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The Intellectual Property Rights (IPR) elements of the DIME Network currently focus on research in the area of patents, copyrights and related rights. DIME’s IPR research is at the forefront as it addresses and debates current political and controversial IPR issues that affect businesses, nations and societies today. These issues challenge state of the art thinking and the existing analytical frameworks that dominate theoretical IPR literature in the fields of economics, management, politics, law and regulation-theory.
Intellectual Property Rights and Industry Evolution: The Case of the Recorded Music Industry

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Abstract

Intellectual property rights are often the mainstay of industry structure in industries where the value of products is strongly dependent on technological innovation and the creation of new content. However, producing novel intellectual property and then ensuring adequate returns on investment is subject to uncertainties such as new technologies, change in property rights regimes, and illegal reproduction. These uncertainties often create threats that impact industry evolution. Faced with threats to their core intellectual property firms engage in defensive and offensive strategies that change industry environment, often triggering strategies that lead to wholesale review of market position, and new relationships with suppliers and buyers. When the threat persists, firms are often forced to change their core operations, in the process adopting new technologies and redrawing industry boundaries.

We use the case of music industry over the last century to locate these threats and discuss their impact on industry evolution. The creation and protection of copyright material has been central to the industry’s economic viability in the 20th and 21st centuries. Periodically, however, the industry has experienced threats to its ability to protect intellectual property. The response of the industry to the threat posed by each of these developments has exerted a powerful influence on the evolution of the music industry. We examine the variety of the strategic responses, and evaluate their impact to make sense of the current crisis facing the industry and the scenarios that describe the future for the industry.
Introduction

While record companies have seen a considerable rise in digital music sales over the last year, the comparative loss to music piracy through illegal downloads off the internet is still nearly twenty times the number of tracks sold legitimately. The international CD sales are even worse off – continuing to plummet across the globe (ITV, 2008). This scenario has seen music companies latch on to any hope they can get. For instance, pegging the Brit Awards as a potential lever to influence sales for the records of the nominated artists, while sale of records in itself, should be one indicator of the artist’s popularity. The entire idea behind the event has thus being turned on its head- just one instance of ‘hopeful’ scenarios in these desperate times for the industry.

While Intellectual Property (IP) rights are a mainstay of business models across industries, like any other element of the strategic configuration they need to adapt to changing environment, and are evaluated in light of their performance. The existing IP regimes that characterise the music industry are clearly not performing well enough to ensure value appropriation. While the feedback is very unambiguous - the subsequent demand for reshaping of the IP regimes is a challenge yet to be addressed.

This challenge is however not completely new, the industry has encountered path breaking technologies that augment reproduction and copying ever since Berliner tried hard rubber discs to copy on from a master zinc plate in 1893 (Millard,1995). Technology has come a long way since then but the basic concern remains –that of the ‘right’ to reproduction of content for distribution, and the appropriate distribution of the resultant revenues.

This concern has informed the shaping of IP rights -that in a generic sense aim to ensure that creators and providers of intellectual product and services are able to exercise moral and economic rights on such deliverables. Intellectual property is viewed from two perspectives given the distinction between creators and providers. The former are essentially being represented in the idea of ‘copyright’ where the tacit aspects of the intellectual property are protected. The latter is more about explicit
representation under the category of ‘industrial property’ and comprises less of the content of creation but more about the physical identifiers of the ‘carrier’ i.e. signs and symbols like trademarks and commercial names.

In industries like recorded music where in modern times content clearly leads value perceptions - copyright is the dominant theme when it comes to discussing IP. This is in contrast to for example, apparels and footwear where the industrial property labels have often been central to IP concerns, or even recorded music in its infancy, when quality differences associated with different trademark labels were significant. The implications of this distinction are important. While industrial discontinuities like merger waves and economic downturns are more geared towards the industrial property side of intellectual property; technological discontinuities like new technologies affect the proliferation of content and raise issues about its secure distribution and use.

