

Martin Kretschmer, George Michael Klimis, Roger Wallis

MUSIC IN ELECTRONIC MARKETS: AN EMPIRICAL STUDY

Dr Martin Kretschmer

Director, Centre for Intellectual Property Policy & Management

School of Finance & Law

Bournemouth University

Tel. +44 1202 595369

Fax. +44 1202 595261

mkretsch@bournemouth.ac.uk

Dr George Michael Klimis

Research Associate

City University Business School & AEPI Athens

gmklimis@yahoo.com

Dr Roger Wallis

Visiting Professor

Royal Institute of Technology (KTH)

Stockholm

r.a.wallis@skap.se

[*New Media & Society* (Sage) 3(4): 417-441]

MUSIC IN ELECTRONIC MARKETS: AN EMPIRICAL STUDY

Preferred running head: “e-markets in music”

Key words

Electronic market hypothesis, copyright, disintermediation, information society, MP3, music industry, piracy, publisher, record company, risk finance, scenario analysis

Abstract

Music plays an important, and sometimes overlooked part in the transformation of communication and distribution channels. With a global market volume exceeding \$ 40 billion, music is not only one of the primary entertainment goods in its own right. Since music is easily personalised and transmitted, it also permeates many other services across cultural borders, anticipating social and economic trends.

This article presents one of the first detailed empirical studies on the impact of Internet technologies on a specific industry. Drawing on more than 100 interviews conducted between 1996 and 2000 with multinational and independent music companies in 10 markets, strategies of the major players, current business models, future scenarios and regulatory responses to the on-line distribution of music files are identified and evaluated. The data suggest that changes in the music industry will indeed be far-reaching, but disintermediation is not the likely outcome.

Introduction

The last decades of the 20th century have seen rapid advances in information technology, including the invention of the microprocessor (Intel 1971), the introduction of the personal computer (Apple II 1977) and the communication technologies associated with the Pentagon sponsored network ARPA (1969), the internet protocol (1974), the world wide web (CERN 1989) and the first mass-market browser (Netscape 1994). These developments have transformed the service sector of the advanced economies, including the provision of telecommunications, information processing, financial transactions, education, advertising and entertainment. In as much as these services are apt to use the same technological platforms and networks (such as the Internet), analysts also predict the imminent ‘convergence’ of previously distinct industries into a ‘multimedia’ industrial complex.

Many national and supra-national bodies have stressed the growth potential of this sector in a series of reports and policy documents: e.g. ‘White Paper: Competitiveness and Growth’, European Commission COM(93) 700; ‘Europe and the Global Information Society’, Bangemann Report, May 1994 (<http://www.ispo.cec.be/infosoc/backg/bangeman.html>); ‘Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property’, Washington D.C.: U.S. Patent and Trademark Office 1995; ‘Overseas Earnings of the Music Industry’, British Invisibles 1995; ‘The Knowledge-Based Economy’, Paris: OECD 1996 (OECD/GD(96)102); ‘Green Paper: Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation: Towards an Information Society Approach’, European Commission COM(97) 623; ‘Creative Industries: Mapping Document 1998’, UK Department of Culture, Media and Sport.

Music plays an important, and sometimes overlooked part in the transformation of communication and distribution channels. With a global market volume exceeding

\$40 billion, music is one of the primary entertainment goods in its own right (and the UK's third largest net exporter; British Invisibles 1995; Creative Industries 1998). Since music is easily personalised and accessible, it permeates many other services and acts as 'glue' for activities on every level of society. Music is also the industry with the longest tradition in the micro-identification of usage of its products.

Digitally networked technology promises to reach a global audience, from anywhere at very low cost. Yet this opportunity threatens current commercial structures which rely on a localised intermediating function and public acceptance of intellectual property revenue dues. Our study focuses on the impact of the sudden rise of the Internet as a global communication and distribution medium during the 1990s. The Internet's backbone transmission capacity had increased from 56kbit/s in 1986, to 45Mbit/s in 1993 to 155Mbit/s in 1996, the year the research began. Compression technologies, such as the MP3 standard, have since made the electronic distribution of music a viable option.

[insert text box 1]

Aims, Theories and Methods

Aims:

When the study was conceived in 1995, it broadly sought

- to improve our understanding of the relationship between the forces of globalisation and technology in a digitally networked, multi-channel environment, and the impact of these forces on creativity in the music industry.
- to probe the concept of the music industry as a national resource, in the analysis and comparative study of wealth creation in global music markets.
- to shift the focus from the technological opportunities offered by digitization to regulatory constraints on content creation and distribution.

During the early stages of the research, these aims were operationalised into a set of more specific objectives:

1. From a business perspective of individual actors in the global music industry:
 - trace and compare current strategies of multinational and independent creators, music publishers and record companies in a variety of markets
 - map future scenarios of cultural production and industry structure, drawing on supply and demand constraints in a digitally networked, multi-channel environment.
2. From a policy perspective of national and supra-national governmental and non-governmental institutions:
 - analyse the current regime of intellectual property (IP) protection and content remuneration in the global music industry

- assess the likely impact of a digitally networked, multi-channel environment on specific aspects of the current intellectual property regime, for example in the collective administration of intellectual property rights (IPRs) and ‘piracy’.

Theories:

Theory was used both before and after data collection. Two distinct strands of literature informed our framework.

1. E-commerce theories within the paradigm of Transaction Cost Economics

The main hypothesis generated from that stream is the Electronic Market Hypothesis (Malone et al. 1987; Malone et al. 1989). According to Thomas Malone and his colleagues at MIT, networked computer technology will create a new, transparent market space in which buyers and sellers can be matched fast and at minimal costs. In electronic markets, they hypothesized, producers would be able to cut overheads and eliminate traditional elements of the distribution chain, while consumers were to benefit from unlimited choice and ever cheaper prices. Bill Gates has popularised related claims in his vision of a ‘frictionless capitalism’ (1995). We have also drawn on the literature on Network Externalities and Increasing Returns (Katz and Shapiro 1985; Arthur 1994; 1996), the Value Chain from industrial organisation (Porter 1985) and theories on Search Costs and Quality Uncertainty from the economics of information (Arrow 1962; Darby and Karni 1973; Lamberton 1993). Specifics of the production and commercialisation processes of music, as well as various research approaches to understanding consumer involvement in the industry (cultural/subcultural analyses of user behaviour) have been informed by seminal

works in sociology and mass communications (Frith 1981; 1987; Wallis and Malm 1984; Malm and Wallis 1992; Negus 1992). The researchers have produced two theory papers, setting out specific hypotheses in the context of the music industry (Kretschmer et al. 1999b; Daniel and Klimis, 1999).

