

## SYNERGY IN GAME AUDIO: FILM, POPULAR MUSIC, AND INTELLECTUAL PROPERTY

The global video games business represents an enormous cultural industry. The leading industry organization, the Entertainment Software Association, claims that over 75 percent of heads of households in the United States now play computer or video games.<sup>1</sup> Sales statistics fluctuate with the release of new consoles (approximately every five years), although overall statistics since the birth of the industry indicate an ever increasing incline in sales. Worldwide hardware and software sales are forecast at 46.5 billion dollars (based on retail sales) for 2010,<sup>2</sup> and are increasing at an average 11.4 percent compound annual rate (Kolodny 2006).<sup>3</sup> Despite these impressive numbers, the actual number of games that sell over one million units in a given year is only a handful.<sup>4</sup> Indeed, only a small percentage of games released ever make a profit, meaning that games software sales, much as in the music industry, depend on a few stars covering some of the costs for the many unsuccessful releases. Moreover, whereas the music industry today is being “democratized” by the exceptional quality available to the home “bedroom musician” and the distribution by Internet sites, independent game developers face increasing challenges.<sup>5</sup> Publishing a game on the Xbox360 or PlayStation 3 represents a development cost of 50 percent more than previous platforms. Because of the advances in capabilities, production and marketing costs are now averaging about twenty million dollars per title.<sup>6</sup> While independent developers can still enjoy some success—particularly in the casual, downloadable and portable games markets—their chances of success with a major title are slim. Profit margins are diminishing, forcing games publishers to reduce risks in several ways. The major companies—such as Microsoft and Sony—are increasingly developing their own games in order to ensure themselves exclusive

releases, thereby guaranteeing sales for their own hardware (Sony, for instance, employs over 2000 developers in fourteen studios).<sup>7</sup>

Relying on well-known intellectual property (sequels/episodic content, film or other market *synergy* or crossovers, and so on) is an important way to offset some of the risk. Music licensing in particular is becoming an increasingly essential element of a game's marketing strategy, as it helps to reduce some of the costs and risks of bringing a game to market (see Kerr 2006, p. 70). Synergy with mass media entertainment markets is so important that, as Aphra Kerr points out, some publishers have gone so far as to purchase other studios in order to gain access to intellectual property.<sup>8</sup> Anything that can be done to reduce the marketing costs—such as presenting already-known stars or intellectual property—is viewed as a surefire way to ensure a game's success. After all, the most expensive element of marketing (that of building awareness) has already been achieved when using preexisting IP (cited in Kerr 2006, p. 70). Of course, tying games to other intellectual property is nothing new, as can be seen in 1975's *Man Eater*, whose flyer advertised, “take advantage of the *Jaws* rage” (figure 6.1), and a similarly styled *Shark Jaws* (Atari, 1975), which was obviously capitalizing on the film, but could not get away with titling itself just *Jaws*, and so nearly hid the word “Shark” (figure 6.2).<sup>9</sup> Games based on film, as Jeff Smith (1998, p. 192) notes of the relationship between music and the movie industry, are important because “they not only presell the film project and thereby serve to minimize financial risk, they also provide a ready-made set of images and narrative elements that can be regenerated in any number of distribution channels.” Smith writes, “By creating multiple profit centers for a single property, synergy spreads risk among several different commodities. A successful soundtrack album can help defray the production costs of an unsuccessful film, and vice versa” (ibid., p. 188).

In terms of game audio, the associations with known intellectual property sometimes come in the form of the use of star talent in voice recording. Having a star associated with a game assists in marketing, creates awareness, and generates buzz. For instance, well-known cult Hollywood actors, such as Mark Hammill and Malcolm McDowell, contributed voice acting to 1994's *Wing Commander III* (Origin). More recently, Rockstar Games had Ray Liota, Burt Reynolds, and Dennis Hopper record voice for *Grand Theft Auto: Vice City* (2007). Most major game releases, known as AAA or *triple-A* titles, will likely soon feature well-known voice actors. Writing about the increasing role of star talent dialogue in animated films, Joe Bevilacqua (1999) notes that the competitive nature and need to draw a wide audience is driving the increased use of celebrities, at the expense of experienced specialized voice actors. More important, there are aesthetic implications of such a choice, since unlike screen actors, specialized voice actors are specially trained in microphone techniques.

