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TNO report

Digital Opportunities for Film Distributors in the Netherlands

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Summary

This report is the result of a joint project from NVPI and TNO with the goal to *disseminate knowledge regarding the digital challenge to the members of NVPI*. This project has been carried out under the "Branch Innovation Contract" (BIC) program from TNO that is stimulated by the ministry of Economic Affairs[1].

The starting point was a Vision Paper of the NVPI[2], representing the video industry, which outlines the challenges of the film industry for the future. The paper states that *"the film branch is confronted with new challenges as consequences of digital distribution. The digital challenge of the film industry is to create a healthy market for digital content. This market must service consumers in an optimal way, and discourage them from using illegal alternatives. In order to service consumers in an optimal way, commercially attractive models are needed to provide the consumers with the content they wish to consume. However, existing and new business models must at the same time be protected against piracy"*.

In the course of 2010 TNO held several workshops with members of NVPI. Other stakeholders in the Industry were interviewed such as video on demand service providers. Through this report we aim to disseminate knowledge regarding the opportunities in the digital market that have been created by changes in the digital environment in recent years. During the workshops we have been able to give an overview of the scale of piracy and the source of pirated materials and a description of the typical moviegoer and downloader. Furthermore we have been able to give the NVPI members i nsight into the position of film distributors in the value chain and describe the current motivations, attitude and perception of the current Video on Demand service as provided by the TV service providers UPC, Ziggo, KPN and Tele2. These results are now used by the Video on Demand platform that has been established by the Industry in the course of 2010. Finally, there is an interest by members to put the recommendations into practise and explore the possibilities for a pilot area for improved VoD services.

From the project we have been able to draw a set of conclusions from the current working practise of the film industry, the piracy problem and the external analysis of the environment. The film industry is unique as part of the creative industry and works in its own way. Often a comparison is drawn with the music industry, which started facing the challenge of digital distribution already several years ago. However, the film industry is a business that requires very large investments to create a film. This has to be funded by several sources that need to believe in the potential success of the film, yet success is hard to predict. The revenue model of the film industry is based on Intellectual Property Rights. In order to regain the production costs made and maximise the return on investments the rights are exclusively sold through distribution windows on a geographical, platform and format basis. The distribution windows are a product of experience and experiments, which have been established over time and provide a kind of 'business system' that cannot be easily changed due to market forces. Digital distribution offers both methods for illegal as well as legal content distribution. In the industry the scale of piracy is a topic of debate. We have established that a legal digital

[1] http://www.tno.nl/downloads/branche_innovatie_contract.pdf
[2] NVPI Visiedocument Filmbranche

offer through video on demand does not necessarily contribute to piracy, because pirated versions are already available well before the official release window and usually originate from physical DVDs and Blu-rays from other regions. Furthermore, it appears that the downloader is in general more interested in films and visits the cinema more often, buys and rents more DVDs than people who don't download. From the external analysis the opportunities for a legal digital distribution offer also became clear. People spend more time online on interactive services and spending for online services increase. In recent years there have been several technological developments and the technology to deliver video streaming over the Internet is mature. The introduction of connected TV provides the film industry with a great opportunity. However, with the developments in the digital domain the consumer expects to be more in control and several shifts in consumer behaviour can be observed. The industry is addressing some of these shifts through the DECE (Ultraviolet) initiative.

From the current video on demand offer and the current position in the market chain we made the following observations. The mechanism of distribution windows and minimum guarantees causes that the film offer of the video on demand service is composed of many old films with a few recent titles. About half of the top 25 films of the last half year are available at some service providers, but only a handful of the best grossing movies of the past 3 years. Over 50% is older than 6 years and about 30% older than 10 years. Further, in the digital world, the film distributors transferred many tasks they performed in the physical world to other parties in the value chain and rely on them for their success. Unfortunately most of the current industry players that offer the video on demand service are more occupied in getting triple play subscribers instead of selling individual content items like films. We advice to take a more active role in enabling and facilitating the availability of content to any service provider interested in reselling a film.

From the consumer survey of the current Video on Demand service and the assessment of the current digital distribution offer against values that are important in the digital domain we have been able to establish a set of recommendations for the film industry. The most important recommendations are the following:
- Position Video on Demand as an individual service with its own proposition. It is too much perceived as a second choice after regular TV. Create a unique selling point in comparison with regular TV.
- Improve the promotion for the video on demand service. Most non-users are not familiar with the (existence) of the service or the price and many have a negative attitude and expect that they would have to adjust their TV behaviour.
- Introduce different pricing and sales promotion schemes to lower the barriers for using the service and to increase the awareness of the service. In this respect it is key to decouple the purchase (transaction) moment from the consumption moment.

Enable the use of VoD on more devices, like connected TVs, Blu-ray players and game consoles. VoD is perceived as a low involvement product, and it therefore requires more intensive distribution. Lowering the entry barriers for new service providers is important. For potential smaller service providers the industry should consider adjusting the model of minimum guarantees.
- Consider merging the Pay-TV window and the VoD window in the long term.

Contents

1 Introduction *digital opportunities for film distributors in the Netherlands*

The year 2009 was a record breaking year for the cinemas, film theatres and art houses in the Netherlands. More than 27 million box office tickets were sold, the highest number since 1978 and an increase of 15% over 2008. The box office has seen a growth in visitors and income since 2005. New cinemas are being built throughout the Netherlands to increase the number of screens and seats. At the same time, the sales of film for the home entertainment have decreased in 2009. The total revenue of DVD and Blu-ray sales dropped by 9% and volumes of DVDs sold dropped by 11%[3]. Rental revenues have been declining since 2003. That rental stores have a hard time was recently reconfirmed by the bankruptcy of the Entertainment Retail Group, the parent organisation of Videoland and Moviemaxx[4]. NVPI, representing the video industry, has drafted a Vision paper[5] which outlines the challenges of the film industry for the future. The paper states that *"the film branch is confronted with new challenges as consequences of digital distribution. The digital challenge of the film industry is to create a healthy market for digital content. This market must service consumers in an optimal way, and discourage them from using illegal alternatives. In order to service consumers in an optimal way, commercially attractive models are needed to provide the consumers with the content they wish to consume. However, existing and new business models must at the same time be protected against piracy"*.

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The film industry has started to offer video on demand (VoD) services during recent years through the Internet and TV service providers like Ziggo and UPC. In the digital domain, the cooperation between individual distributors lies mainly in fighting piracy, but the joint effort with respect to a legal digital film offering is limited. Most film distributors have their own beliefs and individual roadmaps[7].

In the course of 2010 TNO held several workshops with members of NVPI. Other stakeholders in the Industry were also interviewed such as VoD service providers. Through this report we aim to disseminate knowledge regarding the opportunities in the digital market that have been created by changes in the digital environment in recent years. To a somewhat lesser extent, we paid attention to the scale of threats (piracy). Further, we provide an analysis of the current VoD product, its position in the value web and the perception and attitude of the consumer with respect to the current VoD service. To this end, we carried out a survey among Dutch households to investigate the current consumer view of the service. This survey was based partly on insights from the

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[3] NVPI Gegevens videomarkt 2009, http://www.nvpi.nl/nvpi/pagina.asp?pagkey=60394
[4] http://www.channelweb.nl/nieuws.jsp?id=3658276&utm_campaign=rss&utm_source=rss&utm_medium=rss
[5] NVPI Visiedocument Filmbranche
[6] http://www.tno.nl/downloads/branche_innovatie_contract.pdf
[7] for clarity sake: all distributors use their own marketing strategy and have their own market beliefs, as can be explained from a competition viewpoint. But this does not need to prevent a joint effort to create a more succesful platform for digital distribution, just like standardisation creates common platforms for interactive IP or cable TV.

SUMI method[8] developed by TNO. Further, we made an analysis of key success factors for digital content distribution. Finally, we assessed trends, technological developments, key success factors of the digital content business and we compared the findings of the survey with the current business practise of the film industry. This results in recommendations that should be pursued jointly *to create a healthy market for digital content* (as proposed in the NVPI Vision paper).

Recently, copyright law has received a lot of attention in the media as a central issue for the industry. In the Netherlands a consultation round has started for a proposed change to the copyright law that might have a large impact on the rights position of the film distributor. However, copyright and licensing did not fall within the scope of our project, even though it will be relevant for digital distribution. More details on the position of NVPI with respect to this matter can be found at the NVPI website[9]. Furthermore, as the scope of this project is VoD, we did not place a great deal of focus on new developments like 3D or 4K TV, digital cinema projection or innovative ways of film creation.

At the beginning of the project, we explicitly chose to focus less on developments that might hinder digital distribution (piracy, fixed windowing), because these generally fall outside the sphere of influence of Dutch film distributors, which form the target group for this BIC project. Instead, we looked at digital distribution as an opportunity for the industry and focussed on the ways to facilitate and support NVPI's members, by offering recommendations and defining possible follow-up activities to move forward towards concrete innovations using digital solutions.

The setup of this report is as follows:

- In Chapters 2, 3 and 4 we provide insights into the background of the film industry and its environment. In Chapter 2 a brief introduction is provided of the film industry itself and we describe what makes it unique as part of the entertainment industry. Chapter 3 gives an overview of the perceived threat of piracy and verifies the scale and sources of piracy and identifies the heavy downloaders. Chapter 4 outlines the opportunities for digital distribution that result from changes in the (digital) environment and consumer behaviour.
- In Chapter 5, 6 and 7 we focus on the status of the current video on demand service offering. In Chapter 5 we provide an analysis of the offer of the VoD service in the Netherlands from KPN, UPC, Ziggo and Tele2 in October 2010. In Chapter 6 we assess the position of VoD in the value chain and we describe the distribution channel used for the service. In Chapter 7 we describe the results of a field study among 650 households in the Netherlands that provides an understanding of the consumer attitude and perception of the service.
- Finally, in Chapter 8 we lay out the key success factors that form the basic components of a healthy digital distribution strategy for the film industry. We base these key success factors on the *'better than free'* essay written by Kevin Kelly[10].
- We conclude the report with recommendations for the industry.

[8] http://www.tno.nl/downloads/067E3.pdf
[9] http://www.nvpi.nl/nvpi/pagina.asp?pagkey=144759&metkey=307
[10] http://www.kk.org/thetechnium/archives/2008/01/better_than_fre.php

2 Introduction & context of the film industry

The film industry is part of the creative industry and is often compared to the music industry with respect to the digital challenges. But the film industry works in its own unique way, where success is hard to predict and where a lot of investment has to be made for each film. In this chapter we will give a short overview of how the film industry works, the costs and revenues involved, the major players, the distribution model and we will draw a comparison with the music industry.

2.1 Filmmaking and financing

Filmmaking is unique compared to other parts of the creative industry. It is important to understand the costs and success factors of a film. Making a film is a difficult process that takes about 2-3 years and requires a lot of investment and commitment. The common stages of filmmaking are the development of a script, followed by the preproduction, production, postproduction and finally the exhibition to the audience. After the first stage of creating a script or screenplay the potential financers have to be found who believe in the potential success of the film. About 9 out of 10 scripts never make it into production. For the finances required to pay for the film, a studio or film producer can use a large set of tools. The main sources of financing for a film are:

1. Subsidies, film funds and/or soft money
2. Payment against sale of rights (pre-sales and minimum guarantees)
3. Equity (tax funds, tax legislation, private investors, bank, financial institutions)
4. Sponsorship (advertising, product placement)

The Motion Picture Association (MPA) published the average cost of a film each year up to 2007, listed in the table below. The average cost of a film from an MPA member is about $100 million. And most of these costs have to be carried upfront, before knowing whether the film will be a real success. In comparison, the average budget of a Dutch feature film was 2.2 million euro[11] in 2008.

Cost in million $	2001	2002	2003	2004	2005	2006	2007
Film production	47.7	47.8	66.3	65.7	63.6	65.8	70.8
Marketing	31	30.4	39.5	34.8	36.1	34.5	35.9
Total	78.7	78.2	105.8	100.5	99.7	100.3	106.7

Table 1 – MPAA Member Companies Average Theatrical Costs (Source: MPAA)

Interestingly, about one third of the cost is required for the marketing and promotion of a film. In order to make a film a success the film industry relies on the following ingredients[12] that have proven themselves over time:
- the use of universal stories that are interesting to a worldwide audience
- serious investment in the creation, production and marketing of film
- a large volume of productions
- experience over time
- embracing new technologies like 3D and digital projection
- working with local markets and adjusting the film promotion and release planning to suit the local audience.

[11] Filmfeiten en cijfers, zomer 2009, Nederlandse fonds voor de film.
[12] Information from workshop with MPA

In order to further increase the chance of success and acquire the required investors it helps to work with celebrities, a famous director or a brand or iconic figure (like Spiderman). Still, commercial success is hard to predict. In 2007, 590 films were released in the US and the box office reached $9.63 billion in the US alone. However, the top 20 films alone accounted for $4.2 billion or almost 50% of that revenue[13]. This statistic applies in other countries as well. In the UK in 2009 503 titles were released in the cinemas generating a turnover of £945.7 million, but the top 24 films took 50% of the box office. In the Netherlands 292 films were released in 2007 and the top 20 took 49% of the box office[14].

All in all, the film industry is a business that requires large investments to create a film, before the film is released. These investments have to be funded by several sources, yet success is hard to predict. Only a few films make a large profit and these have to carry the less successful projects.

2.2 Three types of players in the film production and distribution industry

There are basically three types of film production and distribution organisations active in the film industry. The distinction between the types can be assigned to the process (creation and distribution) and to the market (size) they address.

Majors are the most well known type of organisation. There are six major studio's currently: 20th Century Fox, Universal Studios, Columbia Pictures (Sony), Walt Disney Pictures, Warner Bros. Pictures and Paramount Pictures. The majors are involved in both the creation and distribution of films. They also finance and distribute pictures from independent film makers who either work directly for them or have projects picked up after some progress has been made. Their hallmark product is the blockbuster film. The focus of the majors is on worldwide distribution of large budget films, either through their own facilities, or in various kinds of agreements with distributors in other countries. They have an elaborate production capacity and an extensive distributional infrastructure.

Leading independent producer/distributors or *'mini-majors'* (Summit, Lions Gate, MGM, DreamWorks, Weinstein, Overture among others) have both production and distribution capabilities, but their activities tend to have less scope. The average cost of a film of a mini-major lies around $40 million compared to the $100 million of a major production.

Independents are highly specialised. In most cases they focus on production or distribution. Their production is typically less commercially oriented. Distribution of those films is done by larger companies, or mini distribution organisations on their own. They have access to limited market territories, so that one film can be distributed by a large number of different firms. These distributors offer their films through cinemas, retail and rental chains and online service providers to the consumers. The distributor buys the exclusive rights of the film producer or studio to monetize the film in a certain region on a certain platform (see next paragraph).

[13] Source: Theatrical Market Statistics, MPA, 2007
[14] Nederlandse filmdistributreurs, statistieken 2008, http://www.filmdistributeurs.nl/files/jv09.pdf

2.3 The revenue model is based on distribution windows

The revenue model of the film industry is based on Intellectual Property Rights (auteursrecht). For example, the rights to show the film to the audience or create copies of the films and sell it to the consumer are exclusive for the author, creator and performing artist of the work. In the film industry the production company or studio is usually the central clearing point for these rights. In order to regain the production costs made and maximise the return on investment, these exclusive rights are sold on a geographical basis, format and on a platform basis to distributors. For each country and for each network, platform and format different rights can be issued: Cable, DVB-T, Mobile, IPTV, Internet; Broadcast, Catch-up, Video on Demand, DVD, Blu-ray; SD, HD, 3D; all may require different rights.

The central role of the distributors
The value chain of the film industry is illustrated below. The film producer or studio finances its film with money from public sources, equity, sponsorships and by distribution agreements (pre-sales and minimum guarantees). The distributor plays a central role between the producer and the market place.

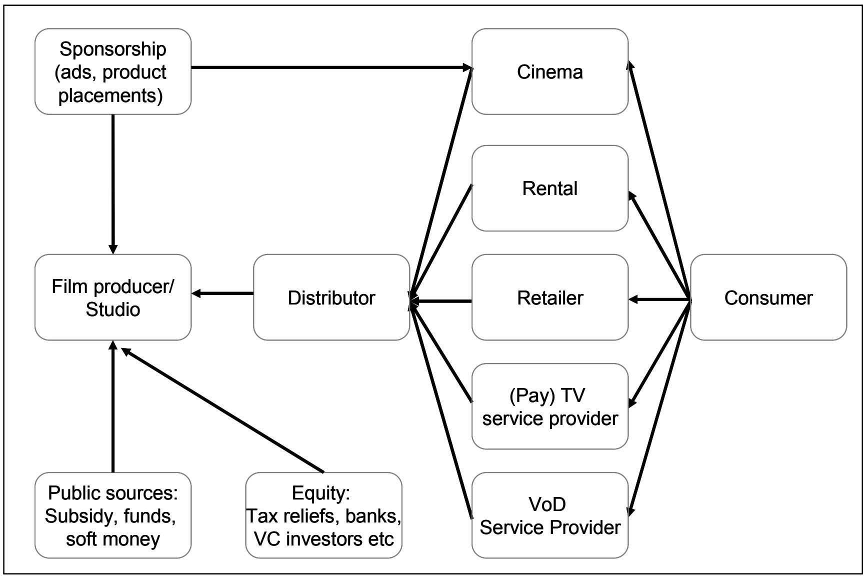

Figure 1 – the value chain of the film industry.

The task of the distributor is to position and market a film in the local market and sell the rights for each network, platform and format to maximise the ROI. The distributor makes a release planning of the film and takes care of the promotion material for the film and tailors it to the local market. The distributor is responsible for the physical distribution of the film reels to the cinema, the replication of DVDs and Blu-rays and physical shipment (logistics) of the discs to the retail stores. Many times the distributor partly finances the films upfront. In order to maximise the revenues the film industry works with distribution windows. Please note that there may be different distributors for the different release windows. For example, the VoD rights may be sold to a different independent distributor from the cinema, retail and rental. Or a major has a different department for home-entertainment and (pay)TV.

Distribution is a product of experience and experiments

For each network, platform or format a film is released at a different point in time. Distribution of film content occurs on average in a fixed sequence of release windows. After film production, a film is first released in the cinema[15], followed by DVD and Blu-ray rental and sales (usually 4 months after box office release), video-on-demand services via TV (after 7 months), pay television (after 16 months) and free to air television (after 24 months).[16] Six months after the DVD rental and sales the video-on-demand window is often stopped and enters a black-out period during the Pay TV and free TV window. After this black-out period a film can return to the VoD library.

In The Netherlands almost every independent and more and more majors are offering their content via video-on-demand services in a day-and-date manner, which means that the release is in parallel with DVD- and Blu-ray sales release.[17] For each distributor the distribution window can be slightly different for each individual film.

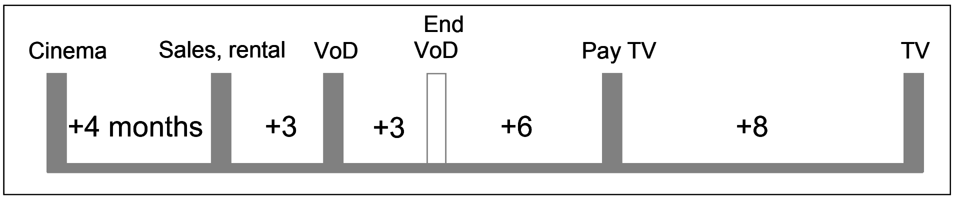

Figure 2: Film distribution model in The Netherlands. (Source: Filmwereld, het economisch belang van film)

Films are not always released worldwide on the same date. There are several reasons for this. First, the success of US Box Office is a good indicator of success oversees. By withholding the release internationally risk can be mitigated. When success is less, some changes can still be made to the marketing and promotion of a film. Or the studio can decide to reduce the costs for marketing and go for a smaller release in other countries. Sometimes, even for a successful film, the marketing and promotion has to be adjusted for the culture of the local market. For example films about superheroes like Spiderman or Batman will have the focus of promotion on the superheroes itself in the US, while in Europe the action in the films would be stressed. Furthermore, the advertisement cost make up for a large part of the total costs. Usually, it is required to generate some revenue first in the US before the marketing can start in other countries. And finally, the release planning is adjusted for the differences in the local (holiday) seasons, differences between the release windows, releases by competitors and the release dates of local productions on the market to maximise the audience for a film.

The distribution model that is used by film distributors is a product of experience and experiments. The current distribution model has established over time, and provides a kind of ‘business system’ that can only be changed if prudent from a financial perspective and in cooperation with all relevant parties that are part of the system.

The importance of cinemas
In the past (VHS tape) rental was 6 months after the cinema release. Sales were 6 months after rental, pay TV 6 months after that and free TV 6 months further. In the course of time these windows have slowly shifted, although usually, the free TV

[15] Not all films are released in the cinema. Not always a deal can be established with the exhibitors or it is seen as too risky for the film.
[16] Derksen, L. en J. Driessen (2007). Het economisch belang van film in Nederland, Hogeschool INHOLLAND in contract of Filmwereld.net.
[17] http://www.entertainmentbusiness.nl/19767/Steeds+meer+dvd-distributeurs+gaan+day-and-date.html

window remains at 2 years from the cinema release. When a certain window becomes more important its position and size can shift. Changing the timing and sequence of the release windows (cinema, sales, rental, etc.) is very complex due to current market forces. The theatrical release is still the most important release window from a marketing point of view. During a theatrical release there is a maximum of exposure of a film to the public. The windows after the cinema benefit from the marketing and promotion of a film that were built up during the cinema release. Furthermore, when a film is successful in the cinemas it can become a HUGE success, compensating costs for a lot of other films. Moreover, a successful theatrical release is also a key indicator for a successful home entertainment release (rental and sales). Therefore, cinemas have a relative large market power in the film industry.

Disney for example experimented with different release windows for *Up* and *Alice in Wonderland*, on which international cinema chain Pathé and other chains decided to boycott the film from their film theatres.[18] Afterwards, the film was being exhibited on the prerequisite that a longer time between cinema and DVD-release will be maintained. Disney now has an agreement that a very limited number of films may be brought early to the home entertainment window. In France and Italy the length of the distribution window is even arranged by law, as is the number of foreign titles that can be released locally.

The business model is still successful
These developments show that current market powers have a significant influence on the current distribution model and distributors may encounter resistance from cinemas when they want to change this model. Another issue is that the distributors are not always able to change themselves as well. The distribution window timing for the majors is usually determined by the headquarters in the US. And there are different departments responsible for maximising the revenues for their window. Shifting the windows will mean that some departments gain less, which leads to internal friction in the company. Further, since the business model is based on a few large successes that carry less successful projects, distributors are not likely to bring large changes that might jeopardise those huge successes and will therefore only accept gradual changes. Or to put it otherwise: the model still works for a lot of distributors and their business partners as well.

2.4 Film industry revenues from home entertainment decline

In the past the cinemas were the sole source of income for the film industry. Now most of the income originates from the home entertainment market, fuelled by the success, marketing and promotion of the cinema release. Edward Jay Epstein has assessed the distribution of worldwide studio revenues from the various windows from the past till today. From the total studio revenues the share of income from the cinemas has decreased from 100% in 1948 until about 18% in 2003. The success of films in the cinema is still a large indicator of the success of sales of the same film, but the home entertainment has become the most important window from a revenue point of view.

[18] http://cinema.blog.nl/newzz/2010/02/16/disney-en-pathe-reageren-op-alice-in-wonderland-boycot

Year	Theater	Video/DVD	Pay-TV	TV, free	Total	Theater Share (%)
1948	6.9	0	0	0	6.9	100
1980	4.4	0.2	0.38	3.26	8.31	55
1985	2.96	2.34	1.04	5.59	11.9	25
1990	4.9	5.87	1.62	7.41	19.79	22
1995	5.57	10.6	2.34	7.92	26.53	20
2000	5.87	11.67	3.12	10.75	31.41	19.5
2003	7.48	18.9	5.56	11.4	41.2	17.9

Table 2 – Worldwide studio revenues from 1948-2003 in billion dollars. (Source: http://www.edwardjayepstein.com/Demyst3.htm)

The same is true for The Netherlands. The market revenues from the cinema, physical DVD/Blu-ray sales and rental in the Netherlands are shown in the figure below. There are no figures known of film revenues of Pay TV and linear (broadcast) TV windows.

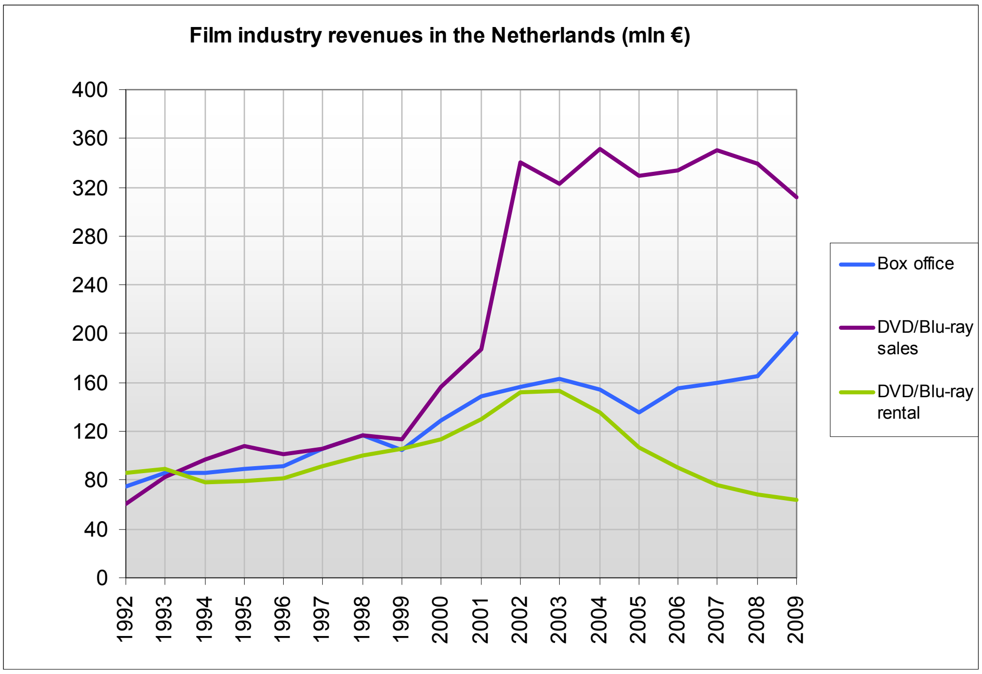

Figure 3 – Film industry revenues in the Netherlands between 1992 and 2009 for the box-office, physical disc sales and rental. (Sources: NVPI Gegevens videomarkt 2005 and 2009[19], IVF-Video Market information [20], Nederlandse filmdistributeurs - statistieken 2008[21], PWC media-outlook 2009-2013.)

As can be seen, 2009 has been the most successful year for cinemas in history. And early numbers from 2010 confirm continuation of growth. On average, the Dutch consumer visits the cinema 1.8 times per year (children below 12 excluded). The introduction of the DVD format has caused a great increase in the revenues of the home entertainment since 2000. Before that date the revenues were around a € 100 million. Since 2002 the revenues are on a higher plane around € 300 million. During the past few years the revenues of DVD could be kept at the same level, although at a lower

[19] http://www.nvpi.nl/nvpi/pagina.asp?pagkey=60394
[20] http://www.ivf-video.org/site/index.php/Market-informationmarket numbers
[21] http://www.filmdistributeurs.nl/files/jv09.pdf,

price per disc. But since 2008, the total revenue in DVD and Blu-ray sales dropped with 9% and volumes of sold DVDs dropped with 11%. While there is a rise in Blu-ray disc sales, it is not (yet) enough to make up for lost DVD sales[22]. In total about 30 million DVDs and Blu-rays have been sold in 2009, which results in an average of 1.7 for each person in The Netherlands. In store rental is on a decline since 2003. Also the number of rental stores has decreased from 1100 in 1998 to 470 in 2009[23].

The sales window does not only generate the most revenues, it is also the window where distributors get the highest percentage of the consumer revenues as illustrated in the table below. The remainder of the revenues stays with retailer, rental store, cinemas and government (VAT).

Distribution window	Average gross margin of distributors
Box office	30-40%
DVD/Blu ray sales	65%
DVD/Blu ray rental	30%

Table 3 – approximate percentage of revenues for the distributors for the different distribution windows. (Source: Het economisch belang van film in Nederland[24]. NVF Gids van de Nederlandse filmindustrie 2009[25]).

The average gross margin of the box office is 30-40% for the distributor, while the average gross margin of sales lies around 65%. Therefore, the declining DVD sales figure is an important signal for the film distributors.

2.5 Legal digital film offering is the challenge for the film industry

Despite the success of the box office in recent years, the reduction in physical film sales requires the film industry to explore new revenue streams. Digital distribution poses both opportunities and threats for new revenue streams for the film industry.

The film industry mainly focuses on the threat that digital distribution introduced. Piracy is seen by the film industry as the main threat. The business model of the industry is based on the exclusive rights to show and distribute their property: films. The unlicensed (illegal) distribution through peer to peer file sharing and newsgroups is not based on a rights model and does not respect exclusivity and thus impacts the business model of any rights owner within the audiovisual and software industries.

Often, a comparison is drawn between the film industry and the music industry. The music industry has started facing the challenge of digital distribution already several years ago and piracy has been and still is a big issue as well. For instance, whether there is a 'sampling effect' through piracy is a large topic of debate. The music industry now reverts to other sources of income for their business model, for instance through more live performances.

However, the consumer experience for film viewing is in many ways different from music listening. There is almost no repeat viewing. When a consumer has seen a film

[22] http://www.nvpi.nl/assets/nvpi/NVPI%20Marktinformatie%20Video%202009.pdf
[23] http://www.cbs.nl/nl-NL/menu/themas/bedrijven/publicaties/artikelen/archief/2008/2008-90157-wk.htm
[24] http://www.nvbinfocentrum.nl/uploads/files/het_economisch_belang_van_film_in_nederland.pdf
[25] http://www.filmdistributeurs.nl/files/gids/totale_gids.pdf

once (from an illegal source) he will not be seeing it again for a while. Only movies for youngsters (e.g. Disney's animation) are watched over and over again. Furthermore the amount of investment, commitment and process involved in filmmaking is on a different level than a music production. Required investors must strongly believe in the potential success of the film. The equivalent of live performances in the film industry is the cinema. But there is a difference. You cannot sell $100 tickets to a stadium full of people as in the music industry, there is much more dependence on third parties (cinemas) and the investment in a film is much bigger than for a music production. So piracy has a different impact on the film industry when compared to the music industry. In the next chapter we will discuss the scale of piracy and the sources of piracy and the impact of piracy for the film industry in more detail.

The fact remains however, that a legal film offering online or via the TV provider can serve as a viable alternative for physical rental or retail or downloading from illegal sources. I.e. for users that do not have a rental store in the neighbourhood anymore or do not want to go through the trouble of searching and downloading an illegal copy from the Internet, do not want to watch a film on the PC or they just *want* to rent a film digitally if there would be an attractive offer. Digital distribution offers the film industry an opportunity to exploit their content offering to an ever increasing number of end-user devices with a network connection. An offer that could potentially provide much more convenience than downloading films, physical rental or retail.

