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# Recorded and digital music: likely scenarios for the industry's development

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## Foreword

***The French Government Department for statistics, studies and strategic forsight (*Département des études, de la prospective et des statistiques*, DEPS) introduces its new "Cultural Overview" collection. It is devoted to investigating possible futures, in making new connections and taking a long-term view of not only well-established areas but also fringe and experimental areas. The result of research and study carried out by the DEPS, this collection also welcomes ongoing research work. Based on a series of surveys conducted across the various sectors of the French recorded music industry, the authors sought, based on economic theory, to outline the various directions in which the record industry might evolve. At the intersection of economic influences and uses of the dematerialisation of digital goods and the information systems surrounding these goods, these scenarios outline a coherent framework for the evolution of the recorded music market and industry, in response to the changes which they are undergoing.***

**P. C.**

The recorded music industry – which can be defined as the entire social, regulatory, technological and economic system that connects original music with the consumers who wish to listen to it – is undergoing significant changes, generally described as the "digital revolution[1]". Over the past two years it has become easier to copy the works produced, distributed and marketed by the industry, due to increasing digitisation of musical content, coupled with a very steep increase in the possibilities for digital distribution. These changes have not only had a significant influence on the reproducibility of the content; they have also had knock-on effects at each level of the industry, from the creative phase at the start, to distribution to consumers at the end.

In response to these changes, it is possible to sketch out various hypothetical scenarios for the industry's development over the medium term. These are largely based on interviews with industry professionals from several sectors: record labels, producers, recording studios, distributors and event organisers.

A brief reminder of the economic characteristics of content digitisation will help to clarify the five contrasting scenarios, which can be related to a number of emergent business models.

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1. Marc Bourreau and Michel Gensollen, « L'impact d'internet et des technologies de l'information et de la communication sur l'industrie de la musique enregistrée », *Revue d'économie industrielle*, nº 116, 2006, p. 31-70; Nicolas Curien and François Moreau, *L'industrie du disque*, Paris, La Découverte, coll. « Repères », 2006; Martin Peitz and Patrick Waelbroeck, "An Economist's Guide to Digital Music", *CESifo Economic Studies*, 2005, 51 (2-3), p. 359-428; Philippe Chantepie and Alain Le Diberder, *Révolution numérique et industries culturelles*, Paris, La Découverte, coll. « Repères », 2005; André Nicolas and Victor Conradsson, *Les marchés numériques de la musique*, Paris, Observatoire des usages numériques culturels, Ministère de la Culture et de la Communication, 2005.

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## A REMINDER OF THE ECONOMICS OF DIGITISATION

Three variables determine the likely scenarios and their consequences in terms of social welfare[2]: (i) the technical and economic characteristics of digital files, which have significant repercussions for the market value of music; (ii) the relationship between supply of, and demand for, music – as music falls into the category of experience goods[3], potential consumers must be informed and purchasing initiated by means of a complex system which is currently undergoing changes; (iii) lastly, how the product "recorded music" is categorised: is it a product like any other, or do music, and cultural products in general, play a specific social role which would justify the use of a different regulatory framework?

## The value of digital files

### The characteristics of digital goods

#### *Non-rivalry and durability*

A digital good can be described as a computer file (a series of bytes) at a given moment between production and consumption. Initial production and final consumption are not usually digitised. For example, in the case of music, the musicians play instruments (although these may be digital) and the consumers listen to music recreated by the apparatus necessary to transform digital information into sound.

In as much as computer files can be copied at negligible cost, since the copying software is included as standard in most PCs, digital music is technically a non-rivalrous good: a file can circulate from user to user at no significant cost.

The expansion of the internet, particularly broadband internet, and the fall in the price of computer hardware allow universal access to music and video.

Where digital goods are concerned, it is helpful to distinguish between non-rivalry and durability. These are separate concepts, but ones that are often conflated when addressing the issue of Digital Rights Management for musical works[4]. Goods are considered durable if they are neither destroyed by use, nor suffer changes to their technical integrity. They are therefore comparable to capital goods, which are also not destroyed over the period of use[5].

While it is difficult to deny that non-rivalry and durability represent a gain in social welfare, it is nevertheless necessary to manage this sudden profusion. Its first major consequence is to undermine the traditional operation of the markets, which developed around physical formats (for the content) and the mass media (for the meta-information, *i.e.* consumer information on the available works and their quality).

In order to maintain the value of the content, the initial reaction was to 'lock' files by technological means in order to limit copying and/or listening, either over a period of time or by number of times played. Technology was thus called upon to reduce the advantages that it had itself spontaneously brought about, in order to maintain existing business models.

#### *Technical or economic non-rivalry?*

There is an important distinction to be made between 'technical' non-rivalry and 'effective' non-rivalry, a distinction that also concerns durability. In some cases, goods can be copied and distributed at no cost, or not be used up in consumption, but nevertheless retain a market value. A classic example is a piece of information that represents a claim on a rivalrous good; this information clearly has the value of the rivalrous good[6]. Generally speaking, it

2. In economics, social welfare is traditionally measured by adding the "producer surplus" to the "consumer surplus". The producer surplus is the difference between the income which producers receive for their goods and services, and the cost of producing them. The consumer surplus is the difference between the amount which consumers are prepared to pay for existing goods and services, and what they have to pay in reality.
3. Experience goods are products or services whose characteristics are difficult to assess in advance, *i.e.* before consumption.
4. Digital Rights Management is an umbrella term which refers to any technology used by producers or copyright holders (authors) to control access to and use of digital data or computer files. It is also used to refer to the restrictions associated with particular digital works. For easier reading, the acronym DRM will be used from now on.
5. It should be noted, however, that capital goods wear out and are expensive to maintain, whereas digital goods do not wear out or require maintenance. It is true that rapid technological advances lead to obsolescence, which could be said to be comparable to wearing out: software and hardware rapidly become obsolete, so that a digital music collection may need to be re-copied from time to time in order to keep up with developments in these fields.
6. Éric Raymond explained this clearly in *The Magic Cauldron,* 1999, http://www.catb.org/~esr/writings/cathedral-bazaar/magic-cauldron/, a piece on free software which focuses on the meaning of the word *free* (open, but not necessarily 'free' in monetary terms): "There is another myth, equal and opposite to the factory-model delusion, which often confuses peoples' thinking about the economics of open-source software. It is that 'information wants to be free'. This usually unpacks to a claim that the zero marginal cost of reproducing digital information implies that its clearing price ought to be zero. The most general form of this myth is readily exploded by considering the value of information that constitutes a claim on a rivalrous good – a treasure map, say, or a Swiss bank account number, or a claim on services such as a computer account password. Even though the claiming information can be duplicated at zero cost, the item being claimed cannot be. Hence, the non-zero marginal cost for the item can be inherited by the claiming information."

is useful to distinguish between technical non-rivalry and consumption externalities: information, even if it is non-rival, may be such that its consumption by some consumers affects the utility of its consumption by others. In this case, a consumer who possesses information with negative externality[7] will not be inclined to disseminate it.