Like dialogue, sound design is also experiencing increased crossover with Hollywood, as franchise games are developed after the release of films (such as

BEWARE OF THE  
**MANEATER!**  
 VIDEO TERROR!



- Take advantage of the "Jaws" rage
- 1 or 2 players at 25c per player for maximum profits
- Creative cabinet of reinforced fiberglass
- Realistic "Chomp" and "Scream"
- 1 year Warranty on logic board
- 19" Monitor
- Removable rear section for ease of service
- Joy stick controls
- Lockable high capacity coin box
- 200 CFM cooling fan
- Solid State Digital Components

Dimensions:  
 Height: 72"      Width: 36"  
 Weight: 120 lbs.      Depth: 40"

 **PROJECT SUPPORT ENGINEERING**  
 750 N. Mary Ave.  
 Sunnyvale, CA 94086

**FIGURE 6.1**

*Man Eater* (Project Support Engineering 1975) arcade flyer.



**FIGURE 6.2**  
*Shark Jaws* (Atari, 1975) arcade flyer.

*Scarface*), or simultaneously (as in *The Chronicles of Riddick*). In the case of *Riddick*, sounds were often borrowed from the production/post-production film recording (Droney 2004). The film's sound designers at Soundelux were brought in to work with Swedish Starbreeze Studios on the game "to sonically tie together the opening and closing flashback scenes that reference *The Chronicles of Riddick*, as well as create a long list of sound design effects for use in game play" (ibid.). Sound effects, such as weapons, were shared between game and film. Supervising sound editor Scott Gershin describes:

Part of what's intriguing about this franchise ... is that it's different stories in the same universe. For the game, David Twohy, Vin Diesel's Tigon Studios and Vivendi Universal wanted to preserve a sonic landscape with as much *Riddick* flair as possible. But stylistically, it's different. There's also a culture, of course, to video games. Sometimes, gaming people consider film sound designers to be too "Hollywood." ... With *Riddick* ... we connected the lines between mediums. We tried to develop a symbiotic thread, while stylistically going with the different media as their own entities. (Ibid.)

In addition to differing aesthetics, Hollywood sound designers and voice talent are relatively new to the games industry, unlike popular music, which has a longer history of synergy, or collaboration. I have broken down music's association with games into three major categories: popular music or musicians as the subject or narrative component of a game, popular musicians as composers for games, and the use of licensed popular music in games.<sup>10</sup>

## POPULAR MUSIC AND VIDEO GAMES

There is a growing symbiotic relationship between the music industry and the games industry. Commonly, games are being used to promote and sell music, and recording artists are being used to market and sell games. Games with a musical subject or narrative, or rhythm-action games, have generally enjoyed great success, from the electronic *Simon* game of 1978 (Milton Bradley), to *PaRappa the Rapper* (SCEI, 1996) on the PlayStation, and more recently, music-based games like *Guitar Hero* (Red Octane, 2005), which won five Academy of Interactive Arts and Sciences Awards in 2005, and was nominated for seven D.I.C.E. awards,<sup>11</sup> as well as several Game Audio Network Guild awards. Games where music is the primary driving motive or narrative element can be roughly divided into three categories: musician-themed games, creative games, and rhythm-action games. It is possible for these categories to overlap; however, there are often distinct goals or intents behind these types of games.

In terms of musician-themed games, bands or artists can appear as characters in the games. The first band to appear in a video game was Journey, in the

1982 Atari classic by Data Age, *Journey's Escape*.<sup>12</sup> Engineered by the band's manager Herbie Herbert, the game contained just the song "Don't Stop Believin'" when it was originally released for the Atari VCS home console in 1982. The manual describes the game's objectives: "You're on the road with Journey, one of the world's hottest rock groups. A spectacular performance has just ended. Now it's up to you to guide each Journey Band Member past hordes of Love-Crazed Groupies, Sneaky Photographers, and Shifty-eyed Promoters to the safety of the Journey Escape Vehicle in time to make the next concert." The arcade version came out just a few months later with digital-camera photos spliced onto raster graphic bodies, and which played various Journey tracks, including "Stone in Love," and "Still They Ride" from their *Escape* album (1981), as well as a track from what was then their new album, *Frontiers*, called "Chain Reaction," which the game was intended to help promote. These tracks all relied on built-in sound chips, but during a special bonus concert scene, a hidden cassette player inside the arcade machine would play their hit "Separate Ways."

