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ARTICLE INFO	Wilfred Dolfsma (2004). Challenges of Electronic Channels in the Music Industry. *Problems and Perspectives in Management*, *2*(1)
RELEASED ON	Wednesday, 17 March 2004
JOURNAL	"Problems and Perspectives in Management"
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES
0

NUMBER OF FIGURES
0

NUMBER OF TABLES
0

Challenges of Electronic Channels in the Music Industry

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Abstract: This paper explores a key artefact of any culture around the world: music, and discusses the impact of information and communication technology (ICT) on the music industry. According to Vogel (1998, p. 132) "[R]ecorded music readily pervades virtually every culture and every level of society. As such, it may be considered as the most fundamental of the entertainment businesses." Besides cultural effects, this industry has important economic effects. In this particular era technological developments and a liberal, free market ideology work together in creating a global economic sphere. In this paper we will concentrate on the effects of developments in information and communication technology on the global and increasingly virtual music industry. Studies in technology dynamics indicate that social actors can and often do steer technological developments, or mediate its effects (Rip and Kemp 1998). As virtual value chains (Rayport and Sviokla 1994, 1995) pose significant challenges as well as opportunities for many countries and players who traditionally have not taken central positions in certain industries by lowering entry barriers, this industry is an excellent example of a global industry where electronic channels will have a dramatic impact. More particularly, we analyse the changing role of intermediary organisations in the music industry.

1. Introduction

How channels can be managed and configured to enhance channel outcomes and performance continues to be of key interest of the business and academic community (Anderson and Narus 1990; Anderson and Weitz 1989; Frazier and Rody 1991). A firm that has invested in the wrong channel configuration can find itself trapped in an inappropriate delivery system, which can be very costly to reconfigure (Anderson et al, 1997). Hence it is of vital importance to carefully design multiple channel strategies and carefully think about the most appropriate way to decompose channel functions by delivery channel (Christiaanse and Zimmerman 1999; Christiaanse and Venkatraman 1996). The music industry is an example of an industry where drastic changes are taking place in channel configurations as a result of the use of electronic channels such as the Internet. The objective of this paper is to describe and analyse a set of changes in this industry and relate them to current theoretical anchors. We will first discuss relevant marketing channel literature and institutional theories of the firm. Then we will describe and analyse the recent challenges for the music industry.

2. Managing (electronic) Channels

Radically new strategies designed to configure channels and the way the new channel oriented business models impact channel dependent organisations. A strategy of pushing commoditized products through a single sales and delivery channel to an undifferentiated mass market is no longer the business model. Accelerating technological change, more aggressive competition and shifts in customer demands are affecting distribution channels and are forcing companies to pay attention to channel design in line with strategic corporate objectives (Anderson et al 1997).

Traditionally, channel members exist in channel arrangements to perform one or more of the following generic functions: carrying of inventory, demand generation, or selling, physical distribution, after sale service and credit extending/financing to customers, (Stern, El-Ansary and Coughlan 1996). These general functions need to be executed in almost all channels regardless of the product or industry[2]. These channel functions are often performed at more than one level of the

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[2] Although physical possession is a different issue in services industries, it becomes more complicated too, as ICT is increasingly applied in the full range of industries in an economy.

channel, which then causes redundancies that are justified for the channel as a whole in given circumstances, but involves risks and costs (Stern, El-Ansary and Coughlan 1996). Due to new technologies many traditional channel functions can be digitised, which has a significant impact on traditional channel relations.

One of the most dramatic developments in recent time has been technology's role in significantly expanding the capacity of the channel to store, process and transmit information (Glazer 1991 p. 20). The channels' capacity to store and process information is related to the speed and amounts of information exchanged by channel members (Glazer 1991). When channel members are able to exchange customer order information on-line with manufacturers this has significant impacts on the channel as a whole. In an environment with limited ability to exchange and process information between channel members, traditional channel configurations with a clear distinction of roles and activities between channel members were the dominant model. The combination of new electronic channels and the ability to execute certain channel functions in a more cost-effective way through the more optimal channel poses new challenges to organisations. Traditional functions performed by distribution channel members like retailers such as demand generation and product information provision which can be provided on-line can be shifted to the cheaper or more effective channel member. Looking at traditional channel functions we can conclude that most channel functions can be conducted or at least supported by on-line, electronic means.

Traditional channel theory has always looked at channels from a physical distribution perspective. An important observation is that traditional channels are often organised around the delivery of a physical product. Most channel research is conducted on channels where the product is a tangible good and the production and marketing process evolved around producing and selling a physical item. In these channels marketing, sales and physical distribution of the product takes place parallelly through a particular channel configuration. The use of new information technologies separates the physical distribution of goods from other channel functions such as marketing and sales activities make it possible.

It's important to realise that we do not claim that all functions should be performed by producers directly. Important challenges are posed for managers to manage their channels in a way that allocates and distributes channel functions in the buying process to channel configurations that make use of the channels information processing and provision capabilities for effective customer need fulfilment.

