

Technology Evolution and the Music Industry's Business Model Crisis

The music industry is a small but visible piece of the world's digital economy working to come to terms with the 21st century. In the past, the industry has often resisted technological innovations that eventually forced the record labels to adjust their practices. Most every time, the new technologies drove more profits than the media they displaced and the revenue drop, when there was one, was eventually shown to have other causes in addition to technical issues. Today, however, networked digital technology combines with issues of industry structure - including costs, channels, and, most important, trust - to confront the labels with their most stringent challenge yet.

In this paper we'll look at how the industry has worked, why it's being forced to change, and how that process of change might begin.

The Way it Is

Industry structure

The American music business has an extremely high profile for its size. According to the *Statistical Abstract of the United States*, at \$14 billion it's about as big as the warehousing and storage industry. As with all numbers we will discuss, this figure is an approximation; the music industry operates in a quantitative gray area. Publicly announced sales figures are vague, for example, as the industry declares the value of shipments at retail rather than actual revenue after returns. Certification of gold and platinum top sellers is inexact and to a degree discretionary. In general, "Hollywood accounting" practices apply.

The music industry has consolidated down to five major players: Universal Music Group, Sony, Warner, Bertelsmann Music Group, and EMI. The Record Industry Association of America, or RIAA, is the powerful trade group that represents these labels; it donated over \$500,000 to candidates in 2002 elections, and consistently spends between \$750,000 and \$1,000,000 on external lobbying every year. AOL Time Warner alone donated over \$4,000,000 to candidates in the 2000 election. Such landmark legislation as the Digital Millennium Copyright Act (which, among other things, outlawed both mathematicians' experiments that could break encryption mechanisms and formerly "fair use" of copyrighted material) testifies to the effectiveness of the industry's persuasion. That persuasiveness earns RIAA Chair Hilary Rosen a reported \$1 million salary.

As the RIAA has grown more powerful as a lobbying group, it has drifted further away from its original purpose. In 1952, each label cut grooves slightly differently as recording engineers traded off recording capacity, bass response, and overall sound. The trade group was formed to create a bridge: the RIAA equalization curve, which allowed a single record player to accept any manufacturer's product and have it sound right. Beginning in the late 1950s, the RIAA became the industry group that certified gold and platinum records, and its technical functions declined thereafter.

Of the five key companies, Universal claimed the dominant market position in 2002: at 29%, it captured roughly twice the share of Sony, Warner, and

BMG, all of which were in the 15% range. EMI, the only group not part of a conglomerate after leaving the UK's Thorn electrical-devices business in 1996, was fifth at 8.4% market share. Universal Music Group made money and increased its market share over 2001, but belongs to the overly ambitious French Vivendi experiment now being sold off in piece parts. The rest of the "Big Five" music operations lost money, and none of the major corporate parents - Sony, AOL, or Germany's Bertelsmann - are securely profitable. Thus one aspect of the music issue involves the corporate politics of small (10% in the case of Warner Music, for example) money-losing divisions trying to redesign themselves within the context of major turnaround efforts. All of the labels except Sony are said to be available to willing buyers.

Corporate consolidation has coincided with a mass marketing orientation: a million-unit seller is economically acceptable where 10 100,000-unit titles are not, and one 10 million-seller is far more important than 10 million-sellers. The search for the blockbuster arises from record companies' intense focus on acts aimed at the 12-24 year-old demographic segment, a group with leisure time, a need to be on top of trends, and attractive disposable income. Labels crave hits, and these listeners thirst for the hot new thing. Consolidation has also coincided with what many perceive to be a decline in musical innovation. Whereas labels like Blue Note in the 1950s or Deutsche Grammophone over the decades suggested a certain artistic sensibility and even sonic signature, the requirements

of corporate finance in the age of \$100 million contracts have driven a more calculated approach to risk management and trend spotting.

This hit-driven approach becomes problematic as the audience ages: from comprising only 10% of the music-buying public in 1989, the 45 years and older segment now accounts for nearly a quarter of the market (23.7% in 2001, according to the RIAA). While this group is essentially the same size as the 15-24 demographic, conventional promotional techniques appear not to address the varied tastes and needs of a graying population. Rather than keeping up with often disposable acts, many older listeners have proven to be extremely loyal to certain artists over the decades, whether or not these artists released top-selling records.

In terms of assessing sales of those hits, 1991 marked a watershed in market feedback to the labels. Before that year, top-40 ratings were compiled the way bestseller book lists are now: program managers and record store owners were polled by phone and they could report what they wanted to report or what they thought the magazine wanted to hear. SoundScan was a computerized ranking system based on point-of-sale bar-code data that was put into use at *Billboard* in May 1991, and the charts were rewritten literally overnight. Country music - Garth Brooks was a notable beneficiary - and hip-hop suddenly appeared far higher up the list, reflecting their previously unrecognized popularity among the rural and urban populations that had been ignored by industry insiders and hence previous *Billboard* charts.

There was an immediate consequence of this market research. Previously, the labels relied in part on "record men" like Columbia's John Hammond, who signed Count Basie, Pete Seeger, Aretha

Franklin, Bob Dylan, and Bruce Springsteen. The role of these people, whose ability to spot new musical directions enabled them to sign successful up and coming acts, declined in favor of those who could use the data to analyze and ride trends, but not to start them. The 1990s were in many ways the SoundScan decade as large retailers moved more and more units, and country and hip-hop acts accounted for a disproportionate share of new launches, given that the genres were now proven sellers.

Music's blockbuster orientation contrasts with the world of bookselling, where there are roughly six times as many titles in print. Back catalog accounts for a far greater share of revenue: at one point in the late 1990s, bestsellers accounted for only 4% of sales at one large book chain; 80% of sales came from titles that sold less than one copy per store per month. Retail booksellers have had enough troubles that today these numbers sound untenable, but directionally speaking they provide a useful counterpoint to music. Historically, back catalog titles often go out of print and are difficult to bring back out under new labeling. In a practice economists call "versioning," books are also more readily available in multiple formats: hardcover, trade and mass paperback, translations, and audio versions reach different market segments at different prices. While this phenomenon is also obviously familiar in movies, music has yet to adopt the practice as widely.