Since *Journey's Escape*, there have been countless musician-themed games, including Aerosmith in a side-scrolling shooter called *Revolution X* (Midway/Acclaim, 1994) and *Michael Jackson's Moonwalker*, released by Sega for the Genesis and the arcades in 1990. Unlike many musician-based games, *Moonwalker* was not released to coincide with an album—in fact, it relied on two older songs from *Thriller* ("Beat it" and "Billie Jean") and three from 1987's *Bad* ("Smooth Criminal," "Another Part of Me," and "Bad"), both put out by Epic. The game, then, as with that of Aerosmith, became less about the songs and more about Jackson's public persona. Some games, such as *Motown Games' Rap Jam* (Mandingo, 1995) for the SNES did not even feature music from the label, but did include several rap artists as characters, including LL Cool J, House of Pain, Public Enemy, Queen Latifa, and Coolio. More recently, various pop idols have been promoted in a kind of in-game advertising. Pink, Kylie Minogue, and Sum 41, for instance, have video clips spliced into Acclaim's *Summer Heat Beach Volleyball* (2003) at key segments of play after accumulating a certain amount of points. Rapper 50 Cent is featured in *50 Cent: Bulletproof* (Vivendi, 2005), which goes one step further with marketing, containing exclusive tracks and more than a dozen videos—making the game a "must have" for fans of the artist. These games have been primarily aimed at fans of the specific artists or genres of music, and the artistic personas are used as the key marketing element of the games. In a sense, the music is a peripheral or secondary aspect of these types of games, with the attention instead on the marketing power of celebrities.

There are also popular music-based games in which music plays a central role in the game's narrative and is a primary aspect of gameplay, including creative music games and rhythm-action games. Remixing, production, and composition of original songs are an important part of creative music games. *MTV's Music Generator* series (Codemasters, 2000), for example, began as what was es-

entially sequencing software with sequences provided and became a remixing project of various popular music songs. Users are given an editing bay of riffs, beats, samples, bass lines, and vocal sequences, and can assemble music from a variety of genres. In this case, players are given the opportunity to interact with and participate in various popular songs. *FreQuency* (Harmonix, 2001), and its sequel, *Amplitude* (Harmonix, 2003), also used sequences of popular music, but in more of a playful game environment than that of MTV's game. In *Amplitude*, for instance, there are several different modes—a “remix mode” of solo song construction, in which the player can create an avatar called a “FreQ” that will play along with the parts written, or a “duel mode” in which one player chooses a sequence and another player must duplicate it. In solo mode, the player must tap buttons along with the beat of the music, blasting musical elements (guitar, drums, bass, vocals, synth, and effects) from a science-fiction styled racetrack. The game therefore takes the elements of a composition game and crosses over with rhythm-action games, which require the player to coordinate actions to a beat or melody in a game. (See Juha Arrasvuori 2006 for more discussion on rhythm-action games.) Some rhythm-action games have involved original music, but more recently they have used licensed songs. *Guitar Hero* (Harmonix, 2005) featured thirty tracks of licensed music, including hits such as Deep Purple's “Smoke on the Water,” Megadeth's “Symphony of Destruction” and White Zombie's “Thunderkiss '65.” Many of these games have also included special controllers—Nintendo's *Donkey Konga* (2003) and Namco's *Taiko Drum Master* (1999), for instance. included a set of bongo drums or taiko drum, respectively, or ARC's *BeatMania* (1997), which included a DJ-style turntable controller. Similarly, dancing games, where the player must dance to the beat of a song, began with Nintendo's *Dance Aerobics* (Bandai, 1987), which included a special mat called a Power Pad. It was *Dance Dance Revolution* (Konami, 1998), however, that took dancing games to the masses.