2. Intellectual Property Policy

A prevalent policy response to recent turbulent technological and institutional developments has been to strengthen the protection of intellectual property rights (IPRs). A second strand of literature, drawing on intellectual property policy research in law and economics, political science and business studies, has examined historical and philosophical constraints on the evolution of intellectual property law (Hunter 1986; Hettinger 1989; Vaver 1990; Rose 1993), the processes by which IPR provision have recently been extended under the auspices of trade talks (GATT/WTO), UN agencies (WIPO) and market integration (EU) (Drahos, 1995; 1998) and the influence of IPRs on markets and business strategies (Landes and Posner 1989; Kay 1993; MacQueen 1995; Towse 1997, 2001; Macdonald and Lefang 1997; Thurow 1997; Teece 1998; Boden, Kastrinos and Miles 1998; Dolfsma 2000). For a policy review of music copyright, see Kretschmer (2000c).

Methods:

One of the main challenges of the study was to develop a methodology appropriate to contemporaneous research, i.e. research into developments unfolding while the research was being conducted. Qualitative, interview-based research is usually

considered to be a viable strategy when the researchers wish to understand phenomena within a particular context, especially if the demarcation lines between context and phenomena are blurred. A pilot research conducted with a structured questionnaire of closed questions and multiple choices proved unsatisfactory. Respondents could or would not answer these questions due to

- a. the perceived uncertainty of the environment
- b. a reluctance to commit evolving thought and behavioural patterns to specific answers
- c. the commercial sensitivity of confidential experiments and strategies.

It was decided to reformulate the questions into an open-ended protocol so that the respondent could easily generate the issues him/herself, prompted by a so-called 'critical incident' technique (Flanagan 1954; Wallis and Malm 1984; Chell 1998). The role of the interviewee changed from being a respondent to being an 'informant'. The role included the suggestion of 'further sources of corroboratory evidence' consistent with Yin (1994, p. 84). The study generalises from interviews with key decision-makers and observers on the assumption, suggested within structuration theory (Giddens 1984), that the interviewees were conscious actors who shape the world as well as being shaped by it.

The evidence was weighted according to:

1. the position of the informant, and therefore his/her access to data
2. the circumstances under which the data were collected and
3. the researcher's validation efforts.

Extensive use was made of secondary data. While reliable quantitative information about the music industry is rather limited and difficult to obtain (apart from chart figures and aggregate sales statistics published by trade bodies), it became increasingly possible to access confidential internal reports and policy documents. Finally, on-line searches proved extremely fertile.

The current strategies of multi-national firms were explored using a grounded, issue-based approach while future scenarios were constructed from the theoretical base of the Electronic Market Hypothesis. Normative arguments were used to draw out policy implications.

Sample:

Core sample (44):

Five largest multinational music firms in Japan, Germany, UK

Copyright societies Japan, Germany, UK

International organisations & trade bodies: European Commission,

World Intellectual Property Organization (WIPO), International

Federation of the Phonographic Industry (IFPI), British

Phonographic Industry (BPI), Recording Industry Association of

Japan (RIAJ), Music Publishers Association (MPA)

Context interviews (72) in Australia, Canada, Germany, Greece, Ireland, Japan,

Korea, Sweden, UK, US with composers, artist management companies,

independent labels and publishers, new media firms, telecommunications firms, financial institutions

The interviews were taped, when permitted by the interviewee, and transcribed within 24 hours, along with all the notes taken. Confidentiality was assured to the interviewee prior to the start of the interview. Interviews were conducted between 1996 and 2000. Unless otherwise indicated, all direct quotations in this article are taken from these interviews.

Modes of analysis:

Two major modes of analysis were applied to the interview data collected. The first one, pattern matching is applied to historical, i.e. past and existing data. The second one, scenario analysis is used to derive insights into the future based on trends revealed in the data.

1. Specifically, pattern matching implies that complex patterns, if matched, yield greater validity. However, there is little difference between pattern matching and traditional hypothesis testing, since developing a theoretical pattern is like developing a hypothesis about what is expected in the data. The idea is to match the theoretical pattern with the observed pattern, or develop observed patterns into theory. The first is derived by conceptualising from ‘theories, ideas and hunches’ in the theoretical realm while the second is derived by organising observations, data and measures.

Following a replication logic (Eisenhardt 1989; Yin 1994), the data are treated as experiments. Cases that match or form a pattern would supply evidence to accept or

evolve a theory. Discrepancies are valuable sources of theoretical refinements and extensions.

2. Scenario analysis offers to strategists a means of identifying a range of potential futures (Courtney et al. 1997). In that sense, scenarios are a range of easily analysable subsystems de-coupled from complex phenomena (Schoemaker 1993). By bounding and understanding future uncertainties, scenarios can be useful in structuring the future into more or less probable elements. They may serve as a more robust basis for strategic decision making.

Current industry structure

For the last 100 years, the main intermediaries between a piece of music and the market have been music publishers and record companies.

Music publishers traditionally engage in the following activities:

1. To source new talent
2. To develop new talent by financing new works & producing pilot products
3. To promote and secure the commercial exploitation of works (e.g. through contracts for performances, recordings, broadcasts, adaptations etc)
4. To administer royalty income from primary and secondary exploitation (e.g. performances, recordings, broadcasts, adaptations etc.)

Record companies traditionally engage in the following activities:

1. To source new talent
2. To produce recordings

3. To manufacture a physical product (e.g. record, tape, CD)
4. To distribute the product
5. To market & promote the artist, recording & product
6. To administer royalty income from public performances, broadcasts etc of the sound recording

It should be noted that this is a simplification of the complex process of bringing music to the market. Significant variations among current intermediating activities include:

- independent labels typically contract out both manufacturing & distribution
- new talent often contracts first with a record company before signing a publishing deal
- some publishers have become passive accounting operations controlled by larger media groups, i.e. such publishers neither develop nor promote new works.

Copyright secures ownership of an original work of music to the author (i.e. composer and lyricist). Neighbouring rights secure ownership of sound recordings to the producing company and the performing artists. Following contractual transactions, these rights typically are assigned to market intermediaries (i.e. publishers, international record labels etc). Contractual terms reflect the bargaining power of players in an oligopolistically structured industry. The rights to the works and records accounting for 80% of global music sales are currently appropriated by only five companies: EMI (UK), Bertelsmann (Germany), Warner (US), Sony (Japan) and Universal. Universal (owned by Canadian drinks group Seagram) had taken over the

world's largest music firm Polygram (Netherlands) in May 1998 in a \$10.4 billion cash-and-stock deal). Warner's planned merger with EMI was called off in October 2000, following an intervention by the European Commission (Soetendorp and Kretschmer 2000).