In the cultural sphere, consumption externalities are generally positive: a consumer does not experience a reduction in utility if she makes a work available for others to consume; quite the contrary, in fact. Firstly, because many people enjoy spreading the news about things they like; but above all, because contributing to a work's success makes it more likely that similar works will be created and distributed. However, in the relatively unusual case of conspicuous consumption of cultural goods, the consumer would not be inclined to copy and disseminate the files, as they function as status symbols.

Even if distribution does not have a negative effect for the consumer who shares a non-rivalrous good, it is also necessary for the good to be useful to other consumers. It may be the case that goods are "targeted", in the sense that they have been specifically designed for a single user. In the realm of everyday goods, a pair of spectacles is an example of a "targeted" good. Items such as this carry neither the fear of theft nor the potential for a market in second-hand goods.

In the case of non-rivalrous goods, works which are only targeted at a single consumer or, more realistically, at very narrow audiences, are not worth copying or distributing beyond this audience.

Their markets are less at risk from circumvention and the non-rivalry of such works can be considered of little consequence. Technical durability can also be countered by negative externalities or specific targeting; in this case, we are dealing with temporal externalities or targeting.

Some goods lose part of their utility after consumption, while others retain it: a film is generally only watched once, although some consumers may enjoy seeing it again. In the case of music, on the other hand, the utility of listening to the same work can endure for a long time, or even increase. Temporal targeting strategies can reduce the attraction of this basic durability; this is the case when goods are only useful for a very short time or until a specific date (in the case of fashion, for example).

Table 1 shows all conceivable types of digital goods. For each criterion under consideration (non-rivalry and durability), a distinction is made between situations where the benefits provided by technological progress are countered by legal and technological methods such as DRM protection measures; and situations where they are countered by strategies relating to the economic nature of the goods.

***Table 1 – Different types of digital goods***

| | Protection | |
|---|---|---|
| | **legal and technological** | **economic** |
| **Non-rivalry** | | |
| zero-cost copying | copy DRM<br>loss of inter-operability | Personal targeting: niche<br>Externalities: status symbols |
| **Durability** | | |
| doesn't wear out | time-limit DRM | Temporal targeting: fashion |

## Generic strategies for extracting value

There are three main types of generic strategy which companies can use to protect the value of content in a digital environment: *direct protection* of digital content by DRM systems such as creating time-limited files or feature-limited files (*e.g.* preventing copying); *indirect protection* of content by various procedures relating to the nature of the works themselves; and *transfer* of content value to related consumer products.

Two types of procedure are used for indirect content protection:

– frequent renewal of content. The effects of fashion can serve as an efficient method of making cultural goods ephemeral, particularly in a mass-media promotion model. It should however be noted that music files, as well as feature films and television series, can be downloaded from peer-to-peer file-sharing networks very soon after their release, which limits the direct scope of a renewal strategy. However, sharing via such networks may eventually become necessary for triggering fashion trends;

– sale as part of a themed package. This involves creating either a complex product composed of a bundle of goods, or a homogenous source of

7. Here, the term "goods with negative (or positive) externality" is used to refer to a situation where the utility of the goods for a given consumer diminishes (or increases) when other consumers also consume the goods. This is the case for goods affected by congestion, such as a road network at rush hour.

goods released in succession. In the latter case, the utility of each separate good is relatively low, and the consumer must purchase all the productions in order to benefit fully from the utility of the source. This is the case for TV series, for example, which in the United States can cover several dozen hours of viewing time for each series, and if successful can carry on for several seasons (thus gaining two orders of magnitude in the shift from a two-hour film to a two hundred-hour TV series). In this case, the piracy of a few episodes does not detract from the value of the source. In fact, it helps to disseminate episodes, hence the ease with which these files can be found on peer-to-peer networks. In the case of music, a strategy of this type would involve offering comprehensive products, either by subscription or as a collection (*e.g.* products such "Mozart's Complete Works on 170 CDs"). In this way, some so-called "independent" labels aim to build a consistent portfolio, even though it is made up of very different artists and genres. These labels hope that their clients will in future base their buying decisions on their overall appreciation of the portfolio rather than on the name of the artist. For reference, two types of strategy are already frequently used in the music business: firstly, niche strategies, which involve tailoring products very accurately to very narrow audiences (on the internet, local niches can develop quickly into extended communities); and secondly, strategies for developing status symbol products.

There are two types of procedure for transferring content value to related consumer products:

– the strategy of transferring the value to rivalrous goods. Such strategies involve linking free content to rivalrous goods that are useful, or indeed necessary, for full satisfaction. In the case of music, such goods might include sleeve notes, booklets, scores, video clips, etc., which provide a physical incentive to purchase open content. The markets for broadband internet access and digital music players (MP3 players, mobile phones, etc.) are also related rivalrous goods;
– the strategy of transferring the value to meta-information. This strategy takes advantage of the fact that cultural goods are experience goods, so, even if the content is now technically non-rivalrous, the related meta-information is targeted at a specific consumer, *e.g.* personalised recommendations on a sales website. However, by its nature, meta-information does not lend itself to exploitation of the consumers' readiness to pay: provision of such information requires trusting exchanges and personal knowledge that sit uneasily with commercial considerations. Scenarios can be imagined in which meta-information is not limited to the information necessary for a consumer to find cultural goods that s/he likes; it can be extended to include the information necessary to appreciate them fully, or, hypothetically, to adapt them to his/her particular tastes (creation of cultural capital).

When mapping out the potential scenarios, we will focus on two main strategies for maintaining content value: protection strategies, which we will divide into "technical protection" and "economic protection"; and transfer strategies, divided into "transfer to rivalrous goods" and "transfer to meta-information."

We shall refer to protection strategies as "P.v", as a reminder that these are high-cost, low-sales strategies; and to transfer strategies as "p.Z", as a reminder that these involve the sale of related products, or even free provision of these products, with an indirect collection of value. An example of the latter would be advertising, in the case of so-called "two-sided" markets.

## The role of meta-information

Cultural goods, and particularly musical goods, are unusual in that supply and demand do not operate along the lines of the traditional market model but are dependent on a complex guidance system that must ensure appropriate qualitative adaptation. In a sense, supply and demand only interact in the presence of catalysts, *i.e.* with the assistance of a diverse range of agents who provide information; prepare the ground; make choices, cultural adaptations and selection decisions; and so on.

Market equilibrium depends less on the available goods and consumer utilities than on the techno-economic system, designated by the term "recommendation", which allows effective interaction between an adaptable supply and a developing, evolving demand.

The recommendation system can be defined by the interaction between two variables:

– the *selection* of works: this takes place before the production stage. It involves professionals either sorting through finished works to decide which should be produced, or providing guidance to the musicians during the composition stage. In what follows, we will assume there are two possible scenarios: either the selection phase is carried out by professionals and experts and plays an important role; or, alternatively, there is no professional

system for selecting works, or one that plays only a minor role;
– the *promotion* of works: this takes place after the production phase. It involves raising awareness of the works and, in a manner of speaking, creating a demand that corresponds to the supply. We will assume that promotion can be either centralised (promotion through the mass media, *e.g.* radio and television) or decentralised (word-of-mouth promotion, either direct or via the internet).