In addition to starring in games and being part of creative or rhythm-action music games, there have been many popular artists involved in creating original soundtracks for games. After the development of Redbook (CD) audio for games machines in the mid-1990s, it became much easier to hire popular musicians to compose for games, although a handful of game soundtracks were created by popular musicians prior to the use of Redbook audio in games. The most well known of these was probably Brian May's involvement with *Rise of the Robots* (Time Warner Interactive, 1994), an adventure-fighting game released for the SNES, Sega Genesis, and PC. The soundtrack combined electronics with a few repeated guitar chords from “The Dark,” originally off May's *Back to the Light* album (Hollywood Records, 1993).<sup>13</sup>

With the arrival of CD audio, games manufacturers were quick to bring popular bands on board: Alien Sex Fiend's 1994 score for Ocean Software's *Inferno* was one of the first complete musical scores for a Redbook audio-based game

by a popular band, followed by Pop Will Eat Itself's soundtrack for *Loaded* (Interplay, 1996).<sup>14</sup> More famous, however, was Nine Inch Nails frontman Trent Reznor's involvement with *Quake*'s music and sound effects in 1996 (id Software). Excluding the first track, the disc was even playable in a standard CD player. Inside the game, ammunition boxes were branded with the Nine Inch Nails logo, just in case fans missed the connection between the soundtrack and the best-selling artist. More recently, Reznor has been involved with a new alternate reality game, *Year Zero* (42 Entertainment, 2007). It is difficult to separate the game from the music—as both are part of one large viral multimedia marketing campaign. The game (which, unlike a video game, takes place in real time in the “real world” and the players must uncover clues in tour merchandise, websites, and so on) is tightly integrated with the concept album, whose songs are written from the game characters' perspectives. The *Los Angeles Times* suggests, “*Year Zero* is a total marriage of the pop and gamer aesthetics that unlocks the rusty cages of the music industry and solves some key problems facing rock music as its cultural dominance dissolves into dust” (Powers 2007).

Artists are also re-recording some songs for integration into games—for instance, singing hits in the imaginary “Simlish” language for the *Sims* games series, as noted earlier. It is also increasingly common for various “exclusive” tracks to be released in games, or at least, to have an exclusive release several weeks or months ahead of an album release. One of the first games to exploit this idea was the soundtrack to *Wipeout Pure* (SCEE, 2005). As Sergio Pimentel (2006b), the music licensing manager for the game, describes: “The final soundtrack was made of exclusively composed tracks for the game or unreleased tracks that were completed with a *Wipeout* mix of the track.” Such exclusivity ensures that the “completist” collector fans of the musician will purchase the game, while fans of the game may go on to purchase music by that artist. This process is helping to create a form of mutual dependence between the music and games industries.<sup>15</sup> With this increase in star talent infused into the composition area of games, however, come bigger risks in terms of production costs, and some games developers are still slow to warm to the idea of larger audio budgets.

Soundtrack underscores composed by game composers are increasingly turning up in iTunes and in retail stores and are being marketed alongside games. *Halo 2* (Sumthing Else Music, 2004), scored by Martin O'Donnell and Michael Salvatori, for instance, had a separate selling soundtrack with remixes by popular artists (Incubus, Breaking Benjamin, and others) along with in-game tracks.

More popular than having well-known artists compose original music for games, licensing existing music or exclusive remixes has become a mainstay of the gaming industry today. In the early days of video games, most composers of the music were in fact programmers working on other aspects of the game (graphics, storyline, etc.). Games were typically written in assembly language, making it



difficult for many musicians to become involved in songwriting. In some cases, songs would be written by a music composer and then translated by a programmer for the game, but in most cases budgets were tight and music was not viewed as an important aspect of the game (it was rare to even be credited for the composition). Since music then consisted of code, rather than sampled sounds, and there was therefore little understanding of copyright law in such cases, there was significant borrowing of music without copyright clearance. As composer Mark Cooksey explains, “At the time the copyright law was a bit of a grey area as far as computer music was concerned and we got away with doing cover versions” (in Carr 2002b). As such, many early video games used precomposed music, including classical and copyright-free traditional popular or folk songs, a few borrowings of popular artists, and in a small minority of cases, licensed music.