A decade of decline

Even before the invention of Napster, the music industry had been struggling for five years: revenue had nearly doubled between 1989 and 1994, at which point growth slowed and, in 2001, reversed. The boom coincided with the rise of the compact disc and the decline of older formats. Over the first four years of that period, which included an economic recession, LPs dropped from

9.2% to .3% of the market, and cassettes fell from a market-leading 54.8% to 38%. Compared to 1989, CDs doubled their market share by 1993 and tripled it by 1998. These numbers reveal an underlying problem: customers were repurchasing select pieces of their music collections on the new format, a practice with finite limits as a growth strategy. Industry figures agree: the CEO of one record company admitted that "the CD conversion created great revenues for the labels without their having to do much work."

For the period between 1996 and 2002, purchases of recorded music grew only .4% a year on average, and Napster didn't arrive in force until 2000. As that decline took hold, meanwhile, DVD, cable television, and gaming began to ride hardware upgrade cycles: new entertainment options drove the need for better equipment such as game consoles of high-definition television, which then need more attractive content that utilizes the hardware. By contrast, the CD medium is now the same age the stereo LP was when it gave way to the convenience and durability of the CD, but music is losing share of the entertainment budget to the more attractive and technologically up-to-date alternatives.

The pain of industry stagnation was initially felt not by the labels but by retailers. Beginning in 1993, large multi-line chains led by Best Buy secured favorable pricing by buying in large quantities, then used low-priced CDs to drive store traffic. Small retailers were hurt, but so were the music chains. The industry responded by attempting to enforce a Minimum Advertised Price to maintain margins. New York, Florida, and 43 other states and territories filed suit. Without an admission of wrongdoing, the five major labels and three retail chains (Tower, Musicland, and Transworld Entertainment, the parent

of Coconuts, Strawberries, and FYE) agreed to repay consumers \$67 million and donate nearly \$76 million in CDs to schools and other public entities.

In the absence of detailed figures, it's impossible to determine the impact of free music downloads on revenues. Between 2000 and 2001, for example, total units shipped dropped by about 10%. Unquestionably, the download activity on Napster, Kazaa, and other peer-to-peer music networks had some impact. At the same time, the pre-recorded cassette and CD single were in their last days, so the unit decline in part reflected the demise of those formats. The unit measure also includes LP records, whose shipments surprisingly grew 16%. In short, the unit figure obscures many subplots of growth and decline, but at the macro level, the picture is troubling. It's important to realize, however, that the problems arise from sources far beyond Internet downloading.

In contrast to the pop market, for example, some of the biggest stars in the classical domain are dead conductors: low-price back catalog versions of the standard repertoire make it uneconomical for labels to sign orchestras to re-record the warhorses. As a result, royalties to major orchestras have plunged since 1990 even though classical titles represent a solid 3% of the CD market year in and year out. The declining fortunes of all but the superstar classical recording artists cannot easily be blamed on Internet downloads. Jazz is in similarly sad shape, albeit for different reasons. Wynton Marsalis, one of the genre's few household names, no longer had a recording contract as of last year.

The performers' perspective

Under the current system, labels must reward proven sellers with enormous contracts, then bear the risk of changes in artistic direction or popular taste.

In a highly visible example, Virgin gave Mariah Carey a \$100 million contract then bought it out when she suffered a breakdown from exhaustion and released a CD/movie package that sold relatively poorly. Even outside the diva stratum, labels are having to contend with artists who are challenging traditional contractual practices. Currently, standard contracts run for a minimum of seven years (after the RIAA unsuccessfully lobbied to make it 10). In addition to complaining that they are locked in for too long, performers often argue that they are systematically underpaid. As one account of the industry states, "the way contracts are structured, the record company can make a profit on an album while the artist's royalty is still in the red. In fact, this is a common occurrence." From the labels' perspective, they are engaged in a business in which the majority of new releases lose money and traditional contract terms are necessary to be able to continue investing in unproven performers.

Senator Orrin Hatch (himself the author of over 300 songs, some of which he has recorded) once remarked that this is the only industry in which, after you pay off the mortgage, the bank still owns the house: under standard contract terms (see appendix 1), artists pay for packaging, recording, promotion, goods damaged in shipping, and so on, while labels own the recordings both before and after the artist has paid back any monies that had been advanced. Only a few performers have exhibited the power to own their master recordings: Dave Matthews, Metallica, and R.E.M. head a very short list. Songwriters and lyricists can control the score and lyrics, but once the tape has rolled, the label owns the performance for 35 years. The RIAA had succeeded in securing the passage of a two-line "work for hire" provision quietly buried in the otherwise unrelated Satellite Home Viewer Improvement Act of 1999 that

effectively extended the term to "in perpetuity," but a group of high-profile artists formed what became the Recording Artists Coalition to aggressively contest the change, and it was overturned in 2000.

Technology evolution and industry's response: The case of home taping and MTV

In the late 1970s, the labels had succeeded in making disco music a perfect fit for the mass-distribution model: in line with the predilection of the industry, many records were said to "ship gold and return platinum," in the words of the comedian Robert Klein. That is, the joke went, a gold record was awarded for sales of 500,000 LPs or a million singles, only to have retailers return even more copies than were theoretically shipped, much less bought. The problem was that the intense focus on the genre had run the industry into a cul de sac: as me-too acts multiplied, the American audience's appetite for disco dropped sharply, and there were few acts of other styles in the pipeline.

