The Home Entertainment Industry & the Hyper-consumer:
Consumption with or without Industrial Participation

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Abstract:
ICT enabled the development of disruptive technologies, which – so the proposition – are having a potential that participants on various levels of the Home Entertainment Industry and its value chain may face discontinuous conditions due to shifting consumption preferences.

ICT-technology allows consumers to exclude the established industry, which offers pre-recorded content, most times on media, whose content cannot be altered and forces consumers to purchase the content, which this industry has pre-selected, while download platforms offer a huge variety of content, which can be selected due to individual taste and preferences fueling the experiential prosumer and community concepts of hyper-consumers. Permanently decreasing sales quantities of pre-recorded content are confronted with increasing downloads and exchange quantities on c2c and P2P level.

Key words:
Hyper-consumer, P2P, c2c, discontinuous change, disruptive technologies

Introduction
In the focus of wider research is the industry of replication of optical discs, which manufactures various formats of DVDs and CDs and is a supplier to the Home Entertainment Industry (HMI). Objective of the research is the discovery of strategic answers the replication industry prepares in the face of disruptive innovation, i.e. virtual downloads, which will likely result in this industry’s obsolescence in the near future due to the discontinuous environment ICT has created. I.e., which are the strategic options the participants of this industry may develop in their declining environment, either for exit or for survival by adoption of a rather radical new strategic framework. The hypothesis of obsolescence is supported by various previous research undertaken, e.g. by Benavent, Benghozi, Benghozi et al., Moyon and others (2008; 2005, 2006; 2000, 2005; 2007). Further evidence provides a similar pattern of earlier occurrences, which are the destruction of the vinyl record, the music cassettes and the duplication industry of VHS cassettes. In all three industries only a minimal proportion of manufacturers has survived serving a marginal specialist market. In general it is suggested that these developments may find some theoretical explanation by Schumpeter’s wind of creative destruction (1950:81-87).

The proposition is that there is a comparable scenario – radically changing technology – to these previous occurrences, but with a decisive difference. As research in the field of innovation has provided evidence innovation has two streams technology and market linkages. In the earlier occurrences referred to here, technology changed radically and architecturally from analogue to digital. This time a major difference is observed, since simultaneously the consumer behaviour is changing, the ways of consumption and especially the ways to purchase music. I.e., technology and market linkages have both developed discontinuous forces for the distribution of physical products, such as DVDs and CDs.

A further hypothesis is therefore introduced, which considers that the replication industry is in an extended disadvantageous position. While the industry of content owners, explicitly the music, movie and games industry, have a comparatively direct contact to the value and distribution chain’s final point, the consumer, the replication industry is supplying the market of content owners lacking such contacts with the final point. This reduces its opportunities to interact directly. Such position is not unique to the replication industry many other industries are in a similar position, like, e.g., suppliers to the car manufacturers. The studies of Abernathy et al. have provided important insights into this field, strengthening the hypothesis expressed (1983). The assumption is that such indirect position reduces strategic options for survival further.

The hierarchically cascading conclusion is that the replication industry is threatened

1. By the discontinuous environment new Internet options have emerged, i.e. the shift from physical to dematerialised product (technology).
2. Additionally by the increased speed of shifting consumer acceptance and behaviour, caused not only by new access patterns, but as well by the opportunity of Peer-to-Peer (P2P) file sharing, which cuts into the revenue streams of the replication industry’s customers resulting in a situation of crisis especially in the music industry now, but already starting in the movie and games industry (market linkages).

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This paper’s intention is to address market linkages, i.e., a limited discussion in scope to understand better what consumers drives, who change their pattern of consumption, before further exploring those options the replication industry may for a smoothing exit or for survival of a few participants. Since the replication industry is technology driven, the proposition is, that potential answers can mainly be developed in the technological stream, which has to be accepted by consumers via the HMI’s potential market offers or may result in institutional strategic reflections to target different businesses, which may allow to capitalise on the replication industry’s existing resources and capabilities (R&Cs).