3 Digital distribution and piracy

Piracy is seen by the industry to severely affect revenues. In the Netherlands, the rights holders have founded the society for the protection of rights for the Dutch entertainment industry (Stichting Brein) in 1998 to collectively act against piracy[26]. For the MPA too, fighting piracy is currently one of the main tasks[27]. In this chapter we will give an overview of the scale of piracy, the sources of film piracy and describe the typical moviegoer and downloader.

3.1 Scale of piracy is unclear

In recent years many studies have been held that investigate the scale of piracy. Most studies try to measure or estimate the number of downloads from illegal sources and try to calculate the lost sales or income for the industry[28]. This final figure in lost dollars or lost jobs for the creative industry usually leads to a lot of controversy[29]. In order to give an indication of the scale of piracy we collected the total number of film downloads from illegal sources from various studies.

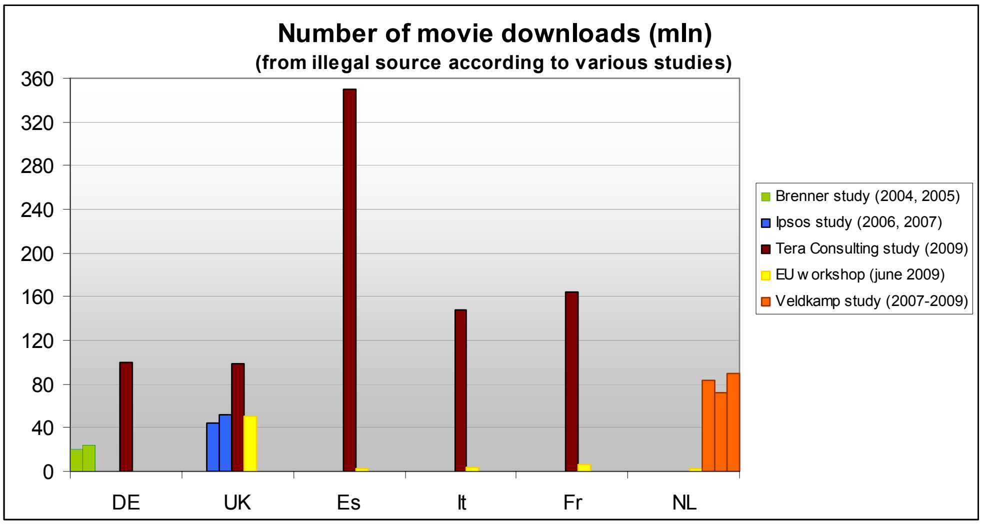

Figure 4 – The number of film downloads measured by several studies throughout Europe in various years. The number of downloads is measured in millions. For the numbers of the European Audiovisusual Observatory the number are extrapolated for the whole year. (Source: Brenner study- kopieren und downloaden von Kino- und Spielfilme[30], Ipsos study – Digital and Physical Piracy in GB[31], Tera consulting - Building a Digital Economy: The Importance of Saving Jobs in the EU's Creative Industries[32], European Audiovisual Observatory - Evolution of the VoD market in Europe Workshop[33].)

[26] http://www.anti-piracy.nl/home/home.asp
[27] http://www.mpaa.org/about/around-the-world
[28] http://www.reuters.com/article/idUSTRE62G3BU20100317
[29] http://arstechnica.com/tech-policy/news/2010/03/sailors-beware-p2p-piracy-will-sink-your-jobs-by-2015.ars
[30] http://www.ffa.de/downloads/publikationen/brenner_studie3.pdf, http://www.ffa.de/downloads/publikationen/brenner_studie4.pdf
[31] http://www.ukfilmcouncil.org.uk/media/pdf/g/m/Ipsos_Piracy_UK_2007.pdf
[32] http://www.iccwbo.org/bascap/id35360/index.html
[33] http://www.europa-distribution.org/files/Paris%202009/LANGE_Europa_Distribution.ppt

The scale of the piracy problem varies to a great extend in the various studies. Especially the figures presented in the Tera Consulting study and the figures from the Marc system presented in the EU workshop are very far apart from each other for certain countries. The other studies indicate the amount of downloads in the UK, Germany or Netherlands in the order of tens of millions downloads each year.

3.2 Sources of piracy and availability of films

As described in the previous chapter, digital distribution offers both a threat (piracy) as well as an opportunity for the film industry – by offering VoD services. During interviews with people from the film industry it became clear that VoD offering was also seen as a potential source of piracy. Disclosing it in a digital form legally might make it even more easy or attractive to create a copy of the digital file and re-distribute it illegally. In this paragraph we will identity the sources of piracy and determine whether VoD itself serves or may serve as a source of piracy

Optical discs as most favourite source
During the distribution process several moments can be identified which can lead to a 'leak' of the digital content, meaning that the digital content is copied and distributed without intent or authorisation of the production company. In practice we see four main moments where this occurs, as illustrated in the figure below:

1. In the studio itself.
2. During the 'screening' process (e.g. rating films, creating translations)
3. In the cinemas
4. During rental and sales, including the logistic warehouses or replication centres.

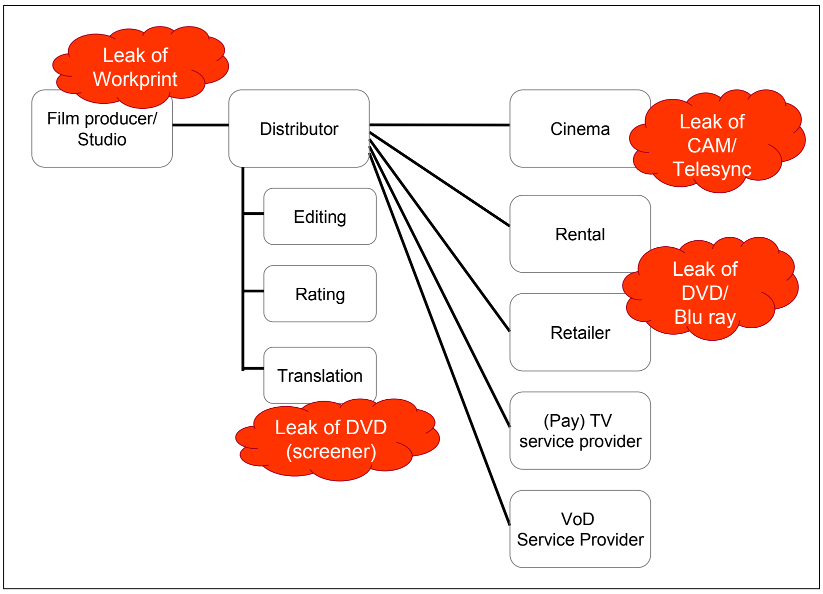

Figure 5 – Illustration of moments and locations where copies of a film can be leaked.

The quality of the pirated copies differs per step. The table below shows an overview in which the audio & video quality, the moment of availability and the chance of piracy are shown.

Place	Piracy	Quality V/A	Timing	Chance of piracy
Studio	Workprint	+- / +-	Very early	Very limited
Screening process	(DVD)Screener	+- / +	Very early	Limited
Cinemas	Cam	-- / --	Early	Medium / High
	Telesync	- / -	Early	Medium / High
	Telecine	- / +	Early	Medium / High
Rental / Sales	DVD rip	++ / ++	Late	High
	Blu-ray rip	++ / ++	Late	High

Table 4 - Comparison of piracy distributions of films and several quality aspects

The best quality can be obtained from physical DVD or BD discs. A benefit of this 'source' is that discs can be obtained anonymously and carries no buyer details. The pirated copy can not be traced back. Sometimes even before a film is premiered in cinemas a reasonable pirated copy is already available on the internet. However, this chance is low since the parties involved in the distribution process here are very limited and due to techniques like watermarking chances are high that the leak can be identified and prosecuted. A complicating factor for the Dutch film industry is the separation of global markets (geographical distribution windows). Films which premiere in Dutch cinema are often premiered months earlier on other continents (like the USA). Also retail or rental version of DVDs are already available for rental or sales in other markets (i.e. regions - R1 (USA) or R5 (Russia, Asia, Africa)).

Pirated copies are available before official releases
In order to order to estimate the availability of pirated copies on the Internet for download, we did a sampling test. For 20 blockbusters we analysed the official release dates for cinema and DVD in Region 1 (USA), 2 (NL) and 5 (Russia, Asia, Africa)[34] and we measured when the first pirated copies were available *including custom Dutch subtitles*. We used several newsgroup search engines to determine the availability dates of the pirated copies. The results are illustrated in the figure below. For instance, when we look at the release dates for the film "Twilight Saga – the new moon", the Dutch cinema release was 3 days after the world premiere. The R5 DVD was officially released after 126 days, the R1 release in the USA was after 124 days and the DVD release in the Netherlands was after 128 days. At the same time, the pirated CAM version including Dutch subtitles was available after 6 days, an SD quality download (a DVD screener rip) including Dutch subtitles was available after 88 days and a Blu-ray rip including Dutch subtitles was available after 120 days, a little before the official Blu-ray release. On average (based on the sample of these 20 films) a pirated CAM version is available 21 days after the world cinema premiere, a pirated DVD quality version is available 75 days after and a pirated High Definition Blu-ray version is available 115 days after, all *with custom Dutch subtitles*. Pirated copies without custom Dutch subtitles are available even much earlier than these dates.

[34] http://en.wikipedia.org/wiki/DVD_region_code

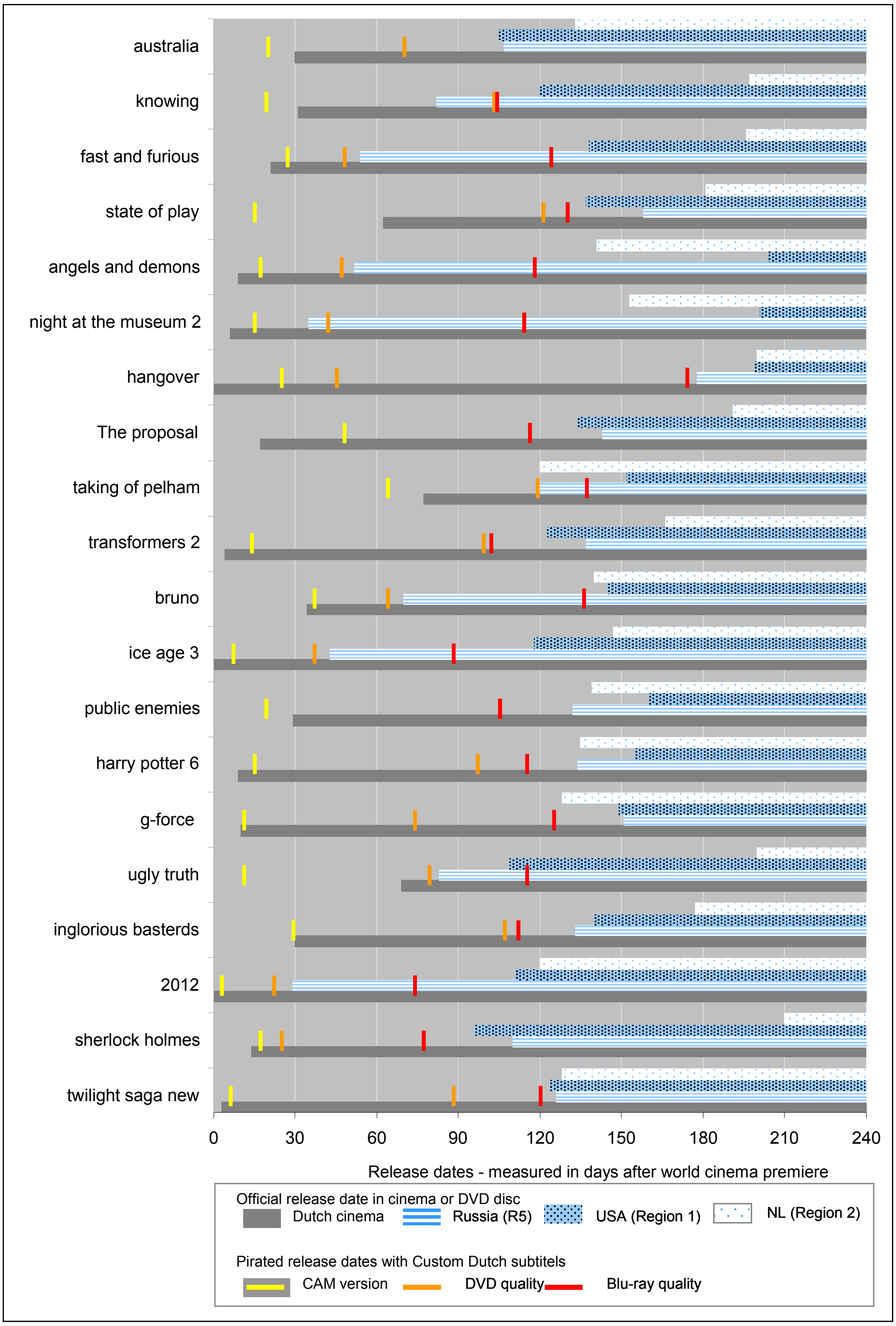

Figure 6 – Availability of pirated copies of 20 blockbusters compared to official releases. This figure shows the availability of official releases measured in days from the world cinema premiere. Furthermore, it shows the "release" dates of pirated copies *with custom Dutch subtitles* in either CAM quality, DVD quality or Blu-ray quality. Please note that some pirated copies may be available without custom Dutch subtitles even earlier. Furthermore, there is no official release for pirated copies and there may have been earlier copies available not listed by our used sources. However, we used multiple spotter sites and search engines to find the earliest dates or at least pirated versions that were popular and used by many members of the spotter sites. (Sources: videoeta.com, kinopiosk.ru, dvd.nl, moviemeter.nl, filmtotaal.nl, various NZB search engines and spotter sites. The Russian release dates are used as the R5 release dates.)

From the sample test it appeared that most pirated copies of DVD quality are available before the official releases in Region 1, 2 or 5[35]. In all cases a pirated Blu-ray version with Dutch subtitles is available well before the official release of DVDs and Blu-rays or VoD release dates in the Netherlands. This means that distributing films through Video on Demand does not create a new primary source for piracy that provides a version of the film that is available earlier in time than the current sources of piracy. I.e. there is no increased risk for piracy involved by offering films through VoD in The Netherlands. In almost all cases the source of the pirated material - as described by the downloaded file - was a physical DVD screener, DVD Promo or a R5 version, sometimes well before the official release data (the Russian R5 release date).

VoD is no primary source for pirates
The original source of pirated films in the Netherlands does not originate from "official" DVDs or Blu ray discs bought in The Netherlands and uploaded by a home user for sharing with others. It originates from abroad, is ripped from (illegally obtained) optical discs (DVD screener, promos, R5 and Blu-rays), is custom subtitled by enthusiasts and made available well before the official release dates.

From this sampling test we can conclude the following:
- Piracy does not have its roots in the Netherlands. The initial uploading occurs somewhere else in the world and downloading can be done from many newsgroup servers or from many p2p users who will distribute the movie further by uploading it.
- Quality pirated versions originate from physical DVDs (Promo's, Screeners, R5 or Blu-rays) that are obtained before the official release dates.
- Digital distribution itself (VoD) is no primary source of piracy, because pirated copies are available well before that release window.

Digital distribution thus offers both methods for illegal content distribution (piracy) as well as opportunities for legal VoD services, but the legal digital distribution service does not necessarily contribute to the piracy.

3.3 Heavy downloaders are also frequent moviegoers [36]

Apart from the scale of piracy it is useful to see who is actually watching films from legal sources and who is downloading and watching films from illegal sources. Stichting Filmonderzoek monitors the cinema visitors on a frequent basis and reports through a yearly cinema monitor (Bioscoopmonitor). They measure the frequency of visiting cinemas but also on their other media behaviour, i.e. how many DVDs they buy, rent or download. It turns out that downloaders are the same people who buy a lot of films, rent a lot of films or frequently visit the cinemas. It appears therefore that the 'pirate' is in general just more interested in film.

Young people visit the cinemas most frequently in the Netherlands
According to the Bioscoopmonitor 2009/2010 of Stichting Filmonderzoek the frequency of visiting the cinema in 2009 was on average 1.79 (12 years and older), which results in a total of over 27mln tickets sold at the box office. The most frequent visitors of cinemas are between in the age groups of 12-17 and 18-23 years. These are typically high school students living with their parents and students.

[35] Please note that we took the release data in Russia as the "official" release date for Region 5.
[36] based on Stichting Filmonderzoek – Bioscoopmonitor 2009/2010

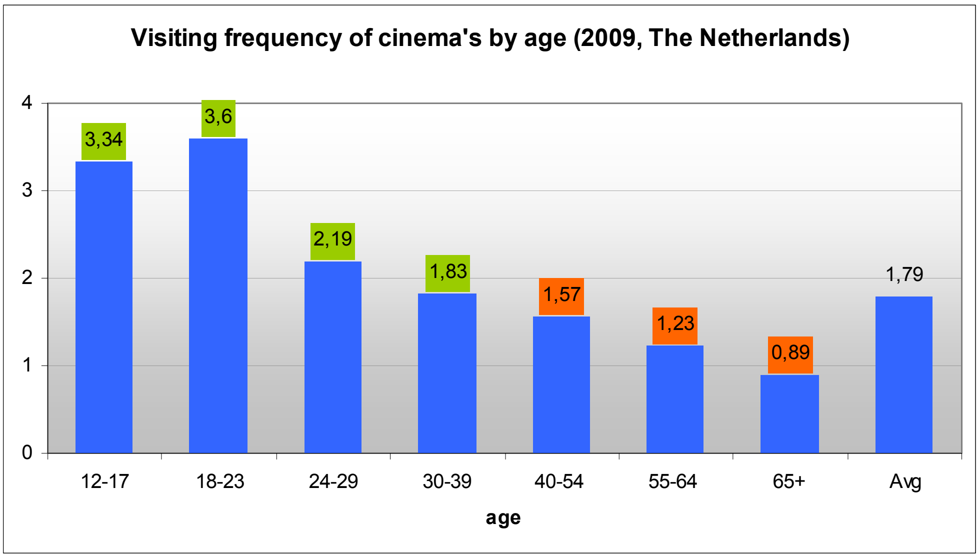

Figure 7 – Frequency of visiting the cinema by age (Source: Stichting Filmonderzoek, 2010).

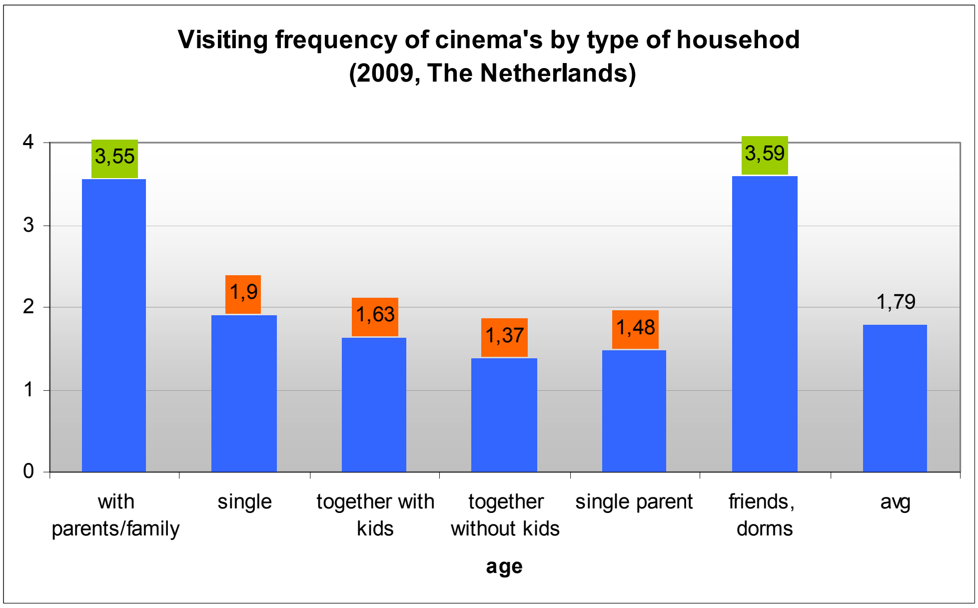

Figure 8 - Frequency of visiting the cinema by type of household (Source: Stichting Filmonderzoek, 2010).

Downloaders buy and rent more films
In our study "TNO - Ups and Downs, the economic and cultural effects of file sharing for music, film and games"[37] we concluded that 44% of the Internet population downloads occasionally content and that 13% downloads films (from unlicensed sources).

Age	All products	Music	Film	Game
15-24	66%	62%	22%	21%
25-34	47%	42%	17%	11%
35-49	47%	43%	13%	7%
50-65	29%	25%	5%	5%
65+	15%	14%	3%	1%
Average	44%	40%	13%	9%

Table 5 – Percentage of downloaders among the Internet population. (Source: TNO – Ups and Downs, 2009)

Further, Stichting Filmonderzoek measured that downloaders visit the cinema more often than people who do not download.

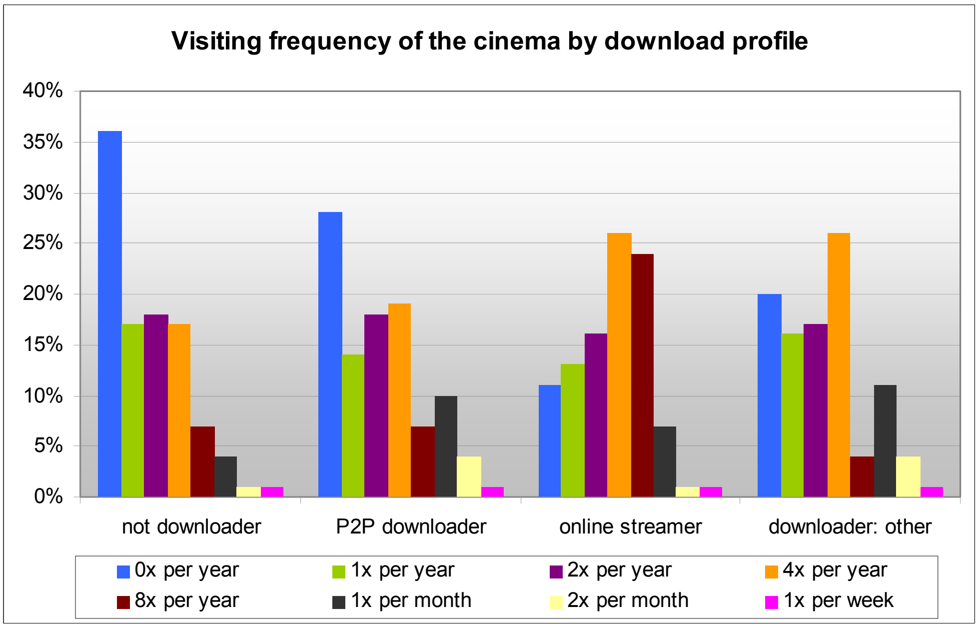

Figure 9 - Visiting frequency of the cinema by download profile (Source: Stichting Filmonderzoek, 2010)

It also appeared that downloaders buy and rent films more frequently than non-downloaders.

[37] http://www.tno.nl/content.cfm?context=markten&content=publicatie&laag1=182&laag2=1&item_id=473

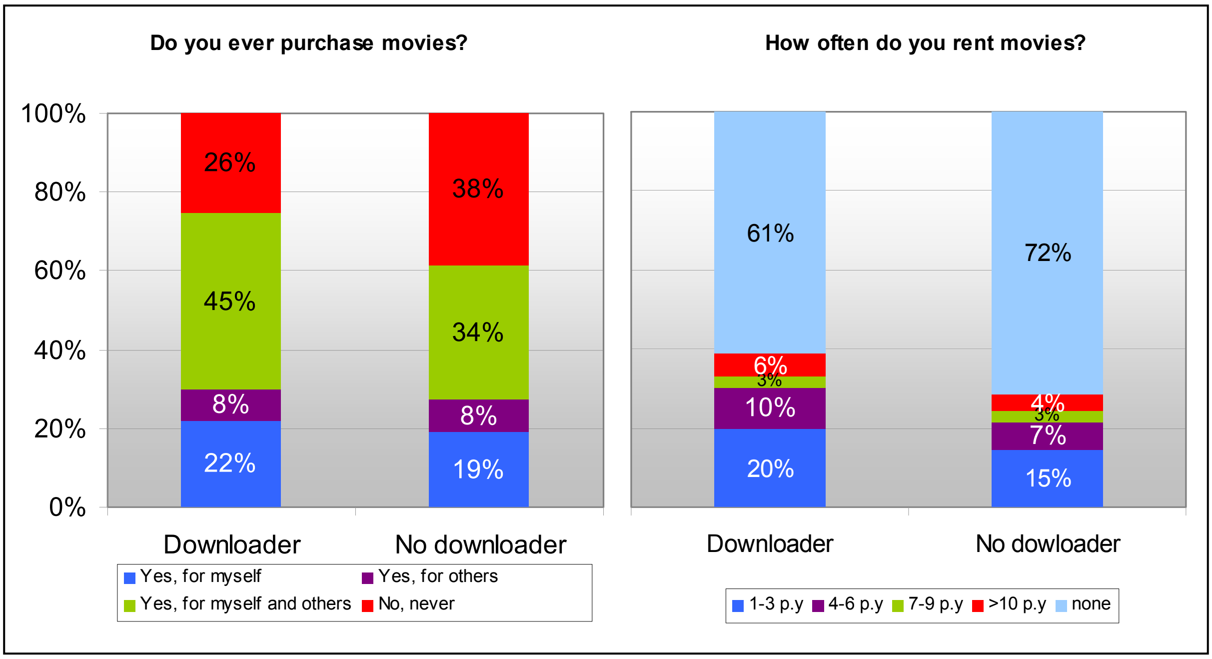

Figure 10 – Answers of respondents to purchase and rental of films. (Source: Stichting Filmonderzoek - Bioscoopmonitor 2010)

Price is the main reason not to buy films

From the figure above it is also clear that many people do not rent any film at all (67% on average). This does not mean that piracy would not be a loss for the industry. Many people responded that they download because the films are too expensive and 50% probably would (have the intention to) buy a film if it was not available for download. On the other hand, many people also answered (88%/84%) to not change their purchase/cinema behaviour at all or buy/visit even less when they cannot download films anymore.

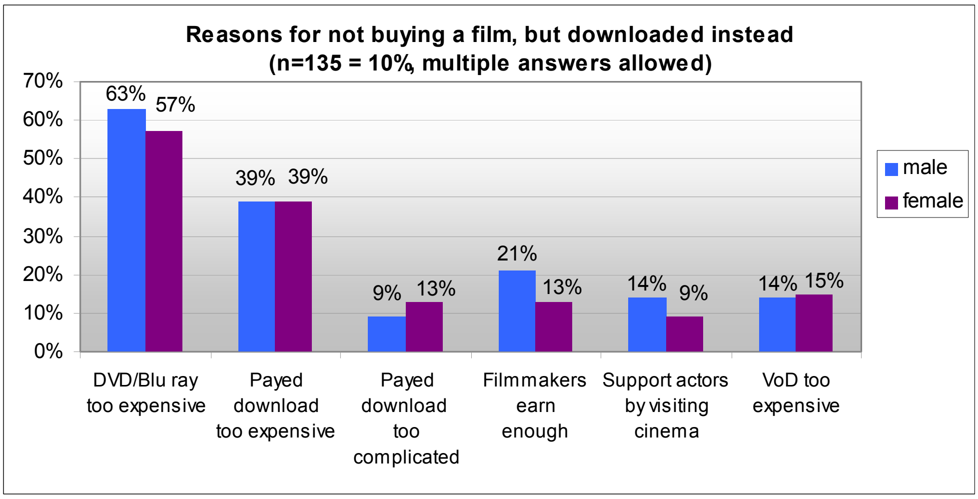

Figure 11 – Reasons for not buying a film but was downloaded. (Source: Stichting Filmonderzoek 2010)

What can be concluded is that the downloader is in general more interested in film and visits the cinema more often, buys more DVD and rents more DVDs than the people who do not download.

4 The opportunities of digital distribution for the film industry

In this chapter we focus on the (macro) external environment for digital distribution from the social, economical and technical perspective. There are large changes in consumer behaviour and an increasing amount of technical options. There is a clear opportunity and there are solutions to offer a much broader digital service than is available today. However, people do have different expectations when it comes to digital media. We identify four important trends and one industry development that set the preconditions for digital distribution by the film industry:

- The changing consumer behaviour towards online activities
- The increased spending of people for online services
- The competition for user's free time
- New technological opportunities to facilitate digital film distribution
- Ultraviolet (former DECE) initiative of the industry

4.1 Changing consumer behaviour to online

The consumer time spending on the Internet increases rapidly. Especially the consumption of digital video is rising. Stichting SPOT measures the time spending of consumers biannually. Time spending on most media changes slowly. Consumers still watch between 2.5 and 3 hours TV a day and gaming, book reading and phone calling varies slightly throughout the years. But the minutes spent on the Internet is on a quick rise. In 2006 about 56 minutes were spent online or behind the computer. In 2010 this has almost doubled to 104 minutes a day. In 2010 the consumption of video clips and on demand TV programs via the internet has been measured. This was around seven minutes a day for video and TV and ten minutes a day for radio. Social media and chatting (Hyves, Facebook, MSN etc) services also gain in popularity as can be seen in the figure below.

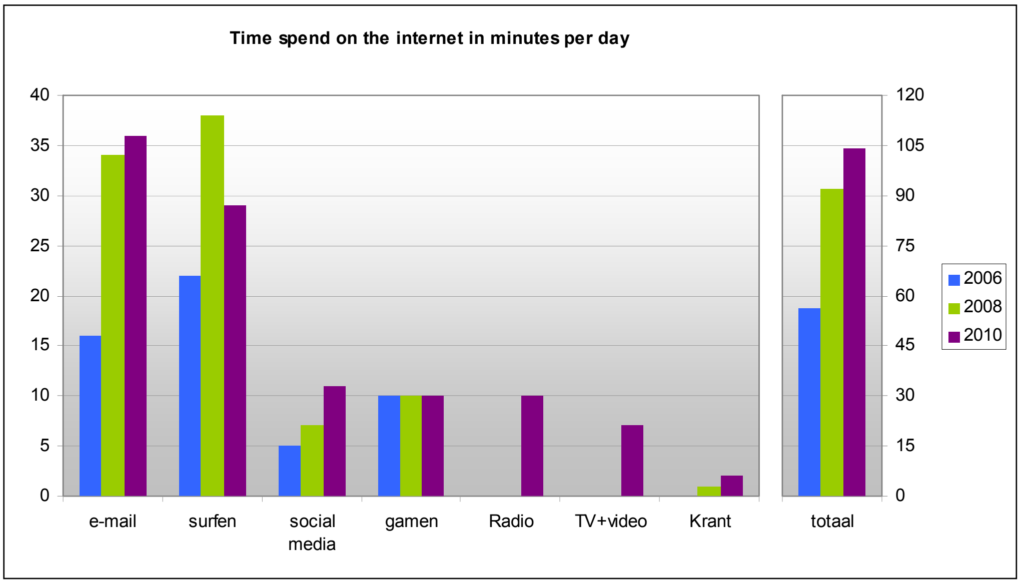

Figure 12 – Time spent on the Internet in minutes per day on the various media. (Source: www.spot.nl)

The increased time spending on on-demand video is also illustrated by the amount of streams that were served by catch-up services (e.g. RTL Gemist and Uitzending gemist). In 2009 the NPO and RTL reported around 300 million served streams together[38]. When we compare this with numbers reported from Hulu in the US and iPlayer in the UK, we can see that the average amount of requested streams per inhabitant is about the same in the Netherlands as is in the US or UK.

