game sound typically consisted of a few basic sounds or rhythms complemented by various ‘event sounds’, which would be played when certain conditions were fulfilled” (Nielsen 126). The soundtrack of the infamous Pac-Man, for example, consisted of a brief 4-5 second jingle which was immediately followed by an ambulance-like siren noise that persisted throughout the gameplay. Upon Pac-Man’s death, a musical wail effect concluded the siren, beginning the cycle anew. These were not so much songs as they were precursors to the implementation of music, much like the aforementioned Space Invaders or the equally-well-known Asteroids, which only featured a heartbeat-like rhythm for a soundtrack.

By this time, video games were gaining serious popularity, and the third generation of game consoles marked many serious improvements to games and their music. Now, games could take place on a scrolling screen, allowing for far larger environments and play areas. Consoles now also featured dedicated hardware sub-systems or sound chips, allowing for the playback of samples (and, more importantly, playback on multiple simultaneous channels). This generation is what came to be known as the 8-bit era (used back then more as a marketing term referring to the speed of the processor). This began in 1983 with the release of the Nintendo Entertainment System (or NES), which not only
brought about a new era of dominance and cultural relevance for video games (at a time when the industry was crashing), but was home to some of the most beloved and memorable game soundtracks even to this day. Studies have proven that simple, well-formed, tonal melodies are by far the most memorable (Sloboda 89) – this may be part of the reason that many gamers and even game developers continue to feel a fondness for the themes and sensibilities of this period of gaming history. Many artists say they are able to express themselves better within limitations, so that may have also contributed to the quality and catchiness of many of these soundtracks. Ambient music artist Brian Eno once said, “If you're faced with a guitar that only has five strings, you don't say, 'Oh God, I can't play anything on this.' You say, 'I'll play something that only uses five strings, and I'll make a strength of that. That will become part of the skeleton of the composition’” (Aikin 1985). A limited harmonic vocabulary, and the challenges that come with it, can potentially inspire creativity, and the allowances and constraints provided by the 8-bit consoles seemed to strike a great balance.

This is not to say that better technology limited the artistic expression of the composers. Famous games of the 16-bit era featured soundtracks that were equally catchy (and even cinematic). By this time, the Super Nintendo Entertainment System and the Sega Genesis were butting heads and advanced sound chips like the Sony SPC700 along with technologies like 16-bit Digital Signal Processors and dedicated SRAM gave them immense technical advantages over the consoles of previous generations. Composers could now store a wide variety of samples in a cartridge and manipulate them with sophistication. More importantly, games now regularly featured huge amounts of high-quality music, so much that individual games like *Donkey Kong Country* and
"Chrono Trigger" had soundtrack CD releases in stores, as movies did. But this fourth generation of consoles (as with the previous generations to use sound) still required the composition and playback of music via MIDI.

**METHODS: MIDI**

MIDI (musical instrument digital interface) is a means of swapping information between suitably equipped audio components. “MIDI gives a degree of versatility that was never provided by earlier methods,” wrote RA Penfold for the *Practical MIDI Handbook*. “It provides a simple means of complex interconnection, permitting sophisticated operation of every element in the system,” (Penfold 1). Essentially, MIDI offers a means of direct communication with the audio device in the game console, bypassing the hard coding necessary to implement music into the earliest generations. The advantages of MIDI for game music composers were clear. They no longer had to deal with difficult programming languages or strange tunings – now they could focus on the music itself, and even write it directly on their music keyboards. Most importantly, MIDI proved to be a powerful ally in sidestepping the constraints of some sound chips and producing much more complicated music. “The audio file consisted of only code, featuring no recorded audio files,” (Collins 50). “Thereby, it would take up very little of the game’s limited amount of RAM.” A MIDI file is only a set of instructions to produce sound, including the velocity (intensity) of notes, as well as the attack, decay, sustain, and release parameters for each. All this could be stored in a very small amount of space, since there was no real audio actually contained in those files!
Over time, however, MIDI proved to have its own limitations. First, the General MIDI standard offered a limited selection of instruments, constrained to 128 slots. On early PC soundcards, many of these slots were wasted to instruments such as “bird tweet” and “helicopter”, neither of which were used in many games since they were atonal and grating to the ears. Another problem was that while the standard allowed for an easy identification system for instruments between each of these different soundcards, the reproduction of each of the 128 instruments sounded different. “The timbre, volume, or sound quality would vary – even the form of synthesis might be different,” (Collins 50). What this meant was that a song written on a composer’s powerful soundcard might sound poor on whatever card was used by the player. For dedicated game consoles using MIDI this was not an issue because each console featured an identical sound chip. A composer writing for a console game could know exactly how the resulting audio would sound because the internal technology was the same between individual units.