Despite this saturation, the industry focused its PR, legal, and lobbying efforts on stigmatizing and if possible outlawing the practice of cassette recording. One industry campaign featured a cassette-shaped skull and crossbones with the tagline "home taping is killing music." Rather than exploiting this new, popular technology, labels fought it. The RIAA's president claimed that for every album that was bought, another went unbought because of taping. The RIAA also claimed that 425 million hours of music were taped even though blank tape sales were only half of that total. Record sales had fallen 11.4% in 1981 and were rumored to be headed for another double-digit decrease in 1982. That year, Columbia alone fired 300 people while such superstar acts as Blondie and Fleetwood Mac cancelled tour dates.

Enter MTV, a venture launched in 1981 by Warner Communications, which sold it to Viacom in 1985. MTV introduced a new musical vocabulary into the American market, initially including British pop acts like Duran Duran and the Eurhythmics that eventually enjoyed huge success in the 1980s. The technology innovation of replacing or augmenting the top-40 single with a cable TV music video changed the promotion landscape dramatically and introduced fresh “inventory” into the supply side of the music pipeline. In the end, the “crisis” in the music industry was not the fault of the tapers - who did not cease and desist even as the industry subsequently logged unprecedented profits - but had to a large extent resulted from stagnation in musical innovation at the major labels.

Michael Jackson’s “Thriller” LP is widely credited as the first release to consciously utilize the new promotional medium (by hiring commercial directors to make music videos as mini-movies, for example): it sold between 26 and 40 million copies, depending on who’s counting. At the same time, MTV’s technology further intensified the music business’s blockbuster economics that are in part responsible for the current situation. Being able to pass video costs on to the performer allowed labels to avoid confronting the vast potential of the new medium while limiting risk.

The Times They Are A-Changin’

Business model under pressure

Since 1990, 12 shocks have hit the music industry, some bigger than others, some technological and some not. All combine to make the role of the Internet a multifaceted issue that cannot be separated from other structural dynamics. Even though the RIAA points to Napster and its kin as a major cause of poor sales, sooner or later the

industry will have to confront multiple issues that challenge the core of its old business model.

- 1) Part of the industry’s problem is piracy, in the classic sense. The International Federation of the Phonographic Industry (IFPI) estimates that 28% of CDs sold worldwide in 2001 were counterfeit. These discs come both from pressing plants in many parts of the world, many run by organized crime operations, and amateur garage operations using consumer-grade CD-Rs. Weak law enforcement, high demand, and overcapacity - IFPI says that Taiwan has 40 times the pressing capacity required to meet “legitimate” local demand, for example - ensure that the odds of buying corporate product in such countries as Russia, Brazil, or China are less than 50%.
- 2) As they use their dominant position to negotiate favorable terms and conditions, chains like Wal-Mart reverse the traditional power the labels formerly exercised over rack jobbers and store managers. In part as a result of such intense competition, music retailing is in trouble. Publicly traded Transworld announced that revenues were down 8% from 2001 to 2002. Warehouse declared bankruptcy in January 2003 and will shut about 150 stores. EMI sold its HMV operation in 1998. These retailers have fallen from favor as the low-price tactics worked for “big box” superstores and Wal-Mart. As many purchases now occur at “other stores,” in the RIAA’s nomenclature, as at record stores, which fell from controlling 72% of the market in 1989 to only 42% in 2001. Best Buy will close 110 Musicland stores in 2003, for example; Wal-Mart plans to open roughly 250 multi-line locations.

- 3) At the same time that they contend with powerful non-music retailers, the labels encounter similar corporate muscle at their most conventional promotion vehicles. With the consolidation of broadcasters into the control of fewer and fewer corporations, largely as a result of the Telecom Act of 1996, labels confront radio’s new \$8 billion giant. Clear Channel, the biggest broadcast company, controls 11% of U.S. outlets but accounted for 20% of 2001 industry advertising revenue as it reaches 110 million U.S. listeners per week; tens of millions more see messages on its outdoor advertising subsidiary’s 700,000 billboards. Radio consolidation has meant that only a small fraction of available music gets airplay. For the top-40 format, four radio station groups - Chancellor, Clear Channel, Infinity, and Capstar - control access to 63% of the format’s 41 million listeners nationwide; for country, the same four groups control access to 56% of the format’s 28 million listeners. Even in large markets, it is usually difficult to hear R&B, classical, opera, jazz, Irish, African, Caribbean, and other flavors except on low-power and often amateur college stations. One of the arguments offered by advocates of Internet radio and downloading is that they allow listeners to sample music that otherwise gets no broadcast audience.

Within the core formats, there is intense debate over consolidation of media outlets and shrinking playlists, including Congressional hearings. Clear Channel, meanwhile, is using its power to squeeze more out of the labels. There is speculation, for example, that labels will have to pay for “back-announcing,” that is, for the disk jockey to identify the song after it plays rather than

before. Because such identification helps drive sales, it is more desirable than pre-song patter or no mention at all. Clear Channel is also rationalizing its relationships with the independent record promoters that move money from the labels to the broadcasters, resulting in higher prices for airplay. (For labels to pay broadcasters directly and not have the stations announce the payment would violate laws against payola. Using third parties makes the transactions legal on both ends, but Clear Channel has announced that it will stop using independent promoters in mid-2003 and its path forward will undoubtedly transform the industry.)

At the same time, radio exposure cannot guarantee a hit. According to Nielsen BDS, none of the top-five selling CDs of 2002 included songs among the five most played. An outstanding example of the larger phenomenon was the traditional soundtrack to the movie "O Brother Where Art Thou," which failed to fit any conventional playlist but sold 2.7 million copies, making it the tenth-best selling CD of the year.

