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File sharing 2©12

Downloading from illegal sources in the Netherlands

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Editor
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Contents

Executive summary

This report presents the results of a consumer survey on the downloading and streaming of music, films, TV series and programmes, games and books. The authors make a distinction between four channels: buying material on *physical formats* in an offline or online store, *paid-for* downloading or streaming from *a legal source*, *free* downloading or streaming from *a legal source* and downloading or streaming from *an illegal source*. In May and June this year 3,118 members of the CentERpanel, an online household panel that is representative of the Dutch population, were invited to take part in the survey. The response rate was 64.4%, or 2,009 fully completed questionnaires.

Downloading from an illegal source came in third, after the purchasing of physical formats and free legal content

The table below compares the use of the four channels in the past year. As shown in the bottom row, just over a quarter (27.2%) of the population aged 16 and up had downloaded from an illegal source in the past twelve months. Compared with other content, music was found to be most downloaded from illegal sources (21.7% of the population), followed by films and series, with games and books trailing at some distance.

Downloading, streaming and purchasing, total (past year)

Past year	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)	All channels (1 to 4)	Total legal (1 to 3)
		Paid-for (2)	Free (3)			
Music	40.0%	17.1%	36.5%	21.7%	63.0%	60.8%
Films & series	44.8%	11.8%	25.3%	18.3%	59.4%	57.2%
Games	19.7%	8.8%	14.6%	6.3%	28.7%	27.7%
Books	69.0%	7.8%	9.2%	6.3%	70.9%	70.5%
Total	**82.6%**	**27.8%**	**47.3%**	**27.2%**	**98.2%**	**98.1%**

Source: IViR/CentERdata (2012); (*N*=2009)

The table also shows that downloading music, films, series, games or books from an illegal source came in tied third place. Purchasing physical formats in an offline or online store (1) is still most common: 82.6% had bought at least one printed book, CD, LP, DVD, Blu-ray or game in physical form in the past twelve months. In second place we see free downloading or streaming of content from various legal sources (3), such as YouTube or Spotify Free.

Whereas paid-for downloading from a legal source (2) and downloading from an illegal source (4) were more or less equally popular in the past year, there are differences in terms of the type of content. Films and series, and to a lesser extent music are more likely to be downloaded from an illegal source; games and books are more frequently paid for and downloaded from a legal source.

About one in five people who download from illegal sources had in the past year bought a CD or LP that they had previously downloaded from an illegal source. The same was found for DVDs, Blu-rays and for printed books. The opposite – downloading a book from an illegal source that had been previously purchased in print – is also very common. This shows that for a substantial group of consumers printed books and e-books are complementary. Personally uploading purchased material is done by no more than 5% of the Dutch population.

Correlation with age, sex and level of education
Purchasing music, films, series and books in physical form in a brick-and-mortar shop or online store is hardly correlated with age. Games are the only exception – with the purchasing of physical formats showing a steep decline from the age of 44 years. Except for books, the three online channels are particularly popular among young people. Here we see that those who download from legal and illegal sources without paying are younger than those who pay for downloads and streams. In the case of books, the popularity of illegal content hardly declines with age up to 54 years. Men are more likely to use free legal sources and illegal sources than women.

For music, films, series and books use of the three legal channels appears to be positively correlated with level of education: the better educated they are, the more likely respondents are to purchase content in offline and online shops, the more they pay for *downloading* and streaming from a legal source and the more they download and stream from legal sources *for free*. Downloading from an *illegal* source, on the other hand, shows no significant correlation with level of education. Similarly, games are not clearly correlated with education for any of the channels used.

People who download from an illegal source are more frequently also consumers from legal sources, and they are more likely go to concerts and the cinema and to purchase derived products
Respondents who had downloaded music, films, series, games and books from illegal sources in the past year were more likely to use legal channels as well. Only in the case of music purchased on CDs or LPs, however, no difference is observed between those who had on occasion downloaded from an illegal source in the past year and people who had never done so. The differences are particularly marked in the case of paid-for downloading and streaming from a legal source: respondents who have never downloaded from an illegal source are also little inclined to pay for online content. The survey also showed that people who had, on occasion, downloaded from an illegal source in the past year bought more music and film merchandise and went to concerts or the cinema more often.

In other words, people who download from illegal sources are also legal consumers of music, films, series, games and books. The same goes for cinema visits, concert attendance and merchandise purchases. Legal and illegal content consumption are not mutually exclusive: people who are heavily into music, films and series, games or books are more inclined to download from an illegal source, but they also consume more legal content and pay for derived products.

Willingness to pay and assessment of the quality, availability of titles and price per channel
The survey shows that roughly one third to half of the respondents would not be interested in the latest download from an illegal source if it would not be available for free. The rest have an average maximum willingness to pay that is close to the normal selling price. Similarly, about one third of all book readers are interested in and willing to pay to borrow e-books from a library or bookshop, there being a slight preference for libraries and for a flat rate per year rather than a price per title borrowed.

The respondents were asked to evaluate the various online channels and physical products in terms of their technical quality, the availability of titles and price. Physical products are still top-rated in all cases and illegal content scores least favourably in terms of technical quality. The availability of titles is rated more or less equally in the legal and illegal offerings.

Downloading of music is declining; downloading of films and series is still increasing
The respondents answered that individually, they downloaded less music, films and series from both legal and illegal sources than they used to. The finding that the difference is biggest in the case of music tallies with the view that people tend to develop their taste in music and put together a music

collection when they are young (up to 30 years or so). This is less so for films and series, which are not as generation-specific and are often viewed only once or a few times.

Having said that, there is a clear difference between music on the one hand and films & series on the other. Whereas the reported decline in downloading music is considerably greater from legal sources than from illegal sources, in the case of films and series the decrease is about the same for both sources. The group of people who download more music from an *illegal* source than they used to is much smaller than the group who now download more from a *legal* source. The exact opposite is the case for audiovisual material.

This stance is backed up by the results for 2008 presented in the *Ups and downs* report: whereas downloading of music from illegal sources is declining across the entire population, downloading of films and series has increased since 2008 and downloading games from illegal sources has remained more or less the same. This finding is consistent across all age groups.

The findings of this survey do not provide an explanation for the clear difference found between music and films & series. Enforcement would not seem to be a decisive factor as one may assume that music and audiovisual material are subject to enforcement action in equal measure. Nor do there appear to be any significant differences in terms of the technical quality, availability and price of the paid-for, legal offering of music and films & series. There is general consensus, however, that – with the advent of iTunes and Spotify – the music business is far more advanced in the development of new business models tailored to the wishes of digital consumers than the audiovisual industry is. And so legal online music offerings seem to be gaining ground at the expense of the illegal offerings.

This does not, however, explain the opposite pattern found for films and series. A possible explanation could be that factors that used to deter people from using illegal audiovisual material, such as bandwidth and various technical standards, have become less of a deterrent in recent years, whereas they stopped being a factor of any importance in the music industry years ago. At the same time, the survey showed that physical formats for films and series are more popular than they are for music.

The Pirate Bay blockade has had very little effect

The recent blockade of the file sharing site *The Pirate Bay* has had next to no effect on consumers. More than three quarters of XS4ALL and Ziggo subscribers said they had never downloaded, or had stopped downloading from an illegal source before access to the site was blocked. So the blockade has no implications for them. Of the remaining 23.8% of Ziggo and XS4ALL customers, about three quarters said the blockade had not affected their downloading habits and a mere 5.5% said they now download less, or had stopped downloading altogether. The expected reaction of customers of providers that had not yet enforced the court-ordered Pirate Bay blockade at the time of the survey was found to be comparable.

1 Introduction

In January 2009 a consortium of TNO Information and Communication Technology, SEO Economic Research and the Institute for Information Law (IViR) published a study entitled *Ups and downs* into the economic and cultural effects of file sharing on music, films and games in the Netherlands.[1] It was the first study to identify the implications for Dutch society of downloading from illegal sources. The report received widespread media coverage and attracted interest from policy-makers and scholars in the Netherlands and abroad.

A major finding of the study was that downloading from an illegal source was widespread. A consumer survey held in April 2008 for the *Ups and downs* study showed that 35% of the population aged 15 and over did so from time to time. But the survey also showed that people who download are at the same time legal consumers of content: downloaders purchase music just as frequently as non-downloaders do, they buy more DVDs and games, go to concerts more often and buy more merchandise. Another finding was that consumers frequently buy something they have previously downloaded from an illegal source.

At the end of 2011, the researchers in charge of the consumer survey held for the *Ups and downs* study, who now work at IViR and CentERdata, took the initiative to revisit the figures for downloading in the Netherlands four years on. And so a new survey was held in the summer of 2012 with financial support from the Netherlands Ministry of Education, Culture and Science, Ziggo, KPN, XS4ALL, DELTA, CAIW and the Royal Dutch Book Trade Association (KVB). The researchers would like to thank these organisations for their financial support and constructive feedback on a draft version of the survey.

Four years after publication of the *Ups and downs* report, the main aim of the current study is to examine the state of play in 2012, describing the various facets of illegal file sharing in the Netherlands, the channels used to obtain content, a profile of downloaders, people's willingness to pay and how users rate these channels. The scope of the study has been extended to include downloading of e-books, TV series and TV programmes as well as questions about recent developments in the area of enforcement. In the process of designing the questionnaire for the survey, it already became quite clear how much the world has changed within the span of four years. Whereas at the time of *Ups and downs* all free downloads could still be considered as downloads from an illegal source and legal digital content was in its infancy, now, in 2012, the array of legal propositions in the market is much broader: in addition to paid-for services, a variety of *free* legal services (in particular streaming) and services that are provided by bundles have secured a position in the market. In addition to downloading, streaming has become more important. The results of the latest survey confirm that the consumption of legal content is unmistakably on the rise.

The questionnaire was distributed among members of the CentERpanel, a representative panel of households selected randomly from Dutch address databases, which makes it representative of the Dutch population. A total of 3,118 panel members aged 16 years and over were invited to complete the questionnaire; 2009 people fully completed the questionnaire – a response rate of 64.4%. As file sharing is likely to differ strongly among age groups, all data were weighted by age.

The report has the following structure. Chapter 2 presents the most important factual findings about the practice of downloading and purchasing in 2012. Chapter 3 describes the profiles of downloaders

[1] A. Huygen, P. Rutten, S. Huveneers, S. Limonard (TNO), J. Poort, J. Leenheer, K. S. Janssen (SEO Economic Research), N. van Eijk, N.

and buyers in terms of their age and sex and compares the consumption of material from legal sources by respondents who had on occasion downloaded from an illegal source in the past year with that of those who had never done so. Chapter 4 then addresses the question of what people who download from illegal sources would be willing to pay for their most recent download, and how respondents rate the legal and illegal offerings. Chapter 5 looks into trends in downloading from an illegal source. How do the respondents themselves view their changing behaviour and how do the findings of this study relate to those presented in *Ups and downs* four years ago? Chapter 6 describes the effects of the blockade of the download site *The Pirate Bay*.

2 Downloading and purchasing: state of play

Just over a quarter of the population aged 16 and up have on occasion downloaded from an illegal source in the past year. Music is most downloaded from illegal sources, followed by films and series, with games and books trailing at some distance.

Downloading from an illegal source comes in tied third place as a means to acquiring music, films, series, games or books. Purchasing physical formats in an offline or online store is still most common; that is to say, it is the channel most recently used by most Dutch people. In second place we see free downloading or streaming of content from various legal sources. Paid-for downloading and streaming from legal sources and downloading from illegal sources are about equally popular, although the type of content downloaded does vary considerably.