The core competencies of organisations in these sectors greatly depend on how timely, accurately and frequently they gather and use information about their customers and whether they are able to turn them into valuable customer value propositions. This particularly refers to information intensive industries where the product or service is often information itself.

In addition it is important to realise that often new products and services can be developed out of these information flows between parties in a supply chain or marketing channel. "Each extract from the flow of information along the virtual value chain could constitute a new product." (Rayport and Sviokla, 1994).

In the music industry, the traditional value chain connecting the supply side (raw materials, inbound logistics and production processes, but also demo tapes which prospective musicians send to record companies) with its demand side (outbound logistics, marketing and sales) is undergoing dramatic changes. Both on the supply side and on the demand side the industry is adapting itself to the increasingly important role of electronic channels. The traditional value chain model (Porter 1985) treats information as a supporting element in the value adding process, not as a product. The music industry is facing the fact that its product is information, and it can increasingly be digitised. Consumer willingness to buy products like CDs has been subject of several empirical studies (Nötenberg, Christiaanse and Wallage 2000) but the challenges to the music supply chain as a whole go far beyond just selling one of its tangible products (the CD) on-line. The product "music" is being created, produced and distributed in a dramatically different way due to electronic channels. Music itself is produced differently, by means of using synthesisers and, increasingly, – computers. To a great extent this obviates the needs, to make idiosyncratic investments in human capital by developing a craft for playing the drums. The ability to work on a com-

puter is a more general skill. On top of that, the kinds of musical products that an artist makes will change. Albums as bundles of songs are likely to disappear; songs are likely to be offered in different varieties to meet customers' preferences. . Since these are interesting developments that will have tremendous consequences for this industry (see also Dolfsma 1999), in this paper we focus on the role of intermediaries in this industry. Their role will change rapidly. We will not argue that intermediaries disappear. What we do highlight is that some of the existing ones will disappear. New or reshaped intermediaries will develop. Below some of these challenges will be illustrated.

3. The Music Industry

The music industry is one with institutionalised and monopolised barriers to entry, institutionalised distribution inefficiencies, price in-transparencies and other artefacts belonging to distribution of physically recorded music (CDs, records, tapes etc). Figure 1 depicts a stylised value chain of the industry as it has developed unto the advent of Internet. Full discussion of it cannot be undertaken here, of course, but some idea of the role of the different players and the relations among them are necessary.[1]

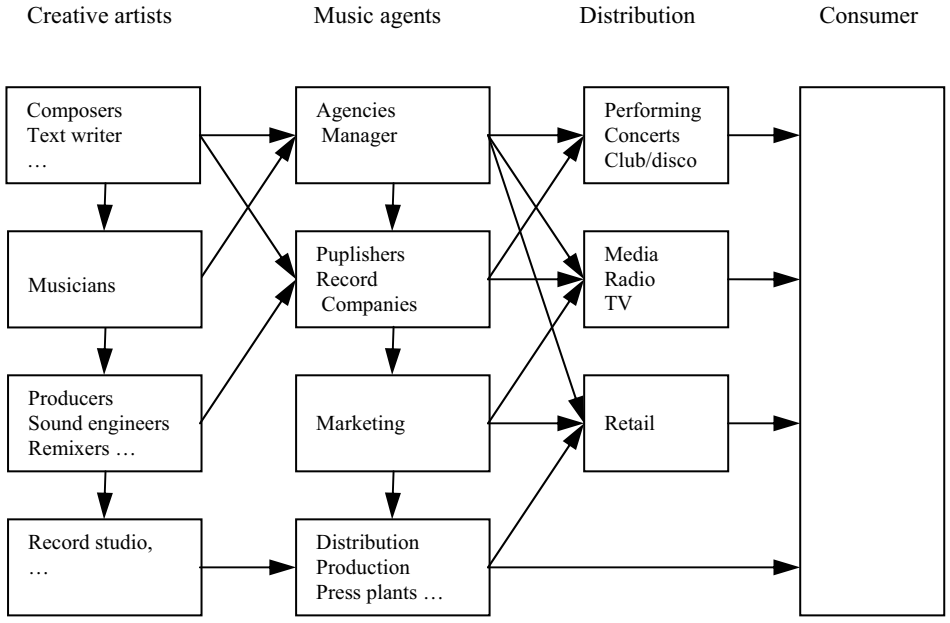

Fig. 1. A Stylised Picture of the Music Industry

Source: Dolfsma (2000)

As the discussion on the development of Internet and its effects on economic processes and structures is mostly focused on what will happen to the intermediary organisations, we will in this paper focus on two of these: music publishers and record companies. Musicians come with a sample of their music to a music publisher or an Artist & Repertoire (A&R) manager of a record company. Only if these initial 'gate keepers' find the music promising, negotiations start and may

[1] See, for instance, Shuker (1994) for a more extensive presentation on this point.

a musician record his music.[1] A small proportion of all samples submitted results in recording. Subsequent gates that need to be passed before an audience is reached include the media (radio, television, music press), the retail business, and the (organisations that control the) slots for life performances. Figure 1 shows more of these intermediaries of the music industry, and their relations with one another. Tables 1 and 2 give an idea of the economic significance of the music industry.