- 4) Subscription-driven, high-fidelity satellite radio services Sirius and XM between them expect to reach over a million subscribers by the end of 2003 with over 100 channels of different musical styles, many of them currently invisible on commercial radio. Terrestrial digital FM broadcasts, known as HD Radio, began in 2002 through existing outlets, maintaining current formats but enhancing sound quality. The fate of these new ventures will have a direct impact on the labels' future.
- 5) MTV now plays fewer music videos as it attempts to become a more diverse broadcast network. Part of this is prudence as costs for music videos had been escalating, up to \$2.5 million apiece at the high end. Another part of the decision relates to viewer attention spans: keeping people from tuning away from four-minute videos proved harder than locking people into "reality" and other long-form programming for an hour at a time. For whatever reasons, MTV's glory days as a music channel appear to be past: on a recent weekday, in the 7 ½ hours from 4:30 until midnight, only 120 minutes were devoted to music videos.
- 6) Given that most CD releases are said to lose money, performers generally look to touring as their primary revenue stream. That too is becoming dominated by big corporate business with the 2000 acquisition of SFX Entertainment by Clear Channel, which is now the world's leading entertainment producer and marketer. According to the company, "Each year, more than 66 million people attend approximately 26,000 events staged by the company, including live concerts, Broadway productions, West End and touring Broadway shows, family entertainment shows, sports and motor sports events." Some artists are alleging that Clear Channel is abusing its market power, threatening to limit radio airplay if artists don't agree to its touring deals, for example. According to *Fortune*, "in August 2001 a small Denver concert promoter called Nobody in Particular Presents filed suit against Clear Channel, claiming that it had threatened to pull NIPP musicians from Clear Channel airplay." Clear Channel CEO Lowry Mays has denied the charges.
- 7) The Recording Artists Coalition achieved a rare legislative setback for the RIAA as it reversed the "work for hire" provision. Members like Bruce Springsteen, Madonna, and Sheryl Crow put public, human faces on the artists' distrust for the record labels. Well-publicized contract disputes involving the Dixie Chicks, Eagles songwriters, and Michael Jackson did much the same thing.
- 8) The DVD format became the fastest home electronics format to reach mass market adoption. Five years after its 1997 launch, 33 million U.S. households had at least one DVD player. Four years after launch, DVD hardware was outselling CD players sold during the comparable period by a margin of 3:1; the figure for VCRs was 7:1.
- 9) While it is not a public relations disaster on the scale of the 1960 payola hearings, the industry's settlement in the Minimum Advertised Prices dispute did not help the labels' image at a time when it was already under attack.
- 10) Cell phone usage has exploded. The technology commentator Dan Bricklin makes the point that some of the time people now spend talking was previously devoted to music listening. Minutes per user per month at Nextel, for example, increased 65%, from 400 to 658 (nearly 11 hours), between 2001 and 2002. According to the Cellular Telephone Industry Association, total billable cellular minutes increased 76% from 2000 to 2001. It's not unreasonable to assume that handsets displaced headphones or loudspeakers for some of that time.

11) The competition for attention has intensified in the past 15 years. Music listening is largely a background activity, a parallel process as it were. Gaming, DVD viewing, e-mail and chat, and telephone conversations tend to be foreground activities, or at least processes to which music is at best an accompaniment. Compared to 50 or 75 years ago, far fewer people sit in front of an electromechanical device for the purpose of listening to music, yet the business model has not evolved to respond to this lifestyle shift.

12) The Internet was viewed almost exclusively as a threat even before the advent of massive downloading on peer-to-peer networks. In many ways, music and the Internet are an effective match: to seek out information and discover new things, people use it to correspond with friends and acquaintances to compare notes about shared interests and passions, and the core music demographic was where the Internet first took hold. But as it did at the advent of radio, at the adoption of the compact cassette, and at the introduction of the compact disc, the music industry vigorously attempted to preserve the existing model rather than invent or embrace a new one.

The customer base voted with their mouse-clicks: according to the Websense consultancy, there were 130 unique peer-to-peer applications and 89,000 web pages devoted to music sharing at the beginning of 2003. Even after the court-mandated demise of Napster, this represents a 300% increase in one year. The music labels' pay-based download sites, including Pressplay and MusicNet, have roughly 350,000 customers. At roughly a dollar per recordable download, the sites'

pricing was essentially a disaggregation of the CD's average of 12 to 15 songs for \$15. In August, 2001, the U.S. Department of Justice announced that the two ventures were being investigated for potential abuse of copyright and other anti-competitive behavior. Less than two months later the judge in the Napster case later noted that MusicNet in particular "looks bad, sounds bad and smells bad," from an anticompetitive standpoint.

Growing listener power

In addition to no longer being the dominant player in their supply chain and having to confront artists who want different types of contracts, the record labels must contend with an alienated, dissatisfied listener base. In each of four instances since 1980, the industry was able to rebound to a higher level than before the sales downturn with its basic operating model intact; this time looks different. For example, as the CD increased the available recording time, the majority of a pop music disc had to be purchased unheard: the industry had no such thing as a guarantee and was in fact premised on customers' willingness to pay for 15 songs when all they wanted was one or two, and the CD single format never gained momentum. Even before Napster, it's worth remembering that the Internet was giving listeners legal tools to confront this assumption. Listening booths, a 1980s retailer innovation dating back to the 1950s, were similarly fought by the labels.

There were other ways in which the record companies' control of physical distribution allowed them to optimize for what they wanted to sell rather than for what customers wanted to buy. Labels sought mass-market acts to sustain the system in which one or two artists' multi-platinum-sellers ensured profitability for the whole label. In the meantime, air travel, rising education

levels, and globalization fueled the rise of musical niches, such as "world" and ethnic, incapable of fitting the industry's model because distribution costs made small sellers unattractive. The industry's unit of analysis was unquestionably the mass-produced compact disc, not a customized disc or a digital descendant of the 45 RPM single. Labels clung to "CD quality audio" as a boast even as Moore's law made the 1980 Philips Red Book standard for CD engineering more obsolete every year (to the point where the DVD-A format stores over 1,000 times as much information per second as a CD), a fact obvious to anyone with a personal computer and a good sound card. That 2003 PC is roughly 16,000 times faster than its 1981 equivalent, yet the mainstream music technology is basically identical.