For PCs, however, engineers were forced to find workarounds. One solution was to utilize system exclusive data (SysEx) to assign a specific ID code to each sound device. Then, the playback device could use an exact hardware configuration to suit the device indicated by the code, assigning sounds and effects to specific channels. This enabled certain effects on supported cards and ensured that the resulting sound would be optimized properly for whatever card was used. “The trouble with this method,” Collins writes, “was of course the time involved in programming for the myriad different devices,” (Collins 51). In short, many of the workarounds they reached were cumbersome (including Roland’s Sound Canvas, a program used to audition devices) and engineers had to seek new methods of producing sound for PCs.
Methods: Streaming Audio

This needed change came with the innovation of the CD, and with it, streaming Redbook game audio directly from the disc. Fifth-generation game consoles like the Sony Playstation were among the first to take advantage of this. Not only did CDs provide a much larger amount of storage space, but they ensured that the resulting sound would be the same from every computer, regardless of sound card or configuration. To achieve this, all that was required of the computer or console was a small amount of hard disk space for a buffer to be used in transferring chunks of audio. A great physical advantage of streaming a sound from a CD is that the buffer used to play the sound is usually much smaller than the length of the sound file (Turcan 127). The most important artistic change brought about by CDs was the enabling of live-recorded music, even full orchestrations, which significantly changed what game music was able to offer and how expressive composers were able to be. The first immediate downside, of course, was that uncompressed Redbook CD-audio took far more space than simple MIDI instructions, and even with the large amount of space available (and the use of a buffer), a maximum of only 72 total minutes of audio was available per disc - not even allowing for the storage of the game data itself. Eventually, compressed formats such as MP3 allowed for much more audio data to be fit into the small space.

Even while CD audio essentially opened the doors for game composers to do whatever they wanted within the limited storage, it raised its own new obstacles to artistic expression. First, there was the issue that with higher production values and the trend it instigated “toward more orchestration in order to create a ‘cinematic’ sound,” game music began to require a much greater budget. Today, the largest game companies
regularly spend “$300,000 or even $1 million on music for a big-budget title,” (Hall Chord 2008). More importantly, with pre-recorded, pre-mixed music, dynamic/adaptable music became impossible, and linear, looping music became prominent again. “Real world sound signals are captured by a microphone, mixed and processed, then mastered into a finished form. A piece of music or sound effects track created this way is fixed. Each time it is replayed the form remains the same. In contrast, dynamic/procedural audio may be different each time it is played,” (Farnell 2007). Even when filesize was no longer a limitation, CD audio could not adjust itself as accurately or intelligently to the player’s actions as MIDI could. The search for a solution to this issue led composers to attempt recording small individual chunks of music which could then be dynamically sequenced in the game. Monolith Software was successful with this process in their games *Tron 2.0* and *No One Lives Forever 2*, in which these small recorded chunks (or “wavelets”) could be triggered by the game based on what actions the player took, resulting in branching pathways in the recorded composition according to exploration, combat, and sneaking. Most game companies, however, have not been willing to attempt this because it would require an orchestra to record a tremendous number of wavelets, and it is difficult to make the potential transitions between them sound seamless.

So, for the large part, MIDI remains a more expressive and artistically encouraging format, especially in its modern incarnation in which MIDI instructions control a vast soundbank of high-fidelity wavetable samples, producing realistic instrument sounds while still allowing for adaptability during play. There is debate regarding which form of game music produces higher-quality music in the end (and some believe that recorded music is more legitimate by nature), but MIDI is still quite prevalent. In fact, Sony
claimed at the 2007 Game Developer’s Conference that they see a return to MIDI as the wave of the future for games (Huang 2007). If this is true, it could benefit developers (who would be able to get a soundtrack made for a game at significantly lower cost and filesize) and composers (who would be able to control the direction and structure of the music to a much greater degree). Of course, it also would mean potentially losing the benefits of the live orchestra. Many games have found a middle ground and use MIDI-based portions of the soundtrack when dynamic music is needed, bringing in recorded portions for cutscenes and linear sections of the game.

**Game Music Culture**

So, video game music has had a long and complex history. Now in the seventh generation of game consoles, bombastic orchestral scores are juxtaposed with 8-bit revivals while both the fandom and controversy grow larger. Many critics still refuse to see video game music as anything more than the “bleeps and bloops” it consisted of during its very humble roots, while some like Roger Ebert have even said that video games “can never be art” because of their interactive nature. Another major issue is simply that there is a “broad, and embarrassing, tradition of ignoring the audio side of audio-visual media” (Nielsen 125). While of course much depends upon one’s personal definition of art, at least some prejudice certainly arises from issues with video games in general. “Despite three decades of development, there has been relatively little scholarly study of games, or even an acknowledgment of the medium of the video game as a whole. Acceptance of the medium as an art form is still in its early stages” (Wolf 1). In short, video game music has not received the same attention as similar forms of music for
media, and the reasons for that are as complicated as those for the initial rejections of other prevalent technologies.