Table 1

The Ten Biggest Music Markets, 2002

	Gross Revenues (m$)	Share (%)
United States	12,609	39
Japan	5,001	16
United Kingdom	2,936	9
France	2,070	6
Germany	2,053	6
Canada	621	2
Italy	565	2
Spain	551	2
Australia	532	2
Mexico	462	1
Total, top 10	27,401	85
Total, World	32,228	100

Source: IFPI (2003).

Table 2

Some Economics of Pop Music

	United States	Japan	United Kingdom	The Nether-lands
Revenues recordables, gross (US$, m)	12,609	5,001	2,936	397.6
Sales recordables, per capita (US$)	45.56	39.68	49.6	25.1
Copyrights, gross royalties (US$, m)	1,940.42	673.04	593.38	156.44
Concerts (Dutch guilders, m)[a]	n.a.	n.a	n.a.	550

Sources: IFPI (2003), NMPA (2002), Rutten (1997). Note: [a] Figures pertains to 1996.

Record companies and music publishers have complementary, though largely overlapping functions in addition to the one of selection. Once musicians and bands have been selected by publishers and record companies, both generally have a contractual obligation to promote the music of the artist. Organisations such as music publishers earn vast and sharply increasing amounts of money (Music & Copyright, February 11, 1998, and Table 3). The function these music publishers

[1] See, a/o., Crane (1992) and Peterson (1990) on the notion of gatekeepers, where Peterson focuses particularly on the music industry.

have often cannot be easily distinguished from that of the record company – it consists in bringing an author in contact with a record company and otherwise promotes the author's product. In compensation, the music publisher is, possibly among other things, to receive 33 to 50 percent of the royalties on every mechanically produced carrier of music (CD, record). Promotion of an author's work is, however, also a task for the record company. As such it is not surprising to see that the major record companies are also the big music publishing firms (compare tables 3 & 4): the profitability of music publishers is much higher, although more volatile as well, than that of record companies (Music & Copyright, February 11, 1998). The combined record company / music publisher thus recoups a substantial proportion of its costs from the royalties it receives – indeed, from all of British PRS distributions, only 32.5 percent of total royalty paid to this society for mechanical rights is due to artists or session musicians.[1] In contrast to the picture for record companies, however, there are more and relatively larger independent music publishers than there are record companies.

Table 3

Major Music Publishers by Gross Revenues and Rank, 1997 ($M)

EMI (#1)	Warner-Chappell (#2)	BMG (#3)	Sony (#4)	Polygram (#5)
550	475	275	200	180

Source: Music & Copyright, February 11, 1998

The present system of copyrights, with its geographical base, is the most important reason for the peculiar local-and-global structure of the music industry. Although the regional or national markets are separated from one another, one may see that the firms that dominate in these local markets are the same firms that are major ones at the global level. Geographical distinctions between markets for music products are both the basis for *and* reinforced by the system of copyrights. In other words, the music industry as we know it is rather a global industry.

Table 4

The Five Major Record Companies (% of sales, 2000),

	Global
Universal	21.1
Sony	17.4
EMI	14.1
Warner – Time Warner	13.4
BMG - Bertelsmann	11.4
Independents	22.6

Sources: Music Business International (MBI, 2000).

Copyrights are one important institution by which the music industry is now characterised – perhaps the most important institution. While the picture about the relations between the major record companies presented in Table 4 is a little outdated, any factual data on this industry will be outdated by the time of publication. It gives information about the situation for the music industry before the changes induced by ICT and the Internet has taken off. In this respect it adds to the in-

[1] See Towse (1997). "Named artists" received 20 percent, while session musicians received 12.5 percent. The figures collected by the British Monopolies and Mergers Commission are the only source for accurate information of this type. Other collecting societies are more secretive and allowed to be so. There is, however, no indication that this information should be different from that on other collecting societies.

formation provided in Figure 2. With take-overs discussed of EMI by Time-Warner, and takeover actually occurring of Polygram by the soft drinks manufacturer Seagram and discussions on pending developments in relation with the others, and all of this is a few months time at the start of the new Millennium, a few things become clear. One is that entertainment industries are undergoing profound changes. More to the point – they are converging, with new alliances developing. Another development is that industries or firms developing 'content' play a leading role in developments where the Internet impacts on different industries more generally. The music industry is an important case in point, though not the only one. It is expected, that "content" will allow firms to bind customers, where technical means of doing so are liable to face anti-trust worries.[1]