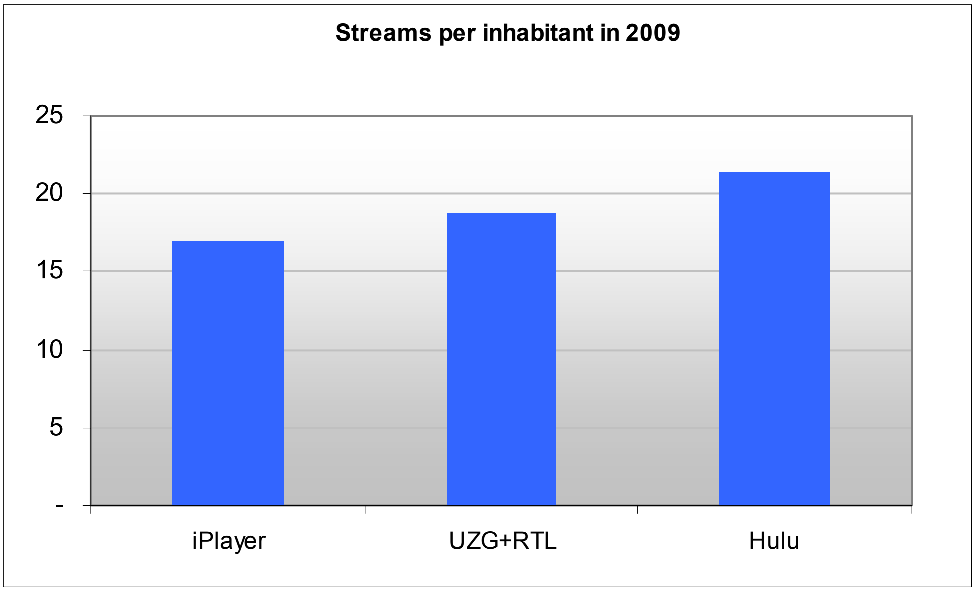

Figure 13 – The number of streams requested in 2009 of the Catch-up TV services of iPlayer, Uitzending Gemist & RTL Gemist and Hulu, divided by the number of inhabitants in the UK, Netherlands and US.

The Dutch consumer is just as active in watching internet video as people are in the UK or US. From this we can conclude that the online channel provides opportunities for professional film content as people spend more time and already consume professional TV content through the digital channel

4.2 Spending of people partly moves to online services.

As we have seen from the previous paragraph, the media usage of consumers partly moves to online services. At the same time, the willingness of consumers to pay for online services seems to increase.

Willingness to pay for digital services
People are already paying for digital video services. In February 2010, Pay TV channels Film1 and Sport1 report 430.000 paying users,[39] who pay a minimum of €14.95 monthly for one of the subscriptions (film, sport or combination).[40] A total of 3.8 million films have been requested by the Film1 On Demand service, where Film1 subscribers at UPC can choose one of the 100+ films as part of their TV subscription.[39]

[38] http://www.frankwatching.com/archive/2009/04/21/bert-habets-rtlgemist-150-miljoen-streams-in-2009/; SKO Jaarrapportage 2009; http://www.emerce.nl/nieuws.jsp?id=2875030
[39] http://www.nederland.broadbandtvnews.com/?p=1257
[40] https://www.film1.nl/film1sport1/abonneren/

At the same time another Pay TV channel such as Eredivisie Live (Dutch football) is also available via multiple TV providers, that has 400.000 members who pay a monthly subscription of €9.95 or more. On average about 40% of digital TV subscribers subscribe to premium (paid) package of TV channels.

More purchases of goods and services via internet
Besides the willingness to pay for video content on TV, consumers are spending more and more on physical goods and services and digital content services. According to Thuiswinkel.org a total of €6,375 million was spent in 2009 via online shopping.[41] About 8% of this revenue was generated by the purchase of books, CDs and games.

In mln euro's incl VAT	2005	2006	2007	2008	2009
Travel	975	1187	1630	1955	2260
Hard- and software	190	223	325	412	505
Clothing	182	209	285	353	465
Books, CDs, DVDs, Games	168	231	313	419	481
Electronics, whitegoods	242	329	453	554	634
Food, cosmetics, home and garden.	117	147	216	269	317
Other	551	768	1046	1476	1713
Total	**2424**	**3093**	**4268**	**5438**	**6375**

2009:

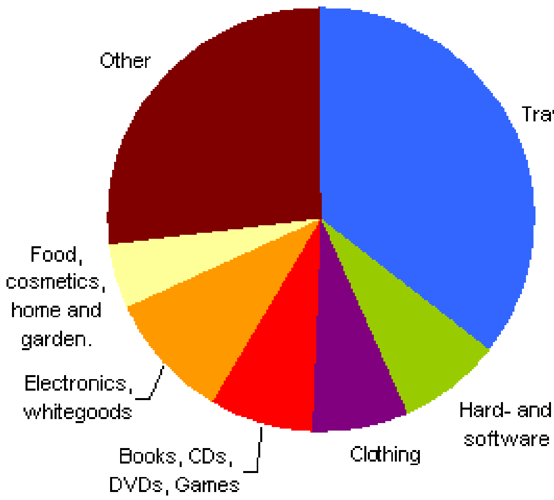

Table 6 – Revenues per market sector for online shopping (Source: thuiswinkel markt monitor)

At the same time, internet users are spending more on mobile content and music. Until 2009 over 3 billion songs were sold in the iTunes store and is now the 3rd largest music retailer in the US.[42] Further, over 2.3 billion dollar is spent in the Apple App store.[43] iPhone users appear to download more than 10 apps per month, of which 2 are paid. Upgrades from the free 'lite' version to the full version of the app are often mentioned as the most important reason to pay for an App.

Dutch consumers remain hesitant in paying for online media
According to KPMG research with over 5,000 users from 22 countries, 57% of global consumers is not willing to pay for frequently used online and mobile content.[44] On the

[41] http://www.thuiswinkel.org/1-website/feiten-cijfers/thuiswinkel-markt-monitor-/thuiswinkelen/online-thuiswinkelen-omzet-naar-marktsector
[42] http://www.myce.com/news/iTunes-hits-3-billion-sales-and-gets-sued-by-Eminem-13575/
[43] http://webwereld.nl/nieuws/63512/jaaromzet-iphone-app-store-2-4-miljard-dollar.html
[44] KPMG (2010) Consumers Convergence IV report, http://www.kpmg.com/NL/nl/IssuesAndInsights/ArticlesPublications/Documents/PDF/Communications%20and%20Media/Consumers_Convergence_IV.pdf , http://www.bizreport.com/2010/07/kpmg-dutch-least-likely-to-part-with-cash-for-content.html

other hand, 43% is actually willing to pay for online content. Willingness to pay for a part of the content on a website is higher than willingness to pay for an entire site. In general, consumers have strong ideas on what sort of content to pay for, and what content not to pay for. On the one side are news and opinion that are commoditized and consumers feel that these should be free, on the other side are entertainment content and targeted content that have a high perceived value. According to the study, the Dutch, British and Canadian public belonged to the most reluctant to pay for content.

4.3 The competition for user's free time

In the previous sections we focussed on the change (quantitatively) of consumer time and money spending. In this paragraph we will focus more on the *customer behaviour* (qualitatively) with respect to video or content in general. When it comes to digital content, people have increased expectations. In the past the consumer could only watch pre-programmed content on the TV. Nowadays, the consumer has much more choice and opportunities. He can record TV and watch it at a later time. Or watch it through the catch-up TV service on the Internet on any connected device he wishes.

Earlier in this report we outlined the increase in time spent on online media. But the consumer time spending is also very fragmented. A service is not only about 'share of wallet' anymore. A video on demand service has to 'compete for users' free time'. People have an abundance of choice when it comes to digital entertainment services. And this means the service has to adapt to the consumer's media behaviour. We can basically observe seven shifts in consumer behaviour when it comes to digital media: Speed, Time, Space, Power, Price, Shape and Social[45].

Speed
First of all, people want content faster. They know when it is available and do not accept waiting too long. They want to have the opportunity to decide what to do with the content at the earliest possible time. Consumers will look for and try to find ways to obtain the content. And if not, attention fades away and people are occupied by different things again.

Time
When the content is available, consumers want content at the time it is convenient for them. They want to be able to store, pause, retrieve or watch earlier (at a premium). Video on Demand could cater for this perfectly. Current models copy the physical model by allowing only 24 hours access to a certain film after start of rental.

Space
The consumers also want freedom in terms of the location; they want to decide where to watch. This means access to the content from your mobile, laptop, but also another TV, for instance in the bedroom. In an interactive TV household, there is usually only one set top box. Only the living room TV is capable of showing VoD..

Shape
Consumers want to be able to change the form of the content to meet their needs. So they rip CDs to put the music on their mp3 player or buy mp3s to burn on a CD. One of the great benefits of DVDs is its portability. Many devices in home or in car are capable

[45] These trends are derviced from numerous presentations and conferences attended by the authors over the past few years on the topic of interactive TV, IPTV, ebooks or other digital content related conferences.

of playing back a DVD. Transcoding digital video to fit different playback devices is still complicated or time consuming to do yourself and legal offers do not facilitate it. Currently, only the pirated versions of content already appear in all forms for all devices and formats (PS3, PSP, iPod, DVD, HD etc). The UltraViolet (DECE) initiative targets this problem (see section 4.5).

Price
The perception of the consumer towards digital content is very different from physical content. We will elaborate on this in Chapter 8. In addition to this it is also interesting to mention a study [46] of the University of Chicago where it turned out that people feel very different about not paying, depending on the cost structure of an item. There are typically two cost structures. Items with high fixed costs (FC) but low variable costs (VC) are typically many things in the service business, software, music, books and films. And there are items with low fixed costs, but high variable costs. Goods which require amounts of labour for each piece, like artwork, hand crafted furniture, jewellery, customised computers etc. The less harm that consumers believe the seller would incur from their failure to pay, the less likely they are to pay for a product. The study shows that consumers perceive a failure to contribute to a high FC and low VC (e.g. books and film) as a "foregone gain" to the seller. However, they perceive a failure to contribute to a low FC and high VC product as inflicting a "loss" to the seller. Consumers perceive the chance of inflicting harm as greater when they fail to contribute to Variable Costs (a loss) than when they fail to contribute to Fixed Costs (a foregone gain). The advice would be to *increase the perception* that a product, like film, has a higher amount of variable costs. For VoD this could mean to make the service more personal or to adapt the service to the user context and devices of the user. In chapter 8 we will elaborate further on this when we discuss the values (generatives) 'interpretation' and 'personalisation'.

Power
The next shift is the shift in *power*. The consumer wants to control how, where and when to interact with the content. Being able to record a film from TV typically appeals to the *power* shift. But the current video on demand service does not give users any feeling of control over the film. Users have to pay and watch it within 24 hours and after that it is gone. Many consumers will watch a film only once preferably on the big screen in their home, so extending the rental period may easily aid this power shift. This shift in power manifests itself already in the TV domain. In the past people were given an offer of programs that had to be watched at the time of broadcasting and people could only switch channels to find something of their liking. Now they have a choice. They can watch it now or later by recording it. They can watch something together that is currently aired on TV or search for a selective program via Catch-Up TV. People also watch a lot of videos based on recommendations as is illustrated further below in the next consumer shift to *social.*

[46] "Why are People so Prone to Steal Software? The Effect of Cost Structure on Consumer Purchase and Payment Intentions", by Nunes, Hsee and Weber.

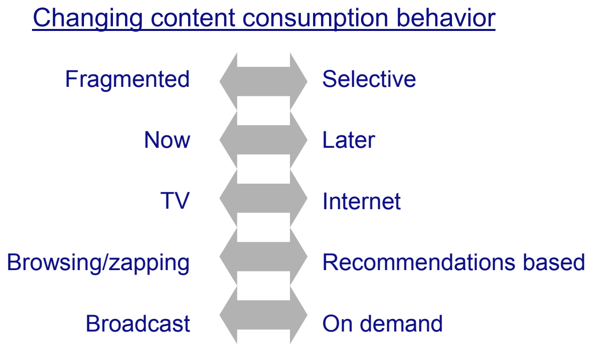

Figure 14 – Changes with respect to content consumption behaviour that already manifest itself with TV content and user generated content. In the past consumers could were presented an offer with the characteristics on the left hand side. Currently, consumer can choose between service with characteristics on the right hand side or left hand side.

Social

Social media is important for content strategies. Going to the cinemas is as much a social experience as going to a concert. Both forms of media consumption have seen a growth in recent years. Online social media is booming. MySpace counts over 100 million active users[47] and Hyves in the Netherlands has about 8 million members[48]. But Facebook is growing rapidly and may outcompete them all. Facebook is the largest social community on earth with over 400 million active users and 50% of those users log on any given day[49]. There are countless blogs in the world, people twitter and share various types of information and content through the web. Social media and blogs are also used for online video. 55% of all YouTube video is found via other websites like blogs and social media.

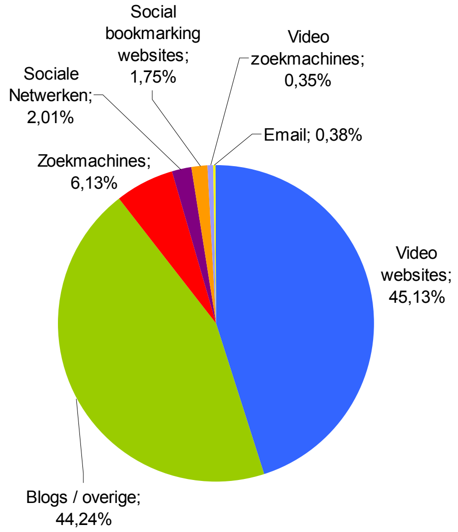

Figure 15 – The discovery of YouTube videos on the net by the source. Only 45% of the videos are found directly on the website. The other 55% by referral or recommendation from others. (Source: Tubemogul)

[47] http://www.myspace.com/pressroom?url=/fact+sheet/
[48] http://www.yme.nl/ymerce/2010/02/22/social-media-in-nederland-in-cijfers-deel-2/, http://www.wervenviagoogle.nl/2010/03/hyves-versus-facebook/
[49] http://www.facebook.com/press/info.php?statistics

4.4 New technical opportunities facilitate distribution of digital content services

TVs get an Internet connection
Besides the changing consumer behaviour, there are also developments on the technological side. TV sales have grown very fast since the introduction of flat screens The amount of TV sets sold annually has grown from 1.1 million in 1999 to 1.8 million in 2009[50]. In the last two years two features have been added to the flat panel: an integrated digital TV tuner – the CAM module – and an Internet connection. At the end of 2009 almost all TVs sold have integrated digital tuners. In 2009 TVs with an Internet connection came to the market. Ten percent of the TVs sold in 2009 had an internet connection, despite being €450 more expensive on average. Unfortunately the systems that are used to access the Internet vary from vendor to vendor. Philips calls its product NetTV and supports the CE-HTML standard for web pages. Panasonic uses Vieracast, Samsung Internet@TV, Sony Bravia Internetlink and Sharp Aquos Net and they all support different ways to make applications (or widgets) for the TV in order to display web services. Although the market is now still fragmented, we expect a consolidation of this market in platforms as many TV providers will find out that getting the content licenses in place may not be their primary business.

Blu-Ray players have standardised services platform
Television screens are not the only devices that get an Internet connection. Blu-ray players are equipped with a high level of interactivity by supporting the *BD-J* standard. This is a Java framework for running interactive applications on a Blu-ray player. Furthermore, Blu-ray players supporting the BD-live profile can download and playback content from Internet sources. Initially, this was meant to provide bonus material and social networking functionality to Blu-ray films.
Almost all Blu-ray players sold today support BD-live. Because BD-Live is fully standardised it offers good opportunities for offering Video on Demand content to the living room. Based on GfK sales figures, we project that by 2013 there will be around 3.5 million Blu-ray players in the Netherlands.

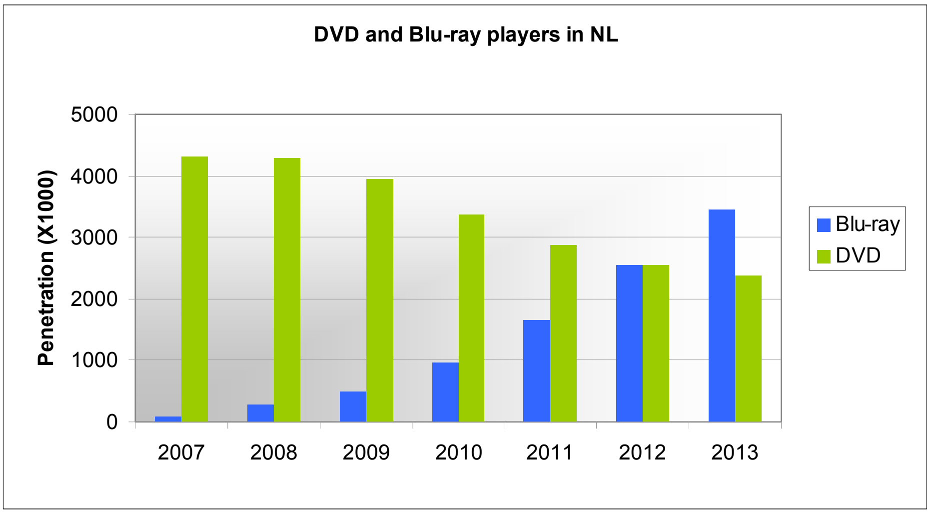

Figure 16 – Projected penetration of Blu-ray and DVD players in the Netherlands based on numbers from GfK. (Source: GFK, TNO)

[50] Source: FIAR

Highest internet penetration rate in Europe
Apart from the device developments there is also an increase in online video quality and network capacity. The Netherlands is frontrunner in Europe with respect to householods with Internet connections. According to Eurostat 90% of the households have Internet connection and 77% (Eurostat[51]) to 83% (OPTA[52]) have a broadband connection. The increasing capacity of household broadband connections has enabled the growth of Internet video. Internet video (excluding filesharing) is now one third of all network traffic on the Internet[53]. And the sum of all video (TV, video on demand, Internet, and P2P) will rise to 91% of all Internet traffic by 2014. The same figures apply to the mobile network usage. Video streaming is responsible for 29% of bandwidth usage on mobile[54]. The increase is further stimulated by the move to HD video. Where YouTube videos were initially of poor quality, it has moved to HD and is now even experimenting with 4K video[55]. Recently YouTube added leanback functionality to make the service as comfortable and easy as watching TV.

Mature video streaming solutions available
In order to optimise the video experience there are large developments in the delivery mechanisms of video over the Internet. Apple, Adobe and Microsoft have all developed methods to enable high quality smooth and stutter free playback of video over the Internet. In 2009 Apple introduced HTTP Live Streaming[56] and Microsoft introduced Smooth streaming[57]. In 2010 Adobe followed with HTTP Dynamic Streaming[58]. All these streaming protocols are designed to be flexible in video bandwidth. The quality of video can be dynamically adapted to the network bandwidth available. Added to this, they all use the HTTP protocol to overcome Firewall problems. Furthermore, Microsoft and Adobe both have a native DRM technology that can be used to protect the content to a browser platform. This requires a simple plug-in that is easily installed and already available in ~50% of the browsers worldwide[59].

In other words, the technology to deliver video streaming over the Internet to the end user is mature.

4.5 DECE or ULTRAVIOLET initiative to create a open marketplace

In 2008 a consortium of Hollywood studios, consumer electronics manufacturers and retailers, network hardware vendors, systems integrators and Digital Rights Management (DRM) vendors announced the Digital Entertainment Content Ecosystem[60] (DECE). The members are planning to develop a standard that will let consumers buy movies and other digital content once and play them almost anywhere, on any type of device, without the restrictions that have limited the growth of licensed

[51] http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-QA-09-046/EN/KS-QA-09-046-EN.PDF
[52] http://www.opta.nl/nl/download/bijlage/?id=545
[53] http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360_ns827_Networking_Solutions_White_Paper.html?utm_source=twitterfeed&utm_medium=twitter
[54] http://www.allot.com/Allot_MobileTrends_Report_Shows_Significant_Growth.html
[55] http://youtube-global.blogspot.com/2010/07/whats-bigger-than-1080p-4k-video-comes.html
[56] http://developer.apple.com/iphone/library/documentation/networkinginternet/conceptual/streamingmediaguide/introduction/introduction.html
[57] http://www.microsoft.com/presspass/press/2009/apr09/04-20smoothstreamingpr.mspx
[58] http://blogs.adobe.com/conversations/2010/05/adobe_advances_flash_platform.html
[59] http://riastats.com/#
[60] http://www.businessweek.com/technology/content/sep2008/tc20080912_471690.htm

digital downloads. The DECE consortium has announced[61] that they will use the name "Ultraviolet" as their brand for compliant devices and service providers to consumers[62].

The DECE consortium has assigned a single global service provider (Neustar) to store all the purchase details and content that each customer buys from any retailer. When a customer buys something from retailer A through device A, the idea is that the user can watch (download) the content on device B through retailer B. Retailer B, would look-up the purchasing history of the user and discover that for the content was already paid for.

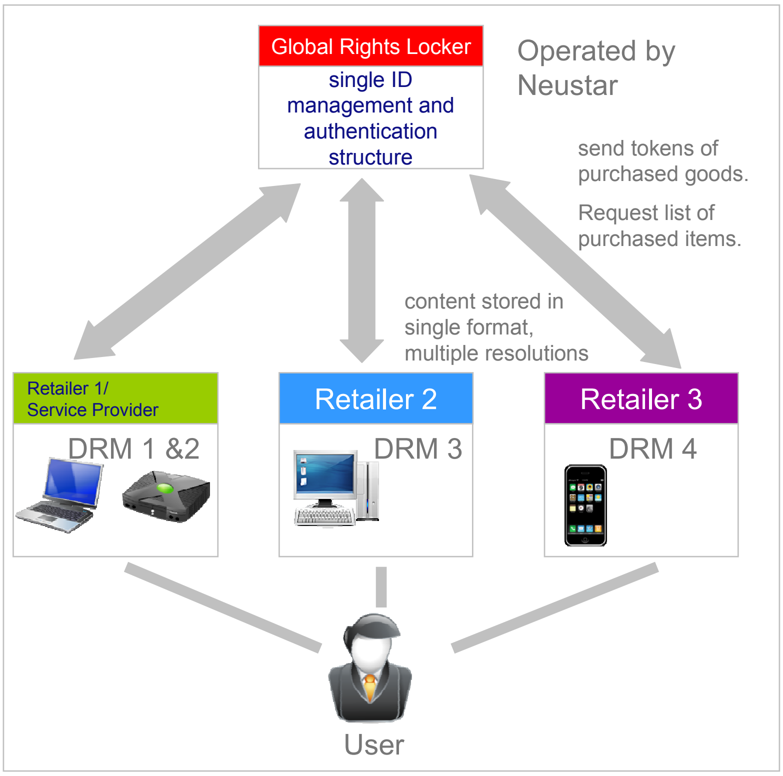

Figure 17 – Schematic diagram of the DECE model. (Source: TNO)

Whenever a purchase is made, the retailer (or service provider) would store the purchase details at Neustar. Neustar operates a so-called "global-rights locker" where all the purchase details are stored from all the users all over the world and takes care of authentication and ID management.

The DECE initiative can be observed from a technical and business perspective.

The technical perspective

DECE has it roots in Coral Light. Coral is a DRM interoperability specification[63], created by a group of companies led by Intertrust, Sony, Philips, and other consumer electronics companies, which enabled services that would translate consumers' legitimately-obtained media from one DRM to another. Coral has not achieved acceptance in the market. But many of the ideas in Coral other than DRM interoperability have migrated to the DECE concept. DRM has always been a large topic of discussion with respect to digital content. The fact is that all service providers use their own solution for DRM and content protection. This creates the problem that

[61] http://www.uvvu.com/press/UltraViolet_Brand_Launch_Release_07_20_2010_FINAL.PDF
[62] http://www.uvvu.com/
[63] http://www.coral-interop.org/

purchased content cannot be played back on systems and devices that have another content protection solution installed. DRM interoperability solutions have been standardised as a possible solution for this, but none have been very successful in the market yet.

The DECE consortium approaches the problem from another angle, by allowing each service provider to use its own DRM. A limited amount of things have been standardised to be able to consume content on any device:
- the Global Rights Locker, which is operated by Neustar for user authentication and identity management.
- a single file format, to guarantee playback on any DECE compliant device and to overcome the cost of storing files in multiple formats for different user devices.
- a set of five DRM systems, that have been approved by the Hollywood studios, namely: Adobe Flash Access, CMLA-OMA v2, the Marlin DRM Open Standard, Microsoft PlayReady and Widevine.
- a single content encryption scheme , which is already widely deployed (AES-128).

It is yet unclear what procedures will be used to uniquely identify films, especially with respect to different formats (HD, SD, 3D, Mobile, Tablets) and to subtitles and dubbing languages that are so important in non-English speaking countries. For instance, it is unclear whether a film-version with Dutch-only subtitles purchased at retailer A is perceived as the same film if retailer B has the film with subtitles in Dutch, German and Arabic. Or whether a film that is purchased in mobile format can be viewed back in HD format on a flatscreen.

The business perspective
The objective of the DECE consortium is to create a level playing field among retailers. Hollywood studios would prefer to prevent dominance in the distribution channel by a single retailer, like Apple has achieved in the music industry. Not surprisingly Disney, who has allegedly strong bonds with Apple, is not part of the DECE consortium and is working on an alternative but very similar model called Keychest[64]. It remains to be seen how retailers react to the DECE model. With this model customer contact is not a strong value anymore and retailers will need to compete more on value-added services rather than on ownership of customer information. Further it is unclear how the costs are shared with the system. If retailer A is making all the purchase transactions because his offer is superior with respect to finding content and promoting content, but retailer B does all the play-out of the content because his offer is superior with respect to high quality play-back during the consumption and additional service aspects after you bought the film, it is unclear whether retailer B will have a means to recoup his costs. As well as this, the model is based on purchasing content, instead of streaming. This is not necessarily the most attractive model, because most films are viewed only once. Disneys Keychest model is targeted towards the streaming model but, ironically, Disney's animation films are typically watched multiple times.

DECE had announced at the beginning of 2010 that it would provide technical specifications in the first half of 2010[65]. However, at the time of writing no details about the technological solution have been published.

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[64] http://www.reuters.com/article/idUSTRE60508P20100106
[65] http://www.uvvu.com/press/CES_2010_Press_Release.pdf

4.6 The opportunity for the film industry

To conclude this chapter, there are many technological developments that make digital video distribution to the consumers' living rooms possible, not only to the PC but also to the flatscreen in the living room. This opportunity is now foremost used for distributing user generated content, music, catch-up TV and pirated content. All these services showed a (steep) growth during the last year and people started paying for online services and content. Legal film offerings still have most of their focus in the physical world. But the opportunities for a legal digital film offering could be more actively pursued by the film distributors.

5 The current VoD service in the Netherlands.

In this section we will focus on the current Video on Demand services from the distributors to consumers. Video on Demand services are offered by digital outlets of film rental stores through the Internet (like www.videoland.nl) and by TV service providers (UPC, Ziggo, KPN and Tele2). The NVPI published a full list of those providers[66]. As was indicated by the distributors[67] and as we will further explain in Chapter 6, the offering from the TV providers is currently the most relevant for the distributors. The online offering has already been discussed in the media[68]. In this chapter we will analyse the Video on Demand services from the TV providers available in the Netherlands.

5.1 TV providers' VoD library offer is not optimal

We sampled the Video on Demand service from the TV providers in October 2010. Two VoD providers volunteered to cooperate and provided the list of VoD titles. The VoD titles from the other 2 providers were obtained from the website of those providers. For Ziggo we performed a crosscheck. There was a mismatch between the titles available through the menu on the set top box and the titles announced on the website as being available through the set top box. Maybe the offer description as published on the website and on the set top box offer are not fully in sync. Given the rapid change of titles in the offer this could explain the difference. The website provides easier accessible information about the film, so we took these titles as leading as it made it easier for us to look up other information on IMDB[69]. The samples were taken in October 2010. From the offer, we only took feature films into account. We left out erotic content, children animation series (e.g. Boes, Alfred J. Kwak) and (short) series (like the O.C.) or documentaries. For all the Video on Demand libraries we assessed the release year of the films, the rating of the films from IMDB and how many of the top selling films are available. The results are presented below.

[66] http://www.voice-info.nl/assets/voice/het%20digitale%20aanbod%20van%20beeld%20en%20muziek%201%20oktober%202009%20_2_.pdf
[67] Joint workshop TNO and film distributors – June 2010.
[68] http://tweakers.net/nieuws/63168/nvpi-onderzoek-naar-legale-filmdiensten-in-nederland-incompleet.html
[69] The Internet Movie Database (IMDb) is an online database of information related to movies, television shows, actors, production crew personnel, video games and fictional characters featured in visual entertainment media. IMDb launched on October 17, 1990, and in 1998 was acquired by Amazon.com (source: wikipedia). www.imdb.com

Thirty percent of the VoD library is older than 10 years.