**Shifting Consumer Behaviour**

Assink’s definition of disruptive technologies as the successful exploitation by radical new product, process, or concept that significantly transforms the demand and needs of an existing market or industry, disrupts its former key players and creates whole new business practices or markets with significant societal impact has significance for the key role ICT plays in the changing value chain of the HMI (2006). Benghozi et al. argue that the analysis of the music industry has created radically new market structures (portals, electronic market places, communities) resulting in original economic transactions (payment, contracts, investment process), which attracted new entrants into the cultural industries and heavily transformed competition and firms’ positions in the added value chain of music production and distribution (2000). A significant turning point in the dissemination, so the proposition, is the market introduction of the iPod transforming the ways the public listens to music with huge ramifications for the major record labels (Trott. 2008:29-31). The iPod combined a number of innovations in a new value cycle: The iPod and similar players, which may be seen as the emerging new dominant design in the field of players, MP3 files, suggested as a new dominant design for music and iTunes, which may be the culminating point of a new design of point of sales of virtual dematerialised products for immediate access, unlimited availability and immediate consumption. Some evidence for Benghozi et al.’s argument of new entrants’ attraction is provided by the research of Adomavicius et al. by linking the breakthrough of iTunes to the entrance of the new market participants Dell, Yahoo or MSN (2008:789). This new group represents the new world of dematerialised products competing with the established HMI initially in music firstly, but growingly as well in the segment of online movies. What combine all of them are their inherent institutional organisation and profit orientation.

Against this institutional perspective stands a second power, which may be seen as the real driving force for the replication industry’s (and may be even beyond it) discontinuous environment, the non-institutional marketplace, which Benghozi et al. describe as communities, but which can consist of individuals as well. Von Hippel highlights that users innovating and wishing to freely diffuse are able to do so cheaply in large part because of steady improvements in Internet distribution capabilities, frequently using P2P sharing networks (2005:118). This reflects on von Hippel’s concept of the democratisation of innovation. Examples for this approach are developments like, e.g. pandora, hulu or spotify, which created strong consumer links outside institutional distribution networks and channels in ways, which these are unable to fulfil due to the physical structure of their products and distribution channels (Oestreicher et al. 2009). The cost structure of full physical distribution is different to that of online distribution. This involves online shops, too, but has significant further impact, when products become dematerialised. Furthermore, physical products, such as CD and DVD are composed of pre-recorded content, which cannot be changed subject to individual preferences. In a world of dematerialisation consumers have a free choice of down- or uploading those tracks only, which meet individual choice. A third argument is brought forward that the new ICT-based channels of dissemination allow the interruption of the distribution channels at any point (Benghozi et al. 2000). I.e., the creative parties, artists and producers, may circumvent all institutional parties involved and address consumers directly. This results in opportunities to do business and exchange content by institutional exclusion, which can create a chain of impacts affecting music labels first and by their reduced orders the replication industry consequently.

Some results of these new opportunities have become evident. Lipovetsky argues that in the 1970’s the music industry’s highly preferred target group, teens, owned between 25-30 records. 30 years later the same demographic group has stored several thousand songs on hard drives of different format. With reference to the financial value stored, the hypothesis is that such an amount of songs is unlikely purchased via official points of sales and is likely a result of P2P exchange. The underlying question with regard to the Digital Rights Management (DRM), i.e. legal or illegal consumer behaviour is explicitly excluded here. But there is a second observation, which a short, unstructured survey undertaken in 2008 has brought forward (Oestreicher). Across members of the older group of consumers, namely those in the forties and beyond, exists a certain behaviour to take carefully care of their collection of vinyl records, but their CD collection was transferred to hard drives and

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the discs were disposed. The limitations of this survey require considering these results by reliability and validity as not academically, but the phenomenon invites to further research.

The conclusion is that a consequential chain is suggested: If consumers exclude increasingly institutional parties – not considering here their reasons – by selecting and consuming dematerialised products, then this has impact on the established distribution of physical products. If less physical and more dematerialised products are consumed, then the replication industry suffers, since their dominant client portfolio the HMI reduces replication orders.

Physical versus Non-physical Products

The justification to speak about an industry in decline is drawn from Harrigan, Harrigan et al., Klepper et al. and Cassia et al., mainly expressed by the decline of the total industrial output over a longer period of time, the exit of competitors and the abandoning of market segments in the field of physical products (2003:1, 3-5, 1983:112-113, 1990: 28-35, 2006:29). Evidence is taken by a sample of published annual statistics about the music industry (here mainly the US market as the biggest in the world). At the same time, sharply increasing virtual transactions, whether by P2P exchange or by purchased downloads is added for support taken from the same sources.