[insert figure 1: pie chart]

It is one of the puzzles of the global music industry that it is dominated by an oligopoly of multinational companies, the so-called Big Five. Industrial economists have argued that such concentration processes are due to large up-front capital investments necessary in industries such as oil production, steel, aircraft or car manufacturing (cf. Vogel 1994, pp. 31ff). The intermediating activities involved in the production and exploitation of music appear to be of a different kind. Since the MIDI (musical instrument digital interface) revolution of the 1980s, a professional record in many music genres can be produced in digital home studios worth no more than £10,000.

Where then is the entrance barrier to the music market? The most plausible arguments point to

1. the complex, capital intensive logistics of an international distribution network that must cope with sudden changes in demand (independents often trade their international intellectual property rights against international distribution; Kretschmer et al. 1999a)

2. the huge marketing costs involved in ‘pressing music into the market’ (vice-president marketing, multinational) (six figure \$ sums are spent on chart bound albums in the major national markets, such as the UK or Germany; Kretschmer et al. 1999a)
3. the nature of risk in a winner-take-all market where 10% of products account for 90% of turnover and nobody knows the reasons for success (on winner-take-all markets, cf. Frank and Cook 1995; Kretschmer et al. 1999b; on the ‘nobody knows’ factor, see Caves 2000).

The last argument has, to our knowledge, never been fully explored. It may even be that strong intellectual property rights facilitate concentration processes. The long term of copyright (author’s life plus 70 years in the US and Europe) and neighbouring rights (50 years from first release/broadcast of sound recording) generates an automatic income stream from any big ‘back catalogue’. This allows the hedging of risks in a way unavailable to new entrants focussing on the promotion of new material.

In summary, multinational companies may be distinguished as the main provider of risk finance in winner-take-all markets and by their control of a capital intensive global marketing and distribution operation.

Strategic Intent¹

How will digital communication and distribution technologies affect the structure of the music industry? Given the current oligopolistic order, it is unsurprising that our

interviews revealed a concerted effort by multinational companies to delay and control the impact of the Internet. Rather than engaging with the development of new business models for e-commerce, the multinationals showed a defensive orientation exemplified by one senior executive: 'No, no access, you are not going to take our repertoire, we are going to strangle this baby at birth'. Line by line analysis of the data identified six salient strategies.

1. Don't open a new market, if it eats into your old ('cannibalisation')

Interviewees at all multinationals indicated that they would 'follow demand, not be proactive' (CFO, multinational). Priority was given to protecting existing margins and relationships with retailers. Multinationals generally refuse to licence their catalogue to third parties, offering on-line distribution.

2. Pursue legal means to assert proprietary control over content

'If you control content, the form of distribution does not matter to you' (president, multinational). Control may be exerted by legal or technological means. Strategies two includes the support of anti-piracy campaigns, lobbying for stronger copyright legislation, legal action against perceived infringers and the issuing of new template contracts (covering on-line rights and domain names).

3. Pursue technological means to assert proprietary control over content

This strategy focuses on the development of industry wide secure distribution standards (for example under the Secure Digital Music Initiative, SDMI), and

proprietary formats, including compression-, encryption- and rights management technologies.

[insert textbox 2: SDMI]

4. Co-opt potential new entrants

On-line service providers and network operators were perceived as a major threat. 'Building an infrastructure is beyond our clout' (CFO, multinational). Many Internet Service Providers (ISPs) and telecommunication firms have appointed music industry advisors and may move into music distribution, licensing material from independent artists or production companies. Multinationals have piloted on-line distribution with national telecom companies and ISPs under a legal framework retaining all the rights. Strategic alliances, even mergers (AOL-Time Warner 2000; Vivendi-Universal 2000) are widely explored. During the early stages of our interviews, this was still seen as undesirable: 'The removal company wants to buy the furniture store. This is ridiculous' (senior counsel, multinational).

5. Develop own procedural competencies in the new technology

Apart from pilot schemes in on-line delivery, the in-house creation and management of digital data-bases and websites has been advanced by all

multinationals. 'New technologies, web-sites, narrowcasting may add to our market-knowledge. We start to own the consumer. We employ a new media task force mainly to this effect, not to explore distribution' (chairman multinational).

6. Create brand as the music navigator of the on-line environment

'The whole new media talk is an enormous hype. Sure, an increase in channels will make marketing more difficult. On the other hand, this will only increase the need for a gatekeeper. This will continue to be the function of the record company. The Internet must be seen mainly as a promotions medium and a mail order machine. (president's office, multinational)

We already systematically build up our brand in the on-line environment. Labels will continue to be important to identify genres of music to customer groups, but the crucial brand will be [the record company], creating a trusted sales environment. (CFO, multinational)

The six strategies sketched here have been found among all multinationals and in all sample countries. At the time of the interviews, there were some interfirm variations about the ways multimedia strategy was being formulated and implemented (Sony and Warner being the most centralised), and about the progress of the core markets (despite the second highest PC penetration in the world, Japanese Internet usage and electronic commerce is somewhat lagging). The pattern of competitive responses, however, appears robust.

Future Scenarios

Despite a defensive orientation, the established music industry is unlikely to succeed in stemming the digital tide. Scenario techniques open a way to conceptualise a multi-channel future beyond on-line distribution. Over two axis', supply and demand constraints for a future music industry were constructed:

On the demand side, the consumers will either opt for high interactivity and a large range of choice, or less interactivity and more trusted suppliers of packages. On the supply side, the options are either a centralisation of content in the form of intellectual property rights (IPRs) controlled by few players, or decentralisation with IPR creators retaining ownership. From these uncertainties, four scenarios can be mapped:

- **I want my TV back** (limited choice-centralised content). In this scenario, consumers are essentially passive. They try to make sense of the abundance of content that digitisation and increased bandwidth have 'imposed' on them by paying attention to only a few of the available channels which are competing for their ears and eyes. Content is concentrated in the hands of only a few firms since, with the exception of a few megastars, the artists do not have the clout to negotiate deals directly with the networks. The balance of power has shifted towards these networks. They may even move upstream into acquiring content when majors refused to license their catalogue of rights. Content producers may lose control over the marketing mix of their products. Music may be used as a loss leader, generating traffic on branded sites for more profitable services.