Four possible meta-informational structures emerge from these variables: Star System, Push, Structured Pull and Free Pull (see Table 2, or for more details, the text box opposite).

***Table 2 – The four meta-informational structures***

| | Selection method | |
|---|---|---|
| | by professionals | no selection |
| Centralised promotion | Star System | Push |
| Decentralised promotion | Structured Pull | Free Pull |

## The individual and social utility of music

Taking a long-term view, the musical work could perhaps be defined in three different ways. It can be seen as a consumer good, no different to any other good available for purchase on the market, the only difference being that it is an *experience good*; it can be a *social good* for which the build-up of demand depends more on social interactions and trends than on the nature of the item itself; it can be described as a *cultural good*, which is distinguished by the fact that the producers of it consider themselves to be best placed to determine how it is best to be produced and consumed. From this point of view, cultural activities are linked with tutelary activities such as education and healthcare.

The way in which we view musical works, whether as experience, social or cultural goods, determines how we judge technical, legal or economic evolutions.

According to the role they play, those involved in the recorded music industry will tend to more or less closely espouse one or other view, with labels and studies tending to view them as cultural goods, and other industries divided between the seeing them as experience or social goods, depending on how much faith they have in the media's power of recommendation. Thus, the variable "representation of the utility of music" allows each scenario to be judged according to the various parties. It can also give decision-makers some idea of the extent to which a specific decision should be seen as either an economic or cultural issue within music production.

### The recorded music industry's four meta-information structures

**The Star System model** combines centralised promotion via the mass media with professional selection by independent labels, which can provide both diversity and quality. This is roughly the current situation, although there is a tendency towards the Push model.

**The Push model** combines a lack of selection with centralised promotion. Some observers connect this with the "Pop Idol" model, which is characterised by a general fall in quality, homogeneity of products, increasing blandness of tastes, etc. The Push model is suited to fashion goods or status symbols whose utility is not dependent on their intrinsic quality, and for which selection is not strictly necessary. The mass media are good at manufacturing and imposing fleeting pop sensations and promoting formulaic works through repeated broadcasting.

**The Structured Pull model**, which is close to the current independent label model, is characterised by decentralised promotion. This may take the form of personalised recommendations, *e.g.* on websites selling cultural goods (like Amazon) or online word-of-mouth (*e.g.* through blogs) – in other words, a widely-distributed critical system which allows the emergence of cultural goods tailored to small communities. Some level of quality is nevertheless maintained through professional selection, and particularly through technical standards. Largely thanks to the internet, this model allows a more diverse approach to meta-information than is possible through the mass media, as well as the preservation of current systems for valorisation of content through rivalrous goods or information.

**The Free Pull model** gives artists the opportunity to make direct contact with their public, with no professional selection or centralised promotion. Some believe this is merely a utopian dream and forms of mediation which are very similar to the current ones will quickly re-establish themselves; for example, internet users will tend to visit websites (blogs, MySpace, etc.) for very well-known musicians – the very same who are promoted by the mass media. Others believe that, whilst the internet is a form of media and therefore involves a selection process in what is put online, this selection is different to the process used in the mass media: statistically, it allows more diversity (known as the Long Tail* in this context) and thus has dynamic effects on production based on consumer reactions to the supply.

* The expression Long Tail comes from an article by Chris Anderson in *Wired* magazine (October 2004, http://www.wired.com/wired/archive/12.10/tail.html). Using the example of ratings and reviews on Amazon, the author noted that because commercial websites offer a much wider range of goods than physical shops, they often make the lion's share of their turnover from less popular articles, rather than from bestsellers as has traditionally been the case (the fall in sales by rank follows a 'power law'curve rather than an exponential one).

### The musical work as an experience good

Defining music as a traditional economic good assumes that each individual has well-defined and exogenous, tastes which are either innate or, more likely, formed in their youth, but at any rate, tastes which are little changed in the medium-term by

consumption. In situations where works are not known before consumption; markets require a system of criticism to inform consumers, this system will vary according to whether one imagines the quality of a work to be "vertical", *i.e.* that all consumers share the same opinion, or whether it is "horizontal". In the (more likely) event that quality is vertical, it is possible to place works and consumers into groups of common tastes, the utility of the consumption of a work by a certain consumer being greater the more closely the work corresponds with his or her tastes.

In the event that a work's quality is seen as horizontal, the recommendation system is more effective in informing consumers *ex post* about the position of works, than informing artists *ex ante* about the position of consumers. This model is also supported by the record labels, who naturally consider that their role is to distribute new works to targeted audiences rather than to tell artists what consumers want.

Those who think that musical works are essentially experience goods therefore emphasise the importance of the internet in developing an effective system of music criticism. To a certain extent, they wish to see the process of content digitisation proceeding slowly with content being protected, with the internet's main function remaining the distribution and exchange of meta-information.

## The musical work as a social good

The musical work as a social good is not consumed for its own sake but because consumers imitate each other (fashion) or use their consumption to send out messages to others (*i.e.* ostentation). The actual content of the work is therefore irrelevant to the social good. A centralised recommendation system becomes even more effective than a complex critical review system, which presupposes that works are judged on their own merits.

In reality when a musical work is a social good, a work's consumer utility relies on the fact that others will have consumed it and that it will be possible for them to discuss their experiences of it with each other. It is worth noting however that this type of externality presupposes that consumers recognise an intrinsic quality in these works, or at least believe that they do. Generally speaking, even when trends boil down to nothing more than imitating others, they cannot be seen as such: the absurdity of indulging in mere imitation has to be obscured by other pretexts[8].

## The musical work as a cultural good

The musical work as cultural good is based on consumer tastes not being set in stone, but changing throughout their lifetime. Some works create their own demand, or, to put it another way, can draw consumers to them within the arena of taste. This occurs through a complex series of events, and the initially proposed so-called "addiction" models do not adequately explain the process of cultural creation. Clearly, the demand for music does not have the same dynamic as that for a drug, as is claimed in Stigler and Becker's pioneering work[9].

Depending on the parties involved, and also the type of cultural work, the dynamic of utilities can take different forms. Broadly speaking, three explanatory interlinking scenarios can be distinguished, where the utility function $Ui[.]$ represents tastes, $Qi$ represents the cultural good consumed by the consumer $i$, $Ki$ the accrued cultural capital of the individual $i$ in their previous consumption, and $K$ being cultural social capital:

– either the utility of each consumer depends on a kind of cultural capital which depends on past consumption and which makes them a more or less competent music-lover $Ui[Qi, Ki]$. When listening to a radically different work, each consumer faces an investment choice: is it better to stick with purchasing a work from a known genre, or is it better to invest in building up new capital? The short-term utility ($Ui[Qi, 0]$) does not adequately express its possible long-term utility and an individual's ability to learn. This therefore constitutes an extreme case of an experience good, *i.e.* one must gamble *ex ante* not only on the possible *ex post* utility of the good, but also on its possible long-term utility, after an acculturation period which the consumer cannot clearly envisage;
– or, the utility of each consumer depends on a sort of social cultural capital, as the appreciation of a new work requires a form of collective action, of social appropriation, within a more or less well-structured micro-culture ($Ui[Qi, K]$). For each consumer, the wager is initially even more risky than in the previous case, as no-one knows what anyone else will do (the problem of co-ordination), but, once this trend has been set in motion, exchanges between consumers and the setting-

8. Except in the case of fashion clothing, where mere whimsy takes centre stage.
9. George J. Stigler and Gary S. Becker, "De Gustibus Non Est Disputandum", *American Economic Review,* 1977, 67(2), p. 76-90.

up of a micro-culture makes acculturation easier for everyone;
– or, finally, the utility of each consumer depends on their ability to contribute to social cultural capital, even in a small way, by imitating or taking up new works (*Ui*[*Qi, Ki, K*]); in such situations, the openness of works and their capacity for change and transformation are essential (along the lines of the *Creative Commons* model, for example); welfare depends not only on the works in their totality but also on the combinatorial potential of their basic components.