2.1 Purchasing and consumption

In order to gain a better insight into the market for music, films, games and books, consumers were asked when they had last bought or downloaded a CD, DVD, game or book from a legal or an illegal source. A distinction was made between four channels and respondents were asked to indicate their most recent acquisition for each channel. The four channels distinguished were:

- Buying physical formats in an offline or online store (web shop).
- *Paid-for* downloading or streaming.
- *Free downloading* or streaming from a *legal* source.
- *Free downloading* or streaming from an *illegal* source.

In the following, we will refer to 'downloading and streaming' simply as 'downloading', unless the difference between these two processes is relevant. The tables and figures will refer to 'downloading and streaming' in full.

For the sake of clarity, the questionnaire provided examples, for each of the four channels, of the consumption of music, and films, television series and programmes (hereafter referred to jointly as 'films & series'), and for games and books. In the questionnaire respondents were informed that whereas uploading of music, films & series and books is illegal, downloading from an illegal source is not.[2]

Music

Table 1 summarises the relevant information about people's most recent music acquisition. In the past twelve months, 40.0% of the Dutch population aged 16 years and older had bought a CD or LP at least once in an offline or online store (1). This shows that physical distribution channels are still most popular in the sense that they have been recently used by the highest percentage of people in the Netherlands. *Free downloading* or streaming from a legal source (2) – such as through Spotify, YouTube or via the site of a band or producer – comes in second place, at 36.5%. Downloading from illegal sources (4) for example from *The Pirate Bay* and *Limewire* is the next most popular channel, at 21.7%, followed by paid-for downloading and streaming from a legal source such as iTunes, Deezer and Spotify (Unlimited or Premium), at 17.1%.

Table 1 also shows that free downloading from a *legal* source (3) is done most *frequently*: 14.4% of the respondents said they had done so less than a week ago. Viewed over a period of a year or more,

[2] The Dutch version of this report includes an appendix with the full text of the questionnaire.

the purchase of physical formats was still found to be most common. More than 90% of the population aged 16 and up had ever bought a CD or LP; however, about half had made this purchase more than a year ago.

Table 1 Downloading, streaming and purchasing of music

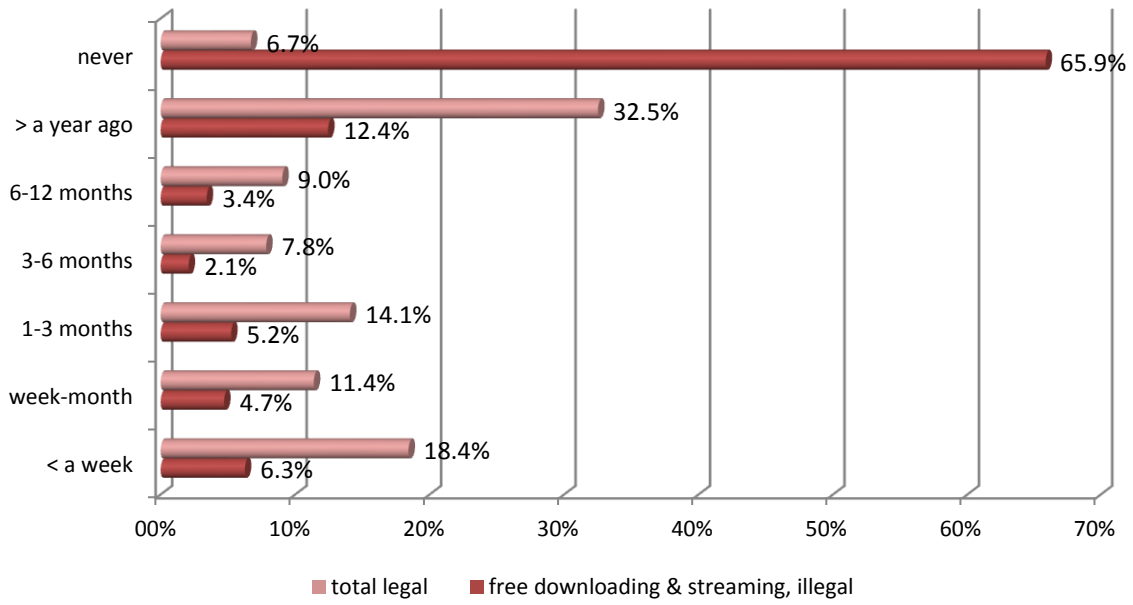
Last time	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)	All channels (1 to 4)	Total legal (1 to 3)
		Paid-for (2)	Free (3)			
past year	**40.0%**	**17.1%**	**36.5%**	**21.7%**	**63.0%**	**60.8%**
< week	3.1%	3.7%	14.4%	6.3%	20.5%	18.4%
week-month	6.2%	3.6%	7.5%	4.7%	12.1%	11.4%
1-3 months	11.1%	4.9%	7.2%	5.2%	13.7%	14.1%
3-6 months	7.5%	2.0%	4.0%	2.1%	7.3%	7.8%
6-12 months	12.2%	2.9%	3.3%	3.4%	9.4%	9.0%
> a year ago	50.9%	11.7%	11.6%	12.4%	30.6%	32.5%
never	9.1%	71.2%	51.9%	65.9%	6.4%	6.7%

Source: IViR/CentERdata (2012) (*N*=2009)

The table also shows that paid-for downloading of music from a legal source (2) and free downloading from an illegal source (4) are more or less equally common, although there are still more people who report having recently downloaded from an illegal source. This suggests that these days people who download from illegal sources are fairly heavy downloaders. People who want to acquire music from time to time are more inclined to use legal channels.

Figure 1 Downloading, streaming and purchasing of music: legal versus illegal sources

When was the last purchase/download via the different channels?



Source: IViR/CentERdata (2012)

Figure 1 compares the combined use of all legal channels (1 to 3) with downloading from an illegal source (4). The comparison shows that the total legal offering is clearly used more frequently and by a larger portion of the population: a total of 60.8% of the population had used one of the legal channels in the past year, against 21.7% who had downloaded from an illegal source. Just under two out of three Dutch people (65.9%) had never downloaded music from an illegal source.

Films and series

Table 2 presents the relevant data for the most recent acquisition of films and series. As was the case for music, buying audiovisual material in physical form was found to be the most common channel used in the past year: 44.8% purchased a DVD, Blu-ray or video at least once in the past twelve months (1). Free downloading or streaming from legal sources (3) such as YouTube and *Uitzending Gemist*, a streaming facility to watch missed TV programmes, again came in second, at 25.3%, but the difference with purchases in physical or online stores is much bigger than it is for music. In third place, at 18.3%, we again see downloading from an illegal source (4), followed by legal paid-for content (2) such as Pathé Thuis, Veamer as well as video-on-demand via cable or ADSL, at 11.8%. Both legal and illegal online audiovisual material are therefore in lower demand than music. Looking at physical formats, however, more people in the Netherlands bought DVDs or Blu-rays than CDs or LPs in the past year.

As with music, free downloading of films and series from *legal* sources was found to be the most frequently used channel (8.7% in the past week), followed by downloading from an illegal source (6.2%). Viewed over a longer period of time (three months and more) purchasing of physical formats is still most common. Compared with music, paid-for downloading from a legal source is far less popular: more than 80% had never done so.

Table 2 Downloading, streaming and purchasing of films and series

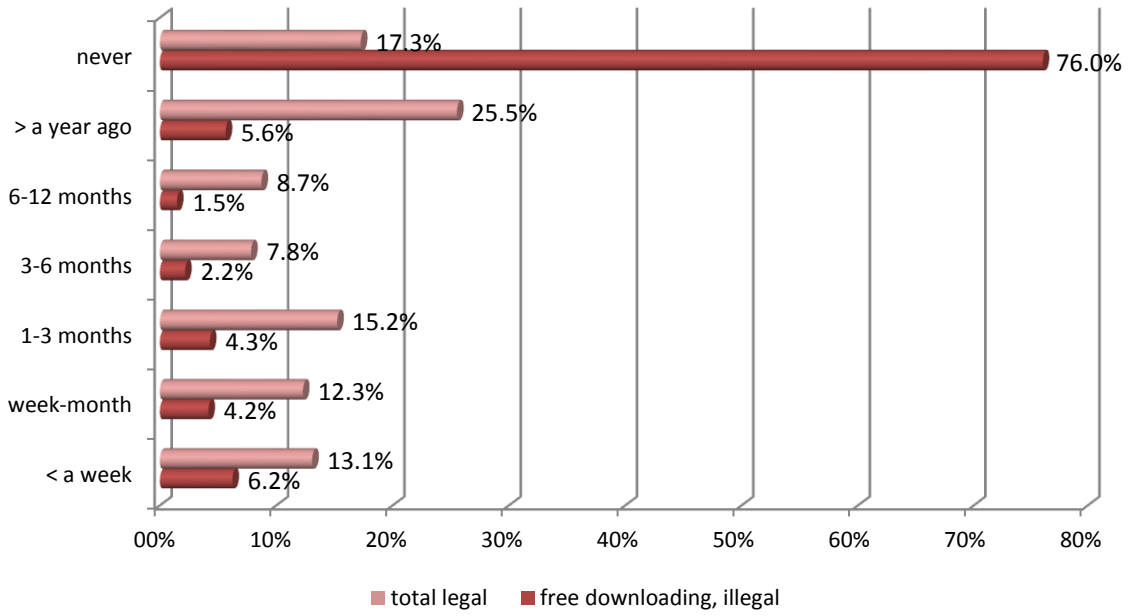
Last time	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)	All channels (1 to 4)	Total legal (1 to 3)
		Paid-for (2)	Free (3)			
past year	**44.8%**	**11.8%**	**25.3%**	**18.3%**	**59.4%**	**57.2%**
< week	3.8%	1.5%	8.7%	6.2%	16.1%	13.1%
week-month	7.3%	2.1%	5.7%	4.2%	12.9%	12.3%
1-3 months	13.5%	3.9%	6.0%	4.3%	14.8%	15.2%
3-6 months	9.3%	2.4%	2.6%	2.2%	7.5%	7.8%
6-12 months	11.0%	1.8%	2.3%	1.5%	8.1%	8.7%
> a year ago	34.9%	5.6%	5.6%	5.6%	23.6%	25.5%
Never	20.3%	82.6%	69.2%	76.0%	17.0%	17.3%

Source: IViR/CentERdata (2012); (*N*=2009)

Figure 2 compares the combined use of all legal channels (1 to 3) with downloading from an illegal source (4). The comparison shows that, as with music, the total legal offering is clearly used more frequently and by a larger portion of the population. A total of 57.2% of the population had used a legal channel in the past year, against 18.3% who had downloaded from an illegal source.

Figure 2 Downloading, streaming and purchasing of films and series: legal versus illegal sources

When was the last purchase/download via the different channels?



Source: IViR/CentERdata (2012)

Games

Table 3 details the most recent acquisition of games, broken down by channel. Based on the past year, purchases of physical formats from an offline or online store was again most popular (1) at 19.7%, followed by free downloaded or streamed games from legal sources (3), for example on games websites or the App Store, at 14.6%. In third place we see *paid-for* legal online content (2) at 8.8%, rather than illegal content (6.3%). This legal content includes Steam, Free Record Shop and Zylom, PlayStation's console shops, Kinekt, Xbox and Nintendo, and the streaming service Gaikai. Downloading from illegal sources is the least popular channel for the consumption of games.

Across the board, games are less popular than music and films & series, but paid-for legal online content is in relatively greater demand. Unlike consumers of music, even the most frequent users of games consume slightly more paid-for and free legal content than they do illegal content.

Figure 3 compares the combined use of all legal channels (1 to 3) with downloading from an illegal source (4). Again, the total legal offering is clearly more popular than the illegal offering. In the past year, 27.7% had used a legal channel, against 6.3% who had downloaded from an illegal source.

