Research Brief

OTT Streaming Services in Germany

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Impressum

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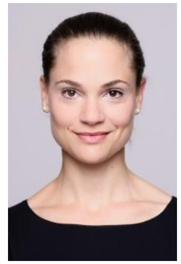

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Foreword

Use the potential of digitisation to the fullest

Music and video streaming are becoming more and more popular. To function properly, these services require a powerful broadband connection, both at home and on the go. This study highlights that consumers are quite willing to pay more for such powerful connections, which is good news for companies investing in new infrastructure.

In fact, another recent study by WIK clearly shows that Germany's network infrastructure has to keep up with demand: Already today, there is a significant consumer segment that does not get what it needs from bandwidth provided by VSDL and vectoring. This segment will grow in the foreseeable future due to accelerating digitisation in all areas of our lives.

We need high-capacity, fast broadband everywhere. Fibre to the home can deliver this promise. Fibre is just as much a critical input for the next generation of mobile networks. Regulators have to create the right framework in order to encourage investment in modern broadband networks, as well as innovative services, because we do not want any of Germany's digitisation potential to go to waste.

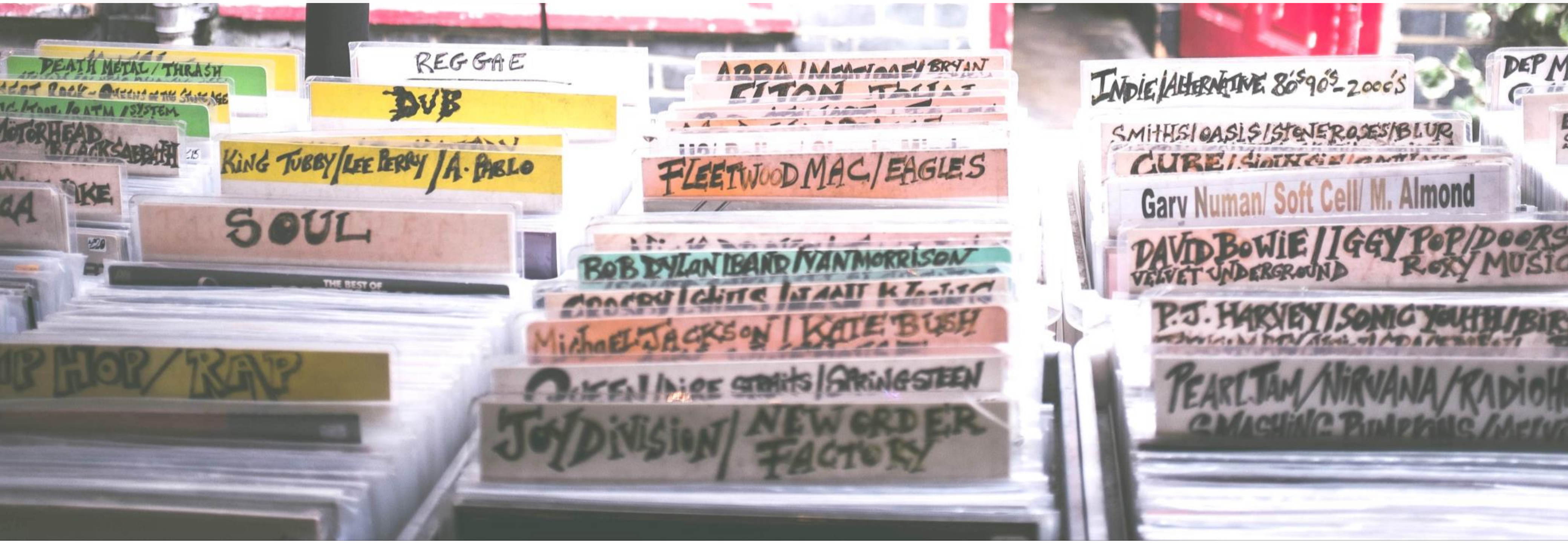
Dr Iris Henseler-Unger

Hunter and gatherer: No longer on the playlist

Large music and film collections are a thing of the past as the majority of German consumers use streaming services today. The soundtrack of their lives is always on thanks to the Internet. Streaming services save time, money and space, so it's not surprising that they are so popular.

Consumers particularly value the freedom that streaming services offer as they can choose from a virtually infinite selection of content. Everything is always available and paid for. Smart algorithms help consumers to find new artists or create a playlist that fits the mood. However, no matter how individual this playlist is, it will never have the same impact as pressing "Play" for the first time when listening to a long-awaited album by your favourite band. Streaming services also don't have a physical presence in the living room to reflect one's personality.

So, despite their huge and increasing popularity, it is questionable whether streaming services can fully convince consumers in the long term.



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Introduction

Music and video streaming services account for a continuously increasing part of media consumption in Germany. Although traditional media formats, such as linear TV, CDs and DVDs, have been written off repeatedly, many consumers could not live without them.

This is not at all coincidental. But which changes in media usage patterns are actually observable? Why are consumers attracted to streaming services? Why do some consumers still prefer traditional media formats? What are the implications for telecommunications operators?

Finding answers to these questions is the objective of this study. The responses we present are surprising and should encourage decision-makers both at content and telecommunications providers to reflect upon their respective business strategies.