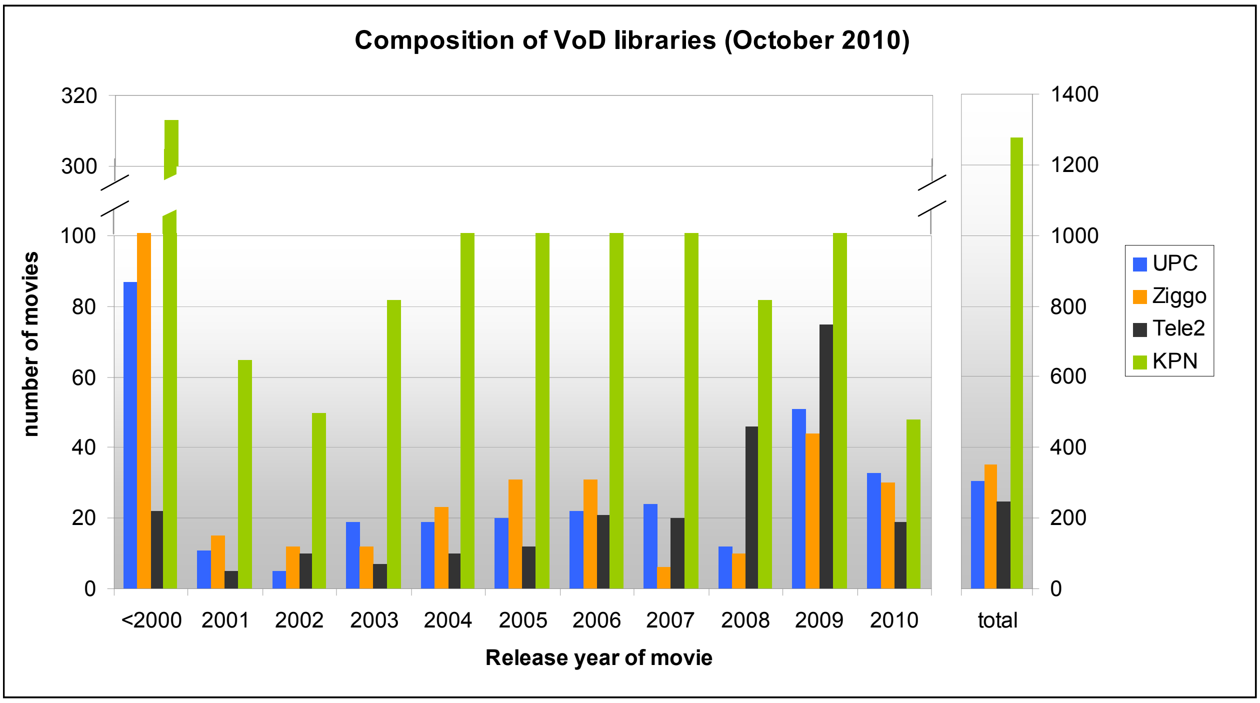

Figure 18 – Composition of the VoD libraries by year from Ziggo, KPN, UPC and Tele2. (Source: TNO)

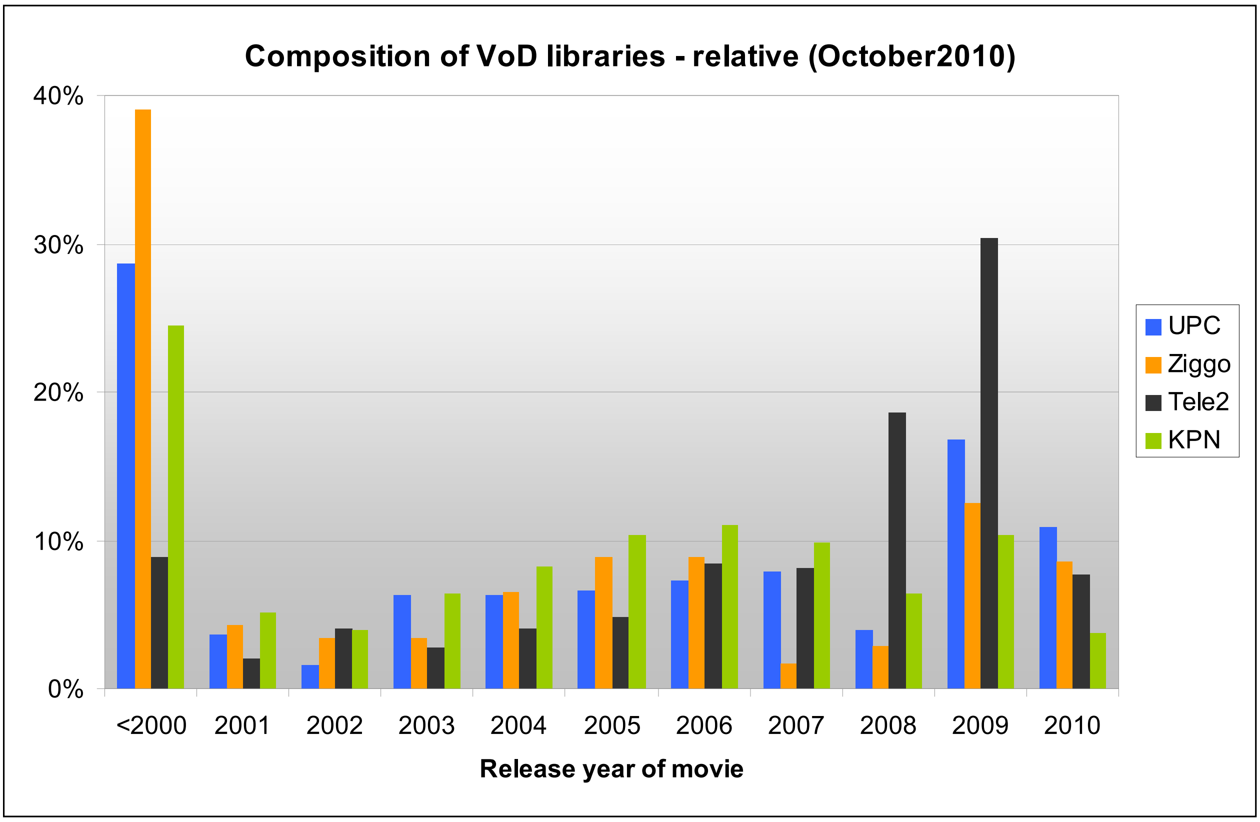

Figure 19 – Relative composition of the VoD libraries by year from Ziggo, KPN, UPC and Tele2. (Source: TNO)

KPN who resells the offer from Videoland has the largest amount of films, around 1275. UPC offers around 300 films, Ziggo around 350 and Tele2 has a library of 250 films. UPC and Ziggo informed us that they deliberately limit the amount of titles to a few hundred. From their point of view this is the maximum number of titles that can be offered in a user friendly way when navigating with a remote control with the current systems and solutions for interactive TV. 25% of the films of KPN are more than 10 years old. For UPC this is about 30% and for Ziggo almost 40%. Over 50% of the titles from these three providers is more than 6 years old. Tele2 has relatively the most up to date VoD library with 60% of the films less than 3 years old. Further, each provider has around 40-100 films from 2009, which is positive. The film distributors explained that for most library films, the license contracts for the video on demand service have to be renegotiated title by title by each party involved with the film, including actors, writers and other performing artists. Only from around 2009 the VoD distribution window became part of the contract by default.

Ziggo and UPC have the best quality films

We assessed the quality of the films by taking the IMDB rating. Although quality is subjective, IMDB is worldwide used by consumers to rate films. Ziggo and UPC have the best rated films. Over 60% of Ziggo is rated better than 6 and 73% of UPC films are rated better than 6. KPN the worst rated films: 54% has been rated <6.
In absolute terms KPN offers more films rated better than 6 and 7 than UPC and Ziggo. But the quality perception when browsing through the library is determined rather by the relative composition of the library.

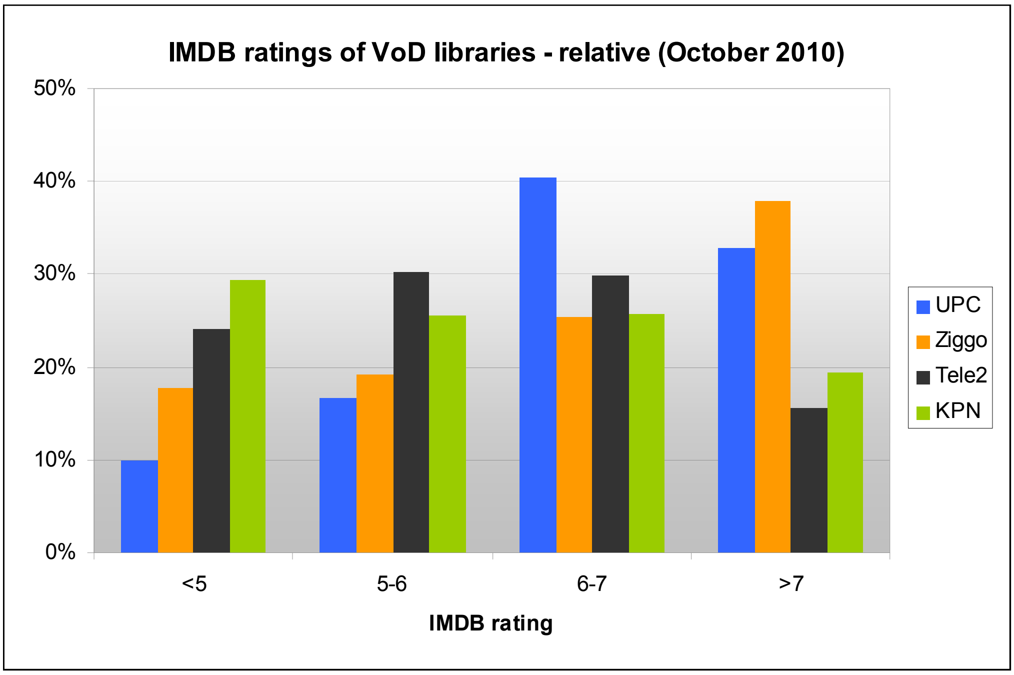

Figure 20 – IMDB ratings of the VoD offer from UPC, Ziggo, Tele2 and KPN. (Source: TNO)

Taking the IMDB rating versus the release year of films into account, we see that unfortunately most films are old and so are most good films as well for KPN, UPC and

Ziggo. Tele2 has a fair amount of good films from 2009. The 2008 films on the other hand are not so well rated.

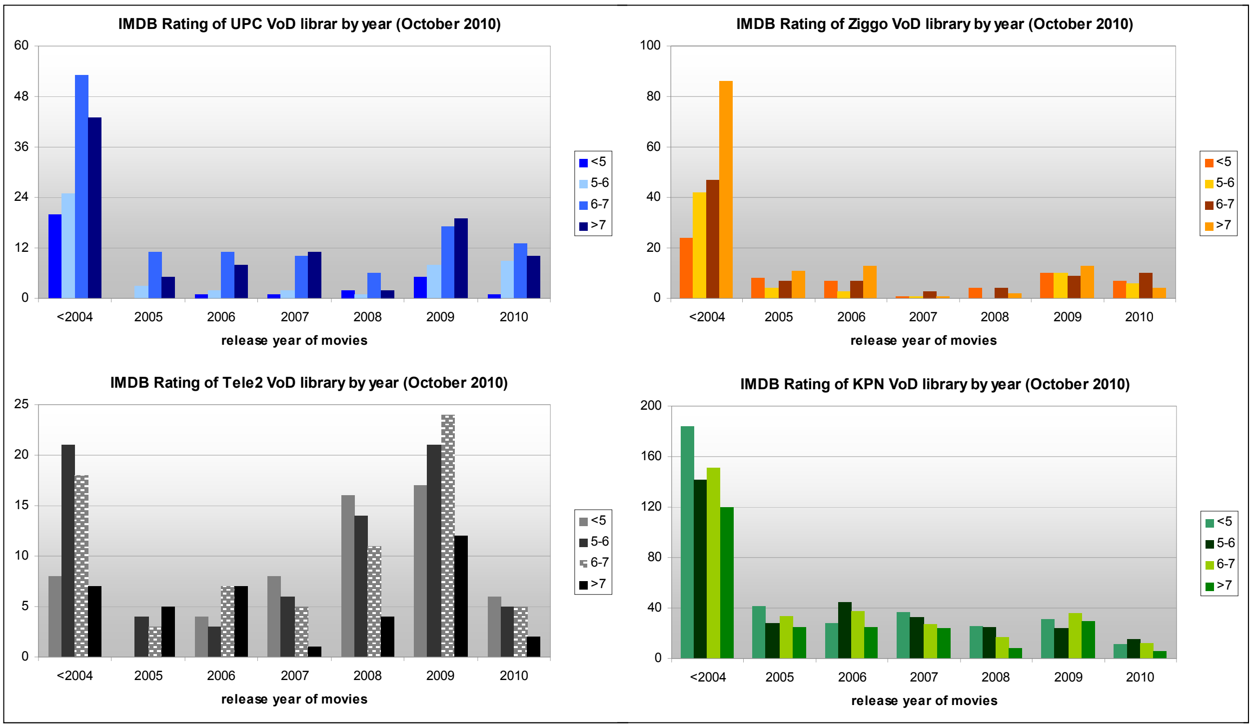

Figure 21 – IMDB rating of the VoD library per year for each of the 4 service providers. (Source: TNO)

Most popular films from last three years are missing
Finally, we determined how popular the film was. Mojo tracks the top 100 best grossing films for each country[70]. As described in chapter 2, top grossing films in the box office is also a success indicator for rental and sales. We assessed how many top grossing films of 2007, 2008, 2009 and 2010 were present in the VoD libraries. For the 2010 we took films that had left the cinema's by July and restricted ourselves to a Top 50.

From the top 25 of 2010 UPC had 12 films in their library and KPN 10. Ziggo and Tele2 had only 4 films in their library. From the top grossing films of 2009, 2008 and 2007 almost no films were present.

[70] http://www.boxofficemojo.com/intl/netherlands/yearly/?yr=2009&p=.htm

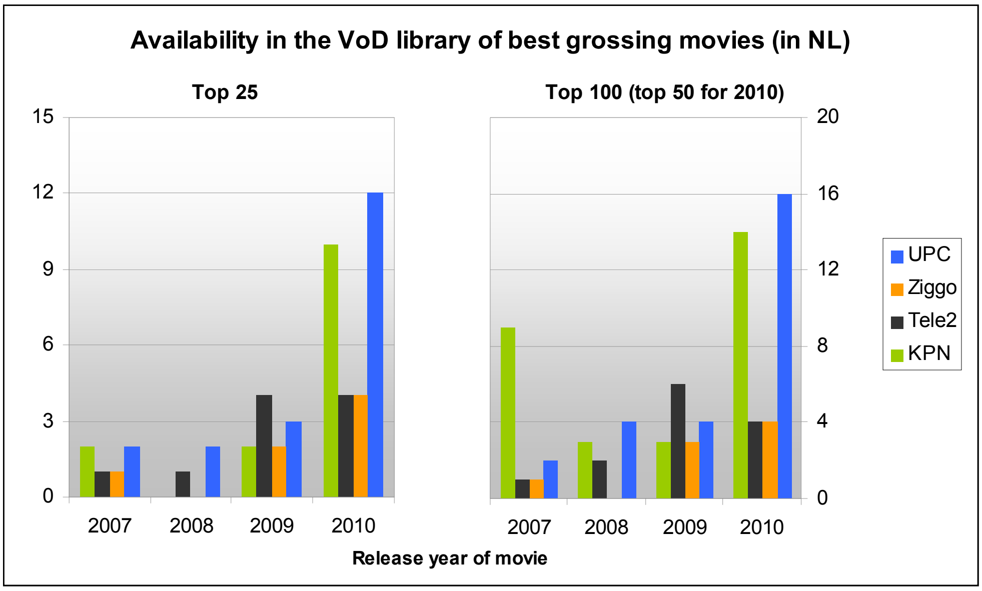

Figure 22 – Availability of the top grossing films as measured by Mojo in the VoD offer from the four service providers for the last 4 years. (Source: TNO)

Overall, the film offer of the VoD service of the TV providers is composed of many old films with a few recent films of 2010. Tele2 has the most up to date library, but lacks the top grossing films. UPC and KPN have a fair amount of new films of 2010, about half of the top 25 films. But the offer of 2009 contains only a handful of top grossing films. Ziggo and UPC have proper rated, but many old films. In general all libraries lack the most popular and top grossing films that were produced in recent years.

Below, we will explain more about the operation of video on demand and the business model behind it, that partly explains this.

5.2 Minimum guarantees put a high entry barriers for Video on Demand providers

As described in Chapter 2, the film industry uses windows to distribute their content. The VoD window lasts between three to six months and starts at the same time as retail and rental or 3 months later. After this time period, the film is removed from the VoD window and will enter a blackout period. Some films go to the PayTV window followed by the free TV window. Only after those windows the film might appear again in the VoD offer as a 'library' title. The result is that there are relatively few 'currents' available (recent films) as most of the recent films of the past 2-3 year are in a blackout period. The rest of the library is filled with older films. One of the practical consequences of this model is that in the case a sequel is released, the original is not available for rental. Recently, when the film Millennium 3 was released, consumers were unable to rent Millennium 1 and 2 through the VoD service.

Service Providers that wish to offer the film through the VoD service usually have to pay minimum guarantees. This model is adopted from the PayTV window, where minimum guarantees are the working practice. At some majors the VoD window is managed by the same department as the PayTV window. This system works as follows. The film distributor estimates (or aims for) a minimum rental rate of a certain film among the subscribers of the service provider for the time period the film is present as part of the VoD offer. This rental rate is a certain percentage, roughly between 5-12%

of the subscribers for a successful current. The rental fee is based on a revenue share with a minimum fixed fee per rental transaction for the distributor, whichever is higher. The revenue share is roughly between 50-75% and the minimum fee is typically between €2.50 and € 3.50 for a current (recent film). So a service provider pays at least: (# subscribers) x (minimum rental rate) x (minimum rental fee) to get the film in its VoD offer, regardless of how many times the film is rented. In case the service provider performs better than the minimum guarantees the profit is shared according to the revenue share percentage. For library titles (older films) a minimum guarantee between €500 to €1000 euro is typically paid for each three to six months the film is present as part of the VoD offer. Usually films are sold as a bundle, meaning each current title is bundled with a few library films sold as a package.

This is different from the physical rental stores where another model is applied. Either the store owner needs to pay a revenue share for each film or he can just buys a film on a DVD disc for retail price[71] and can rent it as often as he likes to earn back his money. The applied model varies between film distributors. But in both cases the store owner can decide, how many discs he purchases to balance the investment risk against expected profits. Further, a film never has to leave the physical rental distribution window to enter a blackout period. The same applies to the physical sales window.

The idea behind the minimum guarantees is to stimulate the service providers of the VoD service to promote and rent the film. If one film distributor would apply such a system and the others would not, the service provider would of course first of all promote the films, which have a minimum guarantee, to recoup the investment costs. The downside of this model is that it puts high entry barriers for potential video on demand service providers. Offering a VoD library of a few hundred films to about a 100.000 potential users requires a serious investment of a few million euro's of minimum guarantees each year.

The reason behind bundling library films with currents is that the film distributor wants to monetize its library of older films as well. Sometimes the bundling of a library film with a current is also part of contractual arrangements between actors and film studio's.

Due to the minimum guarantees and the mechanism of the black-out period only a limited amount of recent films from the past few years are available through the VoD service. For a consumer this is very hard to understand as the same films are still available at the physical rental store or can be bought on DVD. The consequence of leaving the current model is of course the impact that would have on the other windows, foremost the PayTV and free TV window. First of all the service providers will expect to pay lower fees for the rights of their PayTV or free TV window, if they lose their exclusivity. Second, the business responsibility and commercial targets for the different windows and distribution areas is divided over different departments at different geographical locations. A redistribution of revenues from various windows and areas over various departments is not easily established.

[71] The rental distribution window usually start one week earlier than the retail window. During this week the "retail" prices are a bit higher than the retail prices the consumer pays one week later.

6 The current position of VoD in the media landscape

In this chapter we will assess the distribution channel of the video on demand service and the role of the distributors in the value chain. In section 6.1 we will first have a look at the preferred means of consumption for video on demand by the consumer. Then we will assess the distribution partners that the film industry has chosen to meet this demand. In section 6.2 we will analyse the changes that have appeared in the market due to the Internet and the role the film distributors are taking.

6.1 Increase consumer penetration of VoD and establish more distribution channels

The preferred way of watching a film is via the TV
Video on Demand services in the Netherlands are currently offered via Internet services (e.g. videolandondemand.com) and via TV services from TV service providers (e.g. Ziggo Videotheek). Currently, there are 15 Internet VoD providers and four TV VoD providers[72]. Various studies show that people prefer to watch content on their big TV screen. A study from iSuppli shows that 61% of the consumers want to connect the TV to the Internet[73]. Another study shows that 50% of the surveyed people do not even want to watch films on a PC screen, they like their TV too much[74]. Forrester took a survey in their study "the future of European Video on Demand" and concluded the same: people prefer to watch films on the TV screen. The field research (see next chapter) also indicated that VoD users that do not download, associate "downloading" with "watching film on a PC", which they considered as unattractive.

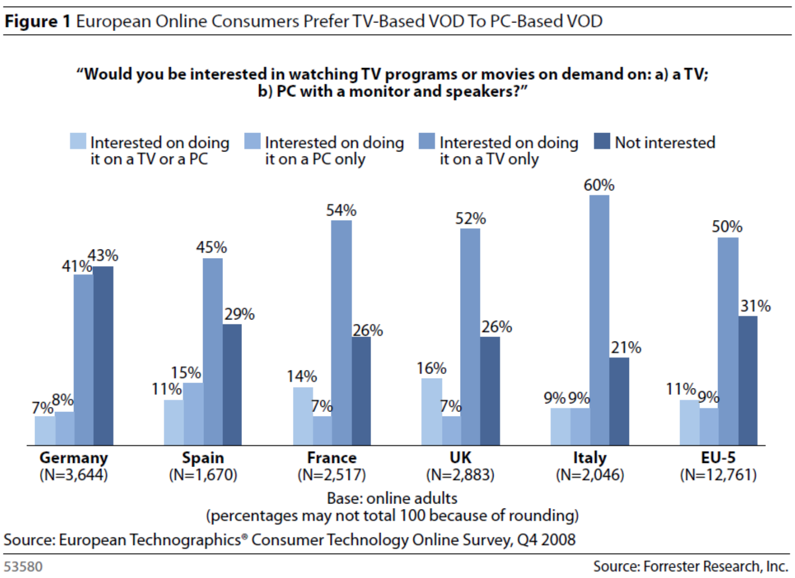

Figure 23 – Preferred viewing method for films (Source: Forrester Research)

So while the broadband penetration is over 80%, watching full length films via the PC is not very popular. Usually the screen is much smaller and the experience is much less than watching it on the flatscreen in the living room. Connecting the PC to the TV

[72] http://www.voice-info.nl/assets/voice/het%20digitale%20aanbod%20van%20beeld%20en%20muziek%201%20oktober%202009%20_2_.pdf
[73] iSuppli 2007, "Home networking in search of a killer application".
[74] Diffusion Group, Broadband Video platforms, A primary analysis 2007.

would be an option but in practice it shows that only very few people do this. In a study done in 2006 by TNO and Blauw the devices connected to the TV were surveyed. Only 7% had their PC connected to their TV.

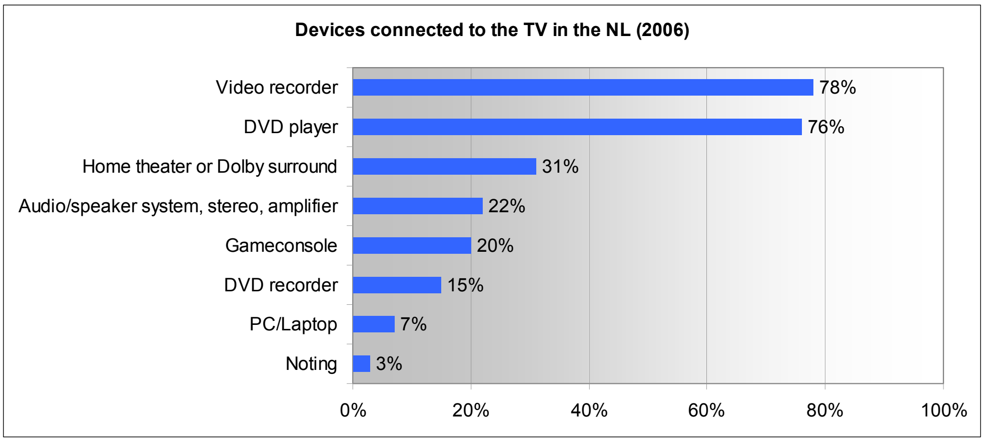

Figure 24 – Results of a survey among 1000 households regarding the in home situation. In 2006 5% of the people connected a set top box to the TV, but this number has increased in recent years dus to the adoption of digital TV and this figure is therefore left out of the graphic. (Source: TNO/Blauw).

This result matches the outcome of a study done in the UK where also 7% of the respondents actually do connect their PC to their TV frequently.

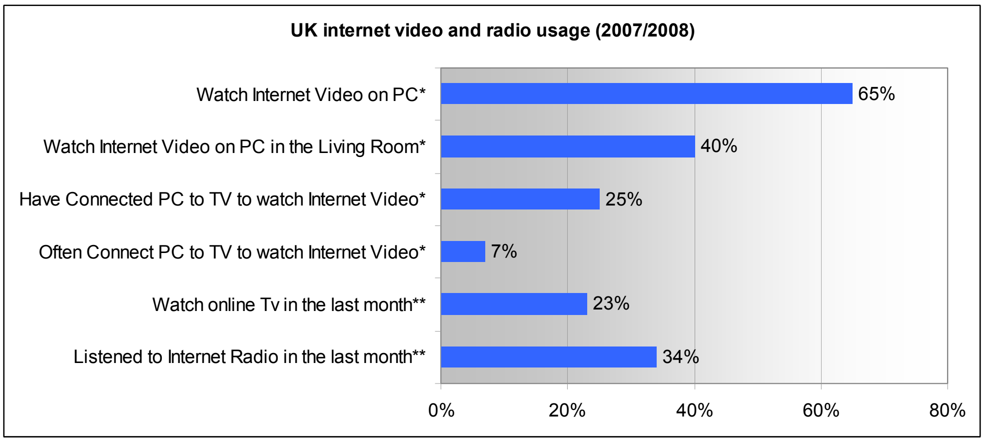

Figure 25 – UK online entertainment usage. (Source: Futuresource – Music consumption in the digital age 2009. *Futuresource "Living with Digital", Survey 2009.**EIAA Mediascope 2008.)

The penetration of interactive set top boxes in The Netherlands is low

As described in chapter 5, the TV service providers KPN, Ziggo, UPC and Tele2 offer Video on Demand services via the set top box. The benefit of this method is that the set top box is by default connected to the TV and that the service is designed to be controlled by a remote control of the set top box. Also, billing is easily taken care of by the service provider. However, not all subscribers from the TV service providers can use the VoD service. They need to be a digital TV subscriber ànd have access to the interactive services. UPC, Tele2 and KPN iTV uses a lease or rental model for their set top boxes. These subscribers all have automatically access to the interactive services because all set top boxes support it. For Ziggo subscribers it depends on the set top box the user bought or obtained when signing up for the digital TV service.

Functionality of deployed STBs	Ziggo	UPC	Digitenne	KPN iTV	Tele 2
Zapping only	88.4%		95.5%		
High Definition	5.7%	?	N/A	100%	
Recording	5.9%	~50%	4.5%	100%	100%
VoD service	~5%	100%	N/A	100%	100%
Digital subsribers	1.600.000	790.000	880.000	150.000	220.000
VoD subs	**~80.000**	**790.000**	**0**	**150.000**	**220.000**

Table 7 – Overview of the deployed set top boxes from Ziggo, UPC, KPN and Tele2 (2010). Only 1.2mln households have the possibility to watch video on demand services via their TV service provider. This is less than 15% of all TV households (Source: Immovator, monitor digitale TV[75]. For Ziggo the figures are deduced: as all interactive boxes have HD, So the VoD penetration is around the same as that of HD penetration).

In total only 15% of the Dutch TV households currently have access to video on demand services through TV providers. Especially the penetration of interactive set top boxes from Ziggo is very low. With a digital TV penetration of about 66%, this means that 77% of digital TV subscribers do not have access to interactive services. It is not expected that this number will increase very rapidly. Even if it were to double during the coming years, this still means that 70% of all Dutch households are deprived from watching VoD on a TV screen. This means that in order to increase the market penetration of Video on Demand other distribution channels become very important for the industry.

The opportunities of connected TVs to increase the penetration

With the large penetration of broadband in the Netherlands, delivering video on demand through the Internet appears as the next best option. The second step is to find a way to bring this offer to the TV as consumers do not connect their PC to the TV and prefer watching film on a flatscreen. There are all kinds of media devices nowadays – media extenders – that are capable of playing back media from the Internet on the TV, like the popcorn hour, AC Ryan Play-on, the Apple TV box etcetera. And more boxes are even to come[76]. However, these standalone media players and media extenders are not very successful up to now. Even in the US multiple vendors have tried, but none of these have a significant installed base. The Roku box which provides access to Netflix and Amazon on demand services has a market penetration of less than 1% in the US and Canadian households[77]. Tivo reached a peak of 4.4 million subscribers end of 2006, but is losing subscribers and counts about 2.3 million currently[78]. Consumers do not seem to be willing to pay for a box next to their TV, which only provides access to pay-per-view content and has no clear primary function. Even the previous Apple TV version

[75] http://www.immovator.nl/files/images/100531%20Monitor%20Digitale%20TV%20in%20Nederland%20Q1_2010.pdf
[76] http://www.immovator.nl/demos-connected-tv-op-cross-media-cafe
[77] http://gigaom.com/video/video-12-percent-of-rokus-customers-cut-the-cord/
[78] http://tvbythenumbers.zap2it.com/2010/11/27/tivo-sheds-112000-subscribers-in-latest-quarter-down-to-mid-2004-levels/73435

cannot be considered a success, therefore Apple tries a different approach with a cheaper box that sits below the $100 price point. Devices which have a different primary function – like gaming, but come with the additional possibility to watch online content are more successful. Therefore, the distributors should increase the penetration of video on demand households and focus on devices that people *like* to buy. These devices are connected TVs with internet connection, Blu- ray players and game consoles.

In this respect the opportunities for connected TVs are by far the most promising option. Connected TVs have the possibility to integrate video on demand services with 3rd party applications and services. This opens the door for integration of VoD with rating sites, online discussions, release notifications, previews that can be offered by third party service providers etc. This is not possible easily possible with separate set top boxes. A film distributor does not need to rely on a single party to facilitate the maximum user experience. Similar to smartphones, connected TVs provide the best way forward to an open and healthy ecosystems for innovative services concepts around content. The current first generation of the connected TVs is build around closed development environments and semi web languages. In October 2010 GoogleTV has launched an open Android based TVs with Sony, Intel en Logitech. This launch can help to create a single recognised platform that is attractive for developers. Such a development platform is very suitable to enable a Video on Demand offer directly to the TV offered by various retailers and service providers. Right after the launch TV networks and content providers in the US reacted reluctant and are not ready to provide their content to the Google platform yet[79]. Seemingly in response to this Google bought WideVine a large DRM company and one of the approved DRM systems of Ultraviolet (DECE)[80]. As described before, we do expect a consolidation of this market. With a few iterations of these TVs they have the potential to become as successful as smartphones for the mobile market, opening up real opportunities for third party content and service providers.

Taking this even further, distributors and studios hold probably the most valuable content there is. The success of new platforms and technical innovations depend both on the user demands and the availability of quality content and services. As such, the owners of the rights of content, distributors and studios can provide a huge leverage by supporting platforms to become successful and to increase the adoption by consumers. In this sense, instead of deciding upon the access (or not) to their content after these new type of platforms for digital distribution have been developed, content owners could pro-actively co-develop such platforms to make sure it meets their business models and guarantees a safe, secure and quality offer of premium content.

6.2 Take more active role in the value chain

In the physical world the distributors take a very large role in the value chain. After they obtained the rights, distributors take care of the complete logistics and marketing of the film. The distributors take care of the replication, create the inlays and covers of discs. They are responsible for the transport of discs to the shops and return of unsold items. They print the posters for advertising, create commercials on TV and the Internet and

[79] http://online.wsj.com/article/SB10001424052702303339504575566572021412854.html://online.wsj.com /article/SB10001424052702303339504575566572021412854.html
[80] http://gigaom.com/video/google-widevine-acquisition/

encourage promotion sales by the retailers. The retailers only sell the films and return the unsold discs.

In the digital world the film distributor reduced their role. The distributor still buys the rights for the content, but the real distribution and promotion has to be done by the online film provider or TV service provider (called digital film provider hereafter). The distributor uploads a single copy of the film to the digital film provider or sends them a digital tape. From that point the digital film service provider has to take care for installing and operating a digital distribution platform with enough storage capacity and bandwidth capacity to stream all the films. This platform has to meet the security requirements of the various studio's/distributors. The digital film provider also has to build a portal (digital outlet) to promote the content and service offering and to make it searchable. In short, in the digital world most of the tasks the film distributors performed in the physical world are transferred to other parties in the value chain and the film distributors rely on them for their success.