Classical and popular music styles have always had an uneasy coexistence, both critically and, for our purposes, economically and technologically. Ever since the wax cylinders of Thomas Edison, the notion of fidelity to an original artistic performance has been used as a selling point for a given technology or, at times, individual recording. When CBS was setting parameters for the long-playing phonograph record in the late 1940s, the benchmark was that each side had to play for over 17 minutes. Within this constraint, 90% of the classical repertoire fit on two sides of an LP. In 1980, when Sony joined Phillips in co-developing the compact disc standard, Sony president Akio Morita asked his friend Herbert von Karajan what the playing time objective should be. The conductor replied that a single CD should be able to hold the entire performance of Beethoven's ninth symphony, which runs roughly 72 minutes, depending on tempo.

The highbrow ideal of music as uplifting and culturally important drove a reverence among engineers and later marketers

that led them to stress the faithfulness of the reproduction as a selling point. Such emphasis made sense given that it was somehow understood that listening to Beethoven was unquestionably a Good Thing in the first place. When Sony introduced the consumer CD player, the advertising tagline was “Perfect Sound Forever,” a tribute to both the computer-grade resolving power of digital recording technology and the durability of a polycarbonate optical playback medium. More pervasively, labels behaved on the assumption that customers would pay more for better sound as technological progress delivered the musical equivalent of “new and improved” laundry soaps. The CD was originally priced as a premium product at not quite twice the MSRP of LPs, and even when economies of mass production kicked in, savings were not passed along to music buyers.

The tension between classical and pop music plays out on at least two levels as we consider the situation in 2003. The pursuit of sonic truth, of literally high fidelity, within the context of classical music’s highbrow ideal broke down as a pop generalization. While the hardware companies adjacent to the music industry developed a series of higher and higher resolution digital formats including HDCD, XRCd, and MiniDisc after 1990, listeners have shown little appetite for adopting them and repurchasing their collections yet again. In part, the industry’s own rhetoric put it in a bind: if the CD that never clicked or popped was already perfect, how could these new formats be better – especially since they looked exactly the same? Furthermore, the lack of a new digital industry standard means that many buyers who do seek better sound stand and wait as Sony’s Super Audio CD (SACD) and an alternative called DVD-Audio (DVD-A) battle for dominance. These new formats do not copy (easily) on PC burners, making copyright protection better than CDs’,

so the industry is happy with the new media. Even so, adoption has been slow.

Given the rapid market uptake of so many other new technologies, why the reluctance? There is wariness about copy protection among some who object to the hardware manufacturers’ refusal to provide a digital output on the new players. Memories of the Betamax/VHS battle are still fresh in many buyers’ minds, and they don’t want to be caught on the losing side of a format war. Finally, there’s substantial buyer confusion, particularly about backward compatibility. Some but not all SACD software plays at CD resolution on old players, while DVD-A discs typically play in DVD-Video players, but not at their full resolution, which requires a player of which only a few thousand have been sold. Sony, meanwhile, has sold more SACD hardware, but not all of these play DVD-Videos. It appears that technology from the high end of the market will lead in a year or two to mass-market players capable of playing any 5-inch silver disc, regardless of persuasion.

That development may not move the bulk of the market. Over the decades, popular music listeners have shown time and again that recording quality does not mean the same thing to them that it apparently does (or used to) in some sectors of the classical market. Whether we are talking about transistor radios, 8-track tapes, cassette compilations, or MP3 files, attributes other than fidelity to the original matter to pop audiences. Among these factors are

- personalization and customization (as on a mixed compilation)
- mobility (as on an MP3 player or Walkman-type device)
- portability (as people make copies for the headphone device, the car, and maybe multiple copies for upstairs and downstairs, or for the town house and the beach house).

With limited exceptions, these objectives were never supported by the major record labels, which took the LP and then CD as given artifacts and then marginalized or criminalized the uses to which millions of listeners wanted to put their music. For example, the RIAA is currently attempting to stop clubs of home recordists from trading mix disks through the U.S. mail. Even on the hardware side, it was Apple and not Sony that developed the well-designed, premium-price iPod digital music player.

In short, more than sound quality, many listeners want control. Music is both an art form and an information good, and as such, its buyers do not treat it like other consumer goods. As David Morton, a historian of recording, notes,

For the past twenty years, home duplication of commercial records has become an ingrained part of life for many Americans, but its success as a democratized form of activity corresponds with a failure for the record industry. What the record companies lost to cassette recording was the opportunity to introduce a customized or individualized music product on tape. In choosing to make recordings at home, ordinary people have retaken a role, however minor, in determining the ways they receive commercial music culture.

Labels understand customer choice very differently from the way home tapers and downloaders understand it. The Internet decisively tipped the balance of power away from supply and toward demand, so the industry now must take seriously the listeners’ version of freedom of choice.

Selling rebellion

Even more problematically, the popular music industry has long maintained a delicate position by portraying consumer capitalism in the form of buying music from multinationals as cultural rebellion. In the early 21st century, however, music appears to be getting less useful as a generational (or other) anthem; for one thing, the parents' cohort buys as much music as the kids'. When performers like the rapper/actor Eminem become thoroughly mainstream, music no longer taps into the taboos of black American R&B (the root of Elvis Presley's appeal) or into the anti-war spirit of the 1960s as artists including John Lennon and Crosby, Stills, Nash, and Young did. Today, buying music with offensive lyrics - helpfully identified by the government-mandated warning label on the front - is the extent of American music's politicization.

So just as the mass market art forms homogenized, thanks to the power of market research, to the point of the proverbial white bread, tens of millions of music downloaders armed themselves with CD burners, PCs, and broadband connections to turn the industry's own positioning against it. Acting on the messages historically peddled by the labels in the works of artists from Bob Marley to the Clash to Tupac Shakur, downloaders take the ethos of anti-authoritarianism at face value. The RIAA members are caught in a bind as the extremes of commercialism and "freedom" can no longer be held in tension, particularly in a model in which the labels no longer exercise complete control over how and where people can obtain or listen to music.