## THE FIVE SCENARIOS

The following scenarios present not only the musical good from the point of view of the market structure, but also consider such aspects as relationships between the "production/distribution/promotion" channels and consumers and artists.

### The defining principle

Possible future scenarios for the recorded music sector see two distinct phases ahead: firstly, a change to the formats themselves, with digital formats taking over from the physical; secondly, there will be a transformation of the meta-information processing systems required for the development of a suitable supply and demand chain, with the internet enhancing existing mass media and transforming their centralised structure.

These scenarios are calculated by crossing the "extraction of value" variable (either through protection or transfer) with a variable representing changes to the recommendation system, *i.e.* the meta-information distribution system (see Table 3). This currently largely functions as a 'star system' and represents over three quarters of the market's value; it could evolve towards one of three other states, the transitional processes for which can be crudely summarised thus:
– from the Star System to the Structured Pull system: in this scenario the current independent label model gains ascendancy;
– from the Star System to the Push Model: theoretically, the recorded music market is open to all, but in reality under the Push Model even fewer artists than at present would get enough media attention to gain any level of fame;
– from the Star System to the Free Pull System: record companies, at least in their current form, will gradually vanish; they will be replaced by a completely decentralised artist-public business model.

On the basis of this calculation, we get five contrasting scenarios (see Table 4). The sixth possible scenario has been excluded on the basis that it is highly unlikely that the protection of musical content would occur under the Free Pull Model, which basically assumes that content is open to re-use, re-appropriation and modification.

***Table 3 – Structure of recorded music industry business models in the digital age***

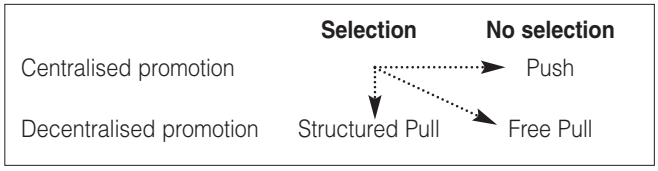


***Table 4 – Five likely evolutionary scenarios within the recorded music sector***

| | Means of extracting value | |
|---|---|---|
| | P.v | p.Z |
| Star System towards Push | *Hit and run* | *Jingle* |
| Star System towards Structured Pull | *Happy few* | *NetLabel* |
| Star System towards Free Pull | | *Consumartist* |

These five scenarios directly reflect growing consumer involvement in music production. The move from extracting value through protection to extracting value through transfer frees up content and gives users much greater freedom of use, particularly with regard to interoperability, copying and swapping. On the other hand, the movement from Push to Structured Pull turns consumers into producers of meta-information, whilst the transition to a Free Pull Model gives them a certain amount of responsibility for actually producing content.

### Description of the scenarios

Each of the five scenarios is described using the same structure, comprising seven criteria:
– *the concept of the musical good.* This relates to the image of the good as previously described (*i.e.* music as a standard good, social good, cultural good with individual or collective capital, or contributive good), which would dominate within the scenarios described;
– *diversity of work.* A distinction should be made between the diversity offered and that finally consumed. It could be that in some situations, the

diversity of supply would exceed the information and acculturation capacity required for consumers to fully benefit from them. In such cases, diversity of content is of no benefit unless there are also adequate means of managing the meta-information which could handle this diversity and allow consumers to benefit fully from it;

– *the source of value and income collection.* Value may be based on the good itself, on the way it is promoted, on meta-information linking to it or on consumer collaboration in generating content. Income may be collected through the sale of physical goods, rival files or services. It can also be collected from advertising revenue or site subscriptions. There is less and less connection between the source of value and collection methods which are based on consumers'readiness to pay (or groups of consumers' readiness to pay);
– *the type of demand-supply power relationship.* Various systems are possible based on the power relationship which is established between the short-term orientation of supply by an assumed pre-existing demand and the long-term orientation of demand by an original and innovative supply;
– *the nature of the relationship between the production/distribution/promotion system, consumers and artists.* These relationships can be conflicting or cooperative: we have drawn a distinction between situations which are favourable or unfavourable to the consumer, and on the other side, between situations which are favourable or unfavourable to the artist. Therefore, situations in which publishers threaten some consumers suspected of piracy with prison can be described as unfavourable to the consumer; similarly, situations in which publishers shun original artists, prioritising instead a standardised output, can be classified as unfavourable to artists;
– *key players.* These are those parties in a position to effectively curb or advance progress, whether because they benefit from these changes in the short-term or, conversely, whether they fear their business model will be too severely compromised;
– *activity and market structure.* This determines which party ends up in the dominant position, once the situation has settled. We will distinguish between volume of activity and value of activity.

## ❶ The Hit and Run scenario

The parties involved attempt to maintain their pre-digitisation business models for as long as possible. They continue to favour value extraction from physical goods (*e.g.* CDs) or files which have been artificially turned into rivalrous goods. To maintain this state of affairs, a repressive anti-piracy system has been implemented. It is based on technological protection (DRM) and on reinforcing legal measures, using particularly stiff penalties to act as a deterrent to those engaging in piracy. In this scenario, the change of dominant format from CD to digital files occurs slowly.

The iTunes platform is a typical Hit and Run business model, as it sells songs in protected and non-interoperable file formats. The result is a pattern of consumption which differs little from that of the physical model and which is therefore relatively limited. The record companies are still focussed on producing hits, and maintain monopolistic pricing practices.

• *Concept of the musical good.* Within the Hit and Run scenario, music is seen as a standard economic good with corresponding rights, in just the same way that rivalrous goods have rights. Digital files are locked or linked to a particular type of device. They cannot be copied or exchanged; at best, the user may be able to copy a file onto two separate devices (computer and portable media player, for example). DRM protection systems make consumption difficult and may interfere with the functioning of individual terminals (*e.g.* computers) which raises confidentiality and computer security issues. From this point of view, music cannot be a means of connecting people.

• *Diversity of works.* This scenario offers average diversity levels (that which prevailed in the world of physical distribution when so-called independent record dealers or specialist music shops still existed). The diversity of consumption is also average and is considerably lower than the diversity available.

• *Source and extraction of value.* Protected files are sold via online distribution platforms. The value of the music resides in this protected content, and its value is realised by the sale of these quasi-objects. For this model to gain ascendancy, it would require both that DRM systems be effective and that circumventing them be strictly prohibited.