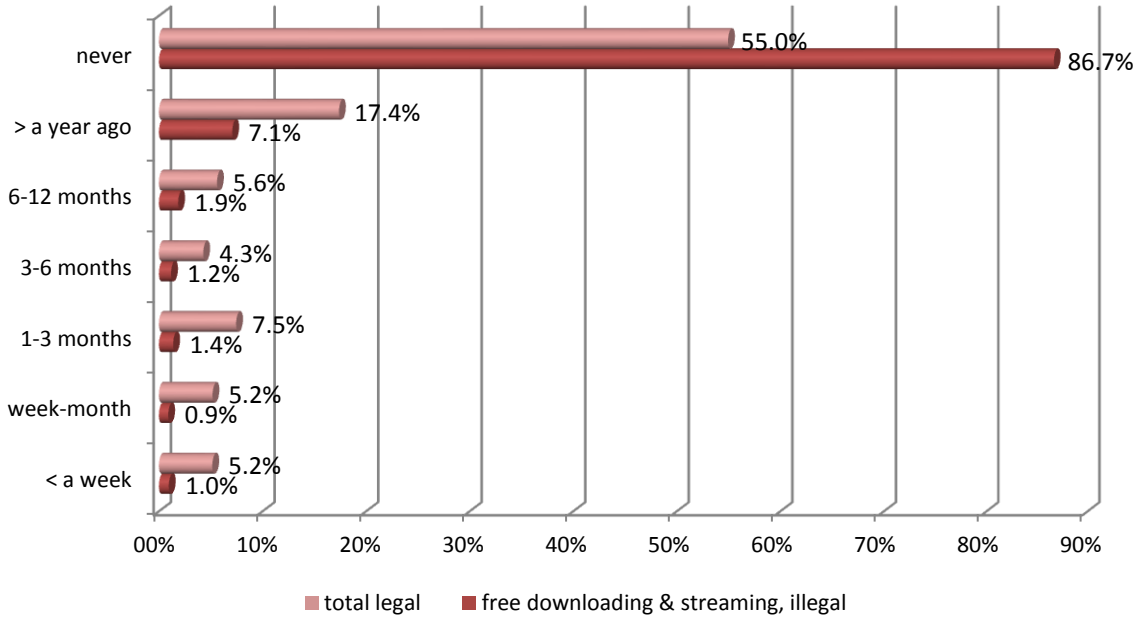
Table 3 Downloading, streaming and purchasing of games

Last time	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)	All channels (1 to 4)	Total legal (1 to 3)
		Paid-for (2)	Free (3)			
past year	**19.7%**	**8.8%**	**14.6%**	**6.3%**	**28.7%**	**27.7%**
< week	1.7%	1.3%	3.2%	1.0%	5.7%	5.2%
week-month	2.7%	1.9%	2.8%	0.9%	5.6%	5.2%
1-3 months	5.7%	2.9%	3.9%	1.4%	7.2%	7.5%
3-6 months	3.6%	1.3%	2.7%	1.2%	4.2%	4.3%
6-12 months	6.0%	1.4%	2.0%	1.9%	5.9%	5.6%
> a year ago	20.9%	5.8%	5.9%	7.1%	17.0%	17.4%
never	59.4%	85.3%	79.5%	86.7%	54.3%	55.0%

Source: IViR/CentERdata (2012), (*N*=2009)

Figure 3 Downloading, streaming and purchasing of games: legal versus illegal sources

When was the last purchase/download via the different channels?



Source: IViR/CentERdata (2012)

Books

Table 4 summarises the most recent consumption of books, again broken down by channel. It shows clearly that e-reading is still in its infancy compared with the online consumption of music, films & series and games. More than two thirds of the Dutch population (69%) had bought a book in a physical or online store in the past year (1), followed at a considerable distance by 9.2% of the population who had downloaded a book for free from a legal source (3). As with games, paid-for online content (2) came in third and downloading from an illegal source (4) was the least common of the four channels. In the case of e-books, *paid-for legal* content, *free legal* content and *illegal* content

are about equally popular, with consumers showing a slight preference for the two legal channels measured over the past year.

Table 4 Downloading, streaming and purchasing of books

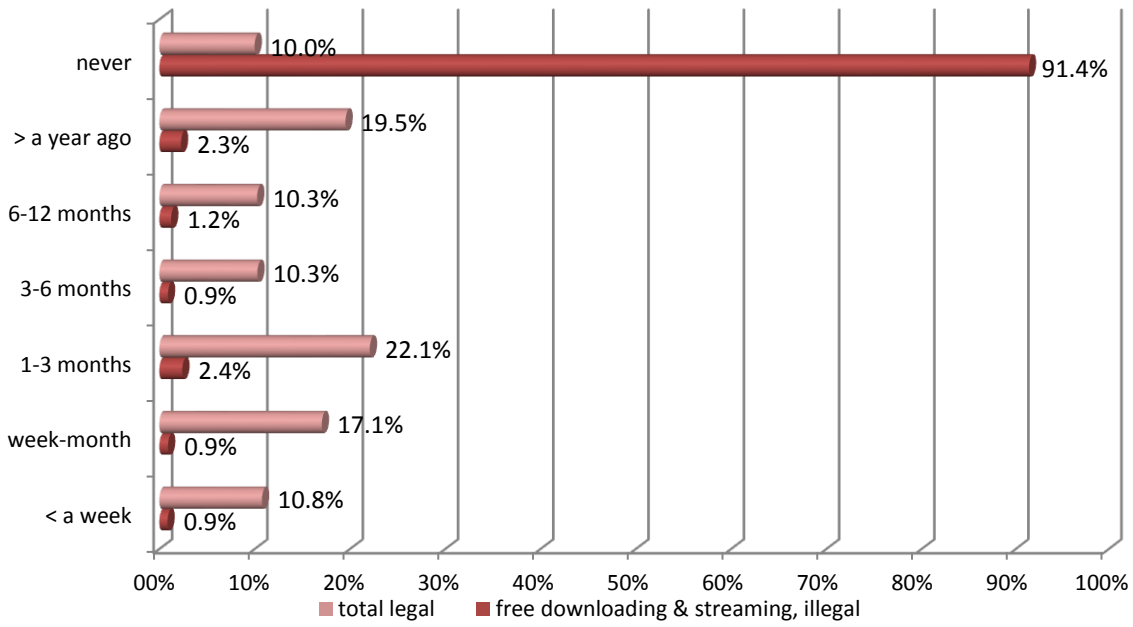
Last time	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)	All channels (1 to 4)	Total legal (1 to 3)
		Paid-for (2)	Free (3)			
past year	**69.0%**	**7.8%**	**9.2%**	**6.3%**	**70.9%**	**70.5%**
< week	9.8%	0.7%	0.9%	0.9%	11.2%	10.8%
week-month	16.3%	0.9%	1.2%	0.9%	17.4%	17.1%
1-3 months	21.5%	2.8%	3.4%	2.4%	22.0%	22.1%
3-6 months	10.6%	1.6%	2.1%	0.9%	10.2%	10.3%
6-12 months	10.7%	1.7%	1.6%	1.2%	10.1%	10.3%
> a year ago	20.7%	2.9%	3.0%	2.3%	19.1%	19.5%
never	10.4%	89.4%	87.8%	91.4%	10.0%	10.0%

Source: IViR/CentERdata (2012), (*N*=2009)

Figure 4 compares the combined use of all legal channels (1 to 3) with downloading from an illegal source (4). The comparison shows that again, legal channels are used far more than illegal channels, in particular on the strength of the sustained popularity of printed books. In the past year 70.5% consumed legal content, against 6.3% using illegal channels.

Figure 4 Downloading, streaming and purchasing of books: legal versus illegal sources

When was the last purchase/download via the different channels?



Source: IViR/CentERdata (2012)

Buyers of print books and e-books were asked what genre of book they had most recently purchased or downloaded. A distinction was made between school/study books, children's books, fiction and non-fiction. Table 5 presents the results. Comparing the top row with the rows under it, we see that school and study books in digital format are faring quite well compared with print. In relative terms, children's books and non-fiction are less often read as e-books. This is probably related to differences in the supply of such books.

The popularity of the illegal offering per genre can be found by comparing the row 'most recent download from an illegal source' (4) with the two rows above it. Although children's books make up 6.7% of the most recently purchased e-books, they are hardly downloaded from illegal sources at all: no more than 1.7% of all e-books downloaded from illegal sources are children's books. School and study books and fiction, on the other hand, are slightly overrepresented in the illegal channels.

Table 5 Most recently purchased book, by channel and by genre

	School/study	Children	Fiction	Non-fiction	*N*
Most recently purchased printed book (1)	15.2%	7.5%	49.7%	27.7%	1848
Most recently purchased e-book (2)	19.6%	6.7%	50.4%	23.2%	207
Most recent legal free download (3)	25.3%	4.8%	45.6%	24.3%	233
Most recent download from an illegal source (4)	23.5%	1.7%	55.7%	19.0%	150
Total	20.9%	5.2%	50.4%	23.6%	

Source: IViR/CentERdata (2012) (*N* : unweighted numbers)

Total

We conclude this section by summarising the consumption of music, films & series, games and books over time, as presented in Table 6.

Table 6 Downloading, streaming and purchasing total (music, films & series, games, books)

Last time	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)
		Paid-for (2)	Free (3)	
past year	**82.6%**	**27.8%**	**47.3%**	**27.2%**
< week	15.3%	6.0%	20.4%	9.4%
week-month	22.5%	6.6%	9.9%	6.4%
1-3 months	24.8%	7.5%	9.4%	5.6%
3-6 months	10.0%	3.7%	4.5%	2.7%
6-12 months	10.0%	4.0%	3.0%	3.2%
> a year ago	14.7%	11.9%	10.0%	12.0%
never	2.6%	60.3%	42.8%	60.8%

Source: IViR/CentERdata (2012); (*N*=2009)

The table shows that almost everyone (97.4% of the population aged 16 and up) has on occasion purchased these products in physical format in an offline or online store, with 82.6% doing so in the past year. This is followed at quite some distance by free downloading from a legal source. Almost half the population aged 16 years and over (47.3%) had done so in the past year. Measured for all four types of content, downloading from an illegal source and paid-for downloading are about equally common, at 27.2% and 27.8% respectively. Note, however, that the group who had

downloaded from an illegal source in the week before completing the questionnaire was bigger, at 9.4%. This difference disappears when measured over a period of three months (the sum of the first three categories).

2.2 Purchasing after downloading and uploading

Purchasing after downloading

Consumers who had on occasion downloaded music or films & series from an illegal source were asked whether they had ever purchased a CD or LP or a film or series *after* they had downloaded it. For music, more than one in three downloaders (35.0%) had ever done this and one in five (20.1%) had done so in the past year (Table 7). The figures are comparable for audiovisual material: 34.3% and 22.8% respectively.

Table 7 Purchasing after downloading from an illegal source

Last time	CD or LP	film or series
past year	**20.1%**	**22.8%**
< week	0.5%	1.6%
week-month	1.9%	2.8%
1-3 months	6.0%	3.5%
3-6 months	4.8%	7.8%
6-12 months	6.9%	7.1%
> a year ago	14.8%	11.4%
never	65.0%	65.7%
N	568	383

Source: IViR/CentERdata (2012); (*N*: unweighted numbers)

Almost one in five downloaders of e-books from illegal sources (19.4%) had on occasion purchased a printed book after having first downloaded it from an illegal source and 6.2% had purchased an e-book after first downloading it from an illegal source. The respondents were also asked the opposite, namely whether they had ever downloaded a book from an illegal source after they had bought it in print. This often appears to be the case: no fewer than 21.2% of those who on occasion had downloaded books from illegal sources said they had previously purchased a print copy. This means that for many people e-books and printed books are, to an extent, complementary: e-books add value even for people who own the book in print, and vice versa.