In this paper we examine discontinuities over the history of the music industry in the last century; how these have challenged IP regimes; and the manner in which the industry has negotiated such challenges. The paper attempts to distil scenarios from the understanding of these ‘encounters’ for the present day recorded music industry. These may have important implications given the search for revitalising the IP regimes whose insufficiency is at the heart of the crisis in the music industry.

**Industry Evolution and Discontinuities**

The evolution of the music industry value chain has been punctuated by major discontinuities of which digital technology is merely the latest. The discontinuity shaped encounters with the existing value paradigms as it challenged existing ways of reproduction, distribution, and appropriation of rents. The complex interplay of technology, consumer habits, market dynamics, and regulatory issues presented an arena which made each of these encounters unique - albeit an opportunity to learn from for encounters with the inevitable next discontinuity.

This evolutionary perspective on the music industry has been discussed at great detail in literature, albeit with a somewhat constrained perspective on stretching the
implications as lessons that can be used by the industry as it enters the digital age (e.g. Welch et al., 1994; Millard, 1995; Barfe, 2004). Our survey of the industry suggests six distinct eras or ‘evolutionary generations’ (see. Figure 1) prior to the advent of the digital revolution. In what follows, we look at each of these generations in terms of value chain evolution marked by disruptions, their impact on IP regimes and associated enhancements induced to improve value appropriation (Huygens et al., 2001; Lampel & Shamsie, 2006).

**Generation A [1877-1890]:** The arrival of the gramophone creates a niche in a music industry dominated by publishing and performance. This niche is transformed into a major industry discontinuity as the public begins to accept the convenience of recorded music, in spite of the relatively low quality of cylinders. As prices of machines begin to drop, the niche grows into a market. As sales rise further, the market for recorded music and sound eventually takes over and becomes the industry. Copyright rules that apply to publishing and performance are transferred to the transformed industry, and are then adjusted to account for the specific technological nature of its products. From an evolutionary point of view, the most developed parts
of the industry value chain are studio recording and maintenance of music catalogues. Distribution and sales are underdeveloped (e.g. many gramophones in the UK are sold in bicycle shops).

*Generation B [1890-1917]*: The replacement of cylinders by disks creates a new industry discontinuity. The superiority of the disk is manifest on two fronts: quality of sound reproduction, and lower manufacturing costs. Better quality removes the last barriers to consumer acceptance of recorded music, and lower manufacturing costs opens the way for mass distribution. Economies of scale also provide the resources for putting marketing and distributing rights on a sound footing. The strategic role of intellectual property rights changes. In Generation A, superior technology delivered superior quality, and the major concern of the industry was with patents rights which conferred quality advantage in the market place. In Generation B, technological advantage is no longer decisive, in part because the technology is more widespread, and in part because the quality differential between machines is no longer decisive when it comes to consumer choice. Possession of popular and quality music catalogues is now increasingly important. This shifts attention to copyrights as key to sustaining market advantage. Record companies use trademark labels to signal consistent quality to consumers, thereby reinforcing their market position. This era also sees the first instances of industrial scale piracy as some entrepreneurs take advantage of the increasing availability of equipment to press illicit copies. From an evolutionary point of view further progress is made in studio recording and manufacturing, but the major evolutionary step is the creation of global distribution systems for delivering recorded music. These distribution systems put the major music companies on firm strategic footing.