When the 16-bit machines became popular in the late 1980s and early 1990s, cover songs had largely disappeared from games music. By this time, “borrowing” popular songs also meant dealing with copyright and licensing issues, an idea that seemed to have been ignored in earlier games without consequence, but which would surely draw the attention of the music industry as improvements in technology continued, certainly with the rise of Redbook audio. A few examples exist of public domain use from this era—Beethoven’s *Moonlight Sonata* as the title theme to *Adventures of Dr. Franken* (DTMC, 1993) on the Super Nintendo, for instance, as well as a few unlicensed but not public domain examples, such as Orff’s *Carmina Burana (O Fortuna)* as title theme for *Dracula Unleashed* (Sega, 1993) on the Genesis. Although licensed music was rare on the 16-bit machines, there were a few exceptions, including *Rock ‘n’ Roll Racing* (Blizzard, 1994), which used George Thorogood’s “Bad to the Bone,” Deep Purple’s “Highway Star,” Steppenwolf’s “Born to be Wild,” and Black Sabbath’s “Paranoid,” in which a guitar sound takes on the part of the vocals. In most cases, vocal melodies were replaced by another instrument, and the original song construction had to be altered considerably to fit the constraints of the technology.

After the introduction of Redbook audio in the mid-1990s, it became far more popular to license precomposed music, even releasing the games soundtracks as separate CDs. One popular earlier example of this was *Wipeout XL* (Psygnosis, 1996), which featured many popular electronic acts, including the Chemical Brothers, Future Sound of London, Underworld, Fluke, Prodigy, and Daft Punk. The game was even cross-promoted by Sony, who delivered the soundtrack along with the game and PlayStations to popular dance club DJs in London and New York (see Kline, Dyer-Witherford, and de Peuter 2003, p. 234). Using games to sell soundtracks and music accelerated in the late 1990s and has continued ever since. The involvement of popular artists in game soundtracks has now become far too frequent to mention—in fact, it is almost at the point where it would be unusual for a hit game to be released by a major developer that does not have a popular artist involved in its soundtrack. Soundtracks to games sold

separately as music CDs have also become increasingly popular, even reaching platinum status, such as *NBA Live 2003* (Electronic Arts, 2002).

Today, “music is an essential part of the gaming experience and gaming is an essential vehicle today for music discovery,” notes David Dorn (in Berardini 2004), Senior Vice President of New Media Strategy for Rhino Records, who have partnered with Electronic Arts. Video games have become a valid outlet for breaking new bands, and for gaining exposure for bands who are looking for a wider market, just as Jeff Smith (1998, p. 1) notes of the film *Wayne’s World* (Paramount, 1992) as reviving interest in Queen. Some have even suggested that games are “the new MTV,” although such optimism may be better tempered by saying that games are “a new MTV,” notes music industry scholar Holly Tessler (2008, p. 25). Electric Artists (not to be confused with Electronic Arts), a music marketing agency, published a white paper on the relationship of video games to music after surveying “hard-core gamers,” releasing such impressive statistics as: “40% of hard-core gamers bought the CD after hearing a song they liked in a video game”; “73% of gamers said soundtracks within games help sell more CDs”; and “40% of respondents said a game introduced them to a new band or song, then 27% of them went out and bought what they heard” (Electric Artists n.d.).

Games have indeed helped to bring publicity to new artists, such as Good Charlotte, whose song “The Anthem” brought them attention after being included in *Madden NFL 2003* (EA Sports, 2002). Chicago’s Fall Out Boy sold 70,000 copies of their album the week after the music was released, after appearing in *Tony Hawk’s American Wasteland* (Neversoft 2005), without ever having received any radio airplay (Charne 2006). Ghanaian reggae artist Selasee likewise saw great success after Electronic Arts bought a single, “Run,” for *FIFA 2006*. According to the artist’s public relations manager, Louis Rodrigue, “His career is rocketing because of the FIFA game.”<sup>16</sup> Those in the games industry even see the use of their games as a way to promote bands that they enjoy; as Marc Canham, director of Nimrod Productions describes:

I really do not care much about furthering the career of big bands. They already have the privilege of steering their own destiny so long as they keep hard at it. My aim for *Driver3r* was to create a soundtrack that was a collection of new acts from around the world that I liked, plus a selection of original material that I wanted other people to like too. . . . We had managed to obtain several exclusives on the soundtrack, meaning that we had new or unreleased tracks from the bands involved such as Phantom Planet and Hope of the States which was amazing marketing fodder for the music press. (Canham 2004)