Uploading

Only a small percentage of the respondents said they had ever uploaded music, films or series onto the internet after having purchased it on CD, DVD or Blu-ray or as a download: 4.4% said they had on occasion uploaded music, and 4.8% had uploaded films or series. Men and young people (up to 35 years) are overrepresented among this group; their numbers are too small to be able to report precise percentages. This means that roughly one in twenty people in the Netherlands has ever uploaded something. This boils down to about one in seven or eight music downloaders (from an illegal source) and one in five film downloaders.

2.3 Conclusions

Table 8 summarises the most important findings of this chapter.

Just over a quarter (27.2%) of the population aged 16 and up had downloaded from an illegal source in the past twelve months. Compared with other content, music was found to be most downloaded from illegal sources, followed by films and series, with games and books trailing at some distance.

This puts downloading of music, films, series, games or books from an illegal source in tied third place. Purchasing physical formats in an offline or online store (1) is still most common: 82.6% had bought at least one printed book, CD, LP, DVD, Blu-ray or game in physical form in the past twelve months. In second place we see free downloading or streaming of content from various legal sources (3), such as YouTube or Spotify Free.

Whereas paid-for downloading from a legal source (2) and downloading from an illegal source (4) were more or less equally popular in the past year, there are clear differences in terms of the type of content downloaded. Films and series, and to a lesser extent music are more likely to be downloaded from an illegal source; games and books are more frequently paid for and downloaded from a legal source.

About one in five people who download from illegal sources had in the past year bought a CD or LP that they had previously downloaded from an illegal source. The same was found for DVDs, Blu-rays and for printed books. The opposite – downloading a book from an illegal source that had been previously purchased in print – is also very common. This shows that for a substantial group of consumers printed books and e-books are complementary.

Personally uploading purchased material is done by no more than 5% of the Dutch population.

Table 8 Downloading, streaming and purchasing total (past year)

Past year	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)	All channels (1 to 4)	Total legal (1 to 3)
		Paid-for (2)	Free (3)			
Music	40.0%	17.1%	36.5%	21.7%	63.0%	60.8%
Films and series	44.8%	11.8%	25.3%	18.3%	59.4%	57.2%
Games	19.7%	8.8%	14.6%	6.3%	28.7%	27.7%
Books	69.0%	7.8%	9.2%	6.3%	70.9%	70.5%
Total	**82.6%**	**27.8%**	**47.3%**	**27.2%**	**98.2%**	**98.1%**

Source: IViR/CentERdata (2012); (*N*=2009)

3 Downloaders versus buyers: profile and purchasing behaviour

Purchasing physical formats in a brick-and-mortar or online store is not particularly age-specific. The various online channels are most popular among young people under age 35 or 45, with people who download from illegal sources being younger on average than users of legal online channels. Men are overrepresented among those who download from illegal sources and from free legal sources. Whereas all legal channels are positively correlated with education, this correlation was not found for downloading from illegal sources.

Respondents who had on occasion downloaded music, films and series, games and books from an illegal source in the past year were also more intensive users of legal channels, they bought more merchandise and went to concerts or the cinema more often. In other words, people who download from an illegal source are also legal consumers of music, films, series, games, books and derived products.

3.1 Buying and downloading by age, education and sex

What is the age profile, level of education and sex of downloaders and buyers of music, films, series, books and games? Table 9 presents the various channels used by respondents in the past year to acquire music, broken down by age group, level of education and sex. For the sake of comparison, the first row in the table gives the averages for all respondents taken together, as shown in Table 8.

Table 9 Consumption of *music* per channel by age, sex and level of education

Age / education / sex	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)
		Paid-for (2)	Free (3)	
Total	**40.0%**	**17.1%**	**36.5%**	**21.7%**
16-24 years	39.5%	26.3%	66.4%	46.1%
25-34 years	47.1%	28.3%	57.2%	41.2%
35-44 years	45.7%	23.2%	46.8%	23.5%
45-54 years	42.4%	15.8%	28.9%	18.1%
55-64 years	38.4%	8.2%	21.7%	9.4%
65-74 years	32.0%	7.1%	11.3%	3.4%
75+	25.4%	3.3%	9.4%	0.6%
men	39.9%	18.4%	41.6%	26.7%
women	40.2%	15.6%	31.0%	16.2%
Low (lower secondary or primary)	33.1%	14.4%	32.8%	20.7%
Intermediate (upper secondary or intermediate vocational)	38.8%	17.0%	39.3%	23.4%
High (higher vocational or university)	46.8%	19.2%	37.4%	20.5%

Source: IViR/CentERdata (2012)

Buying music on physical formats (1) is hardly found to be age-specific: after peaking between ages 25 and 34 years, it remains at more or less the same level until age 65, after which a clear decline sets in. Paid-for downloading from a legal source (2) starts to visibly decline from the age of 35. Downloading without paying – both from a legal (3) and from an illegal (4) source – peaks in the youngest age group (up to 24 years) after which it drops gradually. Note, however, that downloading

from an illegal source declines more rapidly with age than the other online channels. Men constitute a clear majority in all online channels.

Use of the three legal channels was found to be positively correlated with level of education: one can say that roughly speaking the better educated respondents are, the more likely they are to purchase content in physical and online stores (1), the more they pay for downloading and streaming from legal sources (2) and the more they download and stream from legal sources for free (3). Downloading from an illegal source (4) on the other hand shows no significant correlation with level of education.[3]

More or less the same patterns were found for films and series, as shown in Table 10. In terms of the age distribution, downloading from an illegal source (4) and legal free consumption (3) peaks in the youngest age groups, with use of the *paid-for* channels (1 and 2) peaking between the age of 25 and 34 years. Note that women buy more DVDs and Blu-rays than men, and also appear to make slightly more use of paid-for downloads. When it comes to use of the free channels (both legal and illegal) men constitute a clear majority. As with music, a higher level of education is correlated with higher consumption via the three legal channels (1 to 3) but does not appear to be clearly correlated with downloading from an illegal source.

Table 10 Consumption of *films & series* per channel by age, sex and level of education

Age / education / sex	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)
		Paid-for (2)	Free (3)	
Total	**44.8%**	**11.8%**	**25.3%**	**18.3%**
16-24 years	49.3%	14.5%	44.7%	42.8%
25-34 years	66.3%	19.3%	44.4%	34.8%
35-44 years	53.2%	18.4%	31.7%	20.1%
45-54 years	46.1%	10.0%	18.1%	13.8%
55-64 years	36.5%	7.9%	13.9%	5.8%
65-74 years	30.2%	3.9%	10.0%	3.7%
75+	15.5%	2.2%	5.0%	0.0%
men	41.2%	12.5%	30.1%	23.5%
women	48.7%	11.0%	20.0%	12.6%
Low	37.2%	9.2%	22.4%	16.2%
Intermediate	45.6%	13.8%	24.9%	21.0%
High	50.8%	12.5%	27.8%	17.1%

Source: IViR/CentERdata (2012)

The distribution by age and sex was also found to be similar for games (Table 11), with women being slightly overrepresented in the physical channels (1), and men dominating the various online channels (2 to 4). The age distribution is more highly concentrated in the age groups up to 44 years. No clear correlation was found between games and level of education, neither for the legal channels (1 to 3), nor for the illegal channel (4).

[3] Note that level of education and income are correlated and that therefore differences in level of education imply differences in purchasing power.

Table 11 Consumption of *games* per channel by age, sex and level of education

Age / education / sex	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)
		Paid-for (2)	Free (3)	
Total	**19.0%**	**8.5%**	**17.8%**	**6.0%**
16-24 years	39.5%	13.8%	25.7%	17.1%
25-34 years	36.4%	17.6%	23.0%	13.9%
35-44 years	27.3%	11.3%	19.1%	6.1%
45-54 years	11.5%	4.9%	9.5%	2.0%
55-64 years	6.2%	4.7%	7.9%	1.3%
65-74 years	2.4%	2.9%	4.2%	0.0%
75+	1.1%	1.1%	3.9%	0.0%
men	18.7%	10.7%	19.7%	8.7%
women	19.3%	6.2%	15.6%	3.0%
Low	12.8%	6.0%	9.2%	4.6%
Intermediate	17.2%	7.6%	11.8%	4.9%
High	12.9%	7.0%	12.6%	3.1%

Source: IViR/CentERdata (2012)

Table 12 Consumption of *books* per channel by age, sex and level of education

Age / education / sex	Purchased offline and online store (1)	Downloading & streaming from a legal source		Downloading & streaming from an illegal source (4)
		Paid-for (2)	Free (3)	
Total	**69.0%**	**7.8%**	**9.2%**	**6.3%**
16-24 years	55.9%	9.2%	9.2%	8.6%
25-34 years	80.2%	8.0%	9.6%	8.0%
35-44 years	73.7%	11.6%	13.7%	8.5%
45-54 years	68.5%	7.4%	7.7%	7.4%
55-64 years	69.1%	6.4%	9.4%	4.9%
65-74 years	64.6%	5.2%	6.6%	2.4%
75+	66.9%	3.9%	5.5%	0.6%
men	62.8%	7.5%	11.8%	7.9%
women	75.8%	8.1%	6.3%	4.5%
member of library	82.0%	9.7%	10.3%	7.5%
not a member	73.2%	8.0%	10.2%	6.7%
Low	53.3%	5.2%	5.5%	5.5%
Intermediate	66.3%	6.0%	8.5%	5.9%
High	84.6%	11.1%	12.6%	6.9%

Source: IViR/CentERdata (2012)

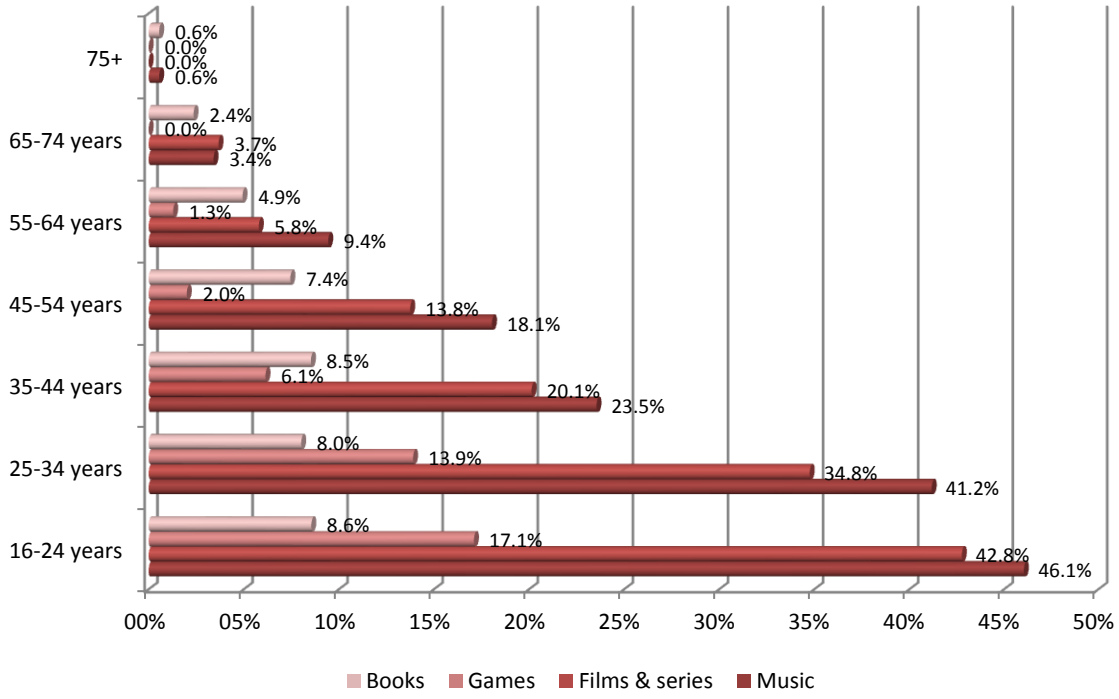
In the case of books, a marked difference *was* found with the other types of content, as shown in Table 12. Unlike the consumption of music, films & series and games, the popularity of illegal content (4) hardly declines with age up to the age of 54, after which downloading from an illegal source starts to decline. The purchasing of books in offline and online stores (1) shows no decline

whatsoever with age, although here too it does peak between age 25 and 34. The table also makes a distinction between respondents who are a member of a library and those who are not. No marked differences were found in this respect: library members were somewhat better represented in all channels, which makes sense as they are likely to be more avid readers. Their channel preferences were not found to be different, though. The correlation with level of education was similar to that found for music and films & series: the better educated are more highly represented in the legal channels (1 to 3) and downloading from an illegal source (4) showed no clear correlation with level of education.