*Generation C [1918-1935]*: The emergence of radio as the dominant platform for disseminating music to the public, and the invention of electric recording combine to create another major discontinuity. Radio initially depresses record sales as many consumers forgo purchase in favour of free listening. Radio also poses a special challenge to copyright interpretation. To meet the copyright challenge posed by radio, organizations such as the American Society of Composers, Authors and Publishers (ASCAP) come into being to monitor and collect royalties for broadcasting use of recorded music. Once market and legal uncertainties are resolved, the music industry
enters a golden age as playback technology and radio broadcasting join forces to accelerate the introduction and purchase of new music. Playback technology incorporates amplification and speakers to deliver an experience that approximates live music. Radio broadcasting reduces time-to-market by allowing music to be played nationwide as soon as they are released. The radio becomes a powerful tool for reaching consumers, and high-quality playback technology gives them quality experience in the comfort of their own home, and in public spaces via coin operated machines or “juke boxes”. The radio also plays an important part in A&R, allowing music companies to promote new artists. This combined with the advent of sound in motion pictures, with musicals now migrating to the screen, takes demand to a new height. The demand spurs the emergence of retail outlets that specialises in music. This completes the value chain. It is now fully developed, from publishing, A&R, studio recording, manufacturing, distribution, and finally retail.

**Generation D [1935-79]:** The introduction of magnetic recording technology initiates the discontinuity that ushers in this generation. The rise of television and the establishment of sales charts complete the process. Magnetic tape recording transform studio production by reducing costs and increasing flexibility in recording, editing, and mixing. Television replaces radio as the main channel for disseminating new music. By downgrading the role of radio as a broadcasting medium, television opens the way for the emergence of pure music radio: A development that gives the industry two channels by which to introduce and promote new music. The combined effect of television and music radio is to transform A&R into a more powerful and versatile part of the value chain. The industry responds to this opportunity by expanding the label system: a strategic approach to development and marketing which combines entrepreneurial flexibility with distribution power. The label system also facilitates more rapid exploration of new music genres, in particular music with strong youth appeal (Negus, 1999). Value chain coordination is further enhanced by music charts which allow the industry to shift resources across artists and markets, and by the annual Grammy awards in the US which establish standards of excellence.

**Generation E [1980-95]:** The introduction of compact disc (CD) initiates the transition from an analogue to a digital environment in the music industry. The impact of the compact disk is enhanced by laser-based playback technology, the CD
player. The combination of the compact disk with CD player increases the portability of music playback. The subsequent adoption of laser-based compact disk technology by home computers removes a long-standing barrier between specialised playback systems and more general equipment. The removal of this barrier increases opportunities to play music, but also opens a major breach in a barrier that has hitherto protected music from unauthorized reproduction. Unauthorized reproduction on an industrial scale increases exponentially as criminal entrepreneurs take advantage of the new technology to mass produce and distribute unauthorized copies. The music industry combats the increase in piracy for commercial purposes using existing tools and tactics: unauthorized production and distribution is shut down, and pirates are taken to court. The threat of large scale piracy, however, is masked by unprecedented sales boom as consumers replace LP favourites with CDs, allowing the industry to monetize its back catalogue. A substantial portion of the resulting surge in revenues is funnelled back into A&R. New talent is discovered and existing talent is rewarded on a scale that is comparable to that of the film industry. The start of MTV in 1981 gives the industry another powerful marketing and promotion tool in the form of music videos on cable and broadcast networks. The industry value chain becomes more flexible in responding and creating trends.

*Generation F [1995-current]*: The convergence of the internet with digital storage and playback technology creates the discontinuity that ushers in Generation F. The century-old pipeline that takes music from composition to production, manufacturing, distribution, and then retail becomes a sieve. The internet enables computers to transfer music files to other computers. The advent of MP3 file compression accelerates the trend. Consumer-to-consumer informal exchange of music files spreads with the launch of peer-to-peer (P2P) services. Music sales start to fall in 2000 as many consumers forgo purchase in favour of free downloading. The industry takes action to shut down P2P websites, but sales continue to fall. Legitimate online sales begin to reverse the trend. What is more difficult to reverse, are consumer attitudes towards illicit transfer of music files. The industry takes steps to educate and inform, as well as directly attack the most egregious instances of abuse by consumers. Attitudes seem to be shifting, but a new threat is emerging in the form of digital radio. Although the longstanding synergy between radio and music will continue as radio broadcasting becomes digital, the use of memory cards as part of
digital receivers opens another gate to illicit copying and distribution. Generation F may see the wholesale transformation of the industry as the value chain as it existed for a century begins to disintegrate into specialists which use the new tools of technology and distribution to develop and launch music, and online distributors who monetize music through sophisticated marketing tools. The transformation, however, may have adverse impact on the range and diversity of music that existed during previous generations.