As time passes, this stigma is slowly dissolving. Now, greater publicity to the medium and renewed attention to 8-bit styles has resulted in an embracing of new subcultures. Bands like The Minibosses, Armcannon, Metroid Metal, The OneUps, and The Protomen focus on covers of video game music. They, and dozens of others, attend the annual Music and Gaming Festival (http://magfest.org), which is a celebration of video game music. It is a multiple-day event attended by thousands of members each year, featuring events, concerts, special guest lectures, panels, and game tournaments. In addition to this, huge orchestral concerts like Video Games Live, Final Fantasy: Good Friends, and Play! are currently continuing their international tours to great acclaim. These concerts have not only brought orchestral music to younger attendees, but they have also introduced video game music to the older non-gaming audience. Then, there are communities like OverClocked ReMix (http://ocremix.org) which focus on re-arranging video game music into contemporary genres of music and sharing them for feedback and publicity. They now have a library of 10-years’ worth of material totaling several thousand complete songs. These organizations have attracted mass media attention through such outlets as TIME Magazine and many gaming news websites, magazines and shows.

Another interesting outlet for video game music culture is in a new genre of music called a chiptune. A chiptune is a modern piece of music synthesized on the sound chip of an early game console, usually one from the 8-bit generation (such as that of the Nintendo Game Boy, Nintendo Entertainment System, or Commodore 64). Composers
of chip music work to control the parameters and hardware features of these sound chips, relying on software synthesis structures used by the sound chip to alternate between waveforms (and to alter the pitch of the oscillators) which, with care and attention, allows them to create and process more interesting sounds than were originally possible within the limits of the sound chip (Phelps 3). Essentially, this technique means that complex sounds can be pushed through early chips (even voices and live instruments) creating unique effects the artist can capture. Chiptunes are original compositions (usually not based on video game soundtrack melodies), but more than that they are the manifestation of the appreciation of the capabilities of those same early chips and, if nothing else, are the result of intense interest. There are literally hundreds of dedicated chiptune artists and in recent years they have found a large following. Popular music artists like Timbaland and Nelly Furtado have even sampled large portions of the music of chiptunes for use in what have become hugely-successful hits. Unfortunately, chiptune sampling is sometimes done without the permission of the original artists, and some cases result in lawsuits. Either way, it is important to consider that chiptunes are a notable form of modern art which arose specifically from the love of video game music.

**The Next Level**

The most important answer to derive from all this is that through its many varieties and applications over time, video game music is a prominent force in our culture, and many do view it as a valuable artistic medium. It may serve as a piece of a larger work, but in many ways it also defines that work, both in the experience of the player and in history. In some ways it is much like film music - but it does not yet garner the same
scholarly attention because of many associated prejudices and the relatively recent introduction of gaming as a technology and a form of entertainment. The video game has exploded into our culture with resolution and staggering speed. Being a relatively young form of entertainment, it is at times ignored or resented, and most people do not realize that as an industry “it now generates more revenue than Hollywood” (Yi Game 2004). Game music, a crucial piece of this industry, has thus become important to modern entertainment, and today it is a format which is well-funded by developers, well-recognized by players, and ripe for experimentation by composers.

This leaves the question of what it may become in the future. The music game genre is struggling but thriving, record-breaking blockbuster games like Call of Duty: Black Ops are accompanied by sweeping, dynamic orchestral scores, and critics and academics are tentatively beginning to show interest. Games are also increasingly looking back and paying homage to the fan-favorite scores of the past. Some games like Donkey Kong Country Returns feature music almost entirely comprised of themes from earlier games as re-arranged for modern music technology and sensibilities, while others like Mega Man 10 use completely original chiptune scores intended to evoke the style and simplicity of their predecessors. This desire for nostalgia is something which has become more prominent with the proliferation of video games and the rapid evolution of their consoles, and it has given composers motivation to revisit beloved scores which are otherwise confined to outdated technologies. All of this appears to suggest that while future game music will have even greater variety, it may also look back more often with nostalgia upon the popular game scores of today, which could potentially preserve many current traditions (even as they become archaic). Most importantly, game music may eventually
be taken more seriously as a medium, which would create opportunities for composers to attempt more radical forms of musical interactivity with the unimaginable technologies yet to come.

Game music, after all, is all about interactivity – between the player and the characters, between the player and the environment, and even between the composer and the listener. As developers strive to find new forms of interactivity, from the motion control of Wii, Kinect, and Playstation Move to the 3D functionalities of the Playstation 3 and the Nintendo 3DS, there is now a clear trend of innovation established in the game market. More than ever, developers are seeking ways to connect with gamers on new levels never successfully attempted in the mass-market before. Music, established as one of the best ways to emotionally interact with players, will evolve by extension, and composers will be given license to experiment with new methods and musical possibilities as they arrive and spread throughout the industry. While other entertainment industries sometimes struggle to combat modern technologies, the game industry adopts them wholeheartedly, and the result is a future which is very bright for players and composers alike – the field is wide-open with opportunity, with established customs to explore, and with powerful audio technologies to utilize in order to bring an immersive, memorable experience to players.
Bibliography