- **Own-brand goods** (true interactivity-centralised content). Here, consumers are more active in searching for content that would satisfy their needs. They demand and get control of the market choice interface. Meanwhile artists find the trade off between autonomy and exposure beneficial and thus continue to assign their IPRs to the labels for exploitation. Record labels command a critical mass of content and decide to disintermediate the retailers, selling directly to the consumer. They vertically integrate into retailing by turning sites of production into sites of consumption. They create own-brands and branded sites to showcase their artists, from which they sell directly. Label-owned record clubs battle with one another for dominance while alliances are formed between labels with the purpose of achieving critical mass in specific genres.
- **DIY** (true interactivity-decentralised content). An artist's dream is to have a direct relationship with his/her audience. As active consumers use intelligent agents and search engines to find the artists directly, this dream may become reality. Artists, more informed in business matters, will retain, at last, their digital rights. The bargaining power shifts to stars who rely on their brand names to sell directly. Lesser known artists co-operate in building communities of interest, location or genre specific, through which they sell to the consumer.
- **Give me your bond** (limited choice-decentralised content). Demand for music appears to be insatiable. The media companies are anxious to fill their multiplying channels to satisfy their consumers and their advertisers. Artists, though, have understood that record labels are becoming more like banks. They decide to turn

to other sources of risk-finance while the financial markets have become aware of the value of IPRs. New distribution formats, and better enforcement of copyright leave the true value of music to the market, which decides the price of each song in real time. New financial instruments will be available for trading by a new breed of financiers, even junk bonds for smaller or new artists. In a world where individual investors outweigh their institutional counter-parts, many may wish to own a piece of their favourite artist. Another trend sees third parties acting as brokers for copyright to the media. The so-called 'Bowie Bonds', issued in 1997 are an example of the possible access of established artists to the financial markets (see Appendix 1).

[insert figure 2: Future Scenarios]

Which business models would tilt the balance towards one of these scenarios? Digital communication and distribution technologies are likely to challenge

- _ the control over distribution (the logistics of global distribution networks will be replaced by a cheaper, more flexible server infrastructure)
- _ the control over marketing (communities of interests can be formed and served on the internet without massive marketing expenditure).

This should foster a richer, more diverse culture of music production and decentralised interaction, the DIY scenario. The uncertainty over copyright revenue streams from on-line exploitation, however, must first give way to more resilient

business models. Otherwise, the scarcity of risk-finance on the supply side may pull the industry towards centralised contents. Prevalent e-business models implemented by independent on-line labels have not yet satisfactorily addressed these problems. Typically, emerging digital distributors have no reliable revenue stream that would allow further investment into content creation.

E-business models promoted at the time of the research include:

(a) Charging creators for a place on the platform

In this model, the financial burden is shouldered by authors, not the provider or user

(b) Charging users for each download

(c) Charging a subscription fee for unlimited access to certain contents

Models (b) and (c) run into the threat of ‘piracy’. If technologically enforced, for example under the Secure Digital Music Initiative (SDMI), the models are likely to perpetuate the control over distribution channels by the major players.

(d) Charging advertisers for association with the product

Selling associated services or products, such as merchandising, physical carriers, soft- or hardware (e.g. MP3 players).

Discussion: Electronic Markets and Intellectual Property Policy

There is little evidence to suggest that electronic markets in music would lead to a radical disintermediation of the music industry (see also Hawkins et al. 1999; Mansell and Steinmueller 2000). Most artists are still unlikely to command the resources

required to bring a piece of music to the market. If they already enjoy the benefits of a local fan base, access to cheap production and distribution points may enable some artists to retain their intellectual property rights while growing the market. Digital technology facilitates that option. More entrepreneurial spirits may try to set up their own commodification intermediary, such as a publishing company, a label or a strong management team. Alternatively, artists may be forced to contract to an established third party. This would involve the transfer of substantial intellectual property rights. Since supply in cultural markets far exceeds demand, the intermediary retains a strong position.

Artists who become famous, are often locked into long-term contracts with intermediaries. When such contracts come up for renewal, ‘superstars’ are in an extremely strong position to recover and retain their intellectual property rights. Such artists are branded products in themselves; they have increasingly access to alternative means of finance; they may use digital networks to re-package and distribute globally. This is the great fear of the multinational companies and the only example of a major creator-to-consumer market we encountered. David Bowie’s bond issue in 1997 (see Appendix) and Stephen King’s release in 2000 of a novel in installments on the Internet (cf. www.stephenking.com) may be recognised as landmarks in this development.

Most disintermediations have remained limited, leading to a re-shuffling of the institutional structure of the industry around changing intermediating patterns. The following is a summary of the changing roles of some of the main corporate actors in the music industry (see also Kretschmer et al. 1999b, pp. 181ff):

Publishers

Publishers have developed into two entirely different types of organisations. The first continues the traditional intermediating role of sheet publishers. They seek to discover attractive new material and have developed a specific promotional competence. The second type of organisation is an accounting subsidiary of a larger media group. A record company may sign a new act, and ‘encourage’ the transfer of publishing rights to its subsidiary; a broadcaster or producer may commission a piece of music and ‘encourage’ the transfer of publishing rights to its subsidiary.

This second type of publisher does not appear to add any independent value to the product. The location of intellectual property rights in such subsidiaries depends on the bargaining power of the parent company. Competition authorities are well advised to study this grey and rapidly growing area of transfer practices. Using technological advances, publishers may further venture either into other intermediating functions (such as music production) or into full-scale royalty management.

In a world of digitalwater marking and comprehensive automated monitoring of electronic channels, I can even see publishers bringing royalty collecting in house for mechanicals, broadcasting and internet, leaving only general licensing to third parties. (president, collecting society)

Record labels

In a multi-channel environment, physical carriers will be only one form of music licensing, and perhaps not the central one. As indicated previously, multinational record companies may be re-positioned as branded media gateways, as digital

distributors or providers of risk finance. In all these areas, they are open to increased competitive pressure from independents within the music industry (publishers, labels, artist management), from network operators (ISPs, telecommunications and firms) and from financial institutions (venture capitalists, investment banks specialising in securitization). The control over a huge, and indispensable back-catalogues of rights will continue to provide large firms with a considerable competitive advantage.

Retailers

The generous high street margin of 25-35% of cover price may be under threat from direct-mailing operations or digital delivery. New entrants (CD Now; Music Boulevard; Amazon.com) and major retailers (Barnes & Noble; HMV; Tower) are already moving into Internet retailing, as have the major record companies. Traditional retailing intermediaries have the advantage of offering a complete selection of music (unlike the web sites of multinational record companies promoting only own brand goods). Specialist niche retailers may succeed in widening their client base with a global service.

Media groups

If media groups control the main communication and distribution channels through which new acts are promoted, they may continue to dominate the global music market. Universal, Time Warner, Sony and Bertelsmann all appear to treat their music divisions increasingly as part of global corporate strategies. Music contents may be cross-promoted and customized across many different media channels, drawing consumers eventually into proprietary distribution formats. Alternatively, music may lose its value as an independent product, becoming a loss leader for other, more

valuable services. The integration of production, exploitation and user activities under one corporate roof (e.g. multinational publishing, recording, broadcasting, Internet services) thus may reduce the value afforded to music creators and raise competition concerns. Forced divestments of vertically integrated media corporations and legislation limiting the assignment of intellectual property rights to specific (active!) exploitation periods, after which they fall back to the creator, should be considered.