The distinctive age profile of book downloaders from illegal sources is also clearly illustrated in Figure 5: for music, films & series and games the percentage of people who download from illegal sources drops sharply with age; for books it remains virtually the same up to age 54.

Figure 5 Downloading of books, games, films & series and music from an illegal source by age

When was the last purchase/download via the different channels?



Source: IViR/CentERdata (2012)

3.2 Purchasing behaviour of people who download from illegal sources

The users of the four channels referred to in the previous chapter and previous section are not distinct groups: many consumers use several or even all of these channels. In this light, it is interesting to investigate whether respondents who occasionally download from an illegal source make more - or less - use of the legal channels.

Table 13 presents the results. The percentage in the top left of the table indicates that 41.3% of those who had downloaded music from an illegal source in the past year had also purchased music in an offline or online store during that same period; the percentage for those who had never downloaded

from an illegal source was 37.7%. This is, incidentally, the only difference in the table that is not significant.

So, apart from this exception, we can say that respondents who had downloaded music, films & series, games and books from an illegal source in the past year had also made greater use of the three legal channels for all these products. The differences were particularly pronounced in the case of paid-for downloading and streaming from a legal source: respondents who had never downloaded from an illegal source were also little inclined to pay for online content.

Table 13 Use of legal channels (in the past year) by people who download from illegal sources

Ever downloaded from an illegal source?	Purchased offline and online store (1)	Downloading & streaming from a legal source	
		Paid-for (2)	Free (3)
Music			
Past year	41.3%*	33.2%	80.7%
Never	37.7%*	8.4%	17.1%
Films and series			
Past year	54.1%	24.4%	71.2%
Never	42.2%	8.2%	13.6%
Games			
Past year	65.4%	45.7%	66.3%
Never	14.4%	5.2%	9.2%
Books			
Past year	82.5%	32.2%	74.2%
Never	68.5%	5.9%	4.4%

Source: IViR/CentERdata (2012) *Difference is not significant; other differences are significant.

In other words, people who had in the past year downloaded from illegal sources were also more likely to use the three legal channels. But how does the *frequency* relate to their downloading behaviour? We can shed light on this question by comparing, for each individual respondent, the most recent download from an illegal source with the most recent paid-for or free download from a legal source: did the legal download (or stream) take place more recently, at the same time, or longer ago?

The pattern found was the same for music, films & series, games and books: for most respondents the most recent *free* legal download or stream took place more recently or at the same time; the most recent *paid-for* legal download or stream took place longer ago (or never).

Consumption of derived products

Respondents were also asked questions about their consumption of related products, namely concert attendance and merchandise purchases relating to music, and cinema visits and merchandise purchases relating to films and series. Table 14 presents the results. The percentages refer to those who had consumed these derived products in the past twelve months. A distinction is made between respondents who had on occasion downloaded music or films and series from an illegal source in the past year and respondents who said they had never downloaded these products from an illegal source (downloaders who had downloaded more than a year ago are not represented in the table but should be seen as an intermediate group in between the two extremes).

Table 14 Merchandise purchases and cinema and concert attendance in the past year (recent downloaders versus non-downloaders)

Ever downloaded from an illegal source?	Concert/ music festival	Music merchandise	Cinema	Merchandise films/series
Past year	50.3%	16.9%	64.8%	14.2%
Never	39.6%	6.1%	42.1%	4.6%

Source: IViR/CentERdata (2012)

All four differences between the two rows in this table are significant. In other words, a higher percentage of the respondents who had downloaded music or films and series from an illegal source in the past year also went to concerts and the cinema and bought merchandise in the same period than those who had never downloaded from an illegal source.

Half the respondents (50.3%) who had downloaded music from an illegal source in the past year had also been to a concert during this period. The percentage of those who had never downloaded music and attended a concert stood at 39.6%. Almost two thirds of the respondents who had downloaded films or series from an illegal source in the past year (64.8%), had gone to the cinema during this period. The percentage of those who had never downloaded films or series from an illegal source stood at 42.1%. The table also shows that merchandise was purchased far more often by people who had recently downloaded from illegal sources than by non-downloaders.

3.3 Conclusions

Purchasing music, films, series and books in physical form in a brick-and-mortar shop or online store is hardly correlated with age. Games are the only exception – with the purchasing of physical formats showing a steep decline from the age of 44 years. The three online channels (paid-for legal, free legal and illegal) are particularly popular among young people for the consumption of music, films & series and games. Here we see that those who download from legal and illegal sources without paying are younger than those who pay for downloads and streams. In the case of books, the popularity of illegal content hardly declines with age up to 54 years. Men are more likely to use free legal sources and illegal sources than women.

For music, films, series and books use of the three legal channels appears to be positively correlated with level of education: the better educated respondents are, the more likely they are to purchase content in offline and online shops, the more they pay for *downloading* and streaming from a legal source and the more they download and stream from legal sources *for free*. Downloading from an *illegal* source, on the other hand, shows no significant correlation with level of education. Similarly, games are not clearly correlated with education for any of the channels used.

Respondents who had downloaded music, films, series, games and books from illegal sources in the past year were also more likely to use legal channels. Only in the case of music purchased on CDs or LPs, however, no difference is observed between those who had on occasion downloaded from an illegal source in the past year and people who had never done so. The differences are particularly marked in the case of paid-for downloading and streaming from a legal source: respondents who have never downloaded from an illegal source are also little inclined to pay for online content. The survey also showed that people who had, on occasion, downloaded from an illegal source in the past year bought more music and film merchandise and went to concerts or the cinema more often.

In other words, people who download from illegal sources are also legal consumers of music, films, series, games and books. The same goes for cinema visits, concert attendance and merchandise

purchases. Needless to say, this does not imply that downloading from illegal sources *leads to* legal consumption. It does mean, however, that legal and illegal content consumption are not mutually exclusive: people who are heavily into music, films and series, games or books are more inclined to download from an illegal source, but they also consume more legal content and pay for derived products.

4 Willingness to pay, assessment of channels and implications for the value chain

This chapter discusses what people who download from illegal sources would be willing to pay for their most recent download, how the respondents rate the various channels and how they assess the implications of downloading from illegal sources for the various parties in the value chain.

Between one third and half the respondents would not be willing to pay for their most recent download from an illegal source. The rest have a maximum willingness to pay in the region of the normal retail price, on average. There was also an interest in and a willingness to pay for borrowing e-books from a library or bookshop.

Physical formats were still top-rated by the respondents in terms of their technical quality, the availability of titles and price. The technical quality of illegal content scored least favourably. A majority of respondents felt that the various parties in the value chain stand to lose from downloading from an illegal source.

4.1 Willingness to pay

In order to determine the extent to which downloading from an illegal source takes place at the expense of sales through legal channels, it is relevant to know what the maximum willingness to pay would be for these products if they were only available through legal channels. Respondents were asked what would be their maximum willingness to pay for their *most recent* download (or stream) from an illegal source, in either physical or digital form. They were also given the option of answering that they would not be willing to pay for the product at all.

Table 15 Maximum willingness to pay for most recent download from an illegal source

Product/format	Interested at a price > €0	Maximum willingness to pay > €0	
		Average	Median
Music			
CD	65.8%	€11.15	€10.00
Download	63.2%	€6.93	€5.00
Film/series			
DVD	66.4%	€11.29	€10.00
Download	63.0%	€5.46	€5.00
Stream/ VoD*	56.9%	€3.58	€3.00
Book			
Book	70.2%	€17.71	€15.00
e-book	68.4%	€7.81	€5.00
Game			
Physical form	56.8%	€16.05	€10.00
Download	55.0%	€11.19	€10.00

Source: IViR/CentERdata (2012) * video-on-demand

Table 15 presents the results: depending on the product and format, between 55.0% and 70.2% of the respondents said they would be interested in acquiring the most recent download through legal channels if it were not available from an illegal source. Put differently: between 29.8% and 45% had a willingness to pay of €0 for the most recent download or had no interest at all in acquiring it.

Looking at the group who would be interested at a price of more than €0, the maximum willingness to pay for a CD was €11.15 on average. The median was somewhat lower, at €10. The same was found for the other formats, with the median willingness to pay being consistently marginally lower than the average (the difference was considerable only in the case of games on physical formats).

Except for games, the willingness to pay for a download is substantially lower than for the physical product in all cases: for music, films and series it was about half, for e-books the median willingness to pay was no more than a third of that for printed books. This marked difference is at odds with current prices for e-books, which tend to cost around 80% of the price of a printed copy.

For the other formats, the normal retail prices of physical formats, downloads and streams corresponded reasonably with the average and median willingness to pay:

- The average retail price of a CD was about €12 in 2011 (NVPI, Audiomarkt 2011).
- The average retail price of a DVD was just under €10 in 2011, the price of a Blu-ray just over €15, (NVPI, Videomarkt 2011).
- The average retail price of a PC game was about €17 in 2011 and that of a console game €36 (NVPI, Interactiefmarkt 2011).
- The average retail price of a general book was just under €12 in 2011 (SMB/GfK Retail and Technology Benelux on www.kvb.nl).

In summary we can say that roughly one third to half of the respondents would not be interested in acquiring their most recent download from an illegal source if it was not available for free. The rest had an average maximum willingness to pay that was in the region of the normal retail price. In addition, the figures show that consumers are more inclined to go for the paid-for version if they have easy access to a sufficiently large range of products.[4] These findings suggest that, provided an appropriate business model is used, it would be possible to derive income from part of the current downloads from illegal sources by marketing them through legal, paid-for channels.

In addition to enquiring about the respondents' willingness to pay for the most recent download from an illegal source, we asked respondents who said they had on occasion purchased or downloaded a printed or e-book (90% of the respondents) whether they would be interested in borrowing e-books from a library or bookshop at a flat rate per year or a price per title. The results are presented in Table 16. About one third were interested in principle and willing to pay to borrow e-books, there being a slight preference for libraries and for a flat rate per year rather than a price per title borrowed. The average maximum willingness to pay was €30.11 for a flat-rate library subscription and €33.07 for the bookshop channel. In both cases the median was €25. In a model in which consumers pay per title, the average willingness to pay was €2.03 for books borrowed from a library and €2.48 for books from a bookshop, with the median coming in at €1 and €2 respectively. Slightly more respondents were willing to pay for e-books from a library than from a bookshop, but the price mentioned was somewhat lower. Incidentally, 75% of consumers who were willing to pay for e-books were interested in both the library and bookshop channels. The fact that consumers were found to be willing to pay slightly more for e-books borrowed from bookshops than from libraries is

[4] J. Weda, R. van der Noll, I. Akker, J. Poort, S. van Gompel and J. Leenheer, *Digitale drempels: Knelpunten voor legaal digitaal aanbod in de creatieve industrie*. SEO report no. 2012-41, Amsterdam, June 2012.

presumably related to the acceptance of somewhat more commercial rates for this channel (a higher reference price).