What is particularly notable about these games is that, in part, the game becomes about the music; the soundtrack is the key selling and marketing aspect of the game. *Driver: Parallel Lines* (Reflective, 2006), for instance, used popular artists in its advertising and on its soundtrack. On the opening page of the game’s web-

site, a picture of Professor Griff from Public Enemy is featured. Video clips feature the various bands talking about the music for viewers of the website (such as Grand Master Flash, Suicide, Yeah Yeah Yeahs, Audiotulys, Paul Oakenfold), reinforcing the idea that the music is a key part of this game's experience. Moreover, some games companies are becoming full multimedia conglomerates and are aligning themselves with particular social groups and taste cultures, which are themselves often developed around genres of music. Rockstar Games, for instance, sponsors various club nights and owns a line of skateboarder clothing (see Kline, Dyer-Witherford, and de Peuter 2003, p. 235).

## THE IMPACT OF POPULAR MUSIC ON GAMES, AND OF GAMES ON POPULAR MUSIC

In addition to marketing and industry issues, the use of well-known music in games raises many questions in terms of music's production and consumption. There are, for instance, semiotic considerations that come into play when popular music is used in games. Music in games is heard in highly repetitive atmospheres: to point to another statistic noted by Electric Artists (n.d.), "92% [of players] remember the music from a game even after they've stopped playing it." It has yet to be determined how this repetitive aspect of gameplay affects the reception of the music. As well, the intertextual references in the music (or game) likely help to connect the game or music connotatively to specific types of films, books, or social groups. Indeed, certain types of games have become associated with specific genres of music—the *Madden NFL* football series (EA Sports), for instance, features mainly hard rock and hip-hop. Driving games require "driving music" and are more likely to include dance music. Sergio Pimentel (2006a), music supervisor for *Driver: Parallel Lines*, for instance, commented that he drove his car around listening to many types of music until he found the right "feel." Expectations are being set for fans of these games, which can sometimes be limited by the availability of the tracks, as Toby Schadt, the composer for *Downhill Jam* found:

In further efforts to differentiate *Downhill Jam* From the Neversoft line of *Tony Hawk* games we created colourful, fictional characters for *Downhill Jam*. Whereas previous titles featured an intimidating cadre of real-world skating talent, *Downhill Jam* instead pushes the humor envelope with stylized personalities that sock it to Tony Hawk during interview segments... To further differentiate the characters from each other, we created unique music playlists for each skater. Our gothic skater, Jynx, was to have all the songs you would expect from the '80s goth catalogue: Bauhaus, the Sisters of Mercy, and their ilk. Gunnar, the Norwegian muscle-bound import, has a taste for cheesy hip-hop that matches his in-game lingo. Budd, the

mellow hippie soul-searcher, loves reggae. Ammon, the revolutionary, was to have tracks from Rage Against the Machine and the Clash. In the end, we failed to get the music we requested from our licensing department. The music in the final version of the game is good, but it's just what you would expect from a Tony Hawk game, and we had hoped to do something more creative. (Schadt 2007, p. 37)

It is possible that such use of well-known songs or styles may be a deterrent to some players, and indeed may be a distraction for any player, distancing them from the attempted immersive aspects of the game. In a discussion of the use of precomposed music in film, Royal S. Brown (1994, p. 52) claims that the use of precomposed music can evoke Barthes's concept of the myth-sign, and that "the device of incorporating a song such as 'Dixie' or an anthem such as 'The Star Spangled Banner' into the fabric of ongoing music to accompany a film, as Breil did for *The Birth of a Nation*, is one of the strongest trump cards a film composer and/or arranger can play. For even the briefest recognizable snippet of such a piece . . . can evoke in the listener an entire political mythology."

Rick Altman (2001, pp. 24–26) expands on this idea, suggesting that the use of licensed music in film has a particular affect, and can serve a specific narratorial purpose through the establishment of mood: "Popular song depends on language, and is predictable, singable, rememberable, and physically involving in ways that 'classical' [orchestral] music usually is not." There are, therefore, significant semiotic implications of using precomposed music. Not only may the song alter the meaning of the game, but the game may alter the meaning of the song for the player.