Tasks	Distributors	Retail/Service Providers
physical	- distribution rights - marketing and release planning - general promotion - in store promotion - replication of discs - distribution to retail stores - return and repackage unsold goods **shift**	- rack space - transactions of films (- send by mail)
digital	- distribution rights - marketing and release planning - general promotion - upload film to service provider	- server space - (guaranteed) high speed bandwidth capacity - online streaming solution - security systems to meet requirements from studio's - online portal and catalogue system - on portal advertising and recommendations - billing mechanism - customer contact (helpdesk)

Table 8 – Division of tasks between distributors and the retail/service providers in the physical world and digital world. The weight of tasks is transferred from the distributors to the service providers from the physical to the digital world. (Source: TNO)

Triple play subscription services have a higher priority than video-on-demand
The problem is that these other parties have a different priority. The TV service providers are currently the most important parties for the distributors, as they can provide a film offering to the flatscreen in the living room and already have an easy and accepted billing system in place. But the TV service providers compete for customers. They are all in 'land grab' mode for triple play customers that want TV, Internet and Voice services from a single provider for the lowest price. Looking at the revenues in the communication market the reason for this becomes very clear.

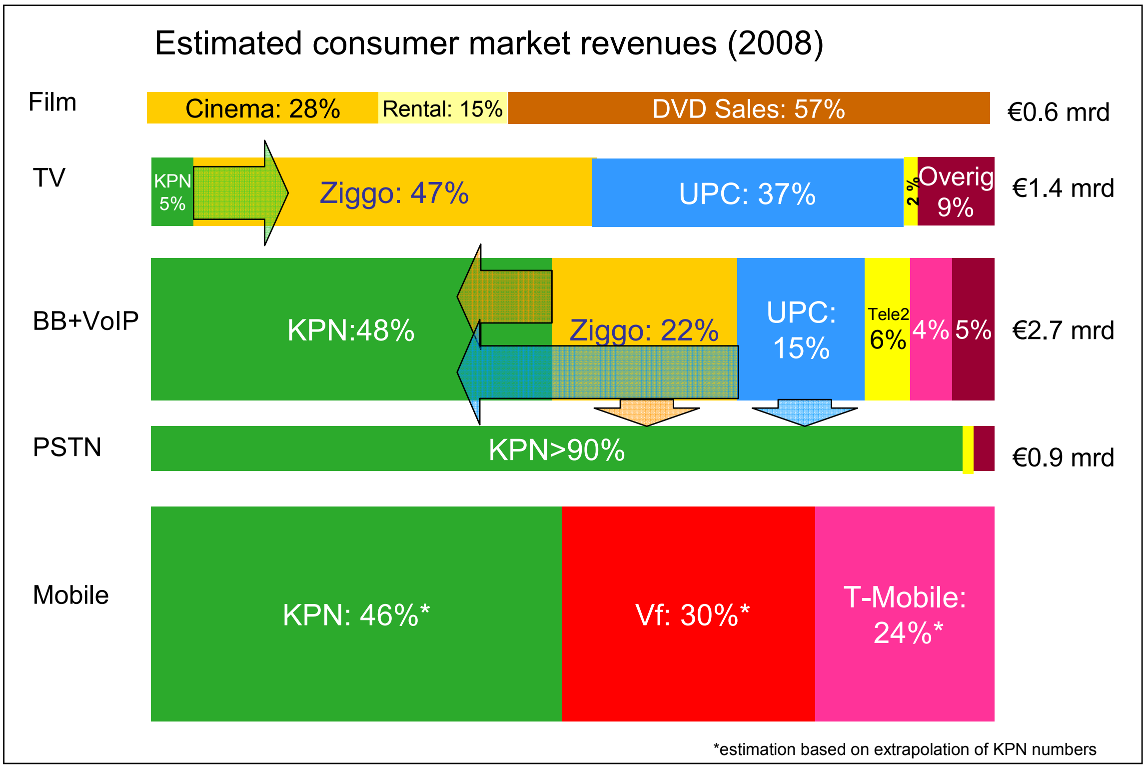

Figure 26 – Estimated consumer Market revenues of the telecommunication market in the Netherlands. BB = broadband, PSTN = analogue telephony. Figures are based on annual reports of the companies. For triple play customers the TV income is set at 40% and broadband + VoIP is set at 60%. (Source: TNO, based on annual reports)

KPN is dominant in the broadband and fixed telephony at the moment. Delivering just TV and selling triple play subscriptions is their growth market and means to protect their market share in voice and broadband services. For Ziggo and UPC, the two largest cable companies, the main growth market can be achieved in the broadband and VoIP market. The revenues from the home entertainment market – currently around €400 million – are much smaller than the revenues in the TV, Internet and Voice market. While it may form a nice additional income in the TV market, the main focus is on getting triple play subscribers. The most important function of VoD for them is that it contributes to an innovative image. Even as part of the TV services, it is much more attractive for the operators to sell subscription services than single pieces of content, because it provides a much more stable and long term income stream. At the moment 40% of the households who take a digital TV subscription also subscribe to an additional PayTV service[81]. TV service providers focus on selling additional subscriptions to special interest channels, HD channels or CatchUp TV services (Uitzending Gemist etc) or monthly rental fees for set top boxes with recording and pausing function or a second box for the bedroom.

Other content providers increased their role in the digital age

When we consider content parties in the value chain, we can see that they took a bigger role, when the Internet channel became available. Broadcasters were typically content aggregators passing their content to the cable companies (service providers) who distributed it for them and sold the subscriptions. Broadcasters had no direct customer

[81] TNO - Gebruik analoge kabeltelevisie door digitale kabelabonnees (2007); Heliview - ICT Consumer Monitor Digitale Televisie (2009).

contact themselves. In recent years this has changed due to the Internet as is illustrated in the figure below.

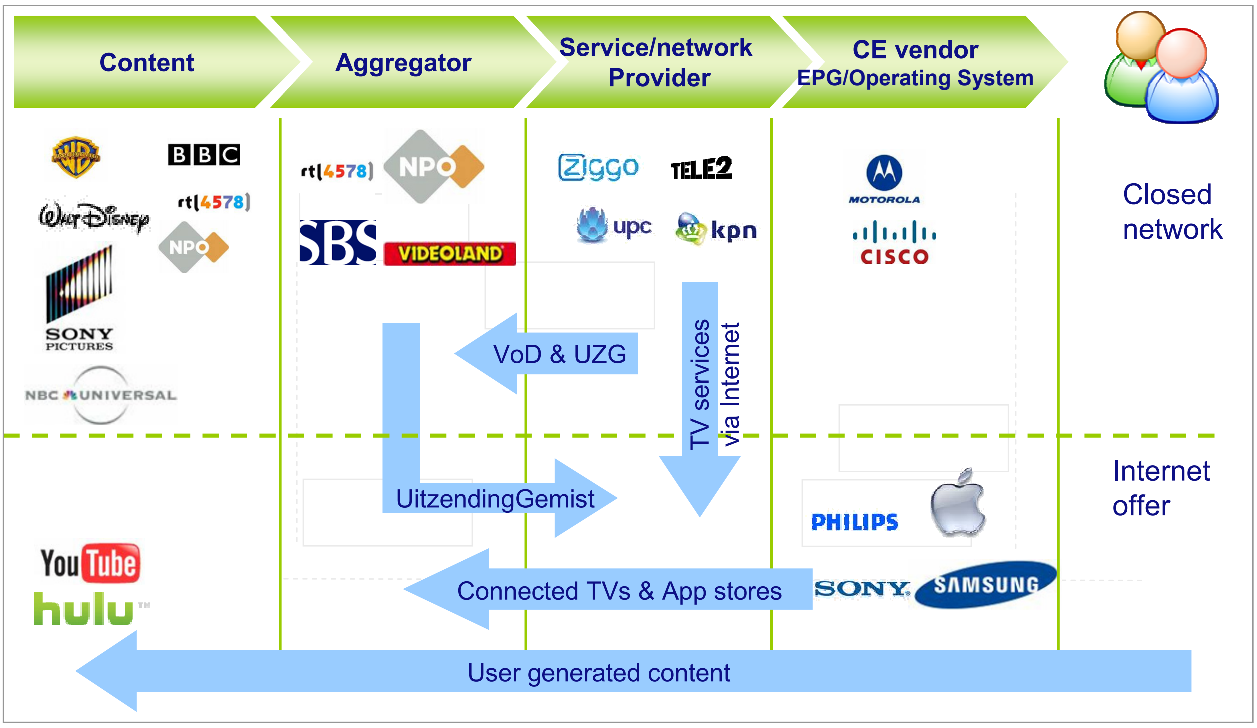

Figure 27 – Shifts in the television and video value chain. Many parties take different roles due to the Internet and digital distribution technologies. (Source: TNO)

The broadcasters deploy their catch-up TV services independently through the Internet. They added the role of service provider. With the rise of connected TVs the manufacturers take the role of content aggregators with their online portals. At the same time, customers became their own content providers through YouTube. In the digital age all parties are actively pushing their brands, shifting towards direct customer contact, move upstream in the value chain or look for partnering. For instance, when RTL Gemist was actively promoted for being available on Philips NetTVs.

In the digital age the distributors could take a much more active role in the value chain. They should focus more on enabling and facilitating the availability of their content to any retailer or brand that wishes to resell films to its customer base. Distributors could benefit from the many service providers that exist in the Internet that already target special interest groups. Social networks, community, publisher, news sites or other web service providers with a large 'customer' base that could relate to a film for one of the current topics or themes, can help to market and resell a film.

Most money is earned through services in the Internet.
On a global level most money in the Internet is earned by service providers or service enablers, instead of content. AT Kearney performed a study on the economics of the Internet[82].

[82] http://www.atkearney.com/images/global/pdf/Internet-Value-Chain-Economics.pdf

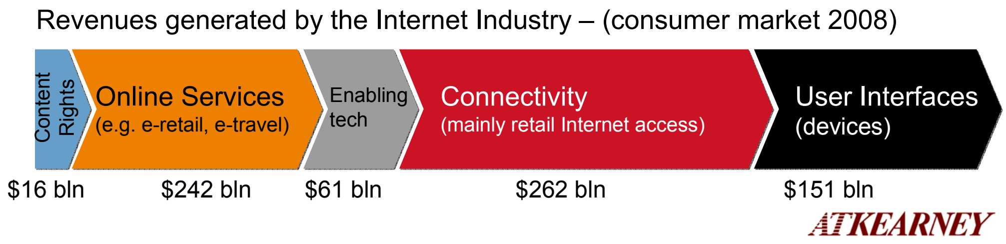

Figure 28 – Revenues generated by the Internet –consumers. (Source: AT Kearney 2008)

In 2008 the total revenues from the consumer market were $732 billion. Of that $262 billion was spend on connectivity services to get access to the Internet, foremost the retail Internet access. $151 billion was spend on devices that provide access (service) to the Internet, foremost PCs and smartphones. $242 billion was spent on online service, foremost e-Travel, e-Ratail, search or online entertainment services. So a lot of content is owned by "services". Only $16 billion was spent on content rights[83]. In the transformation from the physical world to the digital world, film distributors should take into account that the revenues shares and market forces are distributed differently. Most money is made by organisations that create and provide services.

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7 Video-on-demand field research

7.1 Approach of the questionnaire

In October and November 2010 we carried out a survey with respect to the current Video on Demand product offering by TV service providers. TNO defined the questions partly based on the SUMI methodology[84] and processed the answers.

The field work of the questionnaire was carried out by Market Response and the consumers had to fill out the questionnaire via a website on the Internet. The sample consisted of 402 "normal" households, which we call the "NL group", and 251 "VoD" households, which we call the "VoD group". The latter were households that already rent VoD films via their TV service provider. This last group was selected based on a short telephone interview from the pool of Market Response.

During the summer TNO organised a workshop with the film distributors. The main question expressed by the film distributors was to get a better insight into the following:

"why do people not use the VoD service, who already have interactive television services and have the opportunity to rent a film,"

We expanded this question by asking them about the opinions of the four basic marketing instruments:
- product → how is the VoD service rated or judged?
- place → what is the opinion that the VoD service is part of the TV service?
- price → how is the price level and price model judged?
- promotion → how familiar are people with the product and what is the image of the VoD service?

We further asked questions based on our SUMI method that focuses on behavioural copying. We asked for instance whether they think they need to change their behaviour when watching film through VoD or whether they would promote the film to their friends.

Apart from the intersection between the normal Dutch population and VoD users, we also made intersections by:
1) film-interest, whether one considers himself a film-fan coupled to the frequency of visiting the cinema
2) demographics: youngsters, parents with young children or seniors
3) TV service provider: UPC, Ziggo or KPN.

More information about the demographics of the people who responded to the survey can be found in Appendix A. From the 402 "normal households 95 are subscribed to interactive TV services. Of those, 34 do use the VoD service and 61 do not.

[84] http://www.tno.nl/content.cfm?context=markten&content=product&laag1=182&laag2=173&item_id=452

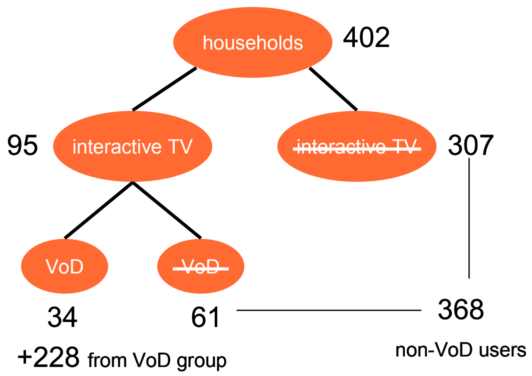


Figure 29 – Schematic overview of the respondents to the survey, composed of 402 normal households called the "NL group" and 251 VoD users called the "VoD group". The 251 of the VoD group had 228 VoD users and 23 non-VoD users (not shown in figure).

From the 251 VoD households that were selected after telephone interview, it turned out that 23 did not use VoD after all. The results from the 34 VoD users from the normal households and the 23 non-VoD users from the VoD group were removed from some of the results, as they are considered to be statistically insignificant or too unreliable. The answers are weighted for the slight difference of the demographic distribution of the respondents compared to the Dutch population, to be able to generalise the results for the complete Dutch population.

Please note that for the purpose of the report the questions and answers have been translated to English. Sometimes, the translation does not catch the essence of the questions and answers as well as they do in Dutch. Therefore no conclusions should be drawn from the formulation of the questions and answers in English.

In section 7.2 to 7.4 we will just present the outcome of the survey with short interpretations. In section 7.5 we will draw conclusions based on all the results from the survey.

7.2 Film and rental behaviour corresponds with other research

The average person visits the cinema 1.8 times in accordance with the outcome of research from the "Bioscoopmonitor" by Stichting Filmonderzoek. The average person from the VoD group visits the cinema 2.6 times, however this difference is not statistically significant. Over 70% never rent a film from the rental shop. On average the people that have the VoD service, consider themselves to be more of a film fan than the average. And 40-50% watch short videoclips or catch-up TV service. Around 20% download films, in accordance with other research (TNO - Ups and Downs)[85]. It is important to see that quite a lot of people indicate to be filmfans, but many people never rent or only visit the cinema twice a year on average.

[85] http://www.tno.nl/content.cfm?context=markten&content=publicatie&laag1=182&laag2=1&item_id=473

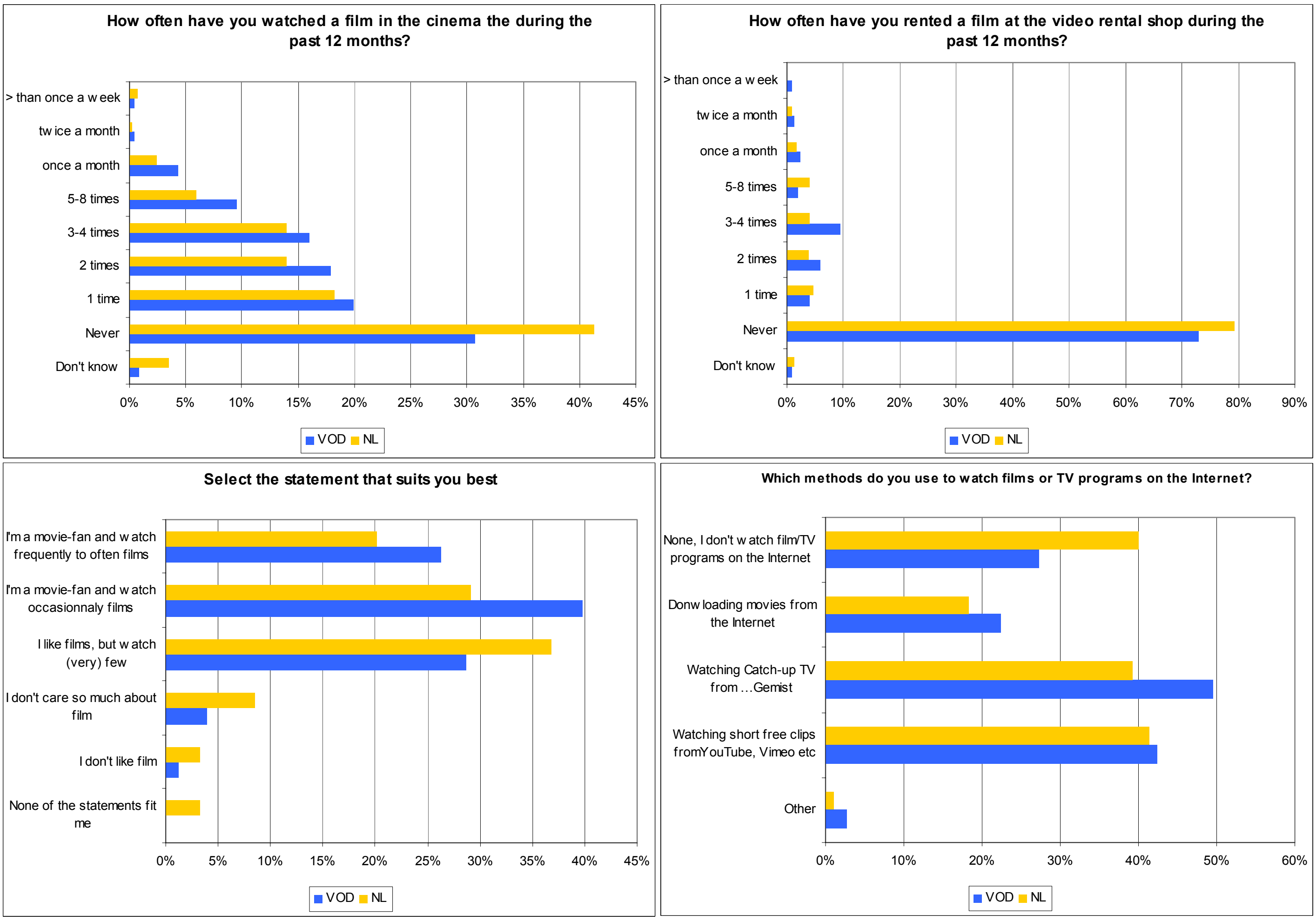
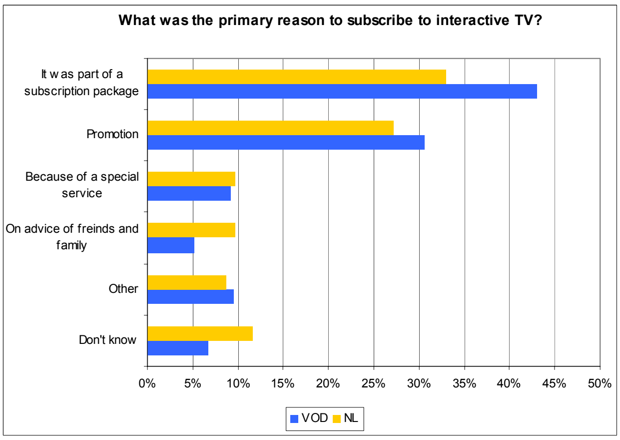


Figure 30 – Answers to the questionnaire to generic questions regarding interest in film. (VoD n =251, NL n = 402)

7.3 People subscribed to Interactive TV because it came as part of the package

Next we asked about the motivation for interactive TV subscriptions. The primary reason why people have interactive TV is because it came as part of the (triple-play) package or was part of a promotion deal. A good explanation for this is, that most VoD users are UPC subscribers. With UPC service, all users get an interactive TV receiver, regardless of whether they use it or not. Only 10 percent subscribed to interactive TV because of a special service. The most frequently mentioned answers for this were special channels, better/HD quality, pause-button, possibility to record or Catch-up TV service.



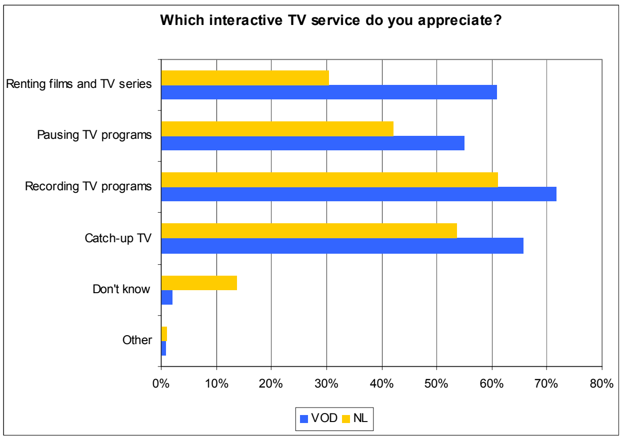


Figure 31 – Purchase motivations for the Interactive TV service and valuation of the different services. (VoD n =251, NL n = 95)

VoD users (the group that were first approached by a telephone interview) value most interactive TV services equally. The NL group with interactive TV value the services a little less. VoD rental is least valued.

7.4 The VoD service rated on product, place, promotion and price

7.4.1 Frequency of and reasons for renting films

People that use the VoD service more often rent a film through the interactive service than from the rental shop. On average 6.7 times per year, which is much more than the rental rates in the physical rental stores[86]. But most of the NL population never rent a film through the interactive TV services. UPC informed, that most people do not even watch the first film that is given for free when subscribing to the UPC digital interactive TV service.

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[86] Although the difference is statistically significant, one cannot determine a ratio between VoD and physical rental based on these figures. The standard deviation is heavily influenced by the people who selected "about one time (or more) per week".

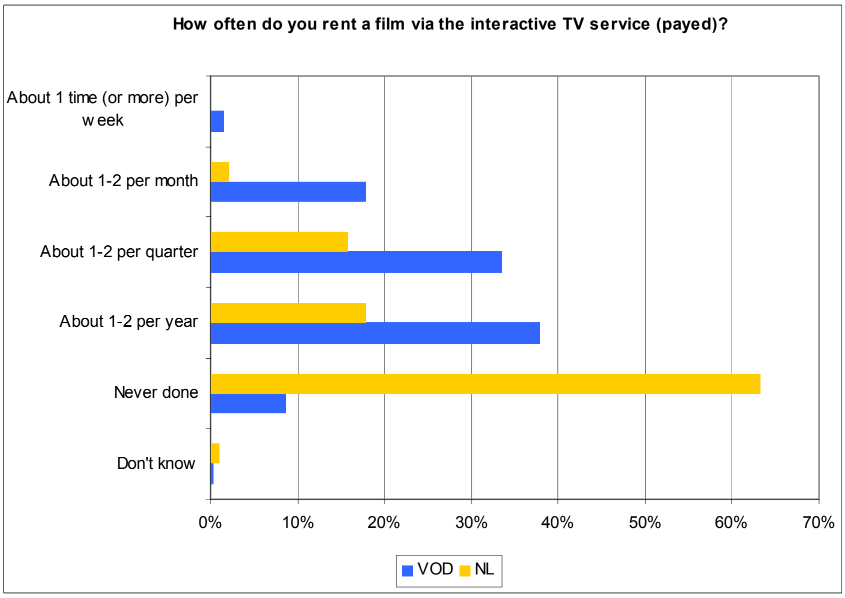


Figure 32 – The frequency of renting a film via the VoD service. NL n = 95, VoD n = 251. 23 people from the VoD group answered they never rent a film, although they were first interviewed by telephone where they indicated they do rent films. This group has been left out of further results.

The primary reason for renting films via the VoD seems to be convenience: they do not need to go to the rental store anymore and they can easily select a film. This is further confirmed by an open question we asked: *what is the primary reason for renting a film via the VoD service, instead of downloading it*? Convenience, quality, guaranteed subtitles, immediacy and ease of use were the main differentiators from downloading. As such the VoD service seems to have the proper characteristics of being a service that can distinguish itself from downloading.

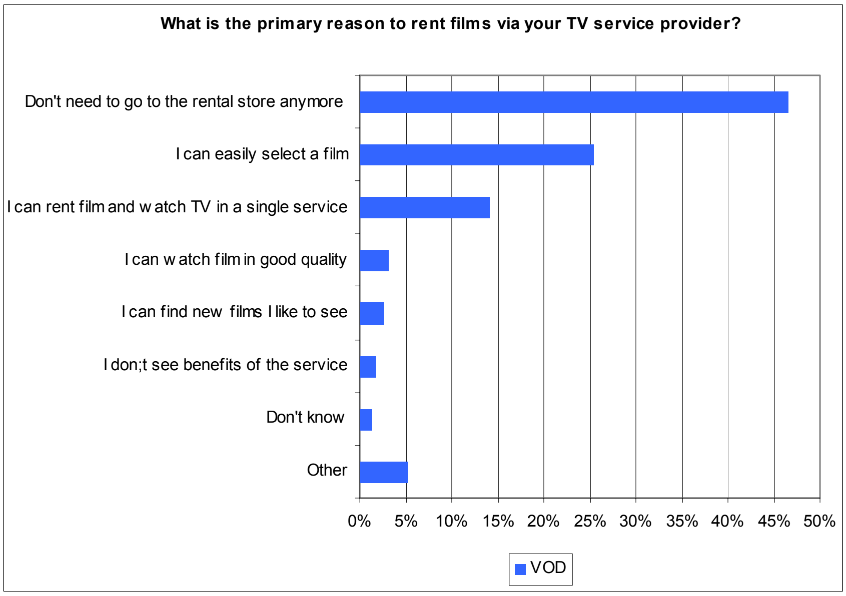


Figure 33 – The primary reason for renting films via the VoD service, n = 228. Answers have been reordered for illustration purposes.

7.4.2 Downloading is not proven to be a competitor of VoD

During the survey, we have asked several questions where downloading was an option or alternative answer for watching video or film. The people who confirmed to download did not have a different answering pattern than those who did not. They evaluate the VoD service, its price, the channel and promotion in the same way.

Interestingly, the non-downloaders associate downloading with 'watching films on a PC', 'unreliable quality', 'complex' and 'takes time'. Some people said they lack the skills. We also asked why people do download instead of rent. "Free" was the most coined reason. But also the ability to keep the film and/or watch it more often was often referred to. Many respondents referred to others (husband, son or colleague) who actually set this up, as they do not know how to download.

7.4.3 People give the VoD service a mediocre rating

If we look at the rating of the VoD product aspects by the respondents, it is not very positive.

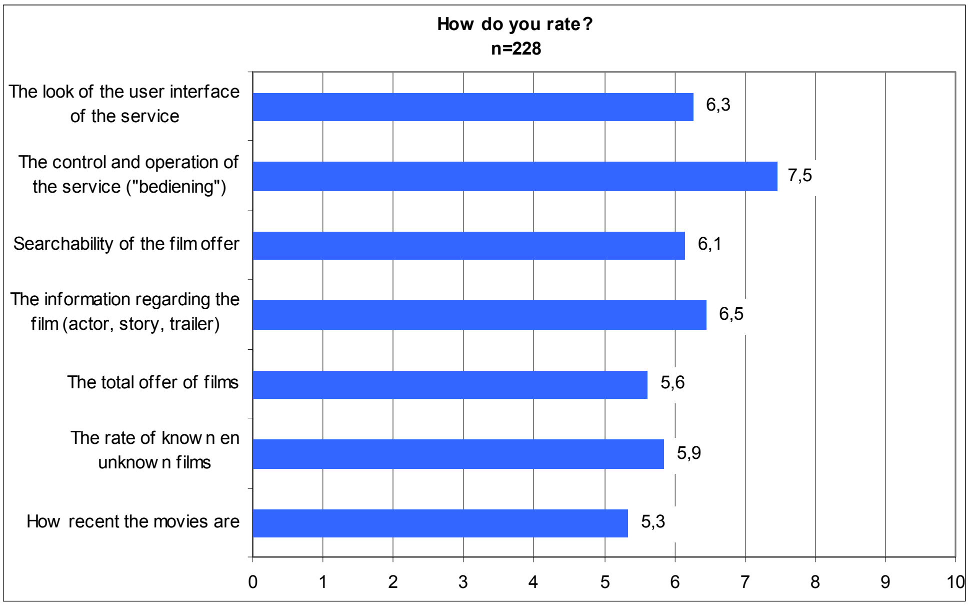
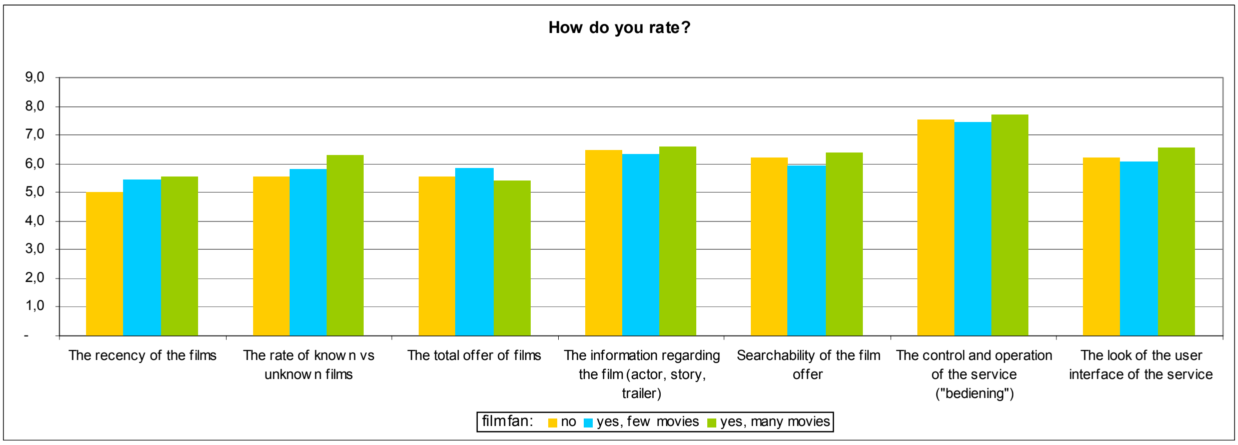
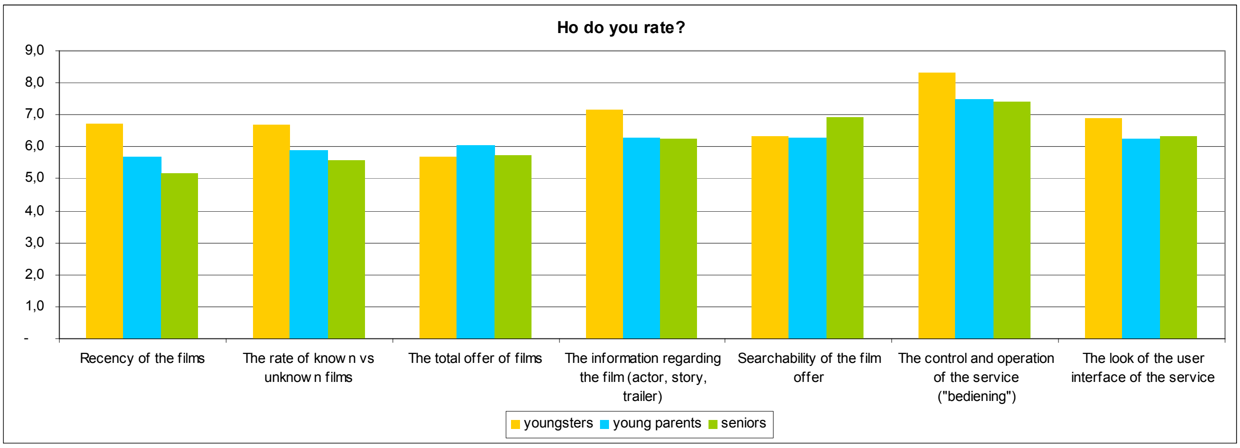


Figure 34 – Rating of the film rental service by the "VoD" group. N=228.