Collecting societies

Due to the transaction costs of contracting to a multitude of individual users, intellectual property right holders in music cannot easily enforce their statutory claims to exclusive usage and remuneration. Since the middle of the 19th century, right holders have responded by creating collective bodies, so-called copyright societies which monitor musical activity in a given territory, and collect and distribute fees accordingly. These societies, first established in Western Europe, operate on two principles: the principle of reciprocity, linking monopolistic national societies, and the principle of solidarity, making a collective service available to all right holders at roughly the same rate (cf. Wallis et al. 1999).

As the global markets become more integrated and transparent, and better copyright monitoring technologies become available, the current ways of administering copyright are under threat. Venture capitalists are entering the market (e.g. with the No. 3 US-society SESAC) ‘guided by a general feeling that rights are becoming more important, and that the established players will find it hard to adapt to the changing market and technologies’ (President, Collecting Society). In many lucrative areas (mechanical reproduction; broadcasting), multinational right holders are now in a

technological position to monitor music usage and collect royalties themselves, rather than assigning rights to a collecting society. We recommend to clarify the role of collecting intermediaries (copyright societies) by European regulation (for more detailed suggestions, see Wallis et al. 1999; Kretschmer 2001).

This study suggests that the music industry is entering a period of instability, which is not primarily characterised by disintermediation but changing patterns of intermediation (cf. Klimis 1999). The main strategic challenge to the established players appears to be that, as yet, no credible business model has emerged in the on-line environment that would secure revenue streams from value-adding intermediation and, eventually, channel investments back into content production. It is conceivable that consumers are not prepared to pay for content on the Internet as they were in retail stores.

IFPI, the global trade body of the recording industry, has identified the combat of 'piracy' as the main solution to this problem. In a worldwide campaign, it is claimed that one in three recordings is 'pirate' with annual losses from unauthorised copying amounting to more than \$ 5 billion (IFPI 2000). These figures are used in a strenuous lobbying effort for tougher copyright laws, demanding for example restrictions on private copying exemptions, deterrent penalties and the dismantling of compulsory licence provisions which in many countries allow the broadcasting of released records without permission by the right holders. (Compulsory licenses usually carry an entitlement to fair compensation via royalty fees to collecting societies). There is an on-going international push for an extension of intellectual property rights in depth

and scope, through the processes of free trade talks (GATT/WTO), UN agencies (WIPO) and market integration (EU).

[insert text box 3: Piracy]

There are at least four reasons to be sceptical about the threat ‘piracy’ is said to pose to the ‘principles of law, justice and civilisation’ (as Edgar Bronfman, chairman and CEO of Universal’s parent company Seagram, has claimed, cf. Kretschmer 2000a).

(1) Copyright is a recent invention of humankind which began as an innocuous regulation of the book trade in English Law: the so-called Statute of Queen Anne of 1710 protected ‘books and other writings’ from unauthorised reprinting for 14 years from first publication, renewable once. This was hoped to be ‘for the benefit of learning in general’, exciting ‘men of genius to exert their talents for composition’; and multiplying ‘books both of instruction and amusement’ (Lord Kames in 1774; cf. Kretschmer 2000b, pp. 208-9). Today, copyright derives its term from the life of the author, but has become a transferable protection for ‘the distributors of standardised industrial products’ (Vaver 1990, p. 98).

Calling unauthorised copying summarily ‘piracy’ suggests an undue rhetorical certainty about the property conceptions underlying copyright. It is a fundamental premise of any modern, open and diverse society that the dissemination and use of information goods ought to be encouraged. Thus the onus must be on the proponents of transferable, exclusive copyrights to show that without stronger protection

desirable goods would be neither produced nor distributed, or that grave moral inequities towards creators would result.

(2) The statistics of the recording industry have consistently represented 'pirated' products as 'lost sales'. This is problematic in countries like China or Russia, where there is no affluent middle class with spending power for entertainment and leisure goods. Would the users of 'pirated goods' buy at the full price? Does the cover price charged for information goods already discount a certain amount of unauthorised copying (as economist Stanley Besen has suggested, quoted in Mann 1998)?

In the Western markets, a related fallacy has guided two prominent campaigns by the copyright industries: the first attempted during the 1970s to outlaw private copying facilitated by cassette tapes under the slogan 'Home taping is killing music'. Today, it is received wisdom that tape recorders helped to expand the market for music. The second campaign focused on the video recorder. When Sony introduced VCRs to the US market, it was taken to court by the Moving Pictures Association of America (MPAA). Only on final appeal, and by the narrowest vote of 5:4, the US Supreme Court held in 1984 that the provision of a technology that was 'capable of significant, non-infringing uses' (*Sony Corp. of America v. Universal City Studios, Inc*, 464 U.S. 417, 447 S. Ct. 774) does not constitute contributory infringement of copyright. Today, video sales and rentals have opened a significant further revenue stream for the film industry.

(3) The main economic argument for copyright is an argument from 'market failure': without copyright, free-riders incurring only the marginal costs of copying, can

undercut producers to the point where the costs of production can no longer be recouped, and production ceases. This argument can be made theoretically (e.g. Landes and Posner 1989) but remains hard to support empirically. One reason is the problematic concept of 'lost sales' explained above. Our research indicated that the main target for 'pirates' are products promoted globally on a huge marketing budget, such as Elton John's Diana single 'Candle in the Wind'. There is a great commercial temptation to free-ride on such global exposure. 'Pirated' copies of these products appear to represent the clearest case of genuine lost sales. However, this is not an example of market failure; high turnover products are always likely to recoup their production costs. From the perspective of a culturally diverse society, it may even be desirable if less corporate effort is spent on such goods.

(4) In the most developed and valuable markets, very effective law enforcement is available against infringements for commercial gain. In 1999, the Record Industry Association of America (RIAA) won damages of \$13.7 million against Global Arts Productions and Danny Jordan who had engaged in back catalogue 'piracy' internationally. IFPI also reached a \$1 million settlement with a mastering plant in Switzerland over unauthorised mastering of IFPI member's sound recordings for Bulgarian and Ukrainian clients during 1997 and 1998 (IFPI, 2000). In spring 2000, a New York judge awarded damages of \$25,000 for each Universal record that was found to be available (password protected) on MP3.com, amounting to a possible total fine of \$200 million for the loss making Internet company. Independent, non-standard products are initially likely to benefit from the informal (if illegitimate) spread of on-line music. If Communities of Interest (COI) branch out into associated commerce, the original creator and right holder is well placed to profit from a variety

of licence arrangements. As John Perry Barlow, ex-lyricist of the Grateful Dead, has argued prominently: 'For ideas, fame is fortune' (Barlow 1994; 2000). Open distribution standards, such as MP3, pose no obvious problem for innovative activity.