**Discontinuities and IP regimes an Interface**

The interface of IP regimes with the discontinuities has seen a mutated and ever powerful form of piracy evolve alongside the value chain. In the first instance, it was a simple case of transferring existing copyright regimes in publishing and performance to the industry. Thereafter, things became more complex as technological advantage that delivered better quality was not an important differentiator, and copyright issues became central. Illicit copying was easy, and while global reach gave some advantage to record companies, the diversity in enforcement and legislation across national boundaries made coping strategies difficult. The industry harnessed radio to promote content, promote artists, earn royalties, and in the process deliver the fully developed value chain.

This in turn also made the business of music more lucrative than ever not only for the legitimate entities in distribution but also for pirates. Arguably, at this stage the industry turned a blind eye to piracy as a tolerable parasite it could live with. While the tolerance remained justified for decades to come as music majors grew in size and power– the threat became significant when the digital environment with its artefacts of the CD and home computer led to the emergence of large scale piracy.

The industry continued to do well due to sales induced by end users also changing their listening platforms from analogue to digital. However, once this replacement phase was nearly over, and while the industry efforts at combating piracy through legal and enforcement channels met with mixed results, there was no time to take stock and ponder over the future. The future came to the industry in the form of the
new and even more powerful discontinuity—the internet. As mentioned, the illicit
distribution on this portal has been very difficult to monitor, and the industry
continues its use of legal mechanisms to combat and control internet piracy.
Experimentation with business models aimed at distribution and sales through the
internet allowed the industry to latch on to the revenue stream but this remains
inadequate in comparison to the revenues accounted by illegitimate channels.

As economic pressures and technological change begin to expose the weak joints in
the music industry’s value chain primarily through IP infringement, new business
models are beginning to emerge which are based on forging new links between the
consumer and the creation and delivery of content (Garofalo, 2002; Gander, 2002). In
many ways these are intended to combine into enhancements that can counter the
threat of piracy and subsequent value erosion in the digital age.

The new business models are mainly built around three templates: digital
intermediaries, online communities, and online representation. The breaking down of
the physical storage and distribution paradigms in the digital age has ushered in the
idea of digital intermediaries—intermediaries like i-Tunes that link suppliers and
buyers of music in ever innovative ways, provide inputs based on performance
evaluation to fuel product development, create networks around right holders and
content providers. Online communities are complementary entities that increase
customer interactions for mutual influence, exchange of opinions and ideas to inform
product development and business models. Online representation is another template
that seeks to bridge the gap between the artist and the customer. The developmental
implications for the services and infrastructure organisations can provide is
tremendous.

**Scenarios for the Music Industry**

Technology is driving change in the music industry, but copyright protection will
ultimately determine how this change unfolds (Hugenholtz, 1992; Kretschmer, 2000;
Copyright protection depends on two pillars. The first pillar is the explicit protection
provided by law. The second pillar is the tacit protection afforded by technological and practical barriers to illicit commerce and unauthorized use. Projecting the future of the music industry depends on whether the combined protection of both pillars becomes stronger, weaker, or stays the same. Looking to the future we can see three scenarios (figure 2) along a continuum from growth to decline:

In the first, the industry rebounds and regains its former vitality as the combined protection afforded by both pillars is made stronger, by legislation, by education, and by technology.

In the second, the explicit pillar remains essentially the same, but technological forces weaken the tacit pillar. The industry struggles on, but it is a much smaller and less vibrant than it used to be.

Finally, in the third scenario we see the disappearance of copyright protection as we know it today as lax interpretation of fair use and fair trading combine with technologies that essentially bring down tacit copyright protection to create an environment in which artists struggle to survive, and most commercial activity is the province of small operators.