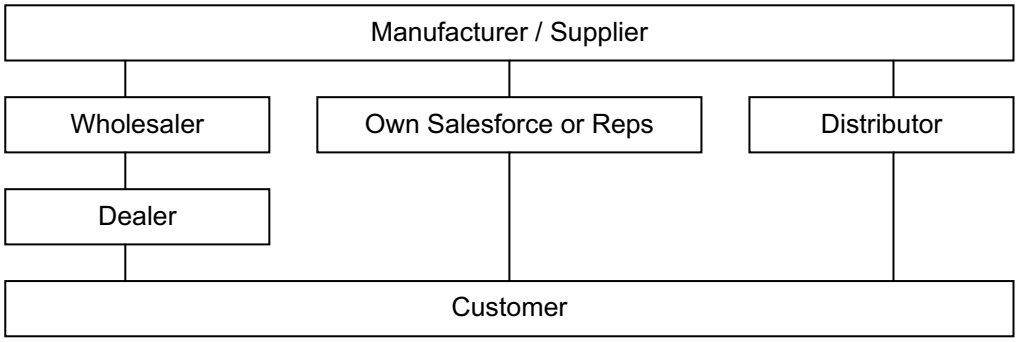

Fig. 2. Traditional Channel Options (adapted from ndersen et al. 1997) A

Although the institution of copyrights is crucial for other industries as well, it has been constitutive for the music industry. The business model of record companies and music publishers is dependent on having control over copyrights.[2] Moreover, still other institutions that protect intellectual property are of import to yet other industries; the analysis thereof is similar to the one staged here. Copyrights give authors or their heirs a right in the fruits of their creative endeavours for as long as they live and for a specified, but not internationally harmonised time after their death. Without a system of copyrights, the argument goes, individuals would not be incited to produce certain unique and / or creative works to the benefit of society (Landes and Posner 1989, p.332). A system of copyrights serves the public good, in this analysis, and promotes the efficient allocation of resources (ibid, pp. 325-6). While the Anglo-Saxon and the Continental European traditions differ in many respects, they have this economic aspect in common.[3] Where they differ, is whether they believe the economics of copyrights to be the core, or the periphery. As Rushton (1998) and Laing (1993) argue, the Continental European tradition is heir to a Kantian line of thought where the author is nigh reified.

What copyrights do is to define borders between who is to use a specific product, and under which conditions, and who is not allowed. Copyrights introduce a measure of excludability. The industry is confronted with a necessity for dramatic change as the Internet is increasingly used as an electronic channel that affects existing business practices. Excludability is much more difficult to maintain with music being transformed into an information product. With freely available

[1] A regularly updated web site at http://www.orgnet.com/netindustry.html shows the alliances and links between ICT or Internet related firms. Firms supplying 'content' figure prominently in it.

[2] Copyrights are, of course, an amalgam of different rights (see, e.g. Dolfsma 1999). Still, of 80 per cent of all the music sold worldwide, the major record companies hold the copyrights.

[3] This common ground has been the (minimal) basis for such international agreements as the Bern and Rome conventions (cf. Laing 1993, Rushton 1998).

standards such as MP3,[1] music can be comprised and sent through the Internet without loss of quality. Copying is quick and cheap. In combination with a view of Internet as a medium of the free (both in economic and in political terms), this has posed great problems for the record companies.

Internet will revolutionise the way music is produced, distributed and consumed. Much has been said about the effects of ICT on the economy. Optimists and pessimists alike tend to believe that this new technology will substitute for the existing one. It is thought that what we will end up with is the perfect market we know from the mainstream economic literature: a perspective that abhors some and delights others. As was argued elsewhere (Dolfsma 1998), the emerging 'Internet market' will not be a perfect economic market where intermediaries disappear altogether because an infinite number of both producers and consumers will directly exchange with each other.

New intermediaries are emerging where some old ones are facing difficulties. People, consumers want the incredible amount of information that is available on the Internet selected for them. In addition, they focus on ways in which this information is qualified. Napster is one example, MP3.com is another, both currently under threat of lawsuits filed by lobby groups from established businesses in the music industry, such as the RIAA and IFPI. Napster is a central filing system where visitors may find where their favourite music is stored. The usual way of storing is in MP3 format. Napster does not preclude or forbid the payment of royalties on the basis of copyrights to those who own the intellectual property in a song. It does, of course, make it easier to bypass this. Since Napster has a central filing system or catalogue, it, as well as its customers, is easy to target. Newly emerging intermediaries in the music industry are de-centralised by organised – one may speak of supply webs. Gnutella is an example of this.

These new intermediaries offer their customers different indications about the quality of the music that is presented to them on their sites. This music is already a selection. Charts of best selling / downloaded music are presented to indicate quality, for instance. In this respect, these intermediaries are not different from intermediaries springing up in other industries where channel configurations change due to the use of the Internet. What is peculiar about the music industry and how the Internet affects it, is the new roles that existing intermediaries are taking up. Existing intermediaries in the music industry, such as the magazine publisher Rolling Stone, has a reputation for giving a trustworthy selection and qualification of music. In this respect they are challenging the role of the music publisher and the record company. Without the necessity to organise the production of physical carriers of music, the role of these players is reduced to precisely this role.