One Way Out

Some predict that the music industry as presently constituted will be unrecognizable within five years, a victim of internal excess, pent-up distrust from artists, and Internet downloading. This stance feels unnecessarily apocalyptic. At the other extreme, all the lawsuits in the world will not put the genie back in the bottle, as it were: masses of customers will not resume voluntary purchases of whole CDs on which over 50% of the music is for whatever reason unattractive. Nor will customers be drawn to trust an industry which has dispatched legions of lawyers against them. Before examining options for the labels, it's useful to look at adjacent scenarios that provide positive examples for music even as they underline the necessity for the industry to change its core ethos.

"Piracy of songs has left the music industry fighting for its digital life" vs. realities of bit-based entertainment

The record industry slowdown notwithstanding, people are spending money on digital entertainment. DVD software sales rose 88% in 2002, from 364 million to 685 million units. Video games sales grew at a compound rate of nearly 18% between 1996 and 2002 while cable TV revenue increases averaged 8.7% in the same period, even as hours watching television declined in the U.S. because of the Internet. Gaming was expected to become a \$31 billion global industry in 2002, which makes it about the same size as music. In addition, a fast-growing component of the market is multiplayer online games such as Everquest or the Sims, software that builds on the power of the Internet to connect people.

By contrast, the music labels have worked to curtail listeners from communicating with each other by shutting down fan sites, and to prevent them from hearing new music by working

to hobble Internet broadcasting with untenable royalty schemes unique to the medium. (Internet broadcasters, including hobbyists and nonprofits, were for a time required to pay the labels royalties on a per-song, per-listener basis that would have bankrupted many outlets. A new royalty program is currently being negotiated in the aftermath of legislation passed in November, 2002.) These moves, among others, reveal the industry's primary conception of the Internet as a one-way product delivery pipeline that it seeks to control.

There's no question that people are downloading, but to assume that downloads correlate at all closely with missed revenue ignores both the slow CD market of the late 1990s and the scale of the problem: if they represented a mass defection from the purchase stream, 60 million users of Kazaa, each with presumably more than one CD's worth of songs on his or her hard drive, would leave more than a 9% dent in unit sales of 688 million worldwide. Instead, the math is convenient: CD sales went down by an estimated 62 million units between 2001 and 2002. For all the talk about hundreds and thousands of stolen tracks per downloader, it turns out that the entire annual decline would be explained if each Kazaa user had bought only one fewer CD than he or she did in the past.

Speaking of Kazaa, there may be less here than meets the eye. Many of the people who connect do so over dialup, making large file transmissions impractical. Many of the available files are images, not music or movies. Within the peer-to-peer network, our estimates indicate that on average one file provider is supplying well over 150 downloaders; most users do not make their files attractively available to other users. Transmission speeds are slow regardless of the receiving machine's connection, so even a poor-quality movie download

can take up to a workweek (120 hours), during which time the connection is repeatedly broken. Additionally, many broadband connections in North America are asymmetric: even though cable modems may allow rapid downloads of 350-500 megabits per second, the upload speed is substantially slower, making those machines unattractive as servers for large bodies of content. Finally, researchers at HP Labs and the University of Minnesota have shown that most users of Kazaa don't fully understand the software and expose to malicious users of the network significant personal information not stored in music files. The Kazaa application itself also has some unattractive spyware features that monitor the user's behavior, so there are good reasons apart from charity toward the RIAA for not using it. A credible download service should be able to compete effectively.

All that said, Kazaa remains an important phenomenon. During the 2003 Grammy awards show, roughly 40 million users - about 7% of the online Internet population - were on the service. More dependably, 16 million users appear to be on at any given time. Two pieces of evidence are used by download supporters to "prove" that peer-to-peer downloading helps sales. First, the rise of Napster coincided with increasing CD sales for the first half of calendar 2000; sales were shown to decline after the service was shut down by a series of legal challenges and before alternatives like Kazaa had established themselves. Second, "The Eminem Show" was both one of the most widely downloaded CDs ever and 2002's top seller. Publisher Tim O'Reilly has built a successful technical book business in part on charging people to learn about open source software, and he uses similar logic to argue that obscurity is a far worse danger to content businesses than piracy. The ability of Internet music to solve that exposure problem, to help introduce people to

otherwise obscure music they can't hear on broadcast radio, can be a powerful force to drive sales if used imaginatively. Downloads are already being measured to provide market research: BigChampagne compiles SoundScan-style tracking that categorizes downloads into conventional radio formats.

"We can't compete with free" vs. business model innovation

At least two profitable industries compete with free alternatives by creating perceptions of value and then charging to deliver it. In the case of TV, by offering extensive viewer choice and access to monopoly programming available only through their system, cable operators have exhibited stunning power to raise prices and maintain viewers. While doing so, they have built an industry where 30% margins have proven eminently achievable. When selling taste, extensiveness of choice clearly can pay. The other free good that has not prevented the rise of a profitable substitute is water. To build what became a \$6.9 billion market in the U.S. in 2001, water bottlers beginning with Perrier similarly created a perception of health, purity, and other attributes that has driven a fast-growing market: Nestle Waters doubled U.S. revenues, from roughly \$1 billion to over \$2 billion, between 1997 and 2001.

In the music industry but outside the world of the major labels, at least four current delivery models successfully compete with free downloads. None of them fit the dominant practice that assumes silver discs, record labels, \$15 price tags, and mass marketing.

1) Hitclips are digital music memory chips aimed at sub-teen kids by its manufacturer, a subsidiary of Hasbro. Each proprietary chip sells for \$2-\$3 apiece, contains about a minute of music, and plays on a relatively inexpensive player. The

inventory is tiny compared to that of a music store, but has expanded from pop acts like 'N Sync and Usher to include Baha Men's "Who Let the Dogs Out" and snippets of dialogue from the Simpsons TV show. The bottom line is that Hasbro has sold 25 million chips in three years. Piracy appears to be a non-issue.