Below, we discuss these scenarios in details.

**Scenario One: Rebound**

The explicit pillar protecting is made stronger by reinforcing copyright enforcement to deter unauthorized use, and harmonizing copyright provisions with the United States. Technological measures and public education go some distance towards reducing unauthorized reproduction and distribution. The balance between legitimate and non-legitimate distribution swings in favour of the former. With greater stability and more resources available, the industry begins to transform distribution, marketing, and retail. From being primarily product-dominated, the industry is more service led, offering a range of services around music and music-related experience.
- More is invested in A&R as the industry gains confidence in being able to market and distribute artists with longer time horizon payback. This in turn increases the diversity of music offered as economics of production and distribution allow for lower break-even point for new releases.

- Reduction in distribution costs and longer payback time horizon allow the industry to reissue music tracks that were economically marginal or non-profitable. The same applies to new acts: the industry is able to invest in acts that take longer to pay back.

- The industry embraces peer-to-peer networks as a distribution channel for selling music. This is driven by technology enhancements, which facilitate variable pricing for digital downloads, and simple digital-rights management that allows consumers to share music legally.

- The industry expands its online services, offering not only music downloads but other services such as loyalty schemes (e.g. tie-ins between concerts and music), closer relationship with artists via interviews, blogs and podcasts.

- Revenue-generating opportunities flow from industry forging closer relationship with their artists to offer ancillary products and services, for instance, live performances and theatre exhibitions. The industry starts generating revenue streams from offering the high-quality live streaming and digital downloads of live concerts through digital intermediary stores like iTunes or subscription services like eMusic.

- The industry uses the internet to appeal directly to consumers, bypassing mainstream media, such as radio, television and big physical retailers, all of which currently tend to prefer promoting, safe, formulaic acts. This enables the industry to invest in new music and hence enhance diversity.

- The industry develops a symbiotic relationship with online communities such as myspace.com. These communities become major area of experimentation
and innovation with the industry providing seed money to sustain activity by new artists.

- The industry develops a whole range of new customer experience, from clubs that offer unlimited music downloads for a fixed fee, to customized bundling of music, to relationship management which links specially designed websites with customers.

- The industry invests more in technology to improve production and delivery quality. Close links are forged with broadband video on demand, linking live concerts with music sales and promotion. Technological convergence with other digital systems produce flexible portable devices that create multiple access channels to legal downloading of music.

Scenario Two: Stagnation

Explicit and tacit pillars remain roughly the same. New measures to prevent unauthorized reproduction and distribution are introduced, but each measure is only temporarily effective. The problem of unauthorized reproduction and distribution is contained at current rates, but there is persistent pressure on prices and margins. The industry survives but it operates below the level needed to move forward.

- Stagnation leads to retrenchment. The industry begins to shrink as major labels cut back on all value chain activities, from A&R to distribution and marketing. The immediate impact is on development of new artists. TV shows and social websites play a vital role in promoting short-term acts. Music firms pick these new artists and use technology and Internet for lowering marketing and distribution costs and targeting consumer groups. The industry shifts A&R increasingly towards established artists who become revenue sharing partners along the lines seen in the motion picture industry.

- Under this scenario the music industry comes to resemble the film industry. The surviving major labels focus on distribution and marketing with arm’s
length financing relationship with independents whose survival depends on the ability to transform raw talent into established artists. Artists, by contrast, increasingly turn to large agencies as their main route for dealing with both the independents and the major labels. The agencies become the driving power in the industry as deal making hubs: packaging talent, and negotiating multiple distribution channel deals. Most crucially, artists retain rights as part of their agreements. Artists’ managers or agencies resist attempts of the music firms to strike partnership deals on other revenue streams, such as touring, sponsorship, and merchandise.

- The industry becomes increasingly cyclical as the development of new music comes to depend on a small group of financially fragile independents. The success of the independents as a group tends to vary. When successful this group is able to generate new music that gains sales in domestic and international markets. But lacking a strong resource base they often become overextended and many exit the industry.