However, where especially the major record companies have a reputation in the eyes of their customers for being concerned more about profit than about music, new intermediaries or intermediaries that re-define themselves to meet new demands are often in a better position to foster to the demand of customers. If, as is the case with Rolling Stone, the intermediary has already existed, it not only is likely to have the advantage of a reputation, but also a financially strong position. In addition, many customers are not aware of the label or the record company with which an artist has signed a contract and which releases the album.

Under the auspices of the Rolling Stone web site, a well-spring of 'communities' related to different musical preferences has given this intermediary an important chance to become a major player in the field. Since the consumption of music is characterised by the paradox that people seek to express autonomy and independence, as well as adherence to a specific group with it, the extent to which an intermediary such as Rolling Stone can control or influence them is limited. Nevertheless, it does provide a more advantageous position than competitors have, with an example of a web structure emerging.

After discussing in general how channels will be affected by ICT, we will return to the music industry to discuss how the institutional factors interact with the technological ones to alter the value chain of this industry.

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[1] Developed by the Frauenhofer Institute, a German, publicly funded network of research centres.

The traditional product of a record label is a package of pre-recorded music captured on an audiocassette or compact disc. The product is the culmination of a set of value–adding processes that take place in the physical world. These processes include discovering new musicians, screening them for marketability, recording their work in a studio, editing and selecting their music, creating master tapes, producing CDs or cassettes and finally packaging, promoting and distributing the product.

On the supply side the changes involve that music can be recorded digitally and transported electronically, musicians do not have to be at the same location anymore, search for new bands can take place electronically: possible examples abound. Dramatic changes however will take place in music distribution, as we argued, as electronic channels are becoming more and more common. The major record companies are experimenting with this – EMI is now selling sheet music through the Internet but also releasing albums on the web for customers to download.[1] As the music product can be digitised and transported and played by computers electronic distribution channels will be able to fully exploit the virtual value chain.

Copyright violations are nothing new in the music industry but a real difference is that music can not only be recorded and duplicated but that it can be *distributed* by using computer networks.

3. Technological and Institutional Forces

Technological and institutional 'forces' intermingle with each other in the case of the future developments in the music industry. Perhaps the most important, constitutional institution in the music industry – the system of copyrights – is challenged by developments in information technology. Copyrights are constructed to prevent agents from making copies of an artistic work unlawfully. Making copies is allowed, but only at a fee. Control over who is making how many copies for what purpose is retained. Now, although this system has been challenged before by technological developments (Burke 1996), the present developments seem to be different. Information technology creates the possibility of duplicating, transmitting and changing digital information at a very low cost. The possibilities for control of the boundary between who is and who is not to legally use a particular piece of information are much more difficult to police. The initiative from record companies, software developers, and developers of audio equipment to present an alternative to what seems to become the de-facto standard to transmit audio and video material through the Internet (SDMI) is fraught with troubles. One is the conflict of interests between the parties involved. Manufacturers of audio equipment are shedding their interests in interests in copyrights related industries (Philips selling Polygram, e.g.) and / or are manufacturing equipment that is compatible with the MP3 format.

In addition, even if it would be possible and the proper agencies would try to police the boundaries drawn by copyrights, such policing would involve a considerable invasion of the private sphere of the sort that seems unlikely to happen given some statements of a number of governments. The system of copyrights has, moreover, performed poorly in achieving its stated goal – providing a monetary incentive to artists to allow them to continue in their chosen profession (Dolfsma 1999).

To the extent, then, that intermediary organisations in the music industry rely on copyrights, they will find that their economic rationale disappears. As argued elsewhere, and by others, there will remain to be a role for intermediary organisations in the music industry and the existing ones may be in a good position to take up this role. Because of their reputation for bringing certain kinds of music, of a certain quality, to the market (based on people's appreciation for the labels), because of the financial cloud that they have, existing intermediaries can continue to be players in

[1] See Financial Times, May 10, 2000 and April 18, 2000. EMI is, of course, one of the major record companies. It has been in dire straights for a number of years, with market share declining (Financial Times May 23, 2000). Rumours about an impending takeover of EMI have involved Sony and BMG. Now a deal is struck with Time/Warner – which has itself merged with America Online. Anti-trust considerations have, however, arisen about the Time/Warner – EMI arrangement.

the future music industry. Entry barriers, however, are low, and developments in Internet markets are quick. That implies that the advantages the extant players have are likely to wear thin soon, leaving new firms the possibility of entering the market and taking a large share of the existing or the newly created market. Up to now, small start-up firms have been able to surprise the majors in the music industry as in other industries and grow rapidly.