• *The demand-supply power relationship.* The Hit and Run scenario prolongs the current situation without taking into account the new opportunities which digitisation brings. Consequently, as in the vinyl era with its associated expensive and labour-intensive distribution, in the short term supply meets a previously-identified demand, thus minimising the financial risk of launching an original work. The risk-averse and unoriginal nature of record production is explained by the fact that it

caters to consumer tastes above all other considerations.

- *Relationships between the production/distribution/promotion system, consumers and artists.* Here, the production/distribution/promotion system is unfavourable to both consumers and artists. Producers, publishers and distributors threaten consumers with severe penalties, even prison, for copying or downloading files through peer-to-peer networks. In return, consumers feel resentment and anger towards the recorded music industry. The advantages of digitisation are already to hand, and is clear to all that this is a system in which a failure to adapt is hindering technological progress. The vast majority of artists (although not those who are already famous and thus benefit from the system), are keen to short-circuit this Malthusian system; they also fear, however, that should they distribute their music in an open format (for example through a Creative Commons-type process), they will be unable to profit from their work once do achieve fame.
- *Key players*. In the Hit and Run type scenario, those responsible for locking content play a pivotal role. These consist mainly of major record companies, hardware and software producers, DRM system designers, producers of media player software (such as Windows Media Player, Winamp, etc.), possibly the network operators, once they decide to "get into content" using their own protection systems (by developing encryption technologies, as France Telecom has done with its subsidiary Viaccess). Usually, hardware such as media players are not interoperable (*e.g.* the Zune media player) and are the source of much wastage, at least in terms of social welfare, due to the development of incompatible distribution networks.
- *Market activity and structure*. The Hit and Run scenario leads to a fall in market value and volume:
  - the falling price of recorded music which has occurred over the last few years cannot be stopped; it would be unrealistic to believe that in the long term the cost of protected files could ever be maintained at the same price as physical formats;
  - the move from the dominant model of per-album purchasing to a per-track purchasing model is likely to reduce artists'revenue without them seeing a corresponding reduction in costs, in the likely event that price elasticity of demand is such that the 'bundling'sales model (supplying items not singly but in vendor-determined bundles) fails to dominate;
  - increased imposition of DRM systems (governing copying and use) combined with a crackdown on piracy would have a seriously counter-productive effect.

The drop in activity in the recorded music market would have a knock-on effect across the entire industry. This would undoubtedly affect the studios and distributors more than the publishers, as only half of their revenue comes from the sale of recorded music, and events organisers.

Two factors seem to favour an increase to the industrial contingent within the sector to the detriment of independent labels:

- the gradual disappearance of physical sites where consumers can buy and get information on new music, particularly independent record dealers;
- the ineffectiveness of online promotion which cannot, in the short term, play a role whose diversity mirrors that of physical resources.

## ❷ The Jingle scenario

In this scenario, the parties involved do not seek to realise the value created by recorded music through the sale of protected content. In their view, a crackdown on piracy is not desirable, whilst the negative effects of DRM systems on market development outweigh its protective benefits. Recorded music would then be freely distributed and industry revenues would be generated from other markets whose growth would be boosted by the drop in the price of content.

- *Concept of the musical good.* In the Jingle scenario, music is seen as a social good. Music is not seen to have any intrinsic value. It acts as a promotional tool for other goods. It designates various products and services and improves their chances of consumption. Finally, its consumption constitutes a form of ostentation or a signal that one belongs to a particular group or sub-culture. What typifies the Jingle scenario is that the success of a work and the profit it generates are not directly related to the work itself or its quality but to the promotion from which it benefits and the economic and social role which it plays.
- *Diversity of works.* Within the framework of the Jingle scenario, the available diversity at any one point is poor, even though there is a rapid turnover of supply. Moreover, it is important to distinguish between the turnover of works and turnover of genres. There will be a rapid, trend-driven turnover of those works promoted by the mass media, but genuinely new genres will struggle to emerge.

- *Source and extraction of value*. Within an attention economy[10], music will extract most of its value from promotion through the mass media. This value can be extracted either from related products, for example mobile phone ringtones, or advertising, which is often aggressively promoted, for example the inclusion of commercials within a piece of music (a good example of how this works is the Spiral Frog music download service, which is designed so that subscribers have to listen to advertisements before each piece of music).
- *Supply-demand power relationship*. In the Jingle scenario, supply no longer has to follow short-term demand. The effectiveness of mass-media promotion is such that the success of any work or artist, even a randomly-selected amateur, will be based purely on how hard it has been promoted. Supply is not subservient to demand, quite simply because in this scenario, all taste or demand is directly or indirectly driven by the mass media.
- *Relationships between the production/distribution/promotion system, consumers and artists.* In this scenario, the production/distribution/promotion system is more favourable to consumers as the value of musical works is not maintained by protecting files through intrusive DRM technologies and by criminalising consumption. On the other hand, both artists and independent labels consider that the media encourage standardised consumer tastes and promote poor-quality music that is practically insipid background music, which might eventually even be produced by computers. This therefore constitutes an unfavourable scenario for artists.
- *Key players.* In the Jingle scenario, the key players are, on the one hand, the mass media who might create their own labels, (*e.g.* TF1's *Music One*), or their own marketing and promotion (M6's *M6 Music* or MTV's *Urge MTV*); on the other hand, there are the majors and the online distribution platforms financed by advertising. These sites work to the same model as the media, producing both standardised cultural goods and audiences to match. They broadcast streaming music, interspersed with advertisements.
- *Market activity and structure.* In a scenario in which recorded music consumption is dictated by the mass media, the major players are at an advantage as they are the only ones with access to effective promotion.

They are also in a better position to negotiate appropriate contracts with partners in related markets[11].

The market will therefore continue to concentrate in the hands of the few, and independent labels will experience growing difficulty in drawing up fair contracts. Changes could be even more far-reaching if certain parties in the access markets decide to integrate vertically into music production, as they have with distribution. From this point of view, a contribution from the access operators and the big businesses financing musical creation (*e.g.* a tax on those providing internet access, extending private copyright, etc.) could have a stabilising effect; such a contribution might even be beneficial if it is also combined with redistribution towards new artists and smaller organisations. The volume and value of activity is hard to predict as it depends on consumer activity in other markets. However, it is probably safe to say that the sums involved would be considerable[12].

### ❸ The Happy Few scenario

The effectiveness of decentralised online promotion offers new opportunities to those who no longer necessarily need to rely on the centralised media to promote work to the public. This scenario relates to the Structured Pull Model.

If the sale of protected, non-interoperable files remains possible within the scope of this scenario, content protection takes more subtle and varied forms than in the previous scenario, *i.e.* addressing, segmentation, time-limited rather than copy-limited DRM technologies, etc.

The diversity of supply and consumption would be higher than they are currently. This could result in a less concentrated digital distribution, with the parties involved more likely to supply to niche markets. They would also have the relative advantage (compared with generalist bodies such as *iTunes*) of improving sales of digital files by supplying recommendations based on statistics or other online community groups.