- 2) Just as the Grateful Dead realized that encouraging fans to tape concerts built the audience base for tickets and t-shirts without ultimately impairing LP sales, the Vermont jam band Phish has long supported tape trading among its fans. It recently took the service on line, promising downloads of every concert within 48 hours. Each concert can be bought in digital form with no technical restrictions on reuse for \$10 each.
- 3) Janice Ian is a singer-songwriter who's been nominated for eight Grammy awards and was inducted into the Grammy Hall of Fame for her hit single "Society's Child." She has free MP3 downloads of most of her catalog available on her website, and found after posting them that her CD and related merchandise sales quadrupled. In the context of the big labels, this is a rounding error, but at human scale, a viable revenue stream.

Says Ian, "My site (www.janisian.com) gets an average of 75,000 hits a year. Not bad for someone whose last hit record was in 1975. When Napster was running full-tilt, we received about 100 hits a month from people who'd downloaded Society's Child or At Seventeen for free, then decided they wanted more information. Of those 100 people (and these are only the ones who let us know how they'd found

the site), 15 bought CDs. Not huge sales, right? No record company is interested in 180 extra sales a year. But ... that translates into \$2700, which is a lot of money in my book. And that doesn't include the ones who bought the CDs in stores, or who came to my shows."

More recently, platinum seller Natalie Merchant announced in March, 2003 that she was leaving the world of labels to release her music direct to the Internet and stores. The new album will break even at 50,000 copies; this contrasts with the big-label model where, as Merchant's manager noted, "if you just sell 1.5 million, everyone goes around with their heads down." Merchant's last album on Elektra sold 398,000 copies; her 1995 hit "Tiger Lily" sold roughly 3.6 million. Mick Hucknall of Simply Red is following a similar course: he has sold more than 41 million CDs worldwide, but calculated that while his share of that success was £20 million, his label took £192 million in profit. He left the world of the labels and is releasing a new CD under the auspices of his simplyred.com venture so that he, not the label, owns the master tapes. Later this year more performers, some involuntarily, will likely follow in their footsteps as labels are expected to cut artist rosters.

- 4) Most listeners would be stumped when asked to name the most successful American classical music venture. Since 1988, the year it custom-recorded a collection of light music used for background in its stores, lingerie retailer Victoria's Secret has sold five of only 16 classical CDs to reach U.S. sales of one million. The phenomenon of lifestyle compilations has spread to other retailers like the Gap and

Pottery Barn as well as to Starwood's trendy W hotel chain. More seriously, in both musical and business terms, Starbucks has licensed the Blue Note jazz archives.

The results are big enough to matter: Victoria's Secret had moved more than 13 million CDs and cassettes as of mid-2002. The labels weren't behind the rise of the lifestyle mix phenomenon; rather, an entrepreneur named Jeff Daniel founded Rock River Communications and sells about \$8 million worth of CDs a year through partners including Pottery Barn, W, Old Navy, and Restoration Hardware. Such strong sales may be a reflection of these stores' less technologically savvy demographic: making such mixes is simple for active downloaders, who have time and personal networks with which to discover and manage new music.

What Labels Can Do

As the bitstream threads of movies, medical records, and signatures comprise more and more of the fabric of everyday life, digital rights management will be essential, and that technology will no doubt be used with regard to music. DRM is not going to save the music labels' rapidly decaying legacy business model, however, nor will global laws against copying and downloading bring back the economics of 1993. At its most basic, commerce is an exchange that relies on trust, and just as communities can't be safe only based on innovations in lock technology, so too does the music industry need to restore trust among artists and listeners. In a civil society, deadbolts only work in conjunction with some level of shared values; digital locks on music and movies are no different.

Labels can start rebuilding that trust with an objective examination of how the Internet enables groups of people to behave. Rather than start with the existing distribution model and attempt to digitize it, the labels have the opportunity to be the first big content industry to adapt to the rapidly emerging customer base. The challenge will be to move beyond pure broadcast and mass distribution models into other possibilities: how can labels - and artists, and Internet service providers, and other entities - use peer-to-peer dynamics to spread word-of-mouth recommendations, for example, or move content faster than any existing supply chain? Watching the customers as fans, not thieves, allows passion and word of mouth to work for revenues and not against them, but those who will profit from these dynamics will be unable to impose physical artifacts, an 80-year-old pricing model, or legislatively determined coercion on their customers.

Just as people read books in different ways and places and pay different prices for the experience, so too is people's experience of music becoming more heterogeneous. Instead of falling into such rough and ready distinctions as "home" and "car," there are many emerging flavors of musical enjoyment. For every advance in musical fidelity such as SACD's higher bit rate, there's a more convenient form factor like the iPod, which can store up to 4,000 songs (about 500 LPs' worth) on a palm-sized device. Database indexes allow PC-based listeners to seek out music by artist, title, genre, or other characterizations in milliseconds. Cell phone ringtones represent one end of a spectrum that might have DVD concert videos with seven-channel soundtracks, on-screen song lyrics, and artist commentaries on the other. The point here is that there is an expanding multitude of reasons and ways to experience music, and no one physical form can address all of them.

Overall, the opportunities are endless to use digital media to address wider varieties of taste while simultaneously making better use of physical shelf space. Instead of seeing music downloads only as a threat to existing arrangements, labels can use them to improve on the current system's limitations. Music retailers are suffering at least as much as the labels, in part because few of them have solved the problem of profitable real estate and inventory utilization. Creative uses of the Internet can answer listeners' desire for physical artifacts that meet different needs, for personalized playlists, for vast selection without inundation, and for well-managed introductions to new artists and genres. Those uses also address, but do not entirely solve, the problem posed by the cost structure of digital information goods, particularly discretionary ones.

When music is compared to books and movies, it would seem that the industry could take the simple step of "versioning" more of its offers: how can music sellers let multiple audiences pay varying fees for varying products? In classic market capitalism, customers vote from the demand side rather than sellers imposing their will from the supply side, so it would appear that a strong value appeal is more important than airtight legal or technical solutions that force customers back to an old model. Music could be sold for different prices along the following criteria, among others:

- **Time** - How soon do you want new releases? How long do you want to own a given version? Prices can either rise or fall as time passes after release.
- **Audience attributes** - Fan club members could get discounts, as could students or listeners over 60. People who bought the artist's debut CD might get a loyalty discount on the second effort.
- **Audio quality** - In a digital world, the

bit rate might serve as a proxy for quality, and trial MP3s might be followed up with SACD-quality products for subsequent purchase or rental.