Now that extant firms come to recognise the opportunities as well as the threats that ICT poses, and use their financial resources to try to regain their market shares, another development in the media industries becomes apparent. What is called convergence of different previously separated media entails that firms established from what could previously be different industries may now move in (cf., e.g., Rutten & Smeets 1997 – see also Table 5). This is not a clear form of diversification, since it does not involve a move of this agent into a market that could have been avoided. Indeed, as it is argued by many, institutional and technological factors discussed force convergence of the different media on the firms.

Table 5

Economies of Scope in Entertainment Industries

	Time Warner	Disney	Sony	Seagram	Bertelsmann	Via-com	Newscorp
Television, production	√	√	√	√	√	√	√
Film	√	√	√	√	√	√	√
Music	√	√	√	√	√		√
Publishing	√	√			√	√	√
Television, Broadcast-ing	√	√			√	√	√
Cable television	√	√	√	√		√	√
Satellite television	√		√	√	√		√
Internet	√	√	√	√	√	√	√
Theme parks	√	√				√	
Retail	√	√			√	√	

Source: The Economist (1998) "Wheel of Fortune – A survey of technology and entertainment", 21 November.

Within virtual value chains or electronic channels where digital products are distributed, a company is able to distribute services and create value for its customers in a new and non-traditional way (Rayport and Sviokla, 1995). The economics, distribution, and skills necessary to manage electronic channels are significantly different from those to manage a physical channel or physical value chains (Venkatraman and Christiaanse 1996, Rayport and Sviokla 1995).

Cross-roads seem to have been reached in the music industry, since on-line music revenues are expected to increase from $179 million in 1998 to $2,800 million in 2002:[1] incremental changes to save the present institutionalised systems of copyrights, ownership and distribution will no longer do. Channel functions executed by means of using information technology will, in the near future, be ridded of its hype or (quasi) revolutionary appeal and be integrated into commonly adopted business practices across the industry.[2] MP3, MP4 and similar software will be used in the

[1] See Music & Copyright (August 27, 1997) for a prediction. Past growth rates in sales and profits of on-line retailers in music are impressive, particularly those of the biggest one, CDnow (Music & Copyright, January 1, 1998).

[2] David Bowie's publication on the Internet of one of his singles was a way of drawing attention to his new album. Public Enemy's apparent decision to publish its new album with a company called Atomic Pop (**www.atomicpop.com**) is motivated in large part by animosity towards the established, major record companies (see an interview with the lead singer at www.zdnet.com).

future to facilitate the execution of a number of channel functions. Indeed, the majors are, together with a number of partners from other, increasingly converging industries, trying to meet the challenge posed by information technology (The Economist, 1999).

A firm or industry that has invested in the wrong channel configuration can find itself trapped (locked-in) in an inappropriate delivery system, which can be very costly to reconfigure. Hence it is of vital importance to carefully design electronic channel strategies. Unfortunately, few firms adequately manage their distribution in the way of taking advantage of electronic channel business models and capabilities. Take the music industry as an example to explore the effects of digital distribution on such key aspects of global competition in this industry as copyright, ownership and distribution rights. The previously discussed institutional and technological factors are one reason why the music industry, as a prime example of what might happen to other industries,[1] is facing profound changes in its structure. Entry barriers for new firms to establish themselves lower, convergence of the different media entails that actors from previously different fields come to compete with each other. Moreover, however, new intermediaries emerge as final gatekeepers before music products finally reach consumers. The consumption of music remains a social phenomenon, but the way in which the consumption gets organised changes (Dolfsma 1999, 1999b). New types of networks in which information is diffused and interpreted emerge and develop, such as email discussion lists, computer bulletin boards, and others.[2] These influence what types of music, produced by which firms will be consumed.

Since so many different developments in the future are uncertain, it is indeed difficult to predict what the future structure of this industry will look like. What seems clear is that the four different levels of creation, production, distribution and consumption may still be distinguished. Moreover, as we have argued from a more general perspective, organisations focusing on these different roles are likely to continue to exist. Nevertheless, as the dotted, curved lines indicate, the room for manoeuvring for these players is likely to have become smaller, making possibilities for arbitrage larger. Figure 3 indicates that the present configuration of players and the functions they perform may persist. The dotted lines indicate that the balance is a tentative one. What is not shown is the threats to the extant firms in this industry posed by new entrants from existing firms diversifying into music. These may have a reputation for quality – crucial in this industry – which they can rely on to market goods. In other words, the value chain in the music industry is increasingly a contested one.