The participatory nature of games, particularly in creative remixing and rhythm-action games, can also alter the reception of the music. For instance, in *SingStar*, a PlayStation 2 game published by Sony in 2004, players sing along with a selection of popular songs in a way rather similar to karaoke, although the game component comes in to play when the game scores the player based on the accuracy of their vocals compared with the original recording. A player may choose to have fun by not attempting a high score, by intentionally singing off-key or in an unusual way, potentially changing the meaning of the original song. Remixing tracks and fan compilations are becoming increasingly popular, with internet distribution and mini-stardom within remixing communities also altering the relationship to and the meaning of songs for players and listeners. In fact, the competitive aspects and the rhetoric of superstardom in the fantasy atmospheres of games are perhaps enough to change the meanings of the songs for the audience. Toru Mitsui has raised a similar question in regard to the "participatory consumption" of karaoke, which, he argues, "should be regarded as significantly different from older patterns of consumption" (cited in Théberge 1997, p. 252). It could also be argued, as Paul Théberge (1997, p. 253) indicates, that it is not merely issues of consumption that are at stake, but "the integrity of the musical

work and claims of authorship and originality,” since players become an active agent of change in the music. If players are remixing sequences (whether individual samples, audio chunks, layered *stems* or *splits*) of an artist’s music, does the remix artist have the right to distribute or sell their remixes?

One of the most significant ramifications of choosing licensed music in games is that there is limited adaptability inherent in most popular music, whereas games require songs that may need to adapt to gameplay states or player interaction. Licensed songs are (for the most part) designed as linear music, and therefore the placement of this music in a game is generally limited (to cinematics such cut-scenes, title themes, credits, and so on), as is the genre of game where such music may be appropriate (such as racing games, which have a more linear playback).

Explains Keith D’Arcy (2004), the director of music resources for EMI Music Publishing: “If you’re working with a specific record label on licensed audio for a game, you may be able to obtain splits of tracks for developing adaptive audio, but the actual process may prove quite difficult.” Artists generally do not want to provide splits (individual sequences or samples of their songs), since this opens them up to the possibility of piracy and reduces their creative control over the ways in which their music is played back. The songs are likely not going to be heard in the ways in which the artist had originally intended, and must be significantly altered to fit the available technology and the nonlinear aspects of gaming: they may be looped, cut, or have elements like vocals removed. This raises further questions about notions of authorship in such cases. Who is the author, and what is the “authentic” mix? Moreover, when dynamic splits designed for in-game playback are released to CD, the playback devices are not designed to handle the capabilities of adaptability and interactivity. For example, there is no “randomizer” for music splits built into the hardware (yet): what, then is the “right” playback version, and who makes this decision? And what happens to the reception of music when the well-known and well-used structural forms based on verse–chorus variations disintegrate in the face of games, where structures may be altered significantly in real time by choices made by the player?

Perhaps most important, in light of the popularity of games and the recent integration of games with popular music, it is conceivable that artists may develop new approaches to songwriting, keeping in mind the required adaptability of a song for games: how might this affect the ways in which popular music is composed? Film music scholar Charlotte Greenspan (2004) has noted that popular songwriters like Irving Berlin adapted their songwriting style for use in Hollywood film by creating longer, more complex, and more sophisticated music. Certainly, there are other examples of popular songs being adapted to the playback media throughout history, such as the length of a record, and later the 45 RPM single, and then LPs. Might the song structure of popular music soon adjust to the needs of the gaming industry?

In terms of playback, it may be that we will see games where users can insert and tag their own playlists. Users can already insert their own music into many games—all games on the Microsoft Xbox360—but as yet they cannot specify where they wish the songs to play back. Mood tagging, for instance, may allow players to choose what battle music they want to hear. Sound director Rob Bridgett of Radical Games in Vancouver has discussed the issue of user-generated playlists, concluding that a game soundtrack could in fact become totally user-defined and controlled, with separate playlists for combat, stealth, stunts, and so on:

Further to this, one can imagine a situation whereby the content of a piece of music can be scanned and “beat mapped” by the console. It would be able to put the tracks into categories based on tempo, key or on “genre” fields for certain categories of gameplay. It could even transition seamlessly from track to track in much the same way the DJ software (such as Native Instruments’ *Traktor DJ*) currently allows the user to overlay tracks of similar tempos. The sound implementers can be clever about how they set up the structures for any customizable content to fit into the game. They could automate the breaking up of any track. . . . Identifying intros, outros, high intensity looping sections, as well as calmer sections or sections from different songs in the same key, musically educate the console to transition in a “musical” way from a track in the same key to a related key. Programmatic stripping of audio data into useable chunks and re-appropriating of that data is ripe for exploitation in online consoles that allow for user defined musical content to be used in any game. The old notion that licensed music wasn’t adaptive will become a long forgotten adage. (Bridgett 2005)

Could future popular artists even insert their own suggested emotional tags into their songs and provide transitional sequences? Bridgett also elaborates on the downside of such an approach to game sound, including the fact that the use of precomposed music in games has placed a new pressure on games companies to use big-name composers and exclusive content just to get players to listen to the intended music. Moreover, having user-defined playlists means that “the notion that a game is a complete cultural artifact, a *gesamtkunstwerk* (or ‘totally integrated work of art’), in that its music, sound, performances, and visual style are all part of the experience” may be lost (*ibid.*). Unlike specially composed music, licensed music “remains a substitutable quantity: If the copyright holders want too much money, if the master recordings are lost, if there is an unavoidable delay in completing the track, game publishers will often either find an alternative song for the soundtrack, or simply do without it” (Tessler 2008, p. 22).

There are also economic consequences of the increasing crossover between licensed intellectual property and games. A reliance on a blockbuster model in the games industry has resulted in driving out independent developers and reducing creativity, since the purpose is no longer to create a great game, “but to

generate a short-lived but omnipresent brand name whose contents can be exploited in as many venues as possible” (Geuens 2000, p. 7). Game developers are under increasing pressure to create a “mass market” product that can enjoy synergistic relationships with other media forms (Kline, Dyer-Witherford, and de Peuter 2003, p. 227). Moreover, the games must adapt to the demands of not just the market, but also the marketing. For instance, being associated with niche groups and subcultures may narrow a game’s potential market, but it eases the pressures of deciding how to market the game. Moreover, “the incorporation of current musical styles potentially accelerates the speed at which a game’s value is exhausted—if the music is outdated, the gamer gets bored—and this increases the turnover rate of game purchases” (Kline, Dyer-Witherford, and de Peuter 2003, p. 234). As Tessler (2008, p. 22) notes, the use of licensed music can place other constraints on a game’s development: “Will a video game’s market release be postponed if a given act is dropped from its label? If the band breaks up? If the album’s release is pushed back by the label?” Indeed, working with licensed tracks may lead to legal quagmires whereby the game gets tied up waiting for the release of a song.

## CONCLUSION

Although statistics appear to support the notion that games help to sell popular music, it remains to be seen if licensed music on games’ soundtracks helps to drive those games’ sales. Says composer Garry Schyman,

Licensed music makes sense in games when it is appropriate. In sports games and racing games it’s an obvious choice—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. What I think is a big mistake is thinking that “kids” will buy a game because this or that band has contributed tracks to it. If a game is good they will come and if the songs actually are wrong creatively for the game then putting them in will make the game less appealing. Kids are smart and know intuitively when they are being condescended to. Songs do not entice people to buy a game and filmmakers have learned that lesson over and over again. When you look at the top 100 box office films over the last twenty years the list is nearly entirely populated with films with lush orchestral scores that droves of kids paid money to see. (Cited in Bridgett 2005)

Moreover, as Jeff Smith (1998, p. 196) discusses in regard to film, there are many competing interests at stake that may bring about conflict: soundtracks may be primarily promotional tools for games, whereas music publishers “derive their revenues from licensing fees and thus are more interested in pushing their

back catalog than in promoting work by new artists.” But the record companies, who realize most of their profits from album sales, are more interested in breaking new talent than promoting a game. As such, inappropriate song selection may be made in order to strike deals with the music publishers. Although game composers may have a wary view of the use of licensed music in games, it is clear that, as long as it brings consumers to purchase games or music and eases marketing costs, licensing will remain an important part of the industry. The majority of games still, however, use specially composed music, which is dealt with now in the final chapters of the book.