We conclude that the evidence on the effects of intellectual property protection on creative diversity and distribution is at best ambiguous. Caution is advised on any further strengthening of intellectual property rights as a policy response to turbulent technological developments in electronic markets. The concept of copyright as exclusive and transferable property is limited in all jurisdictions by legal devices. They vary between countries but may include compulsory licences, fair use exceptions, the author's unwaivable *droit moral* (to be identified and to protect the integrity of his/her works) and finite copyright terms. The rationale for up-holding such limitations is overwhelming. For a creative and innovative society, access to ideas is as important as protection. Grass-root performance activities (clubs, pubs) and informal distribution networks (cassettes, fancines, internet communities, MP3 sites, local radio) appear to be an effective basis for a national music industry. Basic intellectual property skills (including knowledge of creator's rights, and legal options such as self-publishing) should become an educational priority.

Concluding Remarks: Implications for other industries

This research represents one of the first systematic attempts to study the impact of digital information and communication technologies on a specific industry. The

strategic and scenario analyses explored in the music industry are likely to be replicated in a variety of different settings where digital technology has enabled new forms of commerce. In industries as distinct as financial services, software and book publishing, we should expect that the established players initially would act defensively while new patterns of dis- and re-intermediation emerge. Which of the scenarios drawn will eventually become dominant in particular industries depends on creator and consumer constraints influenced by strategic behaviour and policy intervention. A systematic comparison of intermediating patterns across a variety of industries remains a *desideratum* of future research.

¹ This section is summarised from Kretschmer et al. (1999a).

References

- Arthur, W.B. (1994) *Increasing Returns and Path Dependence in the Economy*. Ann Arbor: University of Michigan Press
- Arthur, W.B. (1996) 'Increasing Returns and The New World of Business'. *Harvard Business Review*, July-August: pp. 100-109
- Arrow, K. (1962) 'The economic implications of learning by doing', *Review of Economic Studies*, 29: pp. 155-173
- Barlow, J.P. (1994) 'The Economy of Ideas', *Wired* 2.03, pp. 84
- Barlow, J.P. (2000) 'The Next Economy of Ideas', *Wired* 8.10, pp. 238-252
- Boden, M., N. Kastrinos and I. Miles (1998) 'The Management of Intellectual Property in Knowledge-Intensive Business Firms', ESRC report L3024
- Caves, R.E. (2000) *Creative Industries: Contracts between Arts and Commerce*. Cambridge, Mass./London: Harvard University Press, 2000
- Chell (1998) 'Critical Incident Technique', pp. 51-72 in G.Symon and C. Cassell (eds.) *Qualitative Methods and Analysis in Organizational Research*, London: Sage
- Courtney, H., Kirkland, J. and P. Viguerie (1997) 'Strategy Under Uncertainty', *Harvard Business Review*, Nov-Dec 1997, 67-79
- Daniel, E. and G.M. Klimis (1999) 'The Impact of Electronic Commerce on Market Structure: An Evaluation of the Electronic Market Hypothesis', *European Management Journal*, 17(3): 318-325
- Darby, M. and E. Karni (1973) 'Free Competition and The Optimal Amount of Fraud', *Journal of Law and Economics* 16: 67-88
- Dolfsma, W. (2000) 'How Will the Music Industry Weather the Gloablization Storm?' *First Monday*, vol. 5, no. 5 (May) (URL: http://firstmonday.org/issues/issue5_5/dolfsma/index.html)
- Drahos, P. (1995) 'Global property rights in information: the story of TRIPS at the GATT', *Prometheus*, 13, 1, 1995, pp. 6-19
- Drahos, P. (ed.) (1998) Special Issue: Trade and Intellectual Property, *Prometheus*, 16, 3, September

- Eisenhardt, K.M. (1989) 'Building Theories from Case Study Research', *Academy of Management Review*, 14, 4: pp. 532-550
- Fairfax, L.M. (1999) 'When You Wish Upon a Star: Explaining the Cautious Growth of Royalty-Backed Securitization', *Columbia Business Law Review*, pp. 441-488
- Flanagan, J.C. (1954) 'The Critical Incident Technique', *Psychological Bulletin*, 51, 4: pp. 327-58
- Frank, R.H. and P.J. Cook (1995) *The Winner-Take-All Society*, New York: Free Press
- Frith, S. (1981) *Sound Effects: Youth Leisure and the Politics of Rock n' Roll*. Pantheon: New York
- Frith, S. (1987) 'The Industrialisation of Popular Music', in Lull, J. (ed.) *Popular Music and Communication*, London: Sage
- Gates, B., Myrvhold, N., and Rinearson, P. (1995) *The Road Ahead*, Rockland: Wheeler
- Giddens, A. (1984) 'Problems of action and structure', in Cassell, P. 1993 (ed.) *The Giddens Reader*, London: MacMillan
- Hawkins, R.W., R. Mansell and W.E. Steinmueller (1999) 'Toward Digital Intermediation in the Information Society', *Journal of Economic Issues*, XXXIII(2): 383-91
- Hettinger, E.C. (1989) 'Justifying Intellectual Property', *Philosophy and Public Affairs* 18, 1: pp. 31-52
- Hunter, D. (1986) 'Music Copyright in Britain to 1800', *Music and Letters*, 269-282.
- International Federation of the Phonographic Industry (IFPI) *Piracy Report 2000*, London: IFPI
- Katz, M.L. and C. Shapiro (1985) 'Network Externalities, Competition and Compatibility,' *American Economic Review*, 75, 424-440
- Kay, J. (1993) 'The Economics of Intellectual Property Rights', *International Review of Law and Economics* 13: 337-348
- Klimis, G.M. (1999) *Disintermediation and Re-intermediation in the Music-Business: The effect of Multimedia technologies and E-commerce*, PhD thesis, City University Business School, London
- Kretschmer, M., G.M. Klimis and R. Wallis (1999a) 'The Changing Location of Intellectual Property Rights in Music', *Prometheus* , 17/2, pp. 163 –186