- **Distinctiveness** - Appealing to the collector side of the market, there could be limited or autographed editions that behave much as the Beanie Babies did, for example.
- **Art and packaging** - Store-bought CDs as gifts can have more appeal than home-made rips, and this is one clear area of superiority for CDs over downloads.
- **Alternate formats** - Ring tones, answering machine tapes, gaming elements, etc.
- **Quantity of material** - More expensive versions might include outtakes, encores, artists' commentary, or better liner notes, for example, in contrast to a stripped-down base offering. CDs face a rapidly growing challenge from DVDs in this regard: over \$100 million of music-related DVDs were sold in 2002.
- **Guarantee** - Might certain labels buy back losers after charging a slightly higher initial price?
- **Service vs. product** - Some customers want artifacts; others want music, and no longer must people buy the former to get the latter.

The industry is beginning to innovate along some of these lines. Sony recently released Glenn Gould's historic 1956 and 1981 performances of Bach's Goldberg Variations, along with a bonus disc of interview and other material, for a list price barely higher than that of the 1981 disc alone. Interscope gave the first million buyers of "The Eminem Show" CD a free DVD. Listen.com's Rhapsody service is making available 116,000 songs that can be downloaded and burned to a CD for only 49 cents a song. It's a limited-time offer, and a subscription fee is required on top of the per-song charges, but such introductory

offers are standard practice elsewhere and might encourage legal downloading. From the retail side, six leading chains have joined to form Echo, a downloading service to be linked to their existing physical retail distribution, and Apple has tied a multi-label download service to its multimedia-friendly hardware platform. Finally, Target is selling an exclusive eight-song Bon Jovi disk as a "teaser" promotion to support the band's latest release. Many bands already bundle bonus discs with the first run of a new release to encourage velocity after launch.

The Naxos classical label provides a viable alternative to industry convention. The label is devoted to music, not to any version of a star-driven system. The label will record only one performance of a given piece of the repertoire, striving for the best possible combination of performance and sound. The CDs retail for between \$6 and \$8 because the label refuses to pay artists large advances, eschews point-of-sale marketing displays and ornate cover art, and keeps production costs to a minimum. The label is financially sound and its performances have received considerable critical acclaim. It has market share of between 15% and 60% in many countries and has built a catalog of 2,400 titles.

Positive Vibration

Such efforts are encouraging, but the major labels still need to regain the trust of their listeners, the retail channel, and the artists. New pricing and promotion experiments are necessary but in no way sufficient to address the complex issues outlined above. Clearly the challenge of digital music requires rethinking the entire music life cycle, not just distribution, but. Even so, EMI's recent announcement to open up its download channel through European retailers could be the first sign of a fundamental industry shift. Some artists will have to be paid

less so rosters will shrink, and some artists will succeed direct-to-audience. More acts should be able to survive on a pay-their-own-way model, which means that a Celtic fiddler and Britney Spears will have different cost, risk/reward, and distribution models. The relation of record labels to the many forms of radio and concert promotion will evolve to support some new arrangements that acknowledge that the band, not the label, is often the brand that matters. Revenue streams will multiply in type even as they may shrink in size. Reaching niches will have to become more profitable as more listeners age and fall outside the appeal of multi-platinum pop acts; part of this effort will involve the necessity to support multiple types of physical and virtual artifacts, a task poorly suited to big-box retailers. It's likely that labels will lose some of their former control, but the function that good talent identification and marketing perform will be filled in a variety of ways - and innovators will thrive, as they historically have in times of technological disruption.

Appendix 1: A hypothetical royalty estimation

New York Daily News
February 19, 2003
<http://www.nydailynews.com/entertainment/story/60991p-57008c.html>

A look at a mythical rock band's earnings, with actual figures compiled from industry sources:

New York City's hottest new band is Grunthead, a four-piece hard rock group from Maspeth. Because they've got buzz, the band gets a 15% royalty rate, a few points above the usual amount for a new artist.

Its debut, "Gruntastic," goes gold - only 128 of more than 30,000 records reached that level in 2002. The Gold Record gross: 500,000 albums sell at \$16.98 = \$8,490,000 The Grunts' royalty is 15% of retail. That's \$1,273,500.

But the contract calls for "packaging deductions" of 25%, so the gross drops to \$6,367,500. Then there's promotional albums and giveaways the labels give to wholesalers, retailers, radio and the press. That's a "free goods" charge of 15%, so the gross drops again, to \$5,094,000. So, the band's royalty is actually: \$764,100. The record company keeps the packaging and "free goods" funds. After collecting a \$9.99 wholesale price, it also reaps an additional \$829,900. The \$3,500,000 balance goes to retailers, assuming they sell the record for list price.

Because the band was hot, they got an advance from the record company of \$300,000. They spent \$200,000 of that recording the album, which included a \$50,000 advance to the producer. They pocketed the remaining \$100,000. Additionally, the label spent \$100,000 making the band's first video, which got them played on MTV2. The band owes all of this money back to the label.

So the royalty drops to \$364,100.

But the band's producer also earned a 4% royalty of \$203,760, of which he already received \$50,000. So the band has to pay him an additional \$153,760, reducing their royalty to \$210,340.

After pocketing \$310,340 (which includes the remaining \$100,000 of the advance), the band has to pay their manager 15%, or \$46,551, and give 2% of the total deal, or \$101,880, to the power lawyer who got them the deal in the first place. That takes the band down to \$161,909.

That's not bad money, but it's split four ways, or \$40,477.25 each, about the same as a city sanitation worker with two years' experience, without health benefits, vacation and retirement fund. But with, of course, groupies.

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