Most service characteristics score between 5.3 and 6.5. The control of the service is a notable exception with a good rate of 7.5. This rating (with standard deviation around 2 for all values) is stable for all intersections. We actually expected a more outspoken judgement of the service at least for some segmentations. But no matter whether we look at the response of filmfans or non-filmfans; youngsters, young parents, seniors; frequent VoD users or less frequent VoD users, they all provide the same rating. The minor differences are statistically insignificant.





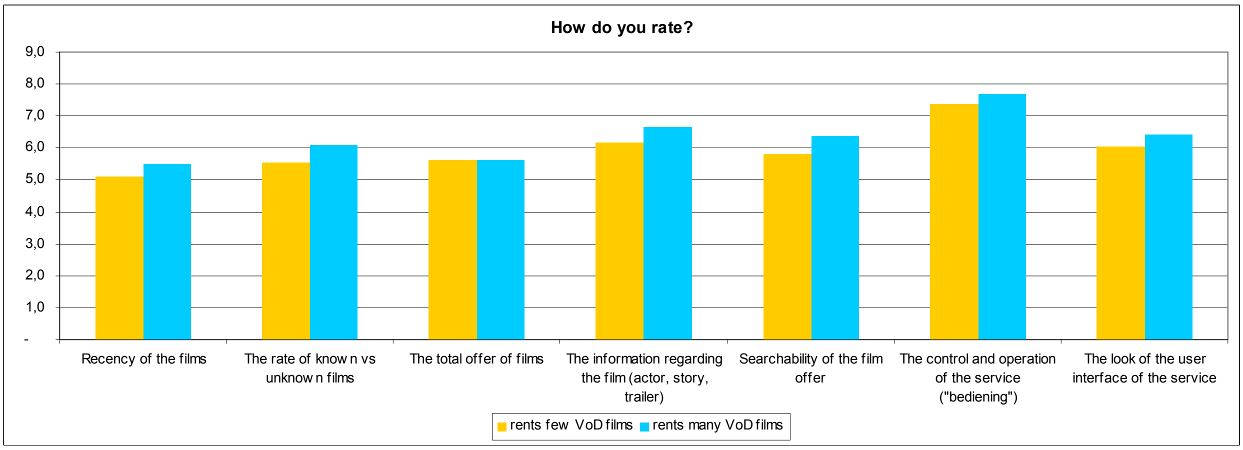


Figure 35 – Rating of the aspects of the VoD service by three intersections: filmfan, demographics or usage of the VoD service. All intersections result in the same average rating.

7.4.4 The VoD service is an alternative when there is nothing on the TV.

When we look at how people decide to rent VoD films, it appears to be a very spontaneous decision. There was nothing on the TV and they liked to watch something. It is a second choice after watching TV. People almost never plan in advance to watch a film.

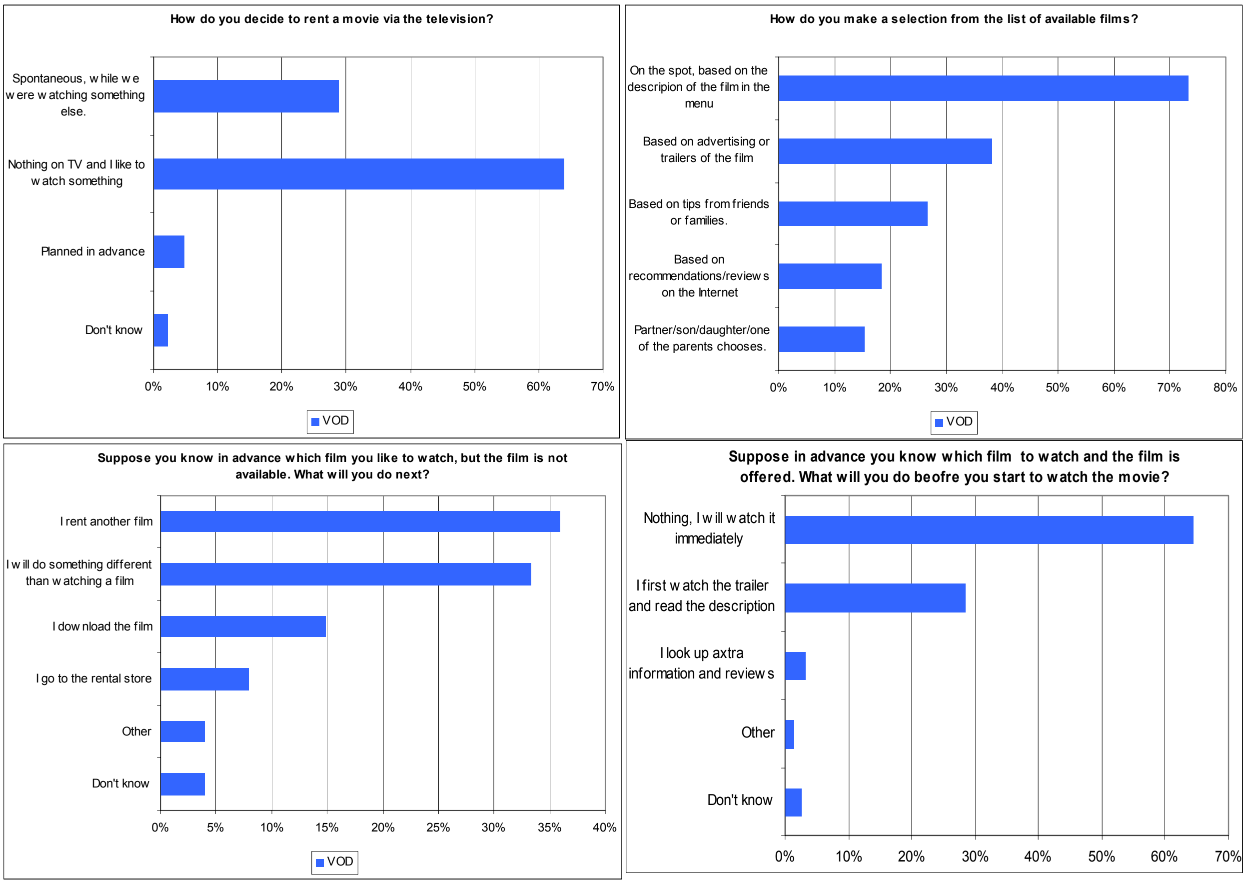


Figure 36 – Behaviour of VoD users, n = 228. Answers have been reordered for illustration purposes.

The choice for films is many times on the spot, based on the description of the film in the service menu. This is very much like TV behaviour, where people turn on the TV and start channel surfing. Trailers and advertising is mentioned second. But when the planned film is not available only 35% select another film, less than 10% go to the rental store, but a large share will do something else. If the pre-planned film is available, most people watch it immediately.

Is seems like there is not much involvement with the service. It is an alternative to TV, the usage is pretty spontaneous and the rating of the offer and user interface is not very good. When asked (open question) what could be improved they mention price, larger offer, more recent films and a more stable service. Especially the fact that currents are more expensive via VoD than in a rental store is not understood. They perceive the digital offer as cheaper to facilitate and hence the price should be accordingly. Some people complain about stuttering film playback or freezing service or unable to rent. People also want to be able to rent longer in case they cannot finish watching the film in 24 hours.

7.4.5 Non-users rather do something that is free

In the NL group we have 368 non-VoD users of which 61 people do have the service. We asked this group questions to understand their motivations for not using the service. Some 65% indicate they know you can rent films through UPC, Tele2, Ziggo or KPN, 35% are not familiar with the service. This number applies to UPC users as well, where actually all customers get an interactive set top box.

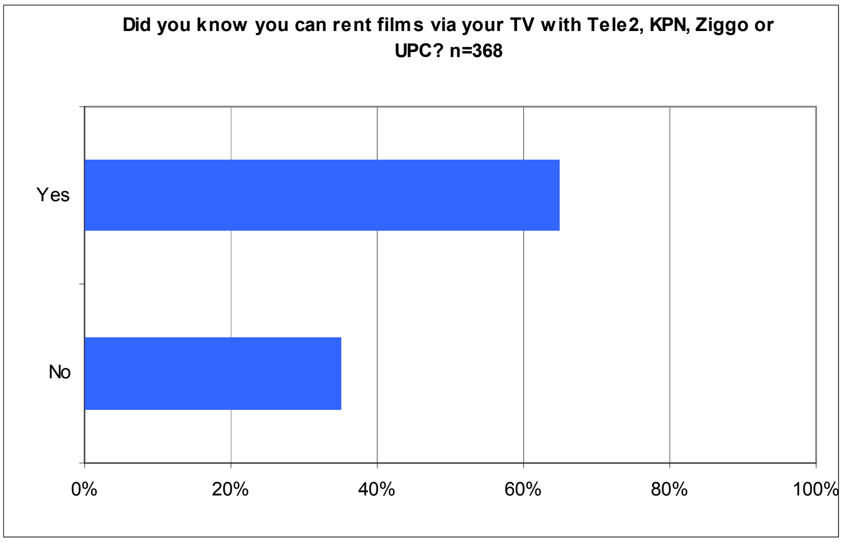


Figure 37 – Knowledge of the VoD service by the NL group that does not have or use the VoD service, n = 368.

Most people indicate they watch films when they become available for the TV.

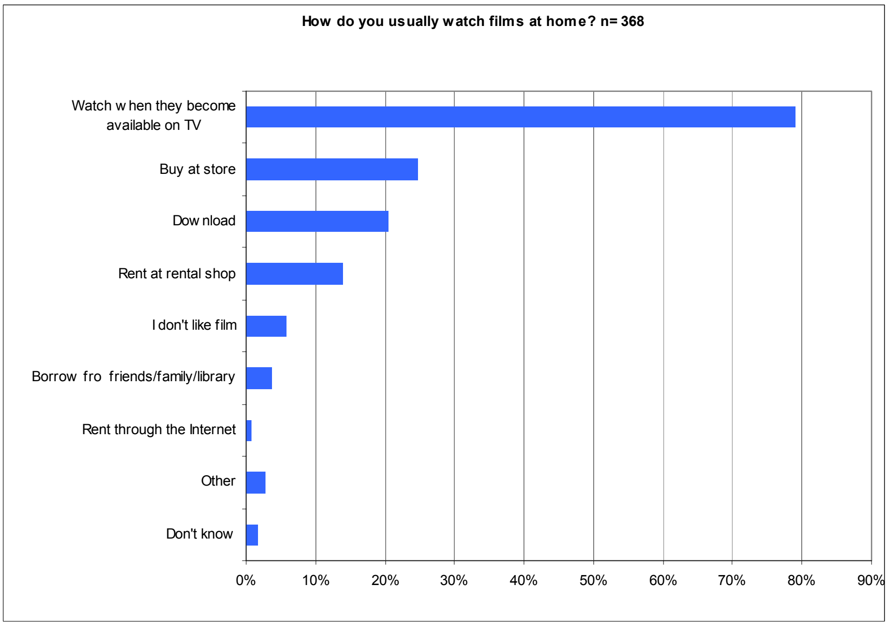


Figure 38 – Ranking of methods people use to watch films at home. Answers have been reordered for illustration purposes. Multiple answers allowed.

We also asked what the most important reasons were for people to not rent films through the TV via their service provider. The top five reasons are:

- They rather do something that is free
- They do not see the benefits of the service
- They are unfamiliar with the service
- They do not think it suits their TV watching behaviour
- Think the service is too expensive

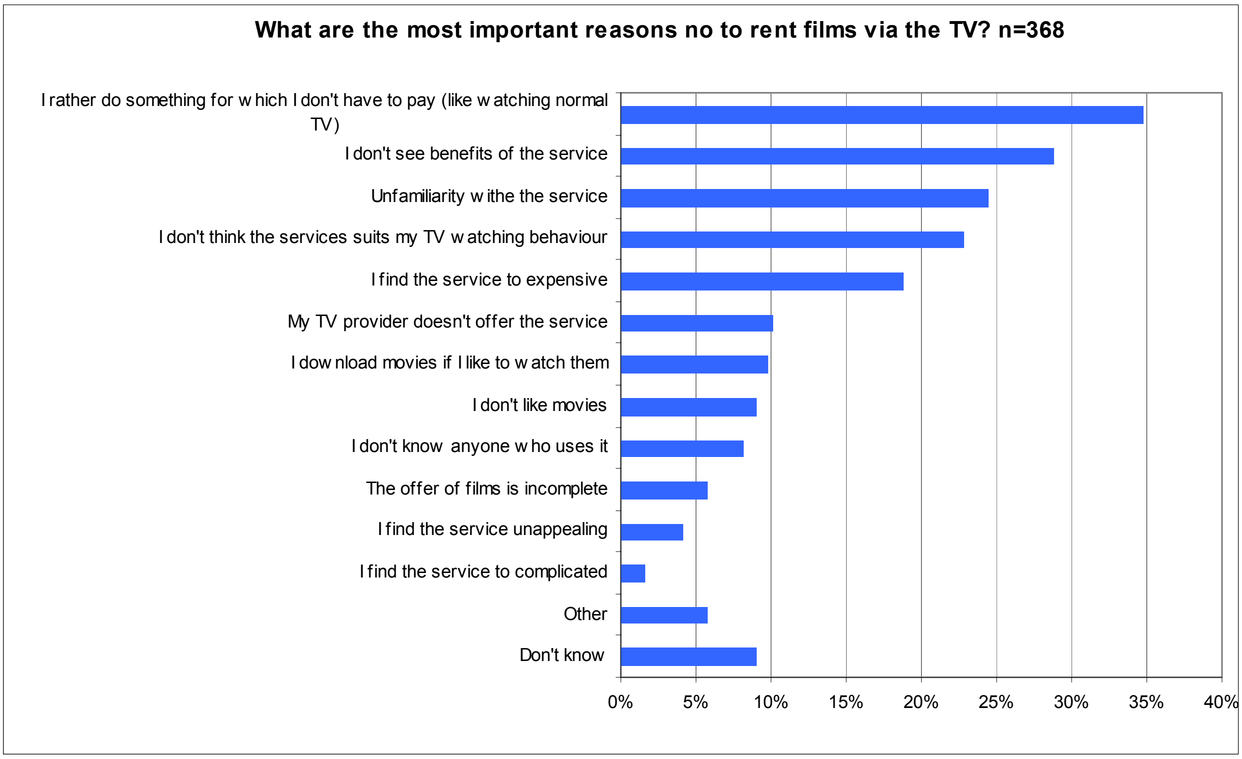
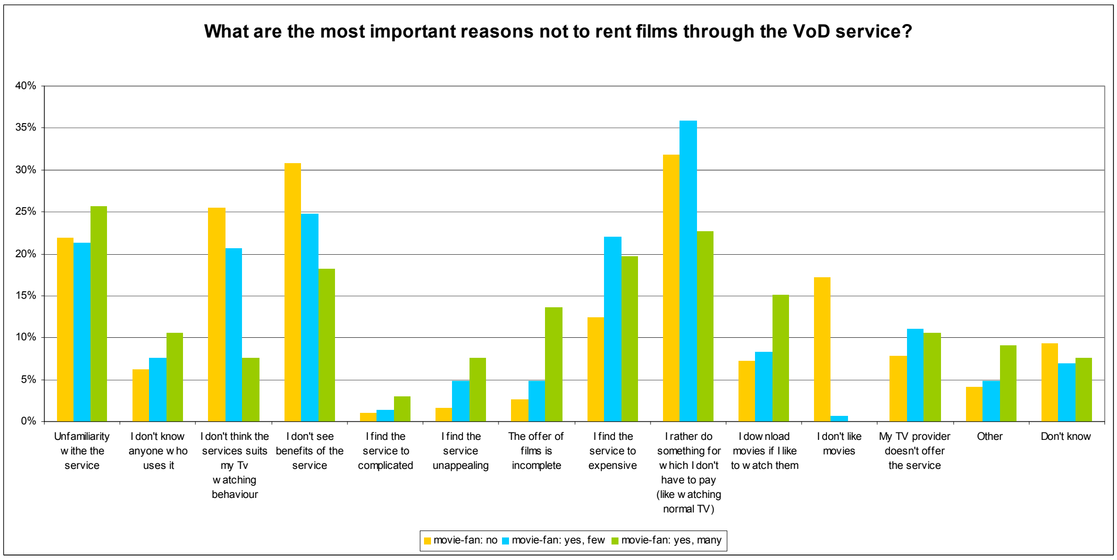
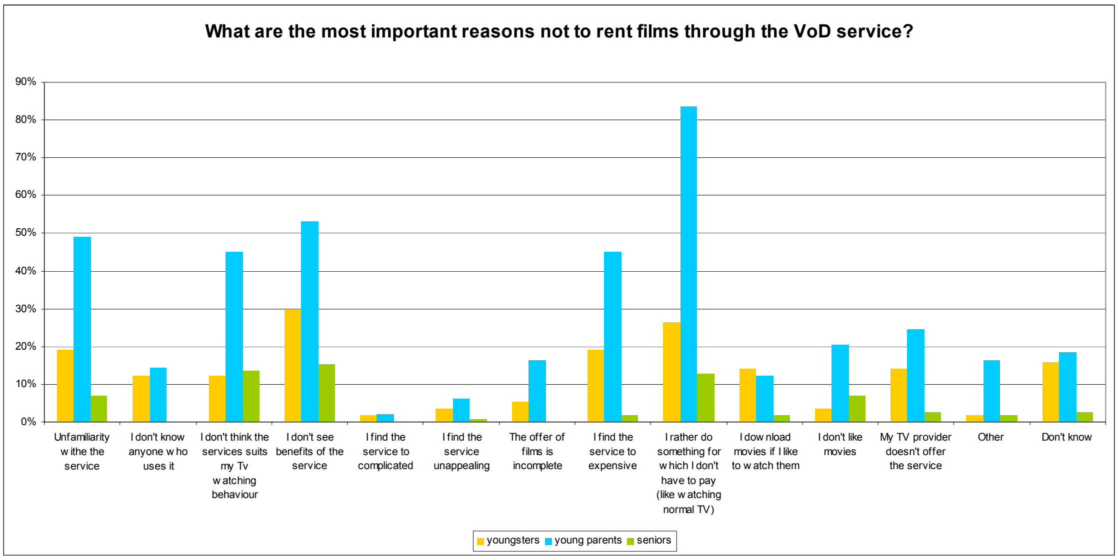


Figure 39 – Most important reason for not using VoD. Answers have been reordered. Max three answers allowed.

We also made intersections for this question with respect to film-fans, demographics and provider. The most heard reason of filmfans is unfamiliarity of the service, while non-film fans indicate, not surprisingly, that they do not see benefits of the service. Further, young parents indicate very strongly, they rather do something for which they do not have to pay. This is somewhat surprising. One could think that families with young children have less opportunity to go to the cinema. Or that a VoD service could save them relatively the most money, as they would have to pay for a whole family when visiting a cinema. And that it would save them precious time, compared to going to the rental store. But they show strongly to be not interested in paying for the service as it is currently offered. Also Ziggo users show more unfamiliarity with the service and also indicate more often to do be not interested in the service as it is currently offered.

There was also an open question to ask what needs to be changed so they would use the service. Some people expressed clearly to be not interested at all in such a service, some people do not have the time or think it should be cheaper. Many called for more promotion, info leaflets, discounts, packages or other promotional offers.





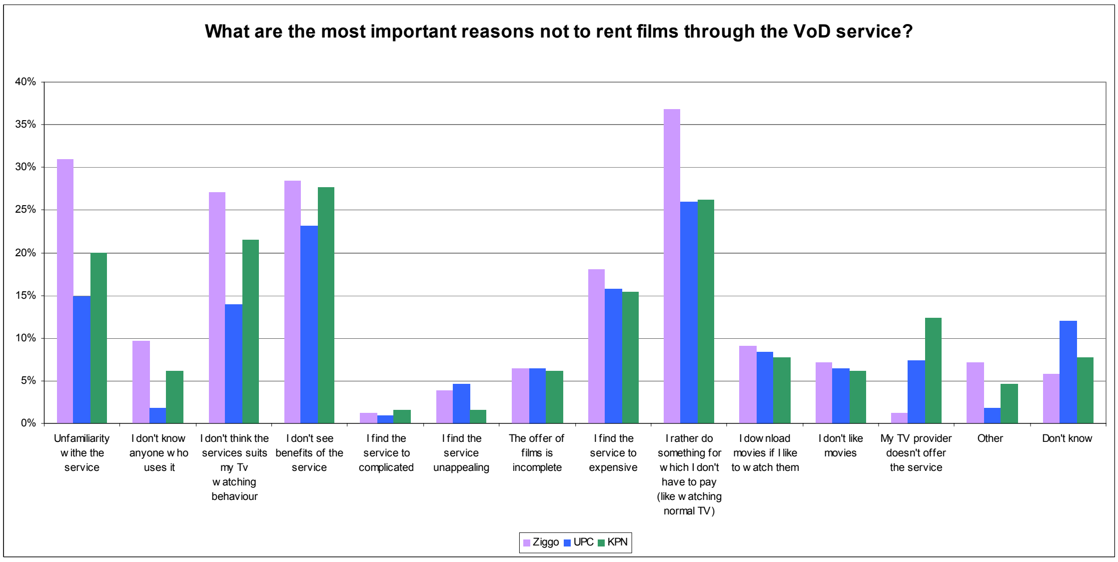
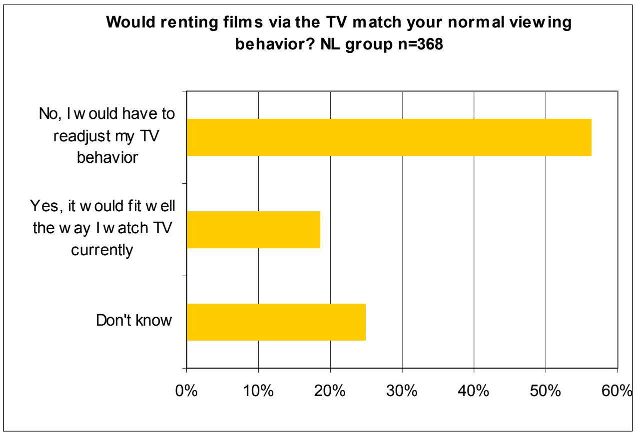


Figure 40 – Reasons not to use the VoD service for three intersections of the NL group.

With respect to the expectations for the service, there is a striking difference between users of VoD and non-users of VoD. Users of VoD indicate that the service is well matched with their TV behaviour. Non-VoD users indicate that they (expect they) would have to change their TV viewing behaviour. This could mean non-VoD users have unrealistic negative expectations of the usage and control of the service.



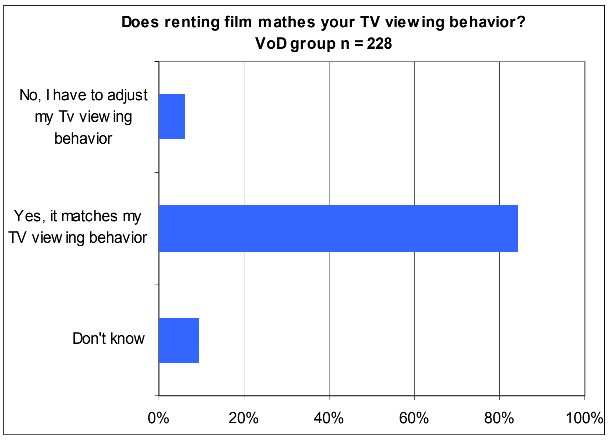


Figure 41 – The non-VoD users have negative expectations towards the VoD service. They assume they would have to change their TV viewing behavior. The current VoD users indicate it matches very well.

When asked to non-VoD users what should be changed to the VoD service, almost half does not know. After that (lower) price and more promotion is mentioned as the second and third reason.

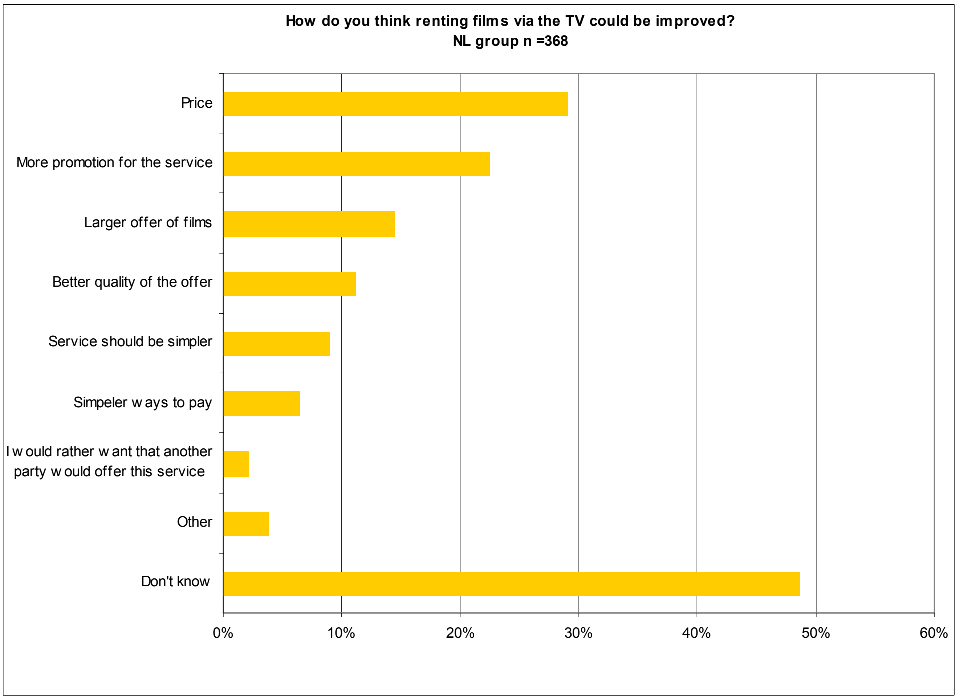


Figure 42 – Improvements for the service asked to the NL-group, n = 368.

7.4.6 *Most people do not know the price, many non-users would prefer a subscription model with a premium for recent films.*

The fact that price was mentioned by about 30% of the people as the foremost point of improvement is interesting, as most people do not even know how much it costs to rent a film.

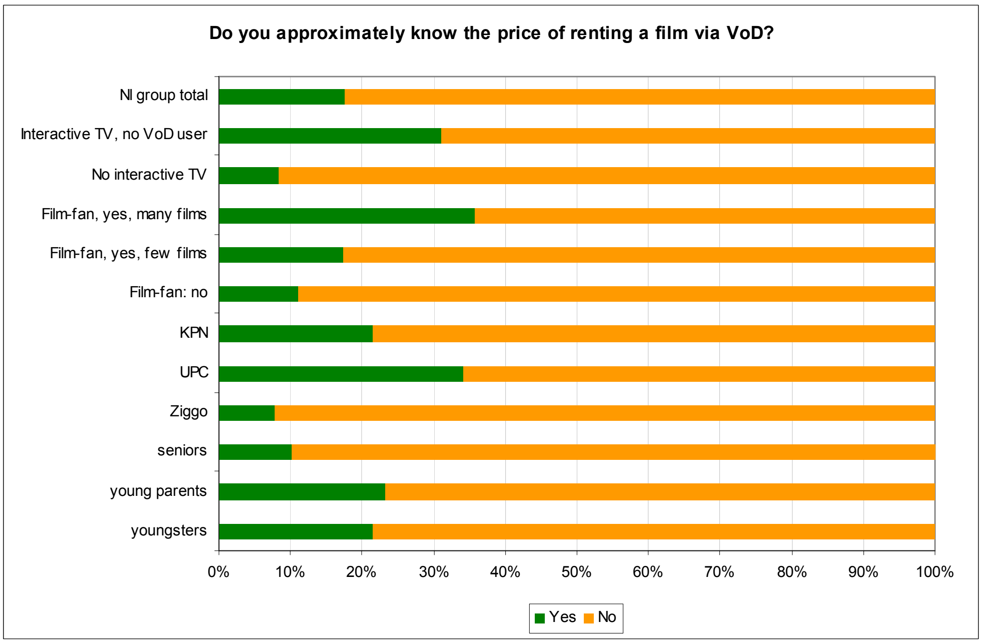


Figure 43 - Familiarity with the price of renting a film. This is answered by the NL population and displayed by a number of intersections

In general 18% of the NL group knows the price of renting a film via the TV, but this group includes some VoD users. As part of the NL group, there is a large set of people that do not have interactive TV. From this group only 8% indicates to approximately know the price of renting a film. As part of the NL group about 20% have interactive TV services and have access to VoD, but do not make use of it. From this group also 70% cannot tell how expensive the service is. Even in the UPC group where every subscriber has access to the VoD group only 35% knows what the price of renting a film is. Of the people who claim to be film fan and also visit the cinemas frequently less than 40% indicate to know the price.

Of the people in the NL group that do know how much a film costs, most indicate that they think the service is expensive. This also applies for the VoD group. This is equal among people that rent many or few films through the service.

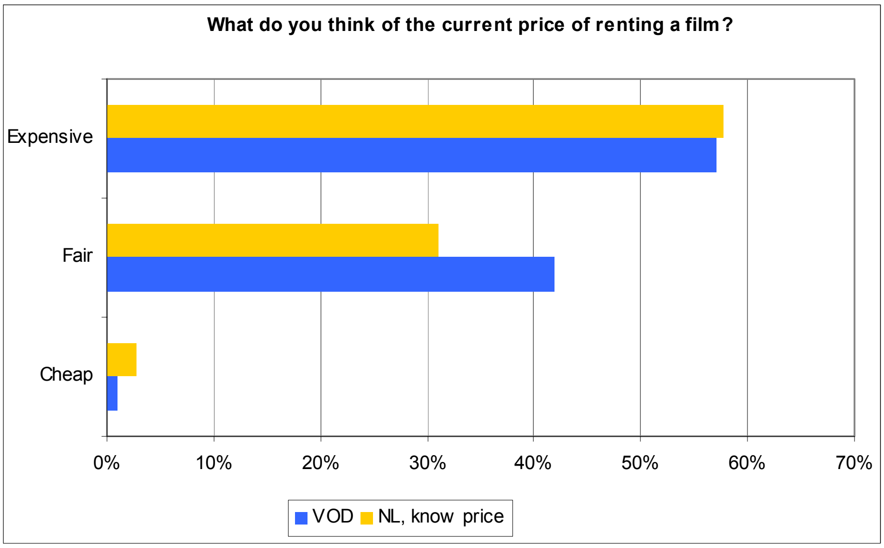


Figure 44 – Judgement of the price of renting a film, by those people that indicate to be familiar with the price. VoD n = 228, NL n = 71.