- Kretschmer, M., G.M. Klimis and C.J. Choi (1999b) 'Increasing Returns and Social Contagion in Cultural Industries', *British Journal of Management* 10, pp. S61-S72
- Kretschmer, M. (2000a) 'Datenpakete im Netz der Paragraphen', *Neue Zürcher Zeitung*, August 4th
- Kretschmer, M. (2000b). 'Intellectual Property in Music: A historical analysis of rhetoric and institutional practices', *Studies in Cultures, Organizations and Societies* (Harwood) vol. 6/2, special issue: 'Cultural Industry' (ed. P. Jeffcutt), pp. 197-223
- Kretschmer, M. (2001 forthcoming) 'Copyright Societies Do Not Administer Individual Property Rights: The incoherence of institutional traditions in Germany and the UK', in *Copyright in the Cultural Industries* (ed. R. Towse), Cheltenham: Edward Elgar; revised version: M. Kretschmer, (2002). "The Failure of Property Rules in Collective Administration: Rethinking copyright societies as regulatory instruments", *European Intellectual Property Review* (EIPR) Issue 24(3): 126-137
- Lamberton, D. M. (1993) 'The Economics of Information and Organization', in M.E. Williams (ed.), *Annual Review of Information Science and Technology*, 19, American Society for Information Science and Technology, White Plains, NY, pp. 3-30
- Landes, W. and R. Posner (1989) 'An Economic Analysis of Copyright Law', *Journal of Legal Studies*, 18: pp. 325-366
- Macdonald, S. and B. Lefang (1997) 'Innovation and the Patent Attorney', *Prometheus* Vol. 15, No. 3: 329-343
- MacQueen, H. L. (1995) 'Copyright, Competition and Industrial Design' (2nd ed.), *Hume Papers on Public Policy* 3 No. 2 (summer): 1-111
- Malm, K. and R. Wallis (1992) *Media Policy and Music Activity*, London: Routledge
- Malone, T., J. Yates, and R. Benjamin (1987) 'Electronic Markets and Electronic Hierarchies', *Communications of the ACM* 30, 6: 484- 497
- Malone, T., J. Yates, and R. Benjamin (1989) 'The Logic of Electronic Markets', *Harvard Business Review* May-June 1989: 166-170
- Mann, C.C. (1998) 'Who Will Own Your Next Good Idea?', *Atlantic Monthly*, September 1998

- Mansell, R. and W.E. Steinmueller. (2000) *Mobilizing the Information Society: Strategies for Growth and Opportunity*, Oxford: OUP
- Marshall, L. (2000) 'The Future of the Booleg Aesthetic', paper presented at *The Long Run*, conference of long term developments in the Arts and Cultural Industries, Erasmus University Rotterdam, February
- Negus, K. (1992) *Producing Pop: Culture and conflict in the popular music industry*, London: E. Arnold.
- Porter, M.E. (1985) *Competitive Advantage*, New York: Free Press
- Rose, M. (1993) *Authors and Owners: The Invention of Copyright*, Cambridge, Mass: Harvard UP
- Schoemaker, P. (1993) 'Multiple Scenario Development: Its Conceptual and Behavioral Foundation', *Strategic Management Journal*, 14, 193-213
- Soetendorp, R. and M. Kretschmer (2000) 'EMI, Time Warner and European Competition Policy', *Intellectual Property Forum*, Issue 43 (December): 56-59
- Teece, D. (1998) 'Capturing Value from Knowledge Assets: The new economy, markets for know-how, and intangible assets', *California Management Review* 40, No. 3 (spring): 55-79
- Thurow, L. (1997) 'Needed: A New System of Intellectual Property Rights', *Harvard Business Review*, (September-October): 95-103
- Towse, R. (1997) 'Copyright as an Economic Incentive', in Hector L. MacQueen (ed.), Special Issue: Innovation, Incentive and Reward: Intellectual Property Law and Policy. *David Hume Papers on Public Policy* 5(1), 1997, pp. 31-45
- Towse, R. (2001) *Creativity, Incentive and Reward: An Economic Analysis of Copyright and Culture in the Information Age*. Cheltenham: Edward Elgar
- Vaver, D. (1990) 'Intellectual Property Today: Of Myths and Paradoxes', *Canadian Bar Review* 69, 1: 98-128
- Vogel, H.L. (1994) *Entertainment Industry Economics*. Cambridge: CUP
- Wallis, R. and K. Malm (1984) *Big sounds from small peoples: The music industry in small countries*. London: Constable

Wallis, R., C. Baden-Fuller, M. Kretschmer, G.M. Klimis (1999) 'Contested Collective Administration of Intellectual Property Rights in Music: The challenge to the principles of Reciprocity and Solidarity', *European Journal of Communication* 14(1): 5-35

Yin, R.K. (1994) *Case Study Research: Design and Methods* (2nd ed), London: Sage

APPENDIX

Royalties as securitisation assets

The Bowie Bonds (1997)

Underwriter: Pullman Group at

US investment bank Fahnestock

Issue: \$55 million

Assets: rights to David Bowie's master tapes & publishing catalogue transferred into a vehicle company (Bowie's 25 records sell 1m units/year).

Yield: 7.9 per cent (10 to 15 points above average corporate credits in 1997)

Average maturity: 10 years

Credit rating: AAA (Moody)

Purpose: higher advance than possible from new distribution deal with record company; enabled Bowie to buy back publishing rights in some songs owned by a former manager and invest in Internet companies

Buyer: Prudential Insurance Co. of America (institutional investor)

Investment banker David Pullman, who invented intellectual property securitization with the Bowie Bonds, said:

‘Historically, entertainment and intellectual property owners could only get substantial cash from their asset’s value by selling, while only minimal opportunities to borrow against future cash flow existed before. Typically intellectual property owners find their most valued assets are illiquid and undervalued. Due to the limited options of short term, low leverage bank loans and the onerous terms of venture capital, major corporations have traditionally acted as the bankers to their respective intellectual property industries. However, an advance from a record company, for example, is a fully taxable event offered with high rates of return and significant loss of control or even ownership. The size of the market cap of intellectual property and entertainment assets is probably a trillion dollars.’

Other music securitizations since have involved Rod Steward, Iron Maiden, Rolling Stones and Elton John. Issuing banks included Nomura, Merrill Lynch, Citibank and Morgan Stanley. It is a form of finance suitable only for very established artist with a clear projected royalty stream. A big challenge for widening securitization is that co-ownership of rights is typical in the entertainment field, and all owners must be willing to participate in the issue (Fairfax 1999).