- *Concept of the musical good.* In the Happy Few scenario, music is seen as a cultural good with

10. An attention economy is one in which the value of goods and services is based on the attention they draw from the public. Part of this value also derives from the public's attention to related goods and services.
11. It is interesting to note that, of all the companies involved in music production, only Universal Music managed to actually strike a deal with Microsoft which led to a repayment of a fraction (albeit a small one) of revenue generated by the Zune media player.
12. For example, a monthly 2 € tax on each broadband internet subscription would raise around 260 million €, which would be enough to cover more than three quarters of the 340 million € fall in music publishing revenues recorded between 2002 and 2005 (according to figures by French record industry body SNEP).

individual capital. Music lovers can, as individuals, consume the music they enjoy, but also discover new, innovative works, becoming gradually accustomed to new genres. There will be a charge for content, and therefore trying out new works will be costly. Record companies or online distributors take over free peer-to-peer networks and then provide file content, which consumers pay to download. The activity of discovering new music is restricted to a minority, *i.e.* those who have the means to gamble on the utility which such works may eventually provide.

- *Diversity of works.* There may be a great diversity of works available, particularly if independent labels and online distributors play their role. Nevertheless, the diversity of the works actually consumed will undoubtedly be much lower than it might be, due to the still relatively high cost of digital files.
- *Source and extraction of value.* As in the Hit and Run scenario, the value of music resides in content. However, in this scenario revenue collection is rather more creative: although it may still be based on the sale of protected files, usually producers and distributors will rely on a range of business strategies, such as:
  - bundled sales in large denominations, which effectively supply the consumer with hitherto-unknown works for free;
  - targeted addressing using a statistical recommendation system which analyses past consumption (broadcast channels which «learn» tastes and suggest new music which users are likely to enjoy, such as *Musicmatch, Last.fm, Emosound, Pandora*);
  - time-limited addressing (time-limited DRM technologies), for example by supplying new works for free on a "try before you buy" basis.
- *Supply-demand power relationship.* For wealthy customers at least, the Happy Few scenario allows new music to find its audience. This scenario attempts to subjugate demand to supply and not vice versa, moving away from the school of thought which says "we must give the customers what they want; if they want mediocre music, that is what they shall have; what's more, it's cheap to produce and we can make a fat profit from it". Nevertheless, there is a risk that a social divide will occur between those who can afford to use the high-quality «pay-per-use» model, and the rest who are stuck with the «free» media model (described earlier as the Jingle model).
- *Relationships between the production/distribution/promotion system, consumers and artists.* The Happy Few scenario is in some respects a half-way house situation. Unlike the Hit and Run scenario, it is not unfavourable to consumers, and unlike the Jingle scenario it is not unfavourable to artists. However, it is not as favourable to artists as the scenarios which follow. It is a compromise, which, whilst it does not ignore technological progress, it does not make the most of it either, in order to maintain current business models.
- *Key players.* Within the scope of the Happy Few scenario, independent labels may have to join forces but will still play a key role. Those parties which can ensure diverse production and distribution, combined with innovative pricing schemes, will lead and shape the market, good examples of this being specialist distributors FNAC Music and VirginMega, and online protected file distribution platforms such as *e-compil* and *Buy Music*.
- *Market activity and structure.* If the supply-demand dynamic is suitably balanced, activity should grow, in volume if not in value. However, this effect may be offset by the deterrent effect of relatively high prices for files whose use is restricted by DRM systems and non-interoperability. The independent label model, which promotes the search for talent, becomes the dominant market structure model, whilst the Star System model declines. The major labels also decline as independent labels join forces to reduce their overheads. On the distribution side, alongside the previously-cited newcomers, some non-industry players such as Apple, Microsoft and the telephone operators, would come to dominate the sector to the detriment of previously-established distributors. However, the studios, publishers and events organisers would remain largely unaffected.

### 4 The NetLabel scenario

With the growing diversity of production, value is no longer inherent in musical content, but in technological and social processes which allow meta-information to circulate effectively.

The effectiveness of decentralised online promotion puts the search for talent at the heart of music production. Centralised media promotion is replaced by promotion not by self-styled experts but those recognised by internet users, which ensures a greater balance between musical production and demand.

In this type of scenario, financing through advertising becomes less appropriate, as there is a wider pool of artists but who have a smaller audience than in the Jingle scenario. Instead, in addition to online

file sales, each artist can raise revenue through concert ticket sales and merchandising, which would therefore become more important as start-up costs would be freed from the costs of promotion and physical distribution. It is also a possibility that the sector as a whole could be financed through a contribution from the online access markets.

- *Concept of the musical good.* Within the NetLabel scenario, music is seen as a cultural good with social capital. Consumers will often share their views on the works that they consume. They will know each other through membership of real or virtual communities and thus will trust each other enough to follow community advice on new works.
- *Diversity of works.* There is a great diversity of work available. The extent of this diversity depends largely on the diversity of consumption, which will rely on the effectiveness of the community acculturation processes that evolve.
- *Source and extraction of value.* The NetLabel scenario is characterised by the fact that the value of recorded music resides essentially in the meta-information required for its consumption. The extraction of this value is problematic. On the one hand, as this is meta-information, the goods themselves are addressed to a single consumer, and therefore their value could theoretically be realised directly through sales or subscription; on the other hand the sale of meta-information is not customary, particularly as its value depends on the how reliably it is compiled. However, there are counter-examples: *Google* for instance has found an effective model for separating meta-information from advertising.
- *Supply-demand power relationship.* The NetLabel model involves the manipulation of demand through innovative supply. Nevertheless, the use of musical works based on community recommendation can lead to a redirection of information from demand towards labels and artists. Here, demand is, in the short term, subject to supply, but in the long term, musical innovation could, to a certain extent, be subject to demand.
- *Relationships between the production/distribution/promotion system, consumers and artists.* The production/distribution/promotion system is generally advantageous to both consumers and artists. Nevertheless, the success of the scenario depends more on the distributor-consumer relationship than on the producer-artist relationship. Consequently, should such a scenario gain prominence, the production/distribution/promotion system will undoubtedly be more favourable to consumers than to artists.
- *Key players.* In the NetLabel scenario, big business and the hardware vendors, particularly those selling home studio equipment, will play a key role, as will interactive online platforms. More specifically, the latter have a responsibility to create an 'ecosystem'that will encourage both invention and acculturation. A number of possible models could bring together artists, independent labels, music lovers and consumers:
  - the supply of non-protected files (*e.g. Starzik, MusicMe, Bleep* or *eMusic*);
  - the supply of meta-information in the form of databases financed by advertising (*e.g.* databases such as *Allmusic, Discogs,* or blog aggregators such as *Hype-machine*);
  - the organisation of recommendation-based social networks such as *Amie Street, BnFlower* or even *MySpace*[13]; some sites also aim to extract value from recommendation networks using a model which rewards those making recommendations (*Weed*);
  - the supply of meta-information on navigation (conducted on a trial-and-error basis) within the arena of taste, using statistically-based recommendation systems (*e.g. Emosound, Last.fm, Pandora, Musicmatch*).
- *Market activity and structure*. In this scenario, the volume of activity grows rapidly; with regard to value, there is a question mark over the inventiveness and effectiveness of models that rely on creating value from meta-information.