The value of the film is determined by the quality

We also looked at the factors that currently determine the value of a film. Which factors determine how much people are willing to spend? It appears that the quality of the film is leading. This is especially true for film fans of the NL group, where over 70% responded that this is an important factor in the price perception. With the current VoD services, the price of a film is not really related to the rating a film gets from users or peers in the media. Interesting, the VoD users rate the enjoyment of watching a film much higher than the NL group. The NL group relate the price more to a bought DVD or CD. Of further importance are the age of the film or the price of a box-office ticket. The costs of a film, other spare-time activities or other ways of watching a film for free (e.g. downloading) do not play a large role in the price perception.

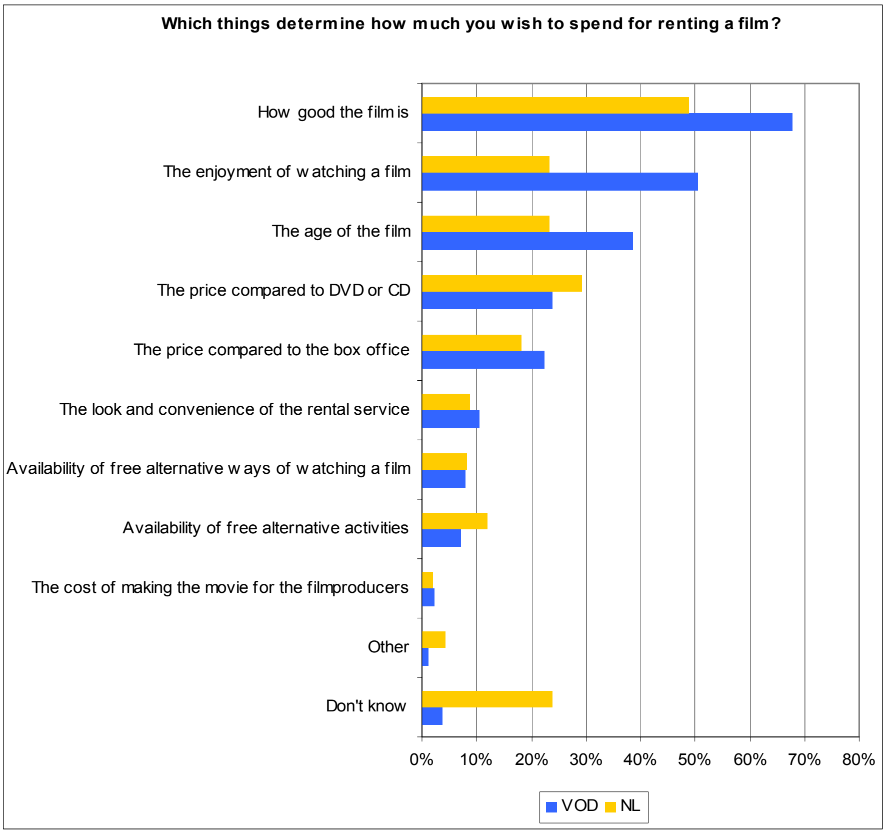


Figure 45 – Factors that impact the price perception of the consumers for the VoD service. VoD group n = 251, NL group n = 402

The pay per view model is not the preferred model for many respondents
Further, we asked how people liked the current model of paying per film.

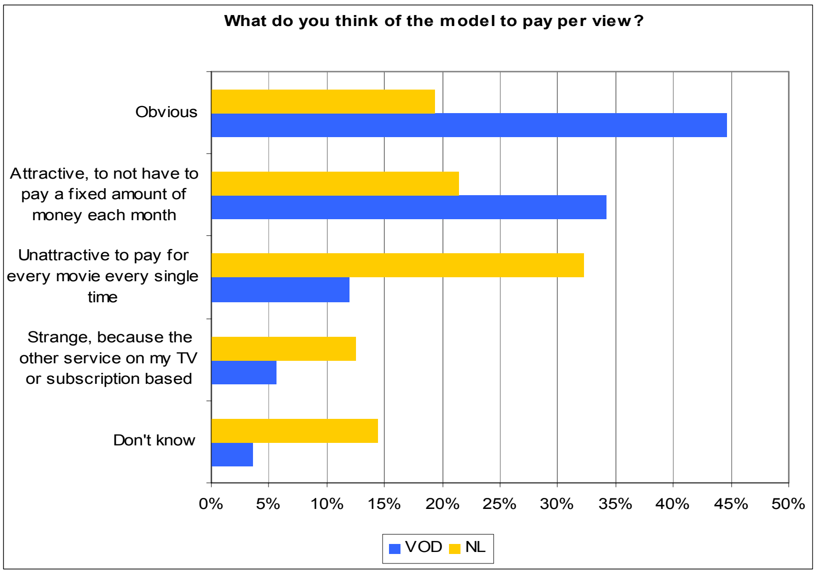


Figure 46 – Judgement of the current price model for VoD to pay per film. NL group n = 402, VoD group, n = 252.

Interestingly, most of the VoD group (79%) thinks it is obvious and at least attractive to not have to pay a fixed amount of money per month. Of the NL group, which consists of a large group of non-users, about 45% consider the model of pay per view as unattractive or strange, and only 40% thinks it is obvious or attractive to pay-per-view. Looking at the different segments in the NL group (see further below), we can see that especially seniors do not like the pay-per-view model. Also people who watch few films and Ziggo subscribers are less positive about the current price model. Filmfans on the other hand, think it is the obvious model.

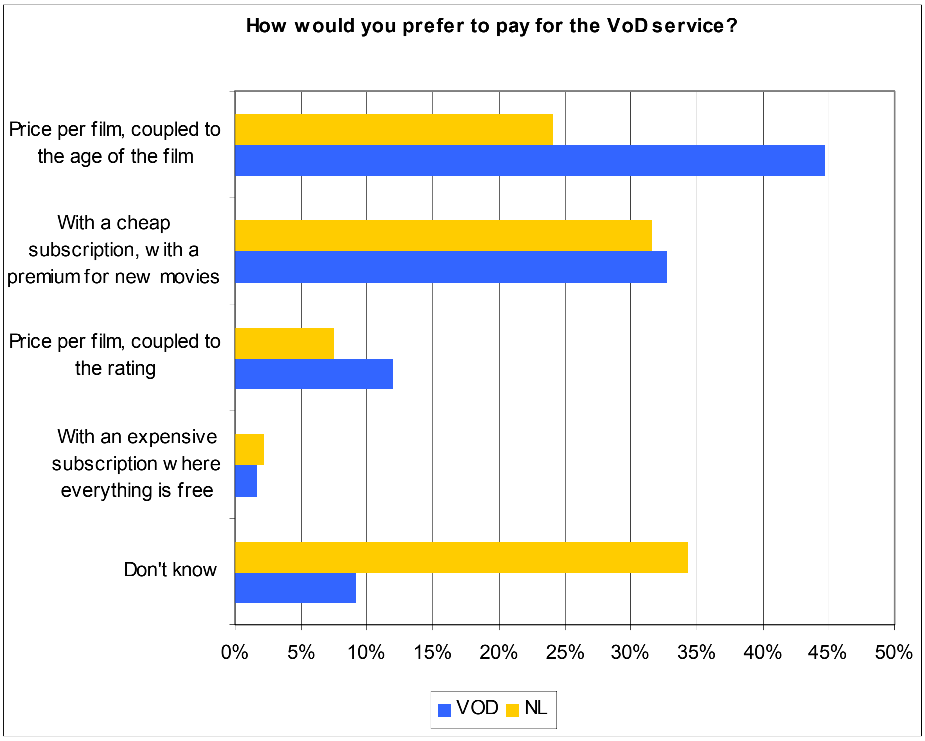
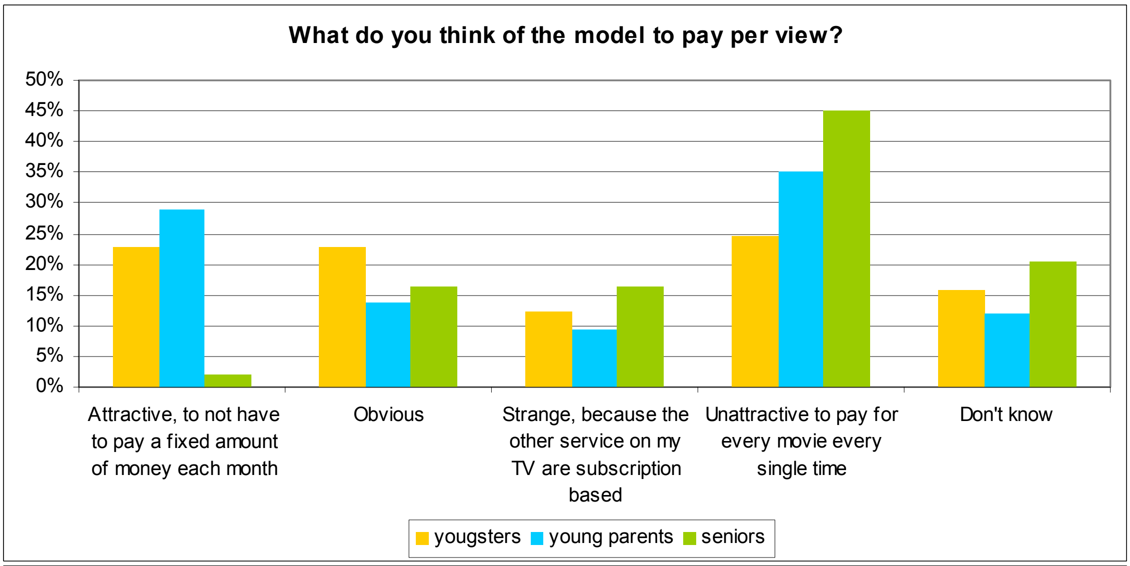
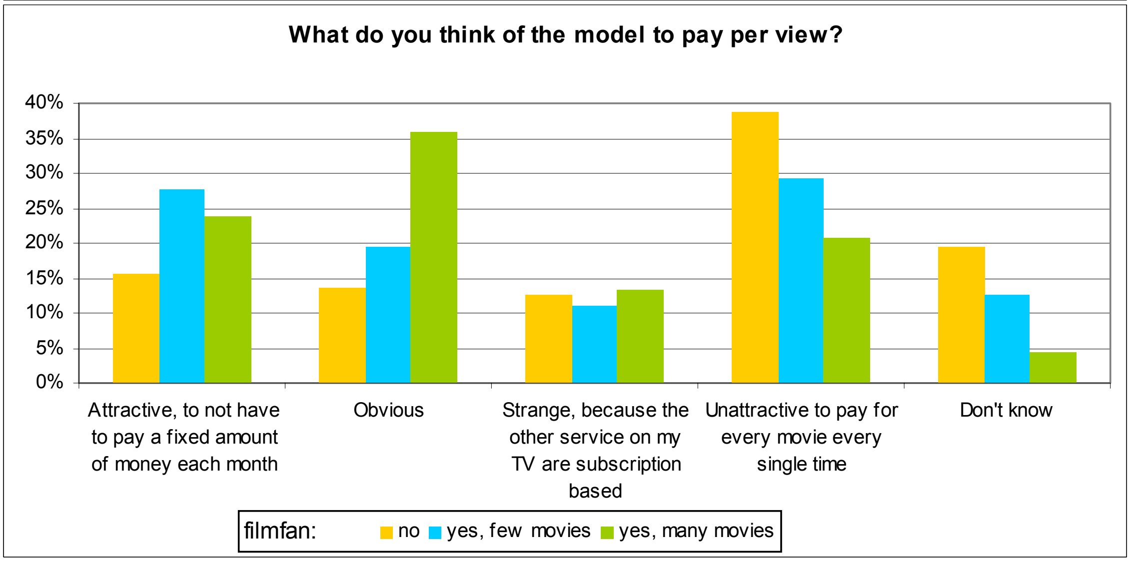


Figure 47 - Preferred price model for VoD service. NL group n = 402, VoD group n = 251.

When asked about the preferred price model, the VoD group indicates the strongest preference for a relationship between the price and the age of the film. This is currently the model, where library films are cheaper than currents. So if we combine this with the results before, people think a film has value when it is a good film and a recent film, which is not surprising and seems to be fair. They do not want to pay a lot for old films, even if they were very good. Further, in the NL group and VoD group some 30% indicate a preference for a cheap subscription model with a premium for new films. Interestingly, almost no one shows interest in a flat fee structure coupled to an 'expensive' subscription. A possible explanation for this is that the word 'expensive' put them off, as flat fee is such a large success factor for other digital services. Looking at the different segments of the NL group (see further below), most seniors or non-filmfans do not know what their preference is. There is an interesting difference between UPC and Ziggo and KPN subscribers. Most UPC subscribers prefer the pay-per-view model linked to age, but KPN and Ziggo users prefer the subscription based model with a premium for new films.





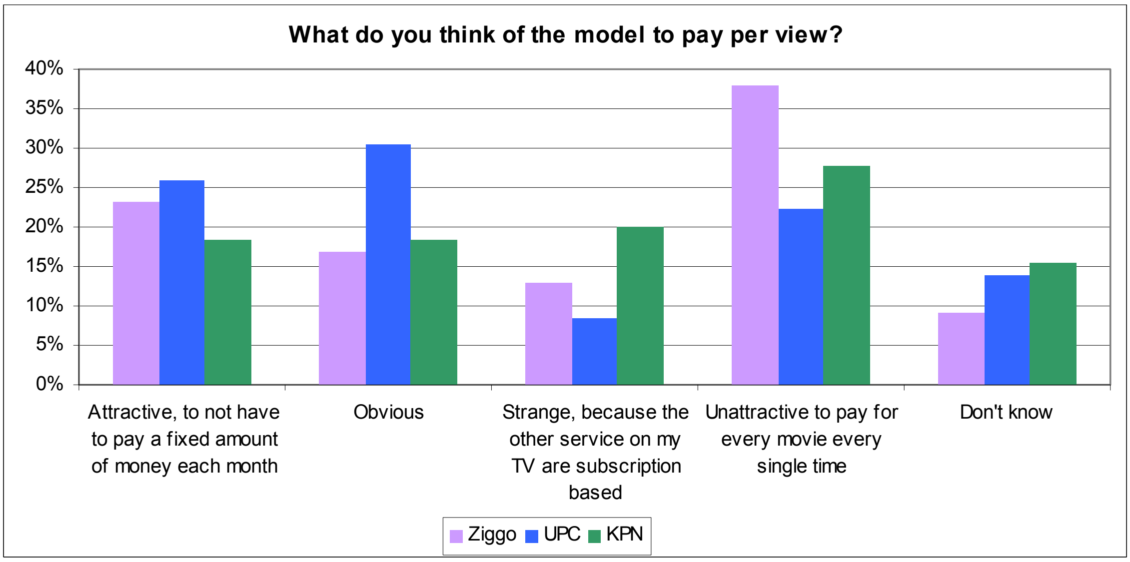
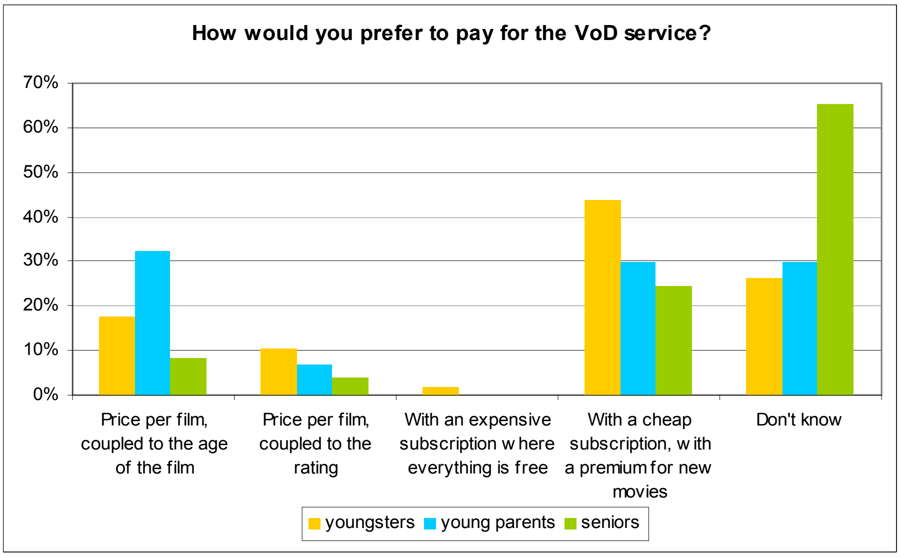
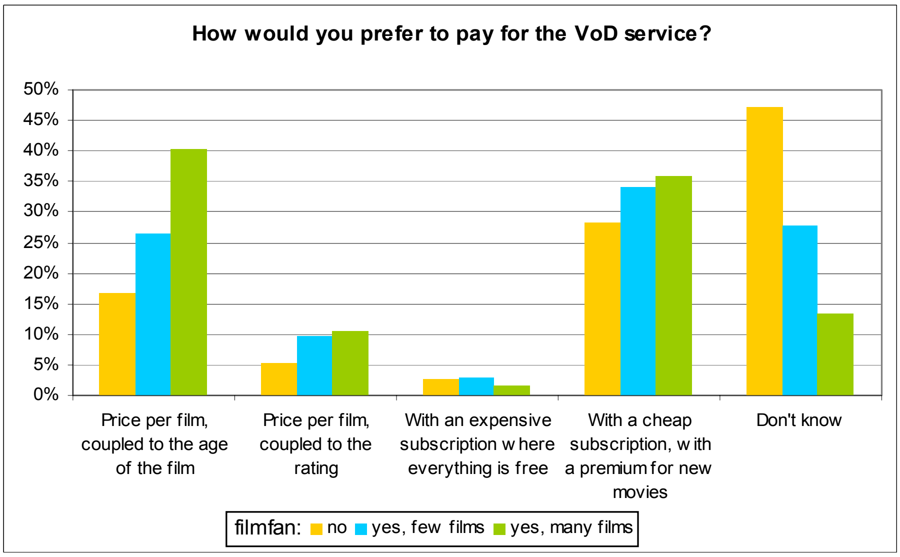


Figure 48 – Opinions on the price model by the NL group for several segmentations.





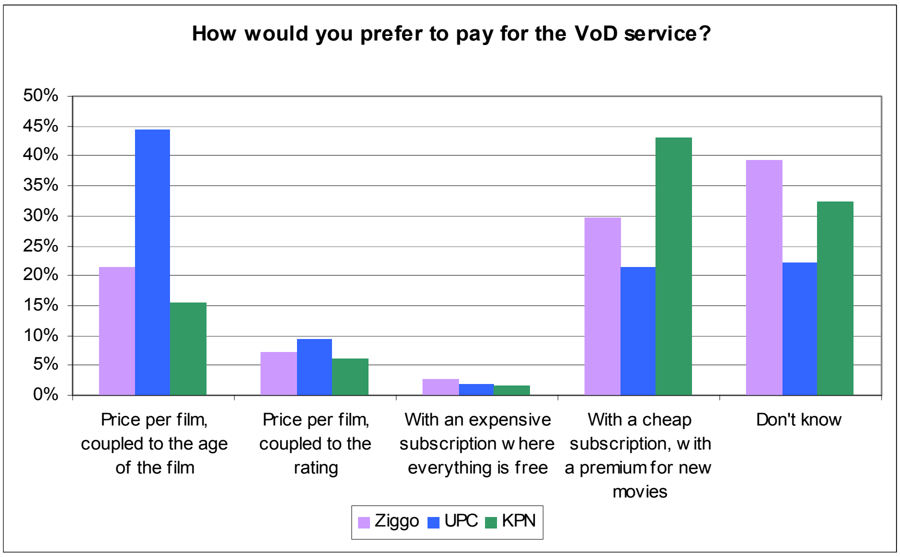


Figure 49 – Preferred pricing model for VoD by the several segments in the NL group.

7.5 Conclusion: the video on demand service needs promotion and clear positioning

Very positive is the fact that from the survey it appeared that many people actually consider themselves as a filmfan. Most people who have or use the VoD service as part of the interactive TV service, got it as part of a (triple play) package or it was offered by a promotion. Packaging or promotions seem to be an acceptable means of selling TV services. Recording, pausing, extra TV channels and watching catch-up TV programs are rated higher than access to the premium film service. The service aspects and the film offer itself is not rated very good, but also not very bad: between a 5.3 and 6.5 with the control and operation of the service (bediening) being a notable exception with a rating of 7.5. Convenience and comfort is the prime reason for using the service, as they do not need to go to the rental store anymore.

People who do not use the service rather do something that is free. They also do not see the benefit, are unfamiliar with the service or think it is too expensive. When asked about the price over 90% who do not have interactive TV, do not know the price at all. So it is only perceived as being expensive. They do think that the quality of the film is the biggest parameter for the price of the film. And there are a little bit more people that prefer a subscription based service with a premium for recent films than the current pay-per-view model. There is hardly any interest in a flat-free subscription for an "expensive" subscription. Although flat fee has been a key driver in other services, the notion of "expensive" may have put people off, as they already perceive the service as being expensive (although they are not aware of the price).

The most important issue for the film distributors is how the service is perceived by users and non-users, i.e. the positioning and proposition of service. Video on Demand is perceived as an add-on service of (interactive) TV. Renting a film is a second best, an alternative, when there is nothing on the regular TV channels. It is a spontaneous action and people decide on the spot which film to rent based on the description of the film in the service menu, it is an impulse buy. If they do have a film in their mind and cannot find it, only 30% picks another film from the menu. This is fully inline which the judgement of the service aspects. No matter what segmentation was made: youngsters, young parents, seniors; downloaders, non-downloaders; filmfans or not, the service was judged lukewarm. Improvements were in the area of 'more', 'newer', 'cheaper', but the service does not seem to be inspirational or bring a lot of engagement or involvement. Most non-users think it does not suit their current TV watching behaviour and have a (mildly) negative attitude towards the service.

In conclusion, video on demand could improve on the following aspects:
- Video on Demand needs a better positioning as an individual service with its own proposition. It is too much perceived as an alternative to regular TV. It should create a unique selling point in comparison with regular TV.
- the offer can be improved on almost all aspects, notably the amount of recent films, the total offer of films and the rate of known films.
- the knowledge about the service should be seriously improved. People should get more information about the service and the non realistic expectation (attitude) of non-users that they would have to adjust their TV behaviour should be changed. For instance, by demonstrating or training people how to use the service.
- Video on Demand is a low involvement product and hence should be made available through more channels with strong promotional activities, like connected TVs, so people have many opportunities to try it, sample it, buy it. Further, it should have gifting opportunities and be coupled to price promotion to establish a more positive

attitude. Young parents should be especially addressed as they have strong negative sentiments and attitude regarding the service.
- the pricing scheme should be made more flexible. The pay-per-view model is not attractive to everyone and young parents have strongly indicated they rather do something that is (perceived as) free. A possible explanation for this is, that people are not used for paying when watching TV and do not like the idea of having to pay when they actually want to lean back. We will return to this in the next chapter.

8 Key factors for successful digital distribution

In order to make a legal film offering a success, there are some guidelines for service aspects that are important in the digital era. In the digital domain a lot of content is free. Many companies struggle with making paid services that are better than free. We base our analysis on the essay from Kevin Kelly '*better than free*'[87].

The current Video on Demand service is sold as an exact copy of the physical world. New films can be rented for 24 hours for about 5 euro's. Online video rental stores or the VoD stores of the TV service providers provide a digital copy of the physical experience. People can browse through a list of pictures that are exactly the same as the "front side of the physical DVD", read information about the film similar to "the backside of the DVD", watch the price and can determine to rent it. The only bonus of the digital offer currently is that one can watch the trailer and does not have to go to the rental store. On the other hand the promotion is less. People do not stumble upon VoD films as they do with normal DVDs in all kind of stores.

However the digital world is quite different from the physical world. People have different alternatives to watch their content and have the possibility to use *free*[88] alternatives. Instead of paying for a film, the tech savvy consumer can choose to download it for free, as we have seen in previous chapters. But downloaded films are not the only alternative. People can decide to visit and comment on forums, browse the web, watch free YouTube videos, chat on Facebook, mail their friends, play online games or read a newspaper. All for free. There are several theories of how to make people pay for digital content or 'what constitutes value in the digital age'. In other words: what proposition to choose in the digital world for your products and services. Some of these theories apply very much to the film industry and we believe that the proposition and pricing of the current video on demand offering should be adjusted for those. We will describe the theory of Kevin Kelly here and how it impacts the proposition of the video on demand services.

8.1 Kevin Kelly – better than free

Kevin Kelly[89] wrote an essay about "better than free". This essay outlines value that cannot be easily copied – generatives – as they are called. They have to be grown or cultivated over time. These generatives represent the real value of content in the Internet where all content seems to be copied for free. In order to make money from content the service should have a strong proposition towards these values. The generatives are: immediacy, personalization, authenticity, patronage, interpretation, accessibility, embodiment and findability. In the table below we summarised the meaning of these generatives.

[87] [87] http://www.kk.org/thetechnium/archives/2008/01/better_than_fre.php
[88] More on "free" later this paragraph
[89] Kevin Kelly is former editor/publisher of the Whole Earth Catalog and the founding executive editor of Wired magazine. Kelly is considered by many to be an expert in digital culture. www.kk.org.

Value	Interpretation
Immediacy	Sooner or later you can find a free copy of whatever you want, but getting a copy delivered to your inbox the moment it is released -- or even better, produced -- by its creators is a generative asset.
Personalization	A generic version of a concert recording may be free, but if you want a copy that has been tweaked to sound perfect in your particular living room -- as if it were performed in your room -- you may be willing to pay a lot.
Authenticity	People want to be sure they have the right version, with the right quality, free of viruses and that the source can be trusted.
Patronage	People basically WANT to pay for content. But they will only pay if it is very easy to do, a reasonable amount, and they feel certain the money will directly benefit the creators.
Interpretation	The film itself is not worth a thing if you do not know what the story is about, who the actors and/or producers are. Interpretation is the information around the film that puts it in the right context.
Accessibility (anything, anywhere, anytime)	Ownership has disadvantages. You have to keep your things tidy, up-to-date, and in the case of digital material, backed up. And in this mobile world, you have to carry it along with you. Many people will be happy to have others tend our "possessions" by subscribing to them
Embodiment	This is about the experience and way the content is presented, that provides great value. The success of cinemas and live music performances is a proof of this value.
Findability	When there are millions of books, millions of songs, millions of films, millions of applications, millions of everything requesting our attention -- and most of it free -- being found is valuable.

Table 9 – Kevin Kelly – "better than free" values (or “generatives”) (2008). From his study of the network economy he identifies eight categories of intangible value that we buy when we pay for something that could be free.

These generatives hold value for the film industry as well. *Immediacy* and *embodiment* for example are the cornerstones of the cinema distribution window. People pay more to watch a film on the big screen as soon as it is released. And they even pay more to be able to go to the premiere. We will approach these generatives as follows. First we analyse shortly the strength of the proposition of the cinema and the free version (through piracy) and the current VoD offer. Then we assess in more details the generatives of the current VoD offer and the way it could be improved to have a stronger proposition towards all of these generatives. The results have been graphically illustrated in the table below.

Cinema

As described above the cinema has a very strong proposition towards embodiment and immediacy. The experience of an evening-out, watching a film on a 20 meter screen with a large audio installation cannot be beaten and film comes first to cinema. Findability is also strong for the cinema, as most of the marketing is focussed on the box office. Since the idea is to attract as many people to the cinemas as possible, regardless of whether it is a really good film the cinema has a lower proposition towards personalisation, interpretation and patronage. Furthermore, since a limited amount of films are available for a limited amount of time in a limited set of locations, accessibility is not the strongest proposition as well.

Free

The key generative of a pirated offer is the aspect of *accessibility* (anything, anytime, anywhere). Basically everything can be found. Virtually anything is on the net. More than the legal offer (to be fair). The proposition towards *Immediacy* is also fairly strong as we have seen in chapter 3. Actually we should distinguish between immediacy on a macro scale or on the micro scale. On a macro scale, pirated version are available before the official disc and VoD releases. But on a micro scale, things are different. When you find a pirated version you have to wait before it is downloaded, which may sometimes take a long time depending on how bad you want it. One of the drawbacks of the pirated offer is *authenticity* and especially *findability*. Advanced users may use reputation based systems, but for the average consumers it is still pretty difficult to find the right film with the proper quality and correct subtitles. There are spotter sites, but they are actively targeted by lawsuits of the film industry and many went underground or require membership and are not openly accessible. The same is valid for interpretation. Some advanced users may have installed full fledged media centers, like XBMC, Plex, MythTV or Boxee, which have automatic scrapers for information (e.g. from IMDB) that provides the pictures, storylines, ratings and film posters in a very appealing user interface, as is illustrated in the table below. But most people would have to search for additional information on other websites to see what their downloaded film is about. The embodiment is also weak as we have discovered through the survey, as many people associate downloading with watching on a PC. Personalisation on the other hand is one of the stronger factors. Pirated versions come in all sort of formats fit for different end-user devices (HD, DVD, mobile, iPod, PSP, PS3 etc).

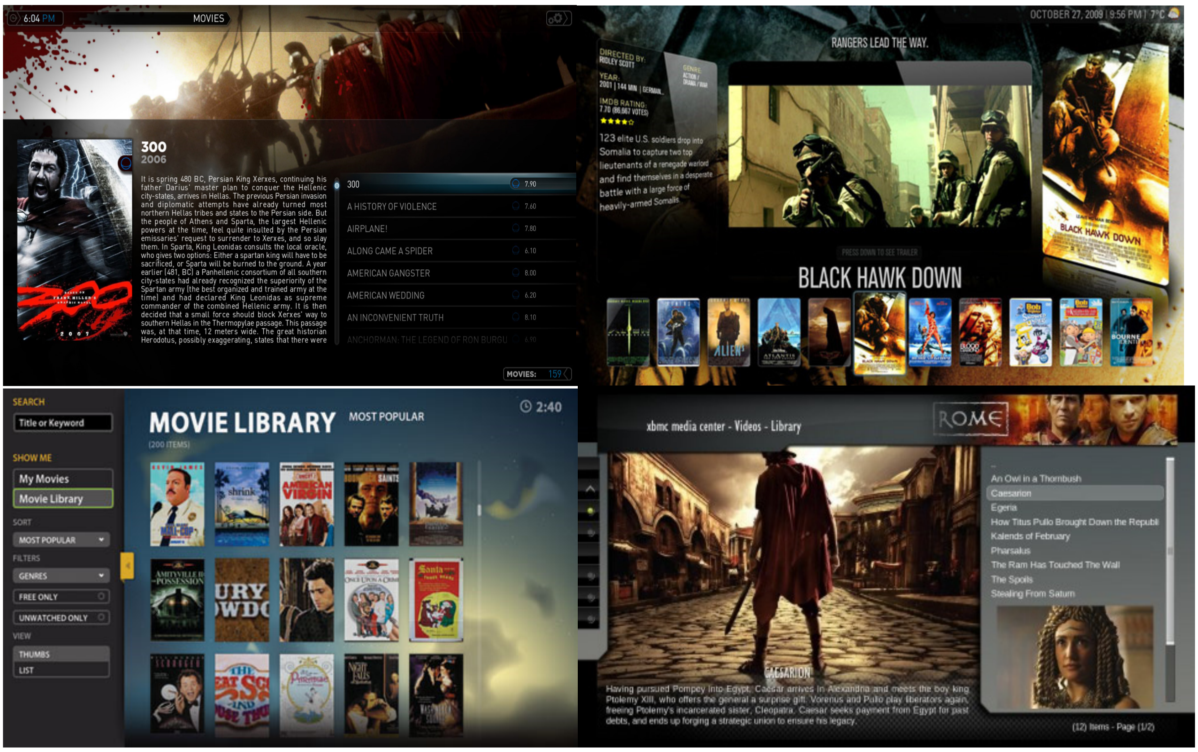


Figure 50- Some samples from the user interfaces of Plex, XBMC and Boxee media centers.