*Scenario 3: Decline*

Explicit pillar becomes weaker due to liberal interpretation of fair use and fair trading doctrines. New technologies effectively bring down the tacit pillar: the industry abandons copyright protection efforts. Instead, it relies on convenience and access to sell music.

- The industry fragments as large integrated companies decline in number and scope. The volume of music increases exponentially, but at the same time so does the variability of quality. Consumers are faced with avalanche of new labels offering music of every kind and variety. Initial optimism fades as consumers become disillusioned with the cost of screening irresponsible claims and sorting the good from bad quality. The market for talent fails as major labels leave risk taking to operators who act as promoters and agents.
In the short-run deep divisions emerge between artists who use the web to monetize their reputation, and new comers who are battling the cacophony to get noticed. The first are able to mount sophisticated marketing and promotion strategies to sell their music, and to create lucrative synergies between their live performance and online strategies. The latter, by contrast, are confined to live performance at the fringes of the music industries, and are often at the mercy of unscrupulous operators and promoters who demand extortionate contractual terms.

With most firms unable to build and maintain the infrastructure that supports music creation and production, there is a search for low cost production facilities. The industry begins to outsource key value chain activities such as studio production and web based distribution to developing countries. This lowers the overheads for many of the organizations which are trying to survive, but it also drains the UK of key technical and creative competencies. The long-term result of this evolution is an end of the strong position (Dane, 2002) that the UK currently occupies in the music industry.

New portable devices combining the capabilities of downloading digital audio music with satellite radio offering free music and sports, news, and talk radio channels emerge as a serious threat to the music industry. These portable devices allow consumers when connected to a home or car docking station, to be able to freely store, play and share digital audio content available on satellite radio.

As the industry fragments, winner-take-all economics take over: Few artists do exceptionally well, while most are driven to the margins. The state of the UK music community becomes a public policy issue as artists and creative people point to their role as contributors to national culture and demand the degree of public assistance that is accorded to other branches of the arts. The industry is increasingly segregated into islands of commercial activity in a cultural lake which subsists on the public purse. Policy making imperatives take the place of entrepreneurial risk taking that is shaped by popular market demand.
Protection Scenarios and Sustainability

- High Sustainability of a given level of Protection
- High Stability of Technology, Consumer Sanction

Tacit

- Free use doctrine dominates
- Industry fragmentation
- Outsourcing key activities due to shrinking resource base
- Promoters and agents dominate revenue flows
- Investment into product development declines

Explicit [Legal Protection, Public Education]

- Successful online business models
- Technology enhancements in monitoring, distribution and pricing usage
- Effective DRM
- Leveraging online communities for investment into content development

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Decline Stagnation Rebound
Conclusions

While the ‘rules of the game’ shaped by institutional environment may be influenced by industry lobbies, it is the ‘play of the game’ (Andersen et al., 2007) – through innovative business models that rope back value and revenues from copyright regimes. The industry will be well served to focus its efforts here. The experimentation and creative destruction that marks forays into such models is a good indicator of industry efforts to counter the turbulence in value chain induced by digitisation and the internet (Dubosson-Torbay et al, 2004). The industry is beginning to work at adapting to the digital environment and downturns in business performance like by: online distribution and sales; harnessing visibility events for sales momentum; new capabilities for artist management in the digital age and; by leveraging online communities to influence product development, among others.

As the value chain of the industry is reshaping itself more drastically than ever, the new avatars of existing players like artists in a direct interface with the customers, and new players like digital intermediaries can be allies for the majors. The emergence of the new value chain is likely to be the first step towards presenting a consolidated front to the threat of piracy. It is useful to note that the industry needs to alliance with governments around the globe to combat piracy which is in-effect an agenda across industries and represented by bodies like the BASACP. The willingness and ability of governments in turn varies. How the scenarios unfold is thus largely outside the control of the industry.
References