The study pays particular attention to the implications for communication network infrastructure deployment in Germany. This has to be interpreted in light of the ongoing discussion around the BEREC guidelines on net neutrality. Other WIK studies already provide relevant insights into these two issues from a consumer perspective. First and foremost, it is important to recognise that the German government's current broadband strategy falls short of meeting the demands of a significant segment of consumers.[1] Also, there are quite sizeable segments of consumers across Europe who would be interested in so-called specialised services.[2]

In order to address all aspects of these issues from a consumer behaviour perspective, this study used a mixed-methods approach combining quantitative and qualitative research methods. The first step involved a survey of a representative sample of more than 1,000 German consumers. The results of this survey were then reflected on and scrutinised in 28 in-depth interviews with consumers.

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1 Gries, C.; Plückebaum, T. & Strube Martins, S. (2016): Treiber für den Ausbau hochbitratiger Infrastrukturen (Drivers for the rollout of high speed broadband infrastructure). A Study for 1&1 Telecommunication SE. Bad Honnef: WIK-Consult.
2 Arnold, R. et al. (2015): The Value of Network Neutrality to European Consumers. A Study for BEREC. Bad Honnef: WIK-Consult.

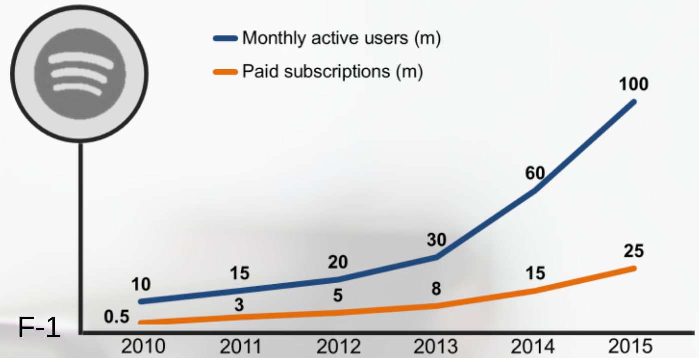
Stream on

62%

62% have not listened to a CD in the past 6 months

Although 130 years old, vinyl is still popular with a small but stable group of consumers in Germany (10%); as other formats have come and gone, vinyl has proved to be the exception. A few years ago, not having CDs at home was almost unthinkable but now the format appears to be at the end of its life cycle. Today, only about a third of consumers stick by it.

Streaming services are becoming more and more popular. More than half of German consumers aged 18 to 24 rely on them for more than half of their music consumption. Freemium business models that offer access to music streaming in exchange for listening to adverts significantly reduce any barriers to trying the services. As soon as consumers start to stream more music, they tend to opt for paid access without advertising. Around a quarter of music streaming customers have made this step, of which more than 36% use streaming intensively, accounting for substantially more than half of all their music consumption (61% or more) using Spotify, Deezer or similar services.



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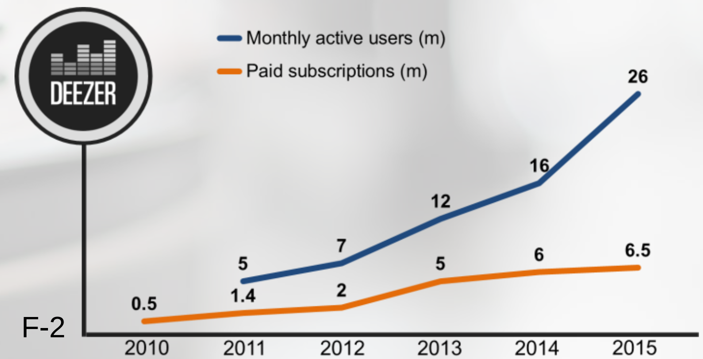

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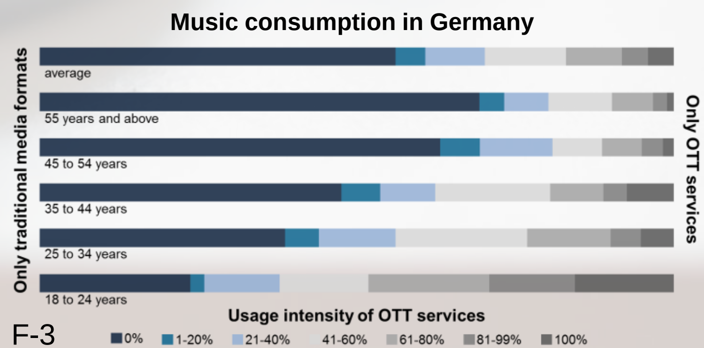
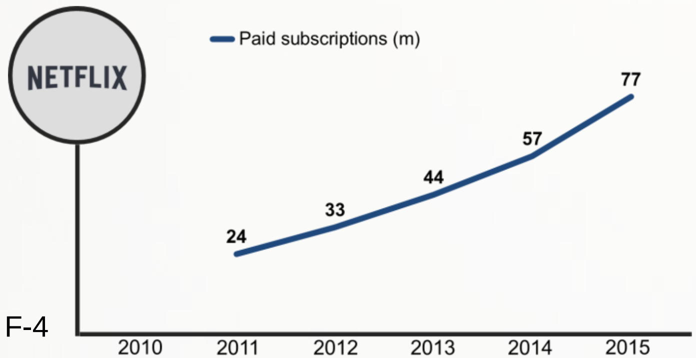


F-3

F-1: Source: Spotify annual reports.
F-2: Source: Deezer annual reports, Wikipedia, Statista.
F-3: Referring to the German population (with music consumption). Source: Representative online survey N = 1,000; WIK calculations.



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