Kusek cites the Nielsen Soundscan Report, which states for 2008 a significant decline of physical sales again. The Nielsen report owns high reputation in the HMI industry, but needs further support, which is drawn from two major industrial sources, the Recording Industry Association of America (RIAA) and the IFPI (2005, 2006, 2007, 2008, 2009, 2009). All three are publishing independently annual records, but interaction cannot be excluded.

RIAA 2000-2008 statistics:

1. Physical

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD Units Shipped</td>
<td>942,50</td>
<td>881,90</td>
<td>803,30</td>
<td>746,00</td>
<td>767,00</td>
<td>705,40</td>
<td>619,70</td>
<td>511,10</td>
<td>384,70</td>
</tr>
<tr>
<td>Value (US$)</td>
<td>132,14</td>
<td>126,95</td>
<td>124,40</td>
<td>112,14</td>
<td>114,46</td>
<td>105,20</td>
<td>90,72</td>
<td>74,52</td>
<td>54,71</td>
</tr>
<tr>
<td>Average/unit (US$)</td>
<td>14,00</td>
<td>14,63</td>
<td>14,99</td>
<td>15,52</td>
<td>14,92</td>
<td>14,91</td>
<td>15,12</td>
<td>14,58</td>
<td>14,25</td>
</tr>
</tbody>
</table>

| CD Single | Units Shipped | 34,20 | 17,30 | 4,90 | 8,30 | 3,10 | 2,80 | 1,70 | 2,60 |
| Value (US$) | 142,70 | 79,40 | 19,60 | 36,00 | 14,98 | 10,90 | 7,07 | 12,20 | 3,59 |
| Average/unit (US$) | 4,17 | 4,58 | 4,36 | 4,34 | 4,83 | 3,89 | 4,53 | 4,69 | 5,00 |

2. Digital (Download)

| Album | Units | 4,60 | 13,60 | 27,60 | 42,50 | 56,90 |
| Value (US$) | 45,50 | 135,70 | 275,90 | 424,90 | 568,90 |
| Average/unit (US$) | 9,89 | 9,98 | 10,00 | 10,00 | 10,00 |

| Single | Units | 300,10 | 360,90 | 584,40 | 809,90 | 1033,00 |
| Value (US$) | 138,00 | 360,30 | 580,60 | 801,60 | 1022,70 |
| Average/unit (US$) | 1,01 | 0,99 | 0,99 | 0,99 | 0,99 |

* SACD and Music DVD not respected, due to specialist market only

With reference to the research question – whether the replication industry in its present structure may become obsolescent – this statistic provides some quantitative data: A decrease in albums by 59.19% and for singles by 97.8% in the years 2000 to 2008. This development is supported by other studies, e.g., Anderson’s finding that in 2000 the five top-selling albums counted for combined sales of 38m units, decreasing in 2005 to just 19.7m units or 51.8% (Anderson. 2007:35-38). The total album sales decreased in the same period by 25.16%, which provides some inconsistency. This is assumed to be a result of fragmentising markets and expansion of music.
styles. Further, despite never being a similar important economic and capacity factor for replicators in comparison to albums (12cm discs), it needs to be stated that the single market (8 or 12cm discs) can be considered as already destroyed.

The first year RIAA recorded statistics of downloads was in 2004. From its original start to 2008 album downloads multiplied by the factor 12.37 and single downloads by factor 7.41. Taking the absolute quantities of downloads suggests that the all-time physical product’s “problem child” in the CD era, single album, is reborn, now. The assumption is that opportunities of individual download selection may influence this. IFPI Key Statistics support the RIAA statistics generally and indicate, e.g., a worldwide single album consumption of 1.4 billion (2009).