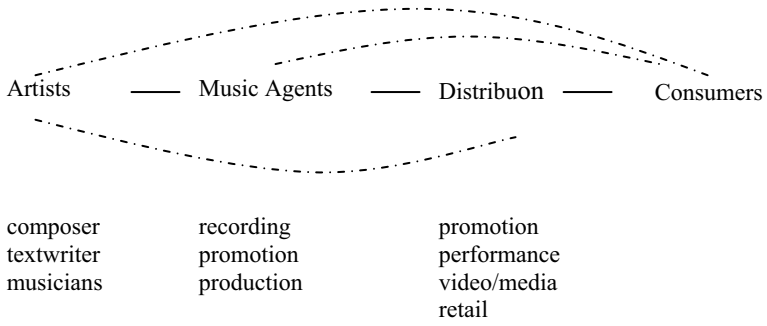

Fig. 2. Channel functions and info exchange—the music industry

[1] See The Economist (1997). Sadler's (1997) interest in the music industry is precisely due to it being exemplary for other 'information industries.'

[2] See Adams (1998) for a topology of different ways in which people will relate with each other in the virtual world, as well as a discussion of their effects.

As examples in Figure 2, we have mentioned both roles and functions at certain stages of the value chain. Where possibilities for bypassing a particular organisation used to be an incentive for such organisations to integrate vertically or horizontally in order to gain control of the crucial assets or resources,[1] the phenomenon of convergence that is at work in the music industry strongly limits payoffs of such a strategy.

Nevertheless, once a reputation for providing quality music is established, and provided the 'feel' with the market is maintained, intermediary organisations in the virtual internet market for music products will be in a position to make a sizeable profit. How sizeable it is depends on the extent to which this market will be volatile, the extent to which it substitutes for (instead of promotes) the 'physical' market, as well as the extent to which the virtual and the physical parts of the music industry will be related or will even have to be included within one and the same firm. Demand will be volatile, but proper forms of internal and external flexible organisation and specialisation will allow the firm to coop with that.[2] Complete substitution of the physical market by the virtual one is far less likely then mutual stimulation, if similar examples from the past where it was feared that new possibilities created by technology would substitute for known options are anything to go by.

Developments induced by the advent of (the use of) ICT thus create windows of opportunity for new firms, possibly based in regions previously in the economic or cultural periphery. As is argued in the literature on technological regime shifts (Rip & Kemp 1998), and is implicit in our example of the effects of information technology on the music industry, these windows of opportunity are likely to last for short periods of time.

4. Channel Challenges in the Music Industry

The Internet will change markets for information products, of which the market for music products is one leading example (Dolfsma 1999). In this paper we explored the effects of developments in Information and Communication Technology (ICT) on the music industry. Based on the description of recent developments above we would like to conclude with a set of key challenges the industry is facing:

Challenge 1: The Copyright system is being eroded

As an important constitutive institution for this industry it looses (much of) its rationale. The new structure for the music industry, as well as new business models of this industry will have to take this likely development into account.

Challege 2: Supply Webs instead of Supply Chains.

The increasingly virtual value chain of this industry is moving from a supply chain situation to a supply web (Christiaanse and Kumar 2000) with different co-ordination mechanisms among parties. As a result there will be more opportunities for smaller parties. As a result, in our analysis of the emerging virtual value chain of the music industry, the music industry that is currently a global industry dominated by a few large companies, will change dramatically to become more contested. We need to make two provisions here that point to a need for these new, small firms to have established a reputation for themselves.

Challenge 3: Dis-intermediation & Re-intermediation

Dis-intermediation is taking place at various levels of the chain.

Firstly at the retail level, increasingly more CDs are bought online through online retailers of which well-known examples are amazon and cdnow. As CDs are an easy shippable product these numbers are expected to raise rapidly (OECD 1999). Benjamin and Wigand (1997) illustrated the effects of dis-intermediation on retail margins.

The second dis-intermediation effect is taking place upstream the chain where musicians are directly putting their music on the web thereby potentially bypassing publishers and record companies. The likelihood of this model succeeding is low, however.

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[1] The strategy was also employed in the music industry, with the result that only a few major players survived. For a discussion of how firms may organise to reap the fruits of newly introduced products, see Teece (1986).

[2] See Hesmondhalgh (1996), and Storper (1989) for the related example of the film industry.

Challenge 4: Opportunities for New Players

We argued that these changes pose significant challenges for established players, but also create opportunities for countries and players traditionally not central in the global music industry. The future market for music will be more strongly contested and will be more volatile as music (information) products can be easily and cheaply reproduced and transformed. New kinds of music emerge rapidly, forcing record companies to organise themselves more flexibly. Consumers will benefit because they are likely to pay lower prices for – material and digital – music products.