A large number of small, mainly independent labels are likely to coexist. Decentralised promotion allows homogenous areas of demand to emerge. The lowering of promotion and physical distribution costs significantly lowers barriers to entry. The search for talent becomes imperative, due to the increase in supply.

Once supply is better matched to consumer tastes, correspondingly there should be a greater readiness to pay, which should result in higher spending in related markets, and, in return, in greater financing of music creation.

13. The recent agreement between a group of independent record companies, Merlin and MySpace through licence manager MyStore shows how relationships might work in this type of scenario.

## 5 The Consumartist scenario

In the *Consumartist* scenario, the boundaries between professional, occasional and amateur producers become very blurred. Part of its value remains non-market. Much more than in other scenarios, increased welfare does not just come down to profits and a surplus of active parties; it is the result of a sea change in the way music is produced and consumed.

Inversely, it is important to bear in mind that, due to the major economic, social and legal upheavals involved, some players in the sector will have to undergo a long and difficult adjustment period. Moreover, the coexistence of an open model of collective creation alongside the current dominant model (*i.e.* the mass media model) may fuel false hopes. Platforms such as MySpace, which since 2005 has belonged to Rupert Murdoch, may give the illusion of easy access to effective promotion for everyone, whereas it is more like an extension of the mass media. The major labels currently use MySpace and peer-to-peer network exchanges to test out different album tracks and to see how well they match public tastes.

- *Concept of the musical good.* In the *Consumartist* scenario, music is seen as a contributive cultural good. The utility of consumers depends not only on the social capital to which they have access, *i.e.* their acculturation within music-loving communities, but also their possible contribution to this capital. The fact that works are open[14] allows everyone to quote them, change them and partially re-use them.
  Of course, not all consumers are enlightened amateurs and not all enlightened amateurs are artists, but all are, or can be, contributors.
- *Diversity of works.* The diversity supplied in this scenario is perhaps not much higher than of the NetLabel scenario, but the diversity consumed certainly is. It is based on a combination of the available works, with consumers reworking any forms they wish and making the results available to all.
- *Source and extraction of value.* In this scenario, value is generated from two sources: firstly from those works which can be re-used; secondly, from the ability of amateur musicians to use and rework them; (essentially, to borrow an analogy from another industry, parts plus labour). Income can be collected both from those works which have been re-used (through licensing on a Creative Commons-type model) and from services relating to the teaching of music composition.
- *Supply-demand power relationship.* In the *Consumartist* model, there is a co-evolution of supply and demand, to the extent that the definitions of consumption and production tend to become confused. Within the domain of music creation, consumption and production algorithms will be transformed along the same lines as the disintermediation that is occurring in other economic sectors. Just as in the tourism sector, consumers can organise their holidays by selecting the basic individual services (travel, hotels, etc.) and thus circumvent travel agents entirely, so in the Consumartist scenario, consumers will be able to compose works by re-using the elements of production. Sites such as *YouTube* or, in another sector, *Flickr*, help pave the way to this 'DIY' artistic economy.
- *Relationships between the production/distribution/promotion system, consumers and artists*. As in the previous scenario, the production/distribution/promotion system is advantageous to both consumers and artists. Nevertheless, it should be noted that the success of this scenario would depend on the way in which established artists view the "competition" of amateurs. Moreover, if legislative bodies, in an attempt to defend professional artists who risk being exploited, redefine amateur performance and production as 'professional', the *Consumartist* scenario could be considered, by some at least, as unfavourable to artists.
- *Key players*. In the *Consumartist* scenario, outside of the artists themselves, the main players would be the marketing platforms for services and reusable elements, as well as vendors of home studio equipment. The network operators could play a key role if they decide to «get into content» by setting up peer-to-peer networks and boosting them with meta-information management platforms (communities based around experience and practice). Finally, open-source file marketing platforms based on Creative Commons licensing, such as Jamendo[15] or Magnatune currently provide, as well as sites which attempt to put artists and amateurs in touch with each other (*Artist-*

14. Here "open" means not only an absence of restrictive DRM technologies but also the possibility of re-using a work in a new, original creation (in the same way that "open source" software code is open).
15. The ongoing negotiations between Jamendo and SACEM are a good example of the problems that are likely to arise when attempting to establish digital music as a communicable cultural good.

*share, Sell a Band*) will of course become important agents in restructuring the sector.

- *Market activity and structure.* The volume of activity shows strong growth. The systems which create value from this have yet to be invented. In this scenario they are more complex than those required to create value from meta-information. The definition of authorship will gradually lose its meaning, as will the notion of intellectual property. This evolution, which might be seen by some as incredibly exciting, could nevertheless possibly lead to insoluble conflicts of interest and prohibitive transaction costs if the definition of intellectual property rights does not change radically.

The complete breakdown of the current production process and the increasing prevalence of the 'artisan' model are also, paradoxically, likely to have an injurious effect on the sector's professional bodies, *i.e.* the major record companies and labels, the studios, distributors and publishers.

These five possible scenarios may have elements in common with some of the new business models that are emerging within the recorded music sector. The table on p. 40 shows some examples of these new models, which are by no means exhaustive, and relates them to the five scenarios we have described. FING[16] also includes a very complete picture of these new economic models within the recorded music industry in the digital age.

## Conclusion

There is a paradox at the heart of the current recorded music industry crisis. Despite music CD sales falling steadily since 2000, more music is being listened to and appreciated than ever before, whilst production has never been so diverse, nor distribution so widespread. Music is omnipresent. It is enjoyed for its own sake: concerts draw in greater audiences. Music is also becoming a way of communicating, from mobile phone ringtones to background music on websites.

Not only is more music being consumed than ever before, but it is also more carefully chosen and better adapted to everyone's tastes. Meta-information is increasing in value and efficiency: the old-fashioned word-of-mouth that was previously limited to groups of friends now extends to online communities, which are in fact vast networks, such as those developing on MySpace. Statistically-based recommendation systems are becoming increasingly sophisticated, with some sites offering consumers the option to move into a hitherto-undiscovered world of artistic works which match their tastes. Moreover, they can go on a voyage of discovery which will allow them to learn and become accustomed to new musical genres using personalised media player systems (*e.g.* portable media players running special software) or adaptive streaming broadcast sites.

When CDs are replaced by digital files, the cost of production will fall, with distribution costs being cut significantly. These increases to productivity will allow for more diversified consumption, and intermediary services between consumption and production will spring up, *e.g.* amateur musicians will be able to access low-cost, professional-quality home studio technology. Works will no longer be sacrosanct. They will be re-used, remixed with others and reorganised into new works. Creating compilations, remixing and sampling will be liberated from the constraints of copyright, and peer-to-peer networks will challenge the right to private copy only.

However, the production, distribution and promotion processes are slow to take advantage of the opportunities that advancing technology, the internet and digitisation offer. Consumers evolve rapidly, overturning prohibitions and inventing new models. Business models, management practices and legal constraints all urgently need to evolve, to see digital technologies as exciting new opportunities rather than threats to which they must submit.

These evolutions are likely to completely revolutionise both the means of creating value within the music industry and of financing it.

The weight of the value-creation process will shift from content towards the meta-information required for its consumption[17]. When all recorded music is supplied along with the purchase of a portable media player (in the same way that computers are supplied with an operating system), the value of content will clearly be based on the software systems and social networks that will allow users to navigate files and find enjoyable and exciting new music. In a world of information overload, recommendation and meta-information will create

16. FING, *Débat public : musique et numérique, créer de la valeur par l'innovation.* Fédération internet nouvelle génération [New generation internet foundation] 2007. http://musique.fing.org/files/Etat_Etude_Musique_FING. pdf.
17. P. Chantepie and A. Le Diberder, *Révolution numérique et industries culturelles, op. cit.*

the value of content. From this perspective, the mass-media mode of recommendation and that of decentralised online promotion through electronic word-of-mouth are likely to yield very different results. However, although the various music industry players may strongly criticise the mass media's recommendation role and the way in which it reduces diversity and quality, and although they may regret the gradual decline of the specialist outlet, they still do not have any clear idea of the online recommendation system that is currently being developed using Web 2.0 interactive platforms.

When the value of music was based on content, and the technology to copy and distribute it at very low cost was not available, the extraction of this value from the market was able to finance musical creation. Therefore, if the value of music now relies at least partly on meta-information, a new set of problems present themselves: firstly, the means of extracting this value to finance platforms and possibly content; secondly, the measurement of audiences based on meta-information consumption; and thirdly, the quest for means of financing creation through the transfer of revenue from activities whose direct relevance to music varies, *e.g.* spin-off products, hardware and other consumer goods industries and network industries. ■

## *Appendix – New economic models and the scenarios to which they relate*

❶ Hit and run ❷ Jingle ❸ Happy few ❹ NetLabel ❺ Consumartist

| | ❶ | ❷ | ❸ | ❹ | ❺ |
|---|---|---|---|---|---|
| ■ The release of "special edition" CD/DVDs, with additional tracks, interactive video for each track, chat with artists, a range of stickers to allow customisable covers, etc. Some of these functionalities are available through **Opendisc** technologies. | ❶ | | ❸ | | |
| ■ **SonyBMG** develops shorter versions of music videos aimed at new formats, *e.g.* mobile phones, websites, etc. Contents vary: *e.g.* previously unseen concert clips or studio sessions, interviews with artists discussing how tracks were made, etc. | ❶ | | | | |
| ■ **NRJ studio** is a virtual space in which users can download their music for other "artistic committees" of users to vote on. The best content will be broadcast on the website radio station, the TV station NRJ12, and via the NRJ mobile network; the best artists may be signed up to the NRJ Music label. | ❶ | | | | |
| ■ **Qtrax**, developed by the American LTD Network, has a peer-to-peer system with which EMI agreed to get involved in 2006. There are three options available: free, financed by advertising, subscription or pay-per-use. In the free model, the user can listen to tracks up to five times before opting to go onto the paying tariff. In addition to royalties from those tracks purchased, record companies will receive a share of advertising revenue. | | ❷ | ❸ | | |
| ■ **SpiralFrog**, which signed a deal with Universal, aims to provide free music financed through advertisements broadcast before each track. | | ❷ | | | |
| ■ Broadcasting of concert footage by mobile phone operators to their subscribers. In January 2007, SFR signed a deal of this type with the Parisian venue La Cigale. | | ❷ | | | |
| ■ TF1 set up its **Music One** label, through which basketball player Tony Parker released a hip-hop album in March 2007. | | ❷ | | | |
| ■ **Artistshare** offers consumers various deals worth up to $1000 per annum for unique access to an artist (personalised music lessons, access to backstage areas, rehearsals, etc.). | | ❷ | | | |
| ■ On **MySpace**, artists can create their own personalised page and make their music and videos available on it, give concert listings, talk with other users, etc. Allows record companies to assess the audience for a project before signing up. | | | | ❹ | |
| ■ **Snocap** signed a collaborative deal with MySpace to enable artists with a MySpace page to sell music in an MP3 format, setting their own prices and paying them a commission for each sale (MyStore). Merlin, the new international organisation representing independent music, signed a deal with Snocap in 2007 to give thousands of independent labels access to MyStore. | | | ❸ | | |
| ■ The **Amie Street** website allows artists to place, promote and sell their music to user communities which can then comment on, review and rate artists. Initially, tracks are free but price rises with demand. Once they reach the $5 mark, artists get to keep 70% of revenue generated. | | | ❸ | ❹ | |
| ■ **MusicMe** offers, for a €14.95 monthly subscription, the option of unlimited downloads from 600,000 titles (from the 'Big 4', as well as independent labels), for use on three computers and three portable media players. | | | ❸ | | |
| ■ **Blast My Music** is a site offering artists an embeddable mini digital MP3-format music sales platform that can be integrated with any official site, blog or private webpage, and requires no further intermediary. Blast My Music takes a 35% cut of sales. | | | ❸ | | ❺ |
| ■ **SellABand** allows artists to raise money from the public to make a record. This type of platform could also work in pitching more ambitious projects to mobile phone companies or internet access providers. | | | ❸ | ❹ | ❺ |
| ■ **AlterMuzik** relies on Weed software that allows users to download a piece of music free of charge, and listen to it three times. To listen more than three times, payment is required. Site users are free to swap their file or post it on a web page. Any new listener then also gets to play it for free three times; if the user then goes on to buy the track, the user who sourced it gets 20% of the sale; 50% of sales go to the artist. This is known as a viral distribution system. Starzik opened MyStarzik shop, which is a site for artists and microlabels to sell their music and get 50% of revenue. | | | ❸ | | ❺ |
| ■ **BnFlower** is a community of sites and blogs which distributes independent artists and within which artists and their distributors increase their respective exposure thanks to the rest of the network. The more artists a blog distributes, the greater its chance of being distributed to the rest of the community. Similarly, the more widely artists are distributed through blogs, the greater their chances of being promoted by the community (artist of the month, etc.). | | | | ❹ | |
| ■ **Last.fm** offers a free music streaming service and a recommendation system (artists are associated with a particular area of music). Users can also find other users with similar musical tastes and share their playlists. The site is largely financed through banner advertising. | | | | ❹ | |
| ■ **RadioBlogClub** and **Pandora** are web radio stations which allow users to listen to a specific title online and the site generates a list of "similar" tracks to that played. Listeners can also rate these tracks in order to refine their profile. These tracks can also be added to a blog. | | | | ❹ | |
| ■ In 2006, **Dailymotion** signed an agreement with the SPPF, giving them permission to broadcast videos for some 350 independent producers such as Wagram and Harmonia Mundi in exchange for a share of advertising revenue. In January 2007, Warner Music also signed a similar agreement. In addition, Warner Music gave Dailymotion users the right to use music from its catalogue in videos which they create. Again, this is financed through sharing the advertising revenue. | | | ❸ | ❹ | |
| ■ On the **Jamendo** platform, users are free to pay what they want for tracks that they download. On average, between €15 and €30 per month and per artist, although some managed to reach €1000 before being signed up to a label. | | | | | ❺ |