Textbox 1: MP3 Technology

MP3 Technology

- compression algorithm, cutting out digital data sequences below cognitive audio threshold ('psycho-acoustics')
- a single in CD format takes more than one hour to download via dial-up telephone connection. MP3 reduces CD data by factor ~12
- developed since 1985 at Fraunhofer Institute for Integrated Circuits, Erlangen (D) (www.iis.fhg.de), numerous patents protect the technology since 1986
- adopted in 1994 as Motion Picture Experts Group (MPEG) Layer-3, part of the standard family for the compression of digital video and audio signals
- becomes de facto music distribution standard during 1997, reaching 1bn Internet downloads/month in 2000
- format widely licensed to software and hardware companies; available without copyright protection technology
- royalty tariff (2001) for Electronic Music Distribution systems using MP3: 1.0% of the price charged to the listener, minimum \$15,000 per annum (<http://mp3licensing.com>)

Textbox 2: Secure Digital Music Initiative

Secure Digital Music Initiative (SDMI)

- Forum set up in December 1998 by record companies, technology start-ups (developing copyright protection & management technologies), consumer electronics companies, PC manufacturers (more than 150 companies) with the brief to 'protect copyrighted music in all existing and emerging digital formats and through all delivery channels' (www.sdmi.org).
- Executive director: Leonardo Chiariglione, convenor of the MPEG compression technology standard family
- Technological components:
 - compression/decompression algorithms, such as MP3, or Windows Media Audio
 - encryption/decryption technology
 - Digital Rights Management: verifies download, creates record, may operate royalty system (Liquid Audio, Windows Media Audio, Intertrust)
 - Player software: Realplayer, Winamp, Microsoft Mediaplayer, QuickTime
- Early proposal: SDMI as closed music distribution system, SDMI compatible players unable to play MP3 files
- Later: Interoperability is key
 - any SDMI compatible player can play any SDMI compatible compression, encryption and rights management format
 - Protected music will be digitally 'watermarked'; SDMI compliant players will than automatically limit when and how the consumer is allowed to play the music, e.g. track downloads and allow no more than 4 copies
- Problems: Watermarking technology can be broken
Since compliance is voluntary, non-compliant player will be on the market

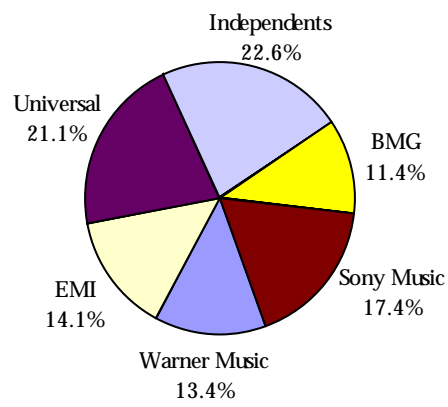
Textbox 3: Piracy

Piracy

Three categories of 'piracy' can be distinguished (cf. Marshall, 2000):

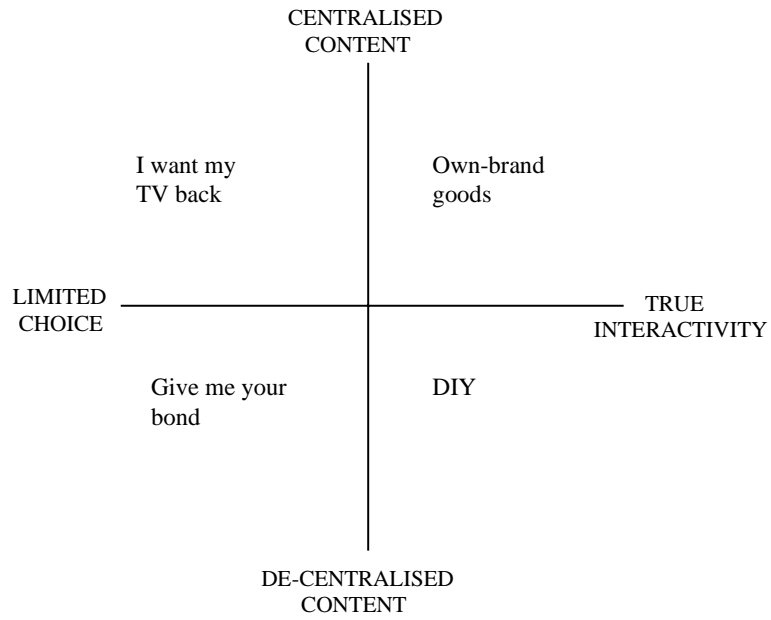
- Counter-feiting
(a straight copy of a release, including artwork, that appears to be the original)
- Pirate recording
(the unauthorised duplication and distribution of only the sounds of a release, for example in the MP3 format)
- Boot-legging
(the unauthorised recording and commercial release of performances)

Figure 1:
Global market share, record companies, end 1998



Source: Music Business International (MBI 2000)

Figure 2: Future Scenarios



©George Michael Klimis

Acknowledgements

The main body of the research was conducted between 1996 and 1999 at City University Business School, London within the ESRC Media Economics and Media Culture programme, grant no. L126251003 'Globalisation, Technology and Creativity'. Earlier versions of this article have been presented at Long-term Developments in the Arts and Cultural Industries Conference at Erasmus University Rotterdam, 23-25 February 2000; and British Academy of Management Annual Conference (BAM 2000), Edinburgh, 13-15 September 2000. Special thanks to Michael Lynskey who facilitated extensive interviews with the Japanese music industry in 1998. All websites cited in the article were re-visited in March 2001.

Biographical notes

Martin Kretschmer (PhD philosophy, UCL) is Leverhulme Reader in Intellectual Property and joint director of the Centre for Intellectual Property Policy & Management (www.cippm.org.uk), School of Finance & Law, Bournemouth University. He was consultant editor for BBC Worldwide and Time Warner. MK is a Fellow of the Centre for Strategy Research at City University Business School, London and a Fellow of the Queen Mary Intellectual Property Research Institute, University of London.

George Michael Klimis (BSc, Thessaloniki; PDip music information technology, City University; MBA, City University; PhD, City University) is a strategy and management consultant to the Greek copyright society AEPI. His PhD thesis (1999) is titled 'Dis-intermediation and Re-intermediation in the Music Business: The effect of multimedia technologies'. George Klimis is a co-author of the FT management report 'Multimedia and the Entertainment Industries' (1996), and of 'Music Rights in Digital Media' published by Market Tracking International (1998).

Roger Wallis (MA, Cambridge; PhD Mass Communications, Gothenburg University) is Executive Chairman of the Swedish Society of Popular Music Composers (SKAP) and a Visiting Professor at the Royal Institute of Technology (KTH), Stockholm. He was Director of the Multimedia Research Group at City University Business School, London. He has written extensively on music and media, including three books *Big Sounds from Small Peoples* (with K. Malm), London: Constable, 1984; *The Known World of Broadcast News* (with S. Baran), London: Routledge, 1990; and *Media Policy and Music Activity* (with K. Malm), London: Routledge, 1993.