References

1. Adams P. (1998) "Network Topologies and Virtual Space," *Annals of the Association of American Geographers* 88(1): 88-106.
2. Anderson E., Lodish L. and Weitz B. (1987) Research Allocation Behaviour in Conventional Channels,' *Journal of Marketing Research,* 24 (February), 85-97.
3. Anderson E., Day S. and Rangan V.K. (summer 1997) "Strategic Channel Design", *Sloan Management Review,* pp. 59-69.
4. Burke A.E. "How Effective Are International Copyright Conventions in the Music Industry?" *Journal of Cultural Economics* 20(1): 51-66, 1996.
5. Christiaanse E. and Kumar K. (2000) From Static Supply Chains to Dynamic Supply Webs: to be published in the *International Journal of Physical Distribution and Logistics, June issue,* 2000.
6. Christiaanse E. and Venkatraman N. (1996). "Expertise Exploitation of Electronic Channels". Paper published in the proceedings of the *Academy of Management Conference*, Cincinnati, August 1996.
7. Christiaanse E. and Zimmerman, R.J. (1999) "Electronic Channels: The KLM Cargo CyberPets case", *Journal of Information Technology,* (14), pp. 123-135, 1999.
8. Dolfsma, W. "Internet: An Economist's Utopia?" *Review of International Political Economy* 5(4), 1998.
9. Dolfsma Wilfred *How Will the Music Industry Weather the Globalization Storm?* Presented at the ASSA/.AFEE meetings in New York, 3-5 January 1999. (First Monday, May 2000, www.firstmonday.org).
10. Dolfsma Wilfred (1999b) *Valuing Pop Music – Institutions, VALUES, and Economics*. Delft: Eburon.
11. The Economist "Roll-your-own CD roll on", April 10, 1999, p.12 (review).
12. The Economist "Electronic Commerce - The Search for the Perfect Market", May 10, 1997, p.10 ff.
13. Freeman C. and C. Perez (1988) "Structural Crises of Adjustment, Business Cycles and Investment Behavior," in: G. Dosi, C. Freeman, R. Nelson, G. Silverberg and L. Soete (eds.) *Technical Change and Economic Theory*. London: Pinter, pp. 38-66.
14. Hesmondhalgh D. (1996) "Flexibility, Post-fordism and the Music Industries," *Media, Culture and Society*18: 469-88.
15. International Federation of the Phonographic Industry, IFPI (2003) *The Recording Industry in Numbers, 2002*. London.
16. Laing D. "Copyright and the International Music Industry," in: *Music and Copyright*. Edited by S. Frith, 22-39. Edinburgh: Edinburgh UP, 1993.
17. Landes W.M. and R.A. Posner. "An Economic Analysis of Copyright Law." *Journal of Legal Studies* 18 (June 1989): 325-363.
18. Music Business International (MBI), various years.
19. Music & Copyright (Financial times), various years.
20. National Music Publishers' Association, NMPA (2002) *International Survey of Music Publishers Revenues, 2001*. 12th Edition, New York: NMPA.
21. Malone T. J.; Yates J.; Benjamin R. (1987) "Electronic Markets en Electronic Hierarchies," *Communications of the ACM*, 30 (6), p. 484-497.

22. Organisation for Economic Co-operation and Development (1999) *The economic and social Consequences of electronic commerce*. Paris.
23. Perez C. and L. Soete (1988) "Catching up in Technology: Entry Barriers and Windows of Opportunity," in: G. Dosi, C. Freeman, R. Nelson, G. Silverberg and L. Soete (eds.) *Technical Change and Economic Theory*. London: Pinter, pp. 458-79.
24. Rayport J.F.; Sviokla J.J. (1994) "Managing in the Marketspace". *Harvard Business Review* november-december 1994, p. 193 - 150.
25. Rayport J.F.; Sviokla J.J. (1995) "Exploiting the Virtual Value Chain" *Harvard Busines-Review* november – december 1995, p. 75 - 85.
26. Rip A. and R. Kemp. "Technological Change," in: *Human Choice and Climate Change*. Edited by S. Rayner and E.L. Malone, 327-399. Columbus, OH: Batelle Press, volume II, 1998.
27. Rutten, P., (1997) *Economisch Belang van de Muziekindustrie in Nederland*. Apeldoorn: TNO, report STB-97-38.
28. Rutten P. and I. Smeets (1997) *Entertainmentindustrie: Lijnen naar de toekomst*. Apeldoorn: TNO-STB, report 97-57.
29. Venkatraman N., Christiaanse E. (1996) "Expertise Exploitation of Electronic Channels", second best paper award and published in *Proceedings of the Academy of Management Conference*, Cincinnati, U.S.A.
30. Rushton M. "The Moral Rights of Artists: Droit Moral ou Droit Pécuniaire?" *Journal of Cultural Economics* 22(1): 15-32, 1998.
31. Sadler D. (1997) "The Global Music Business as an Information Industry: Reinterpreting economies of Culture," *Environment and Planning A* 29:1919-1936.
32. Storper M. (1989) "The Transition to Flexible Specialization in the US Film Industry: External Economies, the Division of Labour, and the Crossing of Industrial Divides," *Cambridge Journal of Economics* 13: 273-305.
33. Teece D.J. "Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy." *Research Policy*15 (1986): 285-305.
34. Vogel H.L. *Entertainment Industry Economics*. 1998. Cambridge: Cambridge UP, 4th ed.