Table 16 Interest in and willingness to pay to borrow e-books

Channel and product	Interested at a price of > €0	Maximum willingness to pay > €0	
		Average	Median
Library, per title	34.1%	€2.03	€1.00
Library, per year	37.2%	€30.11	€25.00
Bookshop, per title	31.8%	€2.48	€2.00
Bookshop, per year	32.7%	€33.07	€25.00

Source: IViR/CentERdata (2012)

4.2 Evaluation of channels

Earlier research has shown that when consumers decide whether to acquire a physical format, a paid-for download or a download from an illegal source the most important determining factors are price, the availability of titles and (technical) quality.[5] It is for this reason that respondents who said they had ever consumed music or films and series using one of the four channels (online or in physical form), were asked to evaluate each of these channels on these three attributes. They were also asked to assess the price and availability of books.

Table 17 presents the results for music, Table 18 for films and series and Table 19 for books. Note the large percentage who answered 'don't know' (grey column, far right), in particular with respect to the online channels. As many consumers are not familiar with these channels, they gave no opinion about price, quality and the availability of titles. The first five columns give the distribution of the respondents' answers across the five assessment categories. The column 'average' gives the average assessment based on very poor = 1, etc. All averages are higher than 3, which is 'sufficient'. CDs score best in terms of sound quality, availability of titles and price. The sound quality of illegal content scores lowest. In terms of the availability of titles, paid-for online and offline content are also rated better than the illegal offering.

[5] J. Weda, R. van der Noll, I. Akker, J. Poort, S. van Gompel en J. Leenheer, *Digitale drempels: Knelpunten voor legaal digitaal aanbod in de creatieve industrie*. SEO report no. 2012-41, Amsterdam, June 2012.

Table 17 Evaluation of channels for the consumption of music in terms of sound quality, availability and price

	Very poor (1)	Poor (2)	Neither good nor poor (3)	Good (4)	Very good (5)	Average	Don't know
Sound quality							
CDs	0.1%	0.5%	5.0%	45.3%	49.2%	4.4	7.6%
LPs	0.8%	7.8%	29.5%	47.2%	14.7%	3.7	21.4%
Paid-for downloads/streams	0.4%	2.2%	23.1%	56.6%	17.7%	3.9	58.4%
Free downloads/streams from a legal source	0.5%	6.6%	31.5%	49.7%	11.7%	3.7	57.3%
Downloads/streams from an illegal source	1.0%	11.7%	35.8%	39.2%	12.3%	3.5	63.0%
Availability of titles							
CDs	0.3%	1.6%	10.9%	49.6%	37.5%	4.2	18.2%
LPs	4.1%	19.7%	34.5%	33.4%	8.3%	3.2	43.2%
Paid-for downloads/streams	0.3%	3.4%	22.2%	47.2%	27.0%	4.0	63.3%
Free downloads/streams from a legal source	0.6%	7.7%	33.2%	40.5%	18.0%	3.7	63.8%
Downloads/streams from an illegal source	0.9%	7.4%	29.3%	39.2%	23.3%	3.8	68.8%
Price							
CDs	0.1%	0.9%	31.3%	50.2%	17.5%	3.8	12.5%
LPs	0.3%	3.1%	42.0%	41.0%	13.6%	3.6	52.4%
Paid-for downloads/streams	0.6%	7.1%	41.7%	37.6%	13.0%	3.6	64.7%

Source: IViR/CentERdata (2012). Percentages 'very poor' to 'very good' excluding the category 'don't know'.

Table 18 Evaluation of channels for the consumption of films and series in terms of technical quality, availability and price

	Very poor (1)	Poor (2)	Neither good nor poor (3)	Good (4)	Very good (5)	Average	Don't know
Sound and visual quality							
DVDs or Blu-rays	0.0%	0.2%	5.3%	43.2%	51.3%	4.5	15.0%
Paid-for downloads/streams	0.4%	1.6%	23.8%	58.0%	16.2%	3.9	64.8%
Free downloads/streams from a legal source	0.3%	8.2%	36.6%	46.9%	7.9%	3.5	62.8%
Downloads/streams from an illegal source	1.5%	14.2%	37.4%	36.4%	10.4%	3.4	67.0%
Availability of titles							
DVDs of Blu-rays	0.2%	1.9%	10.0%	58.7%	29.2%	4.1	24.5%
Paid-for downloads/streams	1.3%	4.5%	24.7%	50.8%	18.7%	3.8	66.8%
Free downloads/streams from a legal source	1.5%	11.0%	37.0%	39.6%	10.8%	3.5	66.5%
Downloads/streams from an illegal source	1.0%	8.7%	31.3%	38.4%	20.6%	3.7	69.6%
Price							
DVDs of Blu-rays	0.0%	1.4%	25.5%	53.5%	19.6%	3.9	20.4%
Paid-for downloads/streams	0.2%	2.6%	34.2%	49.7%	13.2%	3.7	69.2%

Source: IViR/CentERdata (2012). Percentages 'very poor' to 'very good' excluding the category 'don't know'.

The results presented in Table 18 for films and series are similar to those for audio formats: physical formats (DVDs and Blu-rays) score best on technical quality, availability and price. Downloads from an illegal source are rated least favourably in terms of technical quality. In terms of the availability of titles, paid-for downloads and streams and downloads and streams from an illegal source score about the same. This is surprising as this paid-for content often lags behind the availability of titles on DVD and in the cinema, and is also known to have other drawbacks (see Weda et al., 2012), whereas films and series tend to be available via the illegal channels before they are released in the Netherlands. The pattern found for books (Table 19) was also similar: printed books score best in terms of availability and price; the availability of the illegal offering scores lowest.

Table 19 Assessment of channels for the consumption of books in terms of availability and price

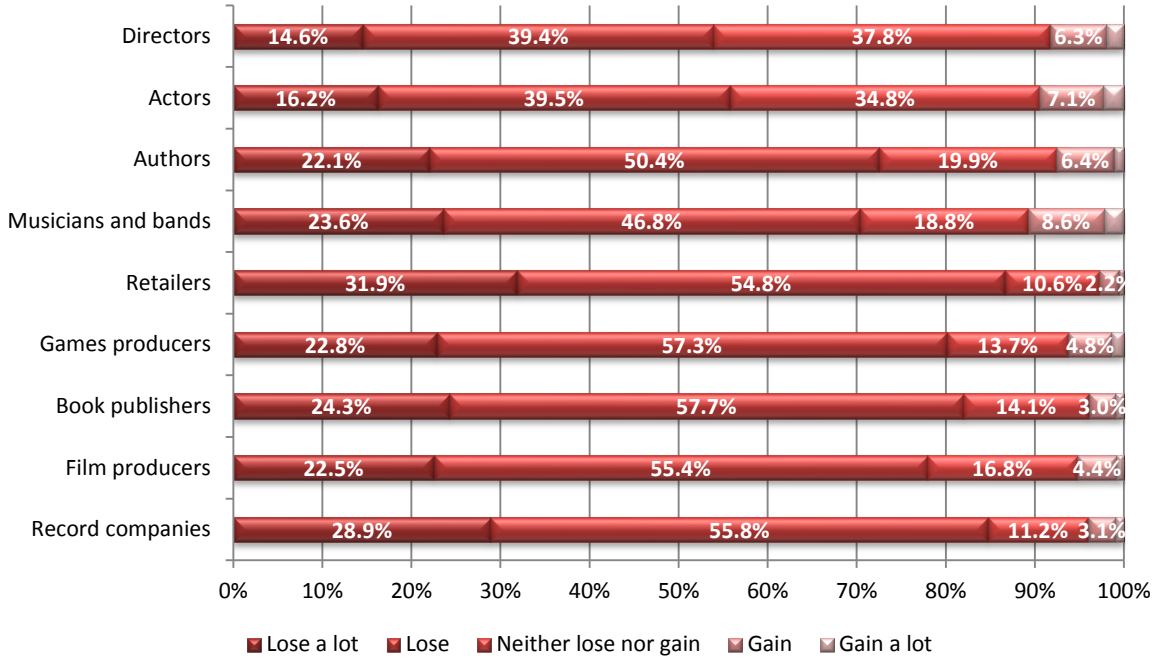
	Very poor (1)	Poor (2)	Neither good nor poor (3)	Good (4)	Very good (5)	Average	Don't know
Availability of titles							
Printed books	0.1%	0.9%	6.1%	46.2%	46.8%	4.4	12.9%
E-books	1.3%	12.3%	35.5%	41.1%	9.9%	3.5	68.2%
E-books from an illegal source	3.1%	20.1%	42.0%	26.9%	8.0%	3.2	80.4%
Price							
Printed books	0.0%	1.0%	38.3%	52.2%	8.5%	3.7	8.54%
E-books	0.3%	3.1%	36.6%	40.7%	19.3%	3.8	68.48%

Source: IViR/CentERdata (2012). Percentages 'very poor' to 'very good' excluding the category 'don't know'.

4.3 Implications for the value chain

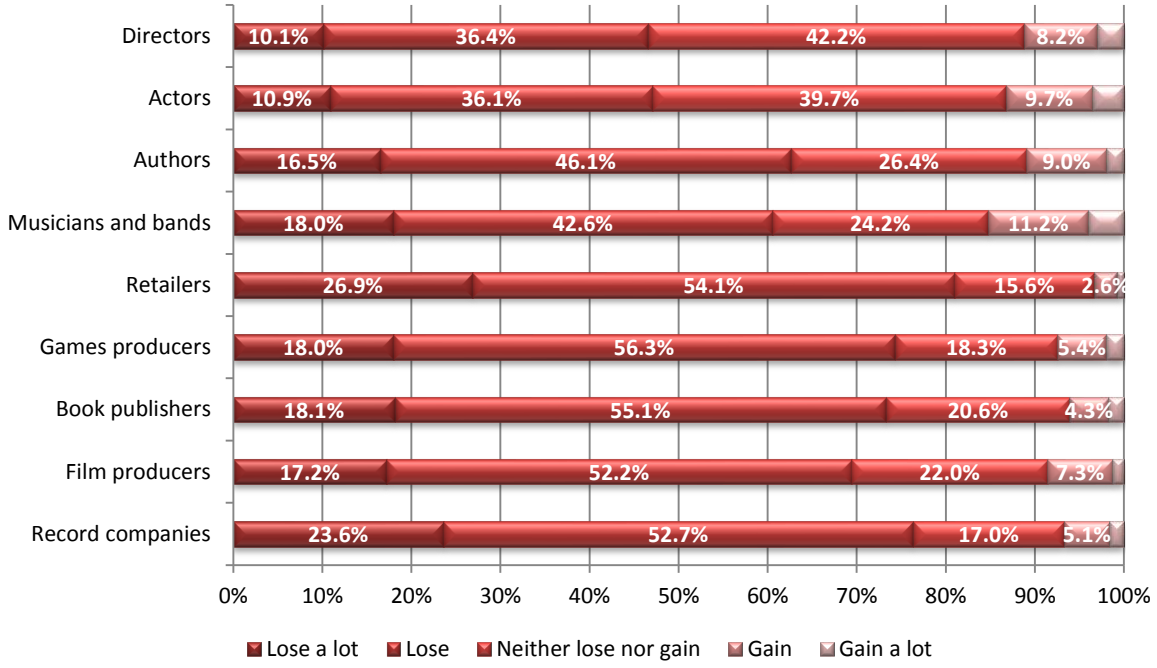
The respondents were also asked to indicate the extent to which they felt the various parties in the value chain were set to benefit or lose out from downloading from an illegal source. Perceived advantages and disadvantages of this kind may act as social values, and existing research in a host of fields has shown that social values influence the choices people make. Figure 6 and Figure 7 give a graphic representation of the results – first for the response group as a whole and subsequently for those respondents who said they had on occasion downloaded from an illegal source. Respondents who said they 'didn't know' have not been included in the figures. This showed up that downloaders have stronger opinions on this issue: in the total response group the category that 'didn't know' made up between 10.6% and 14.5%; among downloaders it was between 6.4% and 9.9%. The results also show that on the whole respondents who had ever downloaded from an illegal source were less gloomy about the implications of downloading for the various parties, but the differences were minor. An absolute majority of all respondents were of the opinion that every party in the chain stood to lose out, on occasion even heavily, from downloading from an illegal source. They were most pessimistic about the implications for retailers, record companies and book publishers and least pessimistic about the implications for actors, directors, musicians and bands. About 11% of the respondents (excl. the 'don't know' group) even felt musicians and bands were, on balance, set to gain from downloading from an illegal source. This was as much as 15% among those who themselves had ever downloaded from an illegal source.

Figure 6 Advantages and disadvantages of downloading from an illegal source as perceived by all respondents



Source: IViR/CentERdata (2012). Percentages excluding the category 'don't know'.

Figure 7 Advantages and disadvantages of downloading from an illegal source as perceived by people who download from illegal sources



Source: IViR/CentERdata (2012). Percentages excluding the category 'don't know'.

4.4 Conclusions

Between one third and half the respondents would not be interested in acquiring their most recent download from an illegal source if they had to pay for it. The rest have an average maximum willingness to pay in the region of the normal retail price.

Similarly, about one third of all book readers are interested in and willing to pay to borrow e-books from a library or bookshop, there being a slight preference for libraries and for a flat fee per year rather than a price per title borrowed.

Respondents were asked to assess the various online channels and physical products in terms of their technical quality, the availability of titles and price. Physical products are still top-rated in all cases and illegal content scores least favourably in terms of technical quality. The availability of titles is rated more or less equally in the legal and illegal offering.

A majority of respondents felt that the various parties in the value chain stand to lose from downloading from an illegal source. They were most pessimistic about the implications for retailers, record companies and book publishers and least pessimistic about the implications for actors, directors, musicians and bands. About 11% of the respondents even felt musicians and bands were, on balance, set to gain from downloading from an illegal source. Respondents who themselves had ever downloaded from an illegal source tended to be somewhat less negative.

5 Trends in downloading

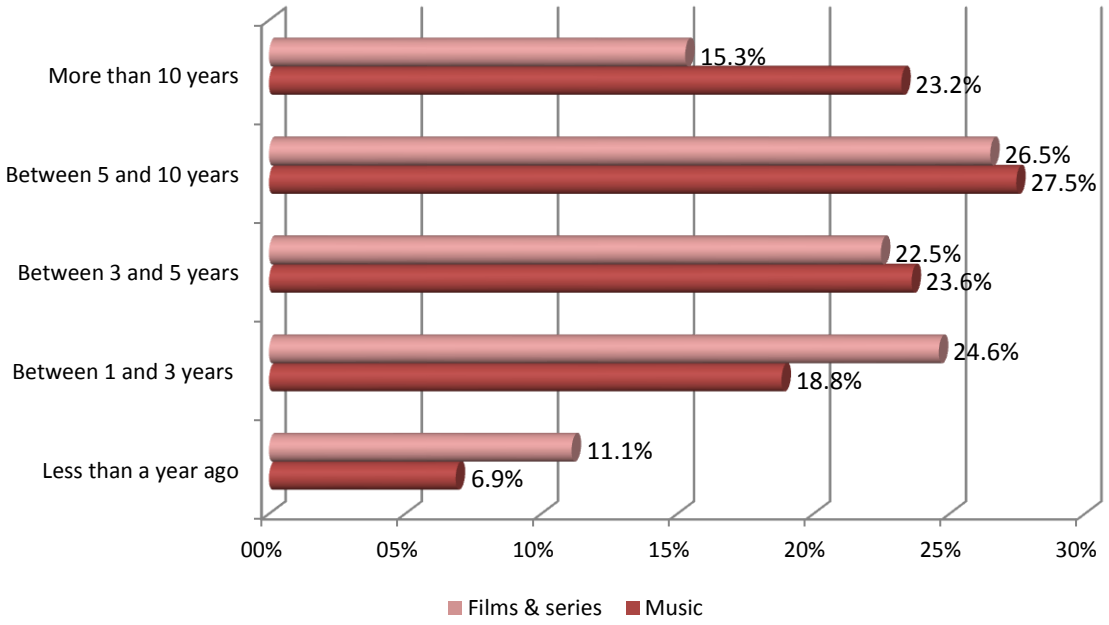
This chapter describes trends in downloading from an illegal source. Which changes in their purchasing and downloading behaviour do the respondents themselves report and how do the findings reported here relate to those presented in 'Ups and downs' over four years ago?

We found a marked difference between music and films & series. Whereas downloading of music from an illegal source is declining, downloading of films & series has increased. Downloading of games from an illegal source has remained more or less the same.

5.1 Downloading in retrospect

Respondents who said they had on occasion downloaded from an illegal source were asked when they had first done so. Most answered that this was long ago, as shown in Figure 8. Roughly half of the music downloaders first downloaded more than 5 years ago, just under a quarter had first done so more than 10 years ago. The figure also shows that many respondents started downloading music before they started downloading films and series.

Figure 8 When was the first time respondents downloaded from an illegal source?



Source: IViR/CentERdata (2012)

If we consider only the respondents under age 30, the peak of the distribution shifts, which makes sense. Just under 35% of this group first downloaded music more than 5 years ago, peaking between 1 and 3 years for films and series and between 3 and 5 years for music. So generally speaking this younger group also started downloading music first. Note, however, that technical standards and bandwidth limitations would appear to be less plausible an explanation for this younger group than for those who started downloading ten years ago.

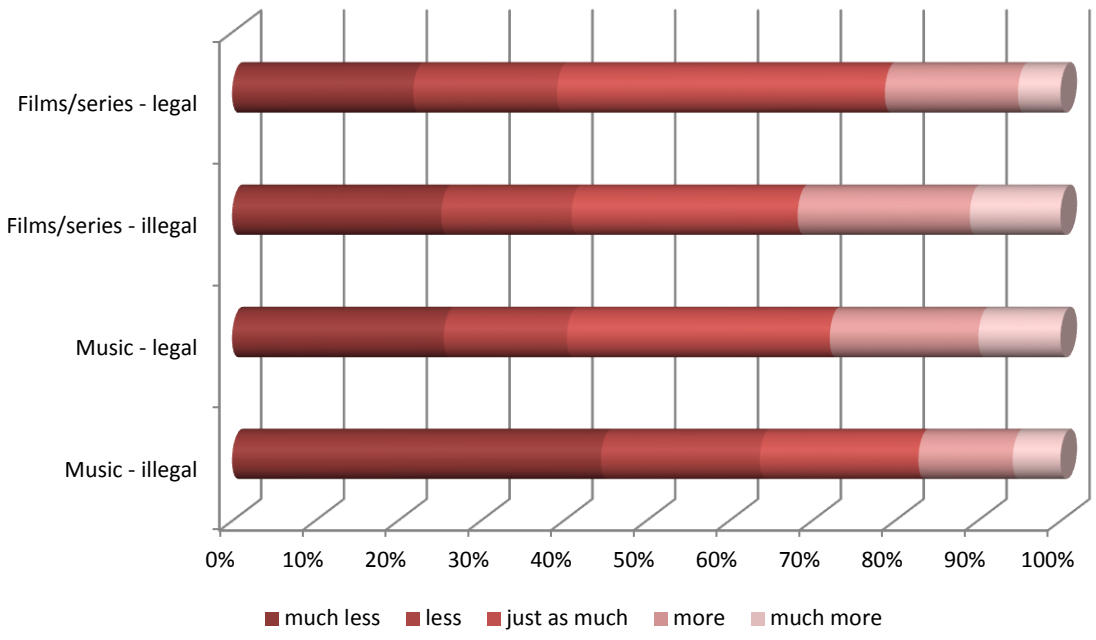
Respondents were then asked whether they downloaded and streamed more, or less, from an illegal source than they did when they first started downloading and whether they downloaded and streamed

more, or less, from legal sources than they used to. The results are presented in Figure 9 and in Table 20. The group who reported they now downloaded less, or much less, is bigger than the group who said they downloaded more, or much more. This applies to both legal and illegal sources and to both music and films & series. The finding that the difference is biggest in the case of music tallies with the view that people tend to develop their taste in music and put together a music collection when they are young (up to 30 years or so). This is less so for films and series, which are not as generation-specific and are often viewed only once or a few times.

Against this background it is interesting to examine the differences between consumption from legal and illegal sources and between music and films & series. The difference between music and audiovisual material was found to be considerable. No fewer than 63.7% of music downloaders said they downloaded less, or much less from an illegal source, against 40.4% who downloaded less, or much less from a legal source. Comparing the groups who now download more, or much more, shows a similar trend: 17.1% download more or much more music from an illegal source against 27.8% who download more or much more from a legal source.

The opposite is the case for films and series. The group of people who now download and stream less or much less is about the same for both the legal and illegal offering: 39.1% and 41.0% respectively. Note, however, that the group who consume more, or much more audiovisual material from an illegal source than they used to is larger, at 31.7%, than the 21.1% who now consume more legal material. This group is also significantly larger than it is for music.

Figure 9 Do respondents now download and stream more or less than they did when they started downloading?



Source: IViR/CentERdata (2012)

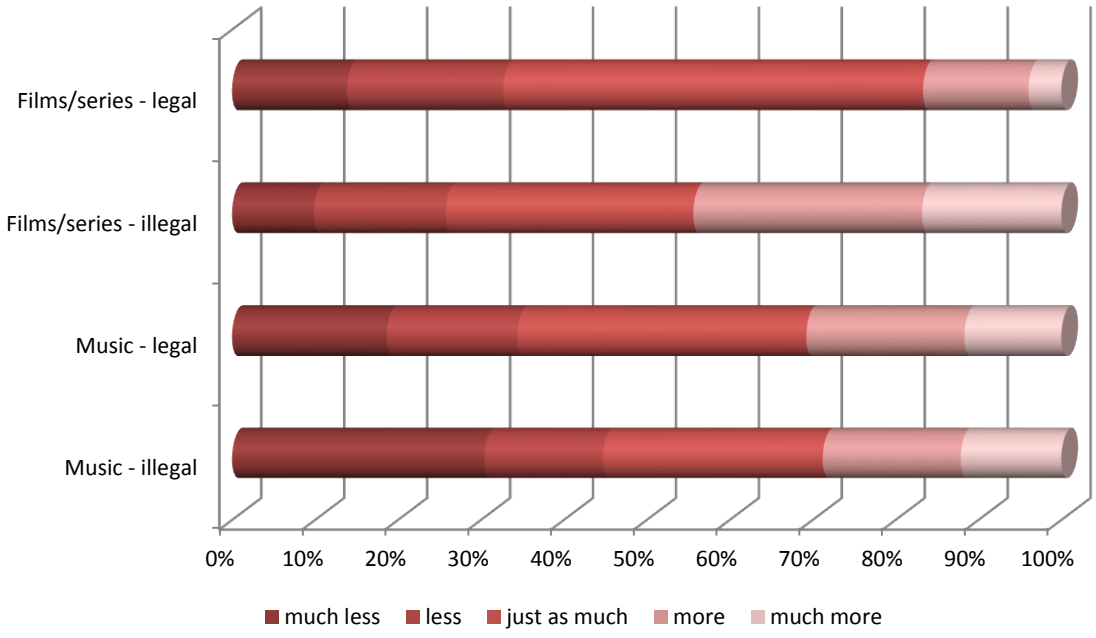
For music, a shift is therefore taking place in favour of the legal offering: music consumption from illegal sources is declining faster and legal consumption is increasing faster. It is not yet clear, however, whether this trend is also generation-specific: is the shift towards more legal consumption over the years related to growing purchasing power and possibly also to changing social values, or is society at large changing?

In order to address this question more closely, Figure 10 focuses on respondents up to the age of 30. The pattern presented in Figure 9 is even more pronounced when we look only at this age group. Music downloading is shifting more towards legal content: the group of respondents who now consume more music from legal sources is larger than the group who consume more illegal content, and the group who download less music from illegal sources is larger than the group who download and stream less music from legal sources.

For films and series, on the other hand, the percentage of respondents under age 30 who download from *illegal* sources is *higher*. This confirms the view that the consumption of music in society as a whole is shifting towards more legal content, whereas the opposite trend is still found for films and series.

Table 20 presents the figures shown in Figure 9 and Figure 10. The table also includes data relating to the respondents who started downloading from an illegal source more than 5 years ago. The percentage of respondents from this group who download and stream much more music from a legal source is significantly larger than the percentage of the total response group. This means that people who started downloading longer ago are now more likely to pay for downloading.

Figure 10 Do respondents *under 30* now download more or less than they did when they first started downloading?



Source: IViR/CentERdata (2012)

Table 20 Do respondents download and stream more or less than they did when they first started downloading?

	much less	less	just as much	more	much more
All respondents who had ever downloaded from an illegal source					
Music - not legal	44.6%	19.2%	19.2%	11.4%	5.8%
Music - legal	25.6%	14.9%	31.7%	17.9%	9.9%
Films/series - not legal	25.3%	15.7%	27.3%	20.8%	10.9%
Films/series - legal	21.8%	17.3%	39.4%	16.0%	5.1%
Respondents under 30 years					
Music - not legal	30.4%	14.3%	26.5%	16.6%	12.1%
Music - legal	18.6%	15.8%	34.8%	19.1%	11.7%
Films/series - not legal	9.9%	15.9%	29.9%	27.6%	16.8%
Films/series - legal	13.9%	18.8%	50.6%	12.7%	4.0%
Respondents who first downloaded more than 5 years ago					
Music - not legal	48.7%	16.6%	14.7%	14.4%	5.7%
Music - legal	26.4%	12.7%	27.3%	18.0%	15.6%
Films/series - not legal	32.0%	13.4%	21.2%	21.6%	11.9%
Films/series - legal	21.7%	14.9%	36.2%	19.1%	8.1%

Source: IViR/CentERdata (2012)

5.2 Comparison with *Ups and downs*

Comparing our findings with those of the consumer survey for *Ups and downs*, which was held more than four years ago, in April 2008, may shed further light on changing trends and behaviour in downloading from an illegal source. Note in this regard that at the time respondents were asked questions about 'free downloading' or 'downloading without paying', which were taken to mean downloading from an illegal source. The 2008 survey did not yet include questions about books, and the questions about audiovisual material related to films only.[6]

Table 21 compares the group of people who had downloaded from an illegal source in the previous twelve months. It clearly shows that downloading of music from an illegal source is declining. The opposite is the case for audiovisual material: the percentage who download films and series from an illegal source has risen from 10% to 18.3%.[7] The percentage of the population who download games has remained more or less the same, and in 2012 there were about just as many downloaders of books as downloaders of games. Taken together, downloading from an illegal source declined sharply for all four products: in 2008 just over one third of the population aged 15 years and up did

[6] Note with respect to the sampling: In *Ups and downs* most findings are presented as percentages of the *population that has access to the internet*, which was roughly 80% at the time. As the CentERpanel is representative of the entire population, the percentages found in 2008 have been extrapolated to the total population, based on the plausible assumption that respondents who do not have access to the Internet do not download from illegal sources.

[7] The assumption here is that the difference cannot or can only partially be explained by the fact that the current measurement also includes downloading of TV series and programmes as it is not very likely that almost half (45%=8.3/18.3) of the people who downloaded audiovisual material from illegal sources in the past year downloaded only TV programmes and series.

so on occasion; in 2012 this had dropped to slightly more than one quarter, whereas it now also includes books and series.

Table 21 Percentage of the population aged 15 years and up who had downloaded from an illegal source in the past year

Downloading from an illegal source of	2008	2012
Music	32%	22%
Films/series	10%*	18%
Games	7%	6%
Books	Not known	6%
Total	35%**	27%

Source: IViR/CentERdata (2012) . *Excluding series; **Excluding series and books.

Table 22 compares the percentage of downloaders by age group between 2008 and 2012. The drop in the percentage of music downloaders is seen in all age groups, with the exception of those aged 25-34 years. For films and series the percentage of downloaders increased in all age groups. Downloading of games from an illegal source remained more or less unchanged.

Table 22 Percentage of the population aged 15 years and up who had downloaded from an illegal source in the past year

Downloading from an illegal source by age	Music		Films/series		Games	
	2008	2012	2008*	2012	2008	2012
15-24 years**	50%	46%	18%	43%	17%	17%
25-34 years	34%	41%	14%	35%	9%	14%
35-49 years	34%	23%	10%	18%	6%	5%
50-64 years	20%	12%	4%	9%	4%	1%
65+	11%	2%	2%	2%	1%	0%

Source: IViR/CentERdata (2012) . *Excluding series; ** 2012 measurement 16 years and up

Table 23 shows that the percentage of respondents who bought content after having previously downloaded it from an illegal source has dropped sharply. A possible explanation is that the desire to own a physical CD or DVD/Blu-ray of one's favourite music, series or films has waned. If digital formats are increasingly seen as a full-fledged substitute, this will likely result in decreased 'conversion' of downloads from an illegal source to purchases. Another possible explanation is that the so-called sampling role of downloading from an illegal source – downloading in order to determine whether something is good or beautiful enough to also buy it – has in part been taken over by free legal content, such as YouTube and Spotify Free. At the same time, however, there is more scope to lead consumers directly to online channels.

Table 23 Percentage of downloaders who purchased something in the previous year after having downloaded it from an illegal source

	2008	2012
Music	63%	20%
Films/series	48%*	23%

Source: IViR/CentERdata (2012) . *Excluding series

5.3 Conclusions

This chapter compares the (reported) behaviour of respondents now with their behaviour when they started downloading from illegal sources: do they download more or less from legal and illegal sources than they did when they started? The respondents reported that they download less music, films and series from both legal and illegal sources than they used to. The difference was most pronounced for music, which tallies with the view that people tend to develop their taste in music and put together a music collection when they are young (up to 30 years or so). This is less so for films and series, which are not as generation-specific and are often viewed only once or a few times.

Having said that, there is a clear difference between music on the one hand and films and series on the other. Whereas the reported decline in downloading music is considerably greater from legal sources than from illegal sources, in the case of films and series the decrease is about the same. The group of people who download more music from an illegal source than they used to is much smaller than the group who now download more from a legal source. The exact opposite is the case for audiovisual material.

This stance is backed up by the results for 2008 presented in the *Ups and downs* report: whereas downloading of music from illegal sources is declining across the entire population, downloading of films and series has increased since 2008 and downloading games from illegal sources has remained more or less the same. This finding is consistent across all age groups.

The findings of this consumer survey do not provide an explanation for the clear difference found between music and films & series. Enforcement would not seem to be a decisive factor as one may assume that music and audiovisual material are subject to enforcement action in equal measure. Nor do there appear to be any significant differences in terms of the technical quality, availability and price of the paid-for, legal offering of music and films & series, as shown in Tables 17 and 18 in the previous chapter. There is general consensus, however, that – with the advent of iTunes and Spotify – the music business is far more advanced in the development of new business models tailored to the wishes of digital consumers[8] than the audiovisual industry is. And so legal online music offerings seem to be gaining ground at the expense of the illegal offerings.

This does not, however, explain the opposite pattern found for films and series compared with music. A possible – less optimistic – explanation could be that factors that used to deter people from using illegal audiovisual material, such as bandwidth and various technical standards, have become less of a deterrent in recent years, whereas they stopped being a factor of any importance in the music industry years ago. At the same time, the survey showed that physical formats for films and series are more popular than they are for music.

[8] See, among others, Weda *et al.* (2012).

6 Effects of *The Pirate Bay* blockade

A site used regularly by people in the Netherlands to offer or find torrent files is the Swedish platform *The Pirate Bay*. Torrents allow users to exchange files with one another, including copyrighted material. In January this year the court ordered that internet providers Ziggo and XS4ALL block customer access to *The Pirate Bay* and a number of so-called mirror sites by 21 January. KPN, UPC, T-Mobile and Tele2 were ordered to block access to these sites from 20 May. At the time of the survey, the blockade of *The Pirate Bay* had been in force for several months for Ziggo and XS4ALL subscribers; it had not yet been enforced for the other internet providers.

What are the real and perceived effects of the blockade on downloading from an illegal source? Table 24 presents the answers to the question as to subscribers' reactions, or expected reactions to the *The Pirate Bay* blockade. More than three quarters (76.2%) of Ziggo and XS4ALL customers and a similar percentage of the second group of providers (77.9%) said they had never downloaded, or had stopped downloading from an illegal source before access to the site was blocked.

In other words, the blockade has had no implications for over three quarters of the customers of the internet providers mentioned. The remaining 23.7% of Ziggo and XS4ALL customers who had downloaded on occasion can be divided into four groups: 1.1% say they now download more from an illegal source and 17.1% say they still download just as much. No more than 1.9% say they stopped downloading from an illegal source since the blockade and 3.6% say they now download less. So a total of no more than 5.5% of Ziggo and XS4ALL customers now download less or have stopped altogether.[9] The respondents who said they continued to download from an illegal source after the blockade was imposed were asked how they did this: a majority (60.9%) do so using other sites, 29.9% do so 'indirectly' and 9.2% didn't want to say.

The right-hand column in Table 24 gives the *expected* reaction as perceived by UPC, KPN, Tele2 and T-Mobile customers themselves. This expected behaviour was found to be comparable to the reported actual behaviour of Ziggo and XS4ALL subscribers (which is not necessarily indicative of what they will actually do as intentions and actual behaviour tend not to correspond entirely). The differences are not significant, but the variation in the answers given appears to be somewhat bigger: a slightly larger group expect they will download less and, conversely, a larger group expect they will download more.

Table 24 Reaction or expected reaction to *The Pirate Bay* blockade

	Ziggo & XS4ALL (reaction)	UPC, KPN, Tele2 & T-Mobile (expected reaction)
I didn't download/no longer downloaded from an illegal source	76.3%	77.9%
Stopped/will stop	1.9%	1.5%
Less	3.6%	4.8%
Just as much	17.1%	12.6%
More	1.1%	3.2%
N	530	1,134

Source: IViR/CentERdata (2012) , (*N*: unweighted numbers)

[9] Note that there were no significant differences between Ziggo and XS4ALL customers.