With reference to the justification of speaking about a declining industry two important factors are met:

1. Overall consumption of products declines increasingly
2. Total value of products shipped decreases at the same time
3. Additionally, achieved prices/album 2008 nearly returned to the value/unit in 2000

Two further factors remain hidden in these statistical values: Increased competition and exits and an extremely high pressure on replication prices (Eras. 2008, Killer-Korff. 2008, Meszaros. 2008, Manke, 2006, 2007, 2008). In the years under research – important for the major research questions – a number of exits took place: EMI sold all its factories to Media Motion (the Netherlands), this group went bankrupt in 2008, but its Italian factory became part of an MBO operating independently as IMS today (dello Ioyo. 2004). Warner Bros., being a movie business first, sold all its factories to Canadian manufacturer CINRAM. CINRAM’s factory in Richmond, Ind., will be closed due to overcapacities, the firm’s loss increases and its rating was reduced (Silobreaker. 2009). The mixed conglomerate of factories ODS went bankrupt by end of 2007, in the middle of its approach to become the European market leader in replication. Sonopress, the factories of the Bertelsmann Music Group, were on sale for a long time, but could not find a buyer and finally became part of the merger with Sony and its factories SONY DADC ( Renaud. 2007). This suggests that the concept of turbulent markets is in place and offers further evidence for the hypothesis of a declining and threatened industry.

The presently surviving replicators could not reduce overcapacities quick enough, which caused a severe permanent decrease of manufacturing prices, which relate back to this paper’s core discussion. As Kusek et al. studied, supported by own research and experience in this industry, the revenue model is constructed of [base consumer price paid = 100%] (cited in Oestreicher. 2009):

<table>
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<tr>
<th>Artist 8%</th>
<th>Labels 49%</th>
<th>Manufacturing 8%</th>
<th>Despatch 5%</th>
<th>Retail 30%</th>
</tr>
</thead>
</table>

Excluding manufacturing and the distribution chain reduces the price of a physical album by 43%, not respecting the marginal cost for online distribution. Taking the average price of a physical album in 2008, US$ 14.22, vs. the average price paid for online album purchase, US$ 10.00, reflects this relationship. This suggests that those consumers using institutional download channels achieve a substantial price advantage against physical products immediately. To this adds the new access model of P2P file exchange, being daily practice at an estimated rate of >10m downloads per day, i.e. 3,650m annually or by a factor of 3.53 higher than official downloads in 2008 (Anderson. 2007:35-39). IFPI provides some statistic figures for the “unauthorised free music” market collating separate studies within 16 different countries (2009):

- >40 billion illegally file-shared downloads with an estimated rate of piracy of 95%
- An overall of 16% of European Internet users regularly exchanged infringing (DRM) music
- Jupiter allocated to online piracy a loss of £ 180m annually reaching £ 1.1 billion by 2012, if the problem remains unsolved
- Online infringements exceed the music business reaching the movie industry

Some caution is expressed with reference to the stated figures about illegal processes, since it is not obvious, how these figures are collected. Since IFPI is this industry’s professional body, bias, influence on third parties (e.g., courts, governments or regulatory bodies) and/or self-interest cannot be excluded. The proposition is that there is confrontation between institutions and its consumers to which a short, unstructured survey among German members of the XING community provided insights (Oestreicher. 2007). The rather limited validity and reliability of this study is explicitly expressed. Four of its major findings are

- Reason of online purchase was accessing those tracks only, which survey participants wanted and avoiding payment for those unwanted but added on physical albums by the music industry.

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The individual-centred consumers refuse pre-recorded albums, since not part of an individualistic choice. They want to experiment, individual decisions are of high importance: They decide to which music they listen, when, over consumption directed by what others think (Lipovetsky. 2009). A possible consequence is, that especially in control of personalised use of space, time and possessions and individualistic consumption takes precedence.

The hyper consumer has access to a technologically multi-equipped personal environment. The view is that he is industry's value chain and profitability cannot be excluded then.

The music industry’s business model is challenged by consumers’ new opportunities of just buying those songs of individual interest and their opportunity to share these among friends; this leads to a reduction of revenues threatening the status quo leading to partly aggressive and passive defence and avoidance strategies; these strategies alienate consumers even more and increase preparedness for P2P. This chain could be extended, but instead further research is suggested to test this hypothesis. With reference to the main focus of the research undertaken, the outcome for the replication industry is negative, since the organisational behaviour of the music industry leads to probably quicker declining physical sales increasing the pressure on its suppliers additionally to the so even quicker changing consumer behaviour.

Music Consumption in Hyper Consumerism

Anderson hypothesizes about reasons for the market fragmentation, which the Internet opportunities have created for music consumption resulting in consumers’ growing appetite for the discovery of new music styles (2006:31-40). Rémy uses the terminology of hyper- and postmodernity and leads from hypermodern hypothesis to consumer culture theory (2009). In accordance with Lipovetsky and Garcia-Bardidia the Internet fuels the concept of communities and tribes with own shared values and believes (2009, 2009). Community members may develop liaisons to products and labels but increasingly frequent they do business only among themselves, explicitly excluding established institutional participants (Antorini. 2007, 2009). The real business transactions taking place may have the potential to change (some) business rules, economic values and even societal norms (e.g. attitude towards copyrights and DRM).