Kevin Kelly	Cinema	Free (piracy)	Current VoD offer	opportunities for VoD offer
Immediacy				
Personalisation				
Authenticity				
Patronage				
Interpretation				
Accessibility				
Embodiment				
Findability				

Table 10 – The proposition versus the competing offers of film. The more towards red the stronger the proposition is (or can become) for the respective generative.

8.2 The eight generatives for the VoD service and the opportunities for improvement

Immediacy

The most recent films of the VoD offer appear after about 3-4 months of the cinema premiere. In Chapter 2 we described that this is not easily to change. But in that case, the industry should have to accept that its proposition towards this generative is weaker than the pirated offer for part of the users. The real drawback of this is not that people would have to wait a few months, but that the film is released in the VoD window a relatively long time after the marketing and promotion of the box office. With so many other media available and advertisements, the attention for a film when it reaches the VoD window is a lot smaller. We will address this in the *findability* generative. Another aspect of *immediacy* is related to promotion: as soon as people see an advertisement for a VoD film, they should be able to bookmark it or buy the ticket and be able to watch it anytime they wish. More on this later as well.

Personalization.

A generic and non-targeted offer of films is worth less than a personalised one. A Video on Demand service gains value if it would provide an offer that is able to target the consumer more specifically. First this could be done for the film content itself. The film could be offered with multiple spoken languages or subtitles catering all the different nationalities in The Netherlands. Second it could be done during the search process. Users could be offered films from the library based on their viewing history, type of household, or based on similar user's preference. Finally the offer could be offered in more modular approach. Some people may choose to leave out certain genres from some lists (for instance horror).

Authenticity.

This is already a distinguishing value of a legal VoD offer. Free pirated versions suffer from this. Sometimes the (audio) quality is below par, it is not the final edited version with bland colours, the videocodec is not supported by the playback device, the Dutch subtitles are missing after all or full of spelling mistakes. These things are annoying and having a reliable source is worth a lot. This proposition towards this generative is already satisfied with the current offer.

Patronage.
This is complex as people do not have as strong relationship with film as they sometimes do have with musicians. Some directors or actors may have this, but in that case the cinema window would take the advantage of this generative. Where improvements could be made is with respect to local films from Dutch film festivals or independent. A special VoD offer could be made for instance during the Rotterdam film festival or the IDFA.

Interpretation.
People use the Internet as the foremost medium to find information about a film. IMDB or moviemeter is a huge resource to film fans. Lots of information about the film, including both expert and consumer reviews can be found here together with a rating of the film. Current VoD offerings do not include these resources as part of the offer. They are really separated. First you would have to find out about a film on some websites and then search for the same film in the VoD library of the provider. This is pretty inconvenient for consumers and isolates the current VoD offer. The VoD offer should improve by creating links to these Internet sources regarding film.

Another opportunity to have a strong proposition towards the generative of interpretation is by putting films into context, for instance by offering films more thematic. Discovery Channel uses this method. Because there are tons of documentaries made, Discovery clusters them frequently and presents the user with a thematic week and combines it with strong promotion. It helps people memorise and puts content into context. Films could be promoted by themes or topics and users should have the opportunity to bookmark those films or add them to their favourites list so they can watch them later. Another option for film is to couple them to themes from other media. Like the films recommended by the Cosmopolitan or other lifestyle magazines.

In this respect, connected TVs have a real opportunity. It is a single device where content offering and other resources and services from the web can be easily integrated to provide this interpretation of film.

Accessibility
Accessibility is an important value that is achieved to a limited extend, but can be made much stronger. The main benefits of the current VoD offer are based on convenience and the guarantee of a quality version of the film with subtitles (in comparison with a free version). This relates to the generatives accessibility and authenticity. So the aspect of accessibility (on a micro scale) is covered for the films present in the offer. But most new films disappear after a few months from the offer and will not return before a couple of years. Further as we have seen from the analysis of the VoD libraries, only few popular films of the past 4 years are available. As accessibility is one of the strongest generatives (the USP) of the *free* offer it is wise to invest here as well to create a strong proposition. So accessibility on a macro scale should be improved

According to Forrester, accessibility is the basically the prime reason what people pay for. Forrester states it as follows: people pay for access, not for content[90]. In the early

[90] http://paidcontent.org/article/419-how-to-get-people-to-pay-for-content/

days, access and content were combined in for example the film theatre, a DVD disc and the newspaper. And when cable TV came people paid for the access to TV shows, not for the TV shows themselves. People now pay for mobile phones with data subscription, higher broadband speeds and multifunctional devices to *access* content. Forrester shows that an average American spends 75% of their content bill for accessing content.

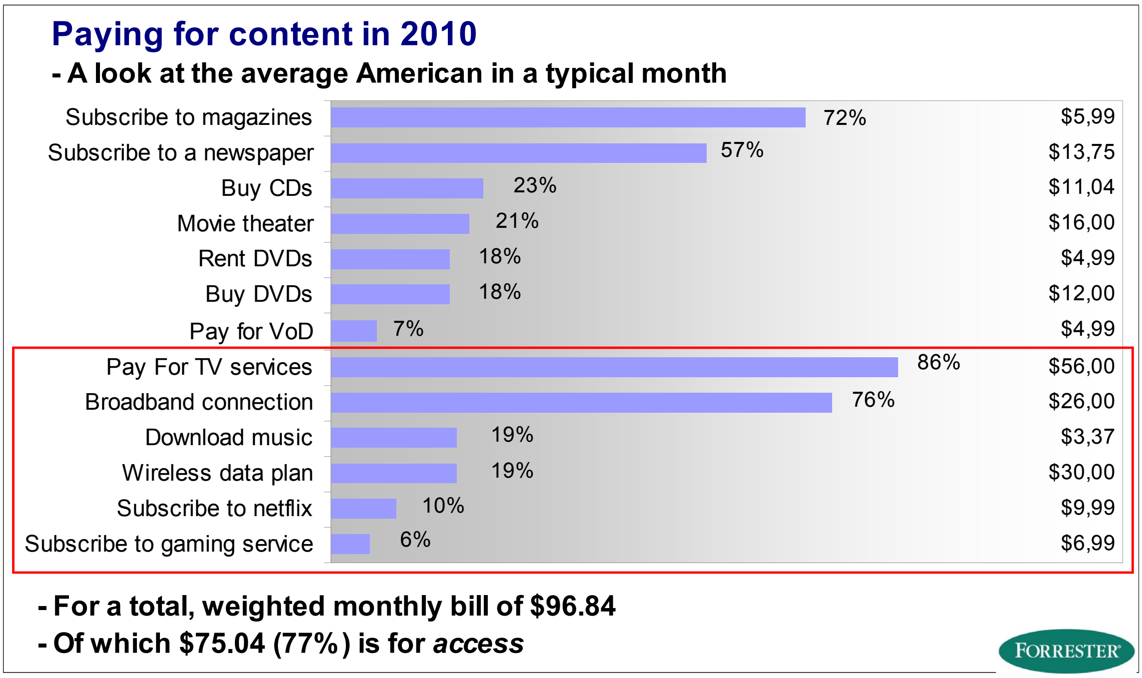


Figure 51 – Overview of spending of American in a typical month. (Source: Multiple Forrester consumer technologies surveys from 2009, validated by external sources some monthly bill estimates calculated from current costs of services available in the market. http://blogs.forrester.com/f/b/_tp/.a/6a00d8341c50bf53ef0120a8b65b36970b-pi)

That piracy is a completely free alternative to paid VoD service is not true. In order to *access* pirated films one has to invest. Most newsgroup servers with high retention times are paid, around €7.50 per month. Spotter sites are paid. People pay for high bandwidth network infrastructure and home data storage solutions in their home or special Media PCs or other devices to playback the media on the TV. And furthermore, they pay with their time, as it takes time to figure out how it works, takes time to find content itself and make sure it playback without any problems, it takes time to administer all the devices and to keep the film catalogue tidy and up to date. But all these payments go to *accessing* content and not to the content itself.

From a consumer research by Jupiter Research and Ipsos Consumer Survey for Forrester[91] it showed that no single feature would persuade most video users to pay for online films, but unlimited monthly downloads was the most popular. Unlimited downloads provides *access* to content.

[91] Forrester –Films Online – Engaging European Buyers (2008)

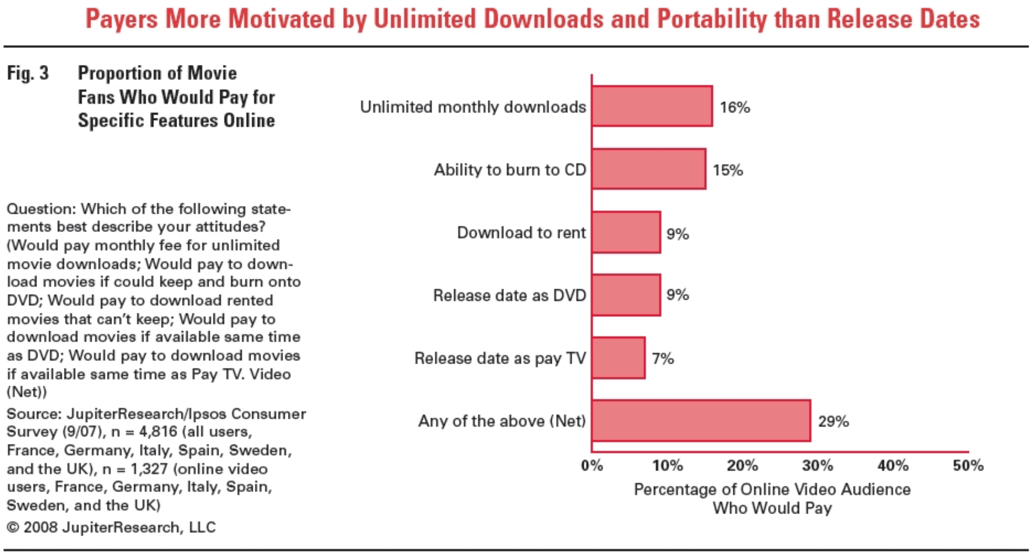


Figure 52 – Proportion of Movie Fans who would pay for specific features online (Source: JupiterResearch)

Except for Apple and Amazon very few companies have managed to create a successful pay per piece business model. Micropayment solutions really need to stand out in user friendliness (seamless one click experience) and ease of use in order to be successful.

In order to create a strong proposition towards the generative *accessibility* basically three steps would have to be completed ideally:
- every popular and highly rated film should be available through a VoD offer (macro scale).
- further, the offer should have a subscription element or at least VoD packages.
- finally, allowing longer access than 24 hours for the pay per view titles (micro scale).

Certainly, this does not mean that all blockbusters should be immediately given away for 'free' as part of a subscription VoD service. But having a VoD window system where all films are eventually available for 'free' as part of a subscription but can be watched in earlier window for a premium would already change the perception of the *accessibility* of the VoD service in a very positive way for the consumer.

The pay per view system has the disadvantage that a purchase decision has to be made for every film. Every time and for every particular film, the consumer has to make a decision in favour of paying among all the 'free' alternatives that are available with respect to digital media. And while most films are priced similar, the ratings vary widely. The consumer may often not be satisfied after payment, as even the experts in the film industry themselves have hard time predicting which films will be liked by the audience. While the same is valid for a cinema visit or a DVD, with the video on demand service there is no compensation by a physical good (the DVD) or experience (the cinema) for a disliked film.

Embodiment
The embodiment of film takes place in the cinema. For video on demand, just like the *free* offer, it is hard to beat the embodiment of the cinema. The VoD offer could improve by offering more films in HD. In a few years we will probably see the first

films in 4k resolution mode. At least it is important not to be worse on this embodiment than the *free* offer.

Findability
Findability relates closely to the promotional aspect of film. The findability of the current VoD offer is quite weak as shown by the results of the survey. It is nearly invisible between the advertisement for the films in the cinema or for the TV programs. Three important steps in the marketing of film are the promotion, the purchase and consumption of film. In the digital offer, the promotion is separate and the purchase and the consumption is coupled. But why is the moment of purchase actually coupled to the time of consumption (watching the film)? It is unattractive for the end-user. As the TV is really a lean back mechanism, paying for a particular piece of content is very new for users. Confronting him with a "check-out" in euro's every time is not consumer friendly. Further, this binding of purchase and consumption causes great obstacles for the promotion of film.

First, it has a negative aspect towards the *power* shift as described in Chapter 4, because as soon as the consumer bought a VoD 'ticket' he has to exchange it to watch the film. The user never gets the perception of possession. Second, it reduces the effectivity of promotion. As described before, even if a film is heavily promoted a user has to go look for the film in the VoD library of the provider. But whenever a customer finds out about a good film he wants to see, he should be able to select it from there immediately to bookmark it, add it to his favourites and/or watch it. Going through the same procedure to find the film again, only this time in the store where you can also buy it is unattractive. It also does not make the legal offering more easy and user friendly than the pirated version. This is true for other paid content as well, like music or e-books.

Actually the systems where the offering and information about the offering is combined work best and are very successful. Amazon with the Kindle or Apple with iTunes and iPods are successful formulas where the consumption-device and store is combined with search functions, information about the content itself, including user reviews, expert reviews and recommendations. The benefit of the digital domain is that promotion and purchase-transaction can be easily coupled and separated from the actual consumption which can be done later in time at the consumer's convenience.

Third, sales promotion is difficult this way. People should have the opportunity to buy VoD credits anywhere as a result of promotional sales. There should be gift cards, free samples, reduced price for next film and personalised offers. Successful systems like Apple or Amazon implemented this very well, where based on recommendations or "other people also bought" or "buy these two books together for.." digital goods are cleverly promoted and sold.

Social media is also important with respect to promotion. Social media can have a role in the future content strategy of Video on Demand. People should have means to interact, experience and engage with the content. The benefit is that an engaged audience can help promote and distribute your content at no cost for the distributors. Many people watch a film only once, but still would like to interact with it afterwards. The current "protection" of the work by all means prevents people from interacting or engaging with the content at all. Consumers should be able to *openly* share their favourite film moments on their social network sites. Or be allowed to collect impressive scenes, set them as a background for their mobile and associate their social media profiles to it. Very famous – and controversial – was the parody of the film "Der

Untergang"[92] where endless variations have been made of the bunker scene. But why does a legal and paid digital offer of video on demand not facilitate such freedom of expression by users. It could certainly also gain by the free advertisement and creation of a buzz around films.

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[92] http://news.bbc.co.uk/2/hi/uk_news/magazine/8617454.stm

9 Recommendations

Based on an external analysis of opportunities and threats in the market, an analysis of the current services, the market position and consumer perception of the VoD service, our conclusions are listed below. We will divide the conclusions and recommendations into those for the short term (0-1 year), mid term (1-3 years) and long term (>3 years).

Short term
- Improve promotion for the video on demand service. Most non-users are not familiar with the (existence) of the service or the price.
- Improve the selection of films available via VoD, particularly of recent films. Adjust the pricing to the quality and age of the film. The quality of the film could be based on the box office success in the cinema, success in other countries or ratings on Internet sites like IMDB or moviemeter.
- Do not perceive piracy as a big risk with respect to video on demand. Video on demand will not serve as a new primary resource for pirated films. Most non-downloaders perceive downloading as complex and associate it with watching a film on a PC.

Mid term
- Position Video on Demand **as an individual service** with its own proposition. It is too much perceived as a second choice after regular TV. It should create a unique position in comparison with regular TV. A model based on flat fee with a premium for recent films is an interesting option to explore. Flat fee provides the perception of "free" and fits the concept of paying for access instead of paying for content.
- Introduce different **pricing** and **sales promotion schemes** to lower the barriers for using the service and increase the number of places and occasions people have the opportunity to interact or purchase with film. In this respect it is crucial that the purchase (transaction) moment is decoupled from the consumption moment. Introduce more flexible pricing schemes like VoD credit notes, VoD packages, samples, discounts, frequent user rebates and other offers to consumers to increase the purchase moments of the service. Do not confront the consumer with a "check-out" in euros every time he wants to watch a film on his TV in his living room. This requires better alignment of the most important films on offer from different service providers to enable effective promotion of certain films.
- Enable the use of VoD **on more devices**, like connected TVs, Blu-ray players and game consoles. VoD is perceived as a low involvement product, and it therefore requires more intensive distribution. Lowering the entry barriers to start a VoD service for new service providers is important in this respect. For potential smaller service providers the industry should consider adjusting the model of minimum guarantees. Minimum guarantees pose high entry barriers for companies that wish to roll out a VoD service, or wish to occasionally promote a film to their target audience to strengthen their brand. Minimum guarantees may stimulate current service providers promoting the film (although all majors apply the system), but it prevents smaller parties from entering the market and focussing on their niche.
- Make better use of **social media** as an important instrument to increase the level of engagement with a film. The concept of the film trailer can extended through social media. For instance, people should be allowed to associate themselves with impressive film scenes and fragments. People should also be able to tag or bookmark films that can then be easily retrieved in the video on demand offer. The barriers for using the service have to be lowered as much as possible. Smartphones also offer great tools for

promotion and pro-actively reaching people and informing them about the latest films and developments.
- **Seriously improve the "accessibility"** of VoD, as a way to counter the most important generative (value) of the piracy offer. Since many people watch a film only once, there seems no need to restrict the access to 24 hours only. It gives people also the perception of ownership and power. Also, for this purpose the library should contain more popular films of the last few years. We realise that this has impact on the subsequent window of PayTV and free TV that are not easily solved on the short term.
- Improve on the generative 'interpretation' by promoting films thematically. By promoting a set of films in context of certain themes or events people will memorise films more easily or value a film more highly, because of its context. Furthermore, relate films to events in the other branches of the entertainment industry, like music concerts or books. It is important that users be allowed to bookmark promoted films or add them to favourites, so they can decide to rent them at a later point in time.
- An improvement could be realised in the **personalisation** of films, for example by offering films with subtitles in many more languages that are spoken by different groups in the Netherlands.
- Create a much better **user experience** for the consumer and reward service providers with good user interfaces which maximize the findability of films.

Long term
- Create a single platform for video on demand films, where any player can have the opportunity to resell the video on demand offer. This provides opportunities for life style brands or publishers to market films that enriches their monthly topic or theme.
- Consider merging the Pay-TV window and the VoD window.

A Demographics and segmentations of the VoD survey respondents

A.1 Demographics

The demographics of the two groups (NL and VoD) are as follows.

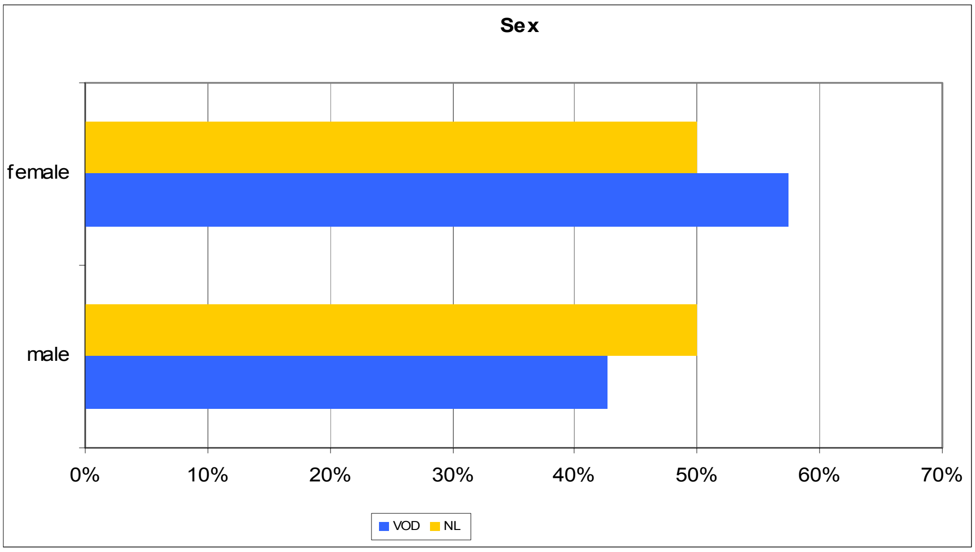

Figure 53 - Sex of the respondents to the survey

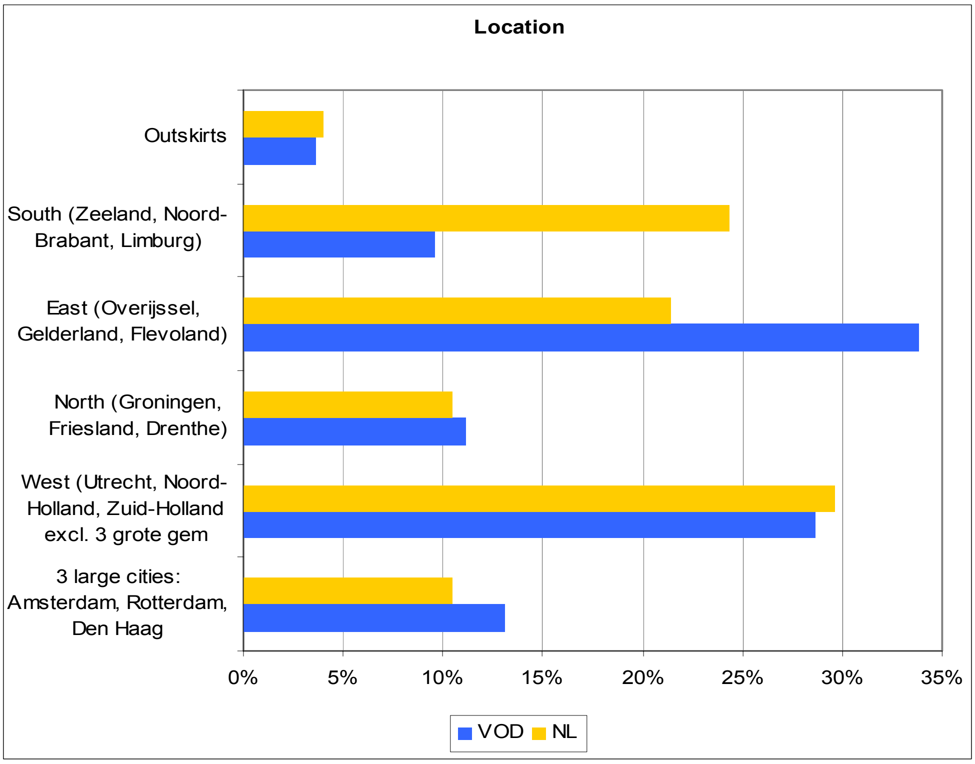

Figure 54 - Location of the respondents to the survey

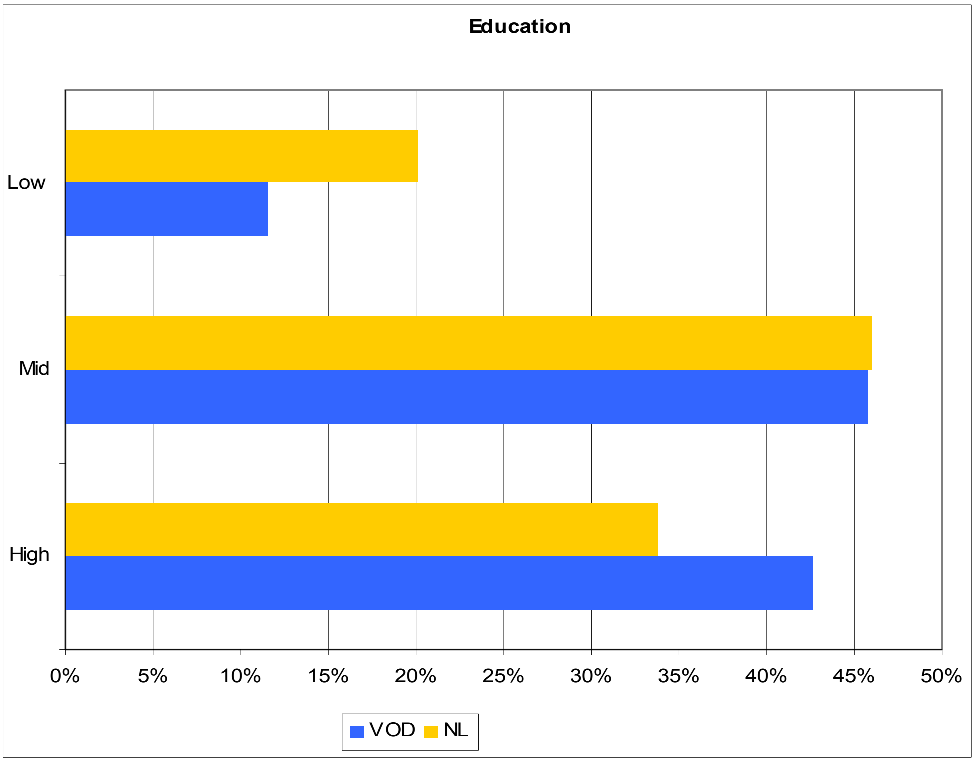

Figure 55 - Education of the respondents to the survey

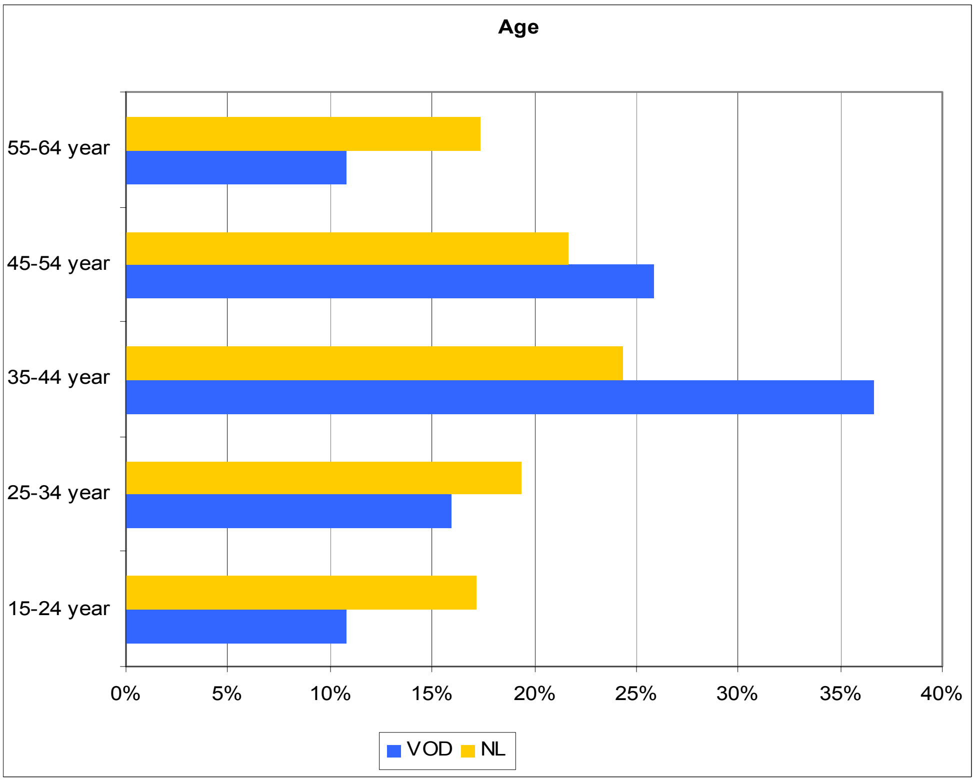

Figure 56 – Age of the respondents to the survey

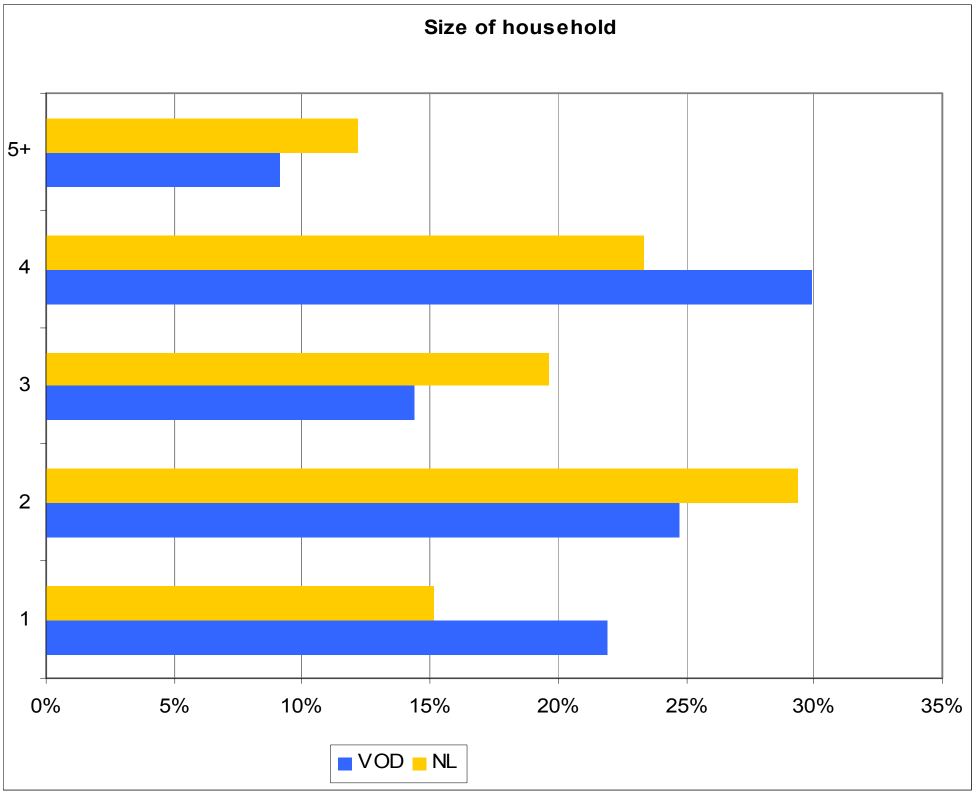

Figure 57 – Size of the household from the respondents to the survey

A.2 Segmentations

We used three segmentations for the survey to verify whether different segments have different motivations, perception or attitude towards the VoD service.

By demographics:
Youngsters are respondents between the age of 15 and 24 with a household size of 1, 3, 4 or 5+. Young parent are respondents between the age of 25 and 44 with a household size of 3, 4 or 5+. Seniors are respondents between the age of 55 and 64 with a household size of 2.

By subscription:
We differentiated between subscribers of UPC, Ziggo and KPN (both Digitenne and IPTV).

By behaviour with respect to film:
To determine whether someone is a filmfan we combined the answers from two questions. We made three segments:
- red coloured cells: proclaimed filmfan and actually does watch a lot of films. Indicated by "moviefan: yes, many" in the graphics
- orange coloured cells: proclaimed filmfan, but actually watches few films. Indicated by "moviefan: yes, few"
- yellow coloured cells: no filmfan. Indicated by "moviefan:no".

Frequency of cinema visit in the last 12 months	Select the statement that suits you best					
	I'm filmfan and watch frequently to often films	I'm filmfan and watch occasionally films	I like films but watch (very) few	I don't care so much about film	I don't like film	None of the statements fit me
1x						
2x						
3-4x						
5-8x						
9-12x						
2x per month						
3-4x pm						
>1 per week						
never						

Table 11 – Intersection of two questions from the survey to determine whether a person is a filmfan or not.