Music inherits a high emotional value disseminated by economic markets but social communities may use music as a symbol for their link meanwhile, i.e., “[n]eo tribes … [of] heterogeneous characteristics … interlinked by a common experience, a shared emotion” (Rémy, 2009). The often globally communicating community has, so the proposition, little use for physical products, when music becomes a centre of activities. Dematerialised music, shared in tribes and communities may not only be a product consumed, it may create the liaison among members, a reason to meet online for sharing experiences and experiential discoveries, or said differently, music may become a community’s raison d’être. Such environment may prefer excluding institutional parties, as, e.g., the niconians.org – a community around photography – explicitly do (Antorini. 2009). Impacts on the music industry’s value chain and profitability cannot be excluded then.

The hyper consumer has access to a technologically multi-equipped personal environment. The view is that he is in control of personalised use of space, time and possessions and individualistic consumption takes precedence over consumption directed by what others think (Lipovetsky. 2009). A possible consequence is, that especially the individual-centred consumers refuse pre-recorded albums, since not part of an individualistic choice. They want to experiment, individual decisions are of high importance: They decide to which music they listen, when, where, how and why. They may enjoy P2P recommendations, share music over the Internet for the discovery of a wide variety of new styles and gaining new and extended experiences and social liaisons this way. Technically such individual design and consumption pattern requests various devices to play music without the need to change formats, which puts physical products like optical discs in a rather disadvantageous position. In 2002, David Bowie predicted music consumption being available like electricity and water and making copyrights a topic that will belong to the past (cited in Kusek et al. 2006:3).

The proposition is that the present R&Cs of the music industry are by majority not directed towards the satisfaction of such demands and that these mainly physical product-oriented R&Cs cannot fulfil requirements for which space is more important than place. It is suggested that the music industry is increasingly confronted with an environment, which develops different values, is less likely to respond to institutional offerings and expects individualised offers instead of a prior determined content on physical products: I.e., a highly volatile and extremely fragmented market place. All these arguments advocate against the continuation of physical

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products as a mass market’s dominant design, due to their inherited inflexibility making a positive outcome for the replication industry as a continuous partner of the HMI further unlikely.

Conclusion

The arguments presented here are considered as an important part of the external environment of the industry of replication of optical discs, which is expected to be affected by these outcomes. As Utterback’s research has proven, the emergence of a new dominant design will result in the exit of a number of established firms (1996). The steep decline of CD album sales, the per se destruction of its single market provide much support for Christensen et al.’s. disruptive innovation theory (2004:277-279). The IFPI as the industry’s professional body puts now much emphasis on the need to develop new business models striving around a new centre of business, which it calls music access: “With the advent of the access model, the industry is at least aligned with the mobile industries” (2009:4).

The probability that downloads become the new dominant design is estimated as rather high, if the relation decrease of physical – increase of dematerialised products tends to hold over the next two to three years. This suggests that a broad range of consumers of HMI products become more and more familiar with and accept increasingly dematerialised products for some of the reasons discussed. Effects of the hyper consumerism may add to this element and could influence both speed of “ever-changing” and depth of consumer experiences. The opportunity to interact, exchange and discover new music and different styles freely without and outside institutional control of industrial parties may have its own attractiveness to consumers.

With regard to the replication industry this augments the scepticism, whether it may be able to find strategic answers allowing maintaining its long-term and well-established relationships as the supplier of the Home Entertainment Industry. With regard to consumers’ mobility and volatility optical discs have significant disadvantages in their competition with dematerialised products, such as size, player restriction, inflexibility of content, quantity of content/pre-recorded disc, etc. Whether any next generation of optical discs, e.g., the holographic disc, with capacities of 1 terra byte (likely more later on), can compete with hard drives being subject to Moore’s law remains presently open for answer. For the survival of the majority of replication factories optical discs downturn would need to slow down decisively and for the industry’s survival the medium needs to remain a mass medium accepted by a vast majority of consumers and hyper consumers. No evidence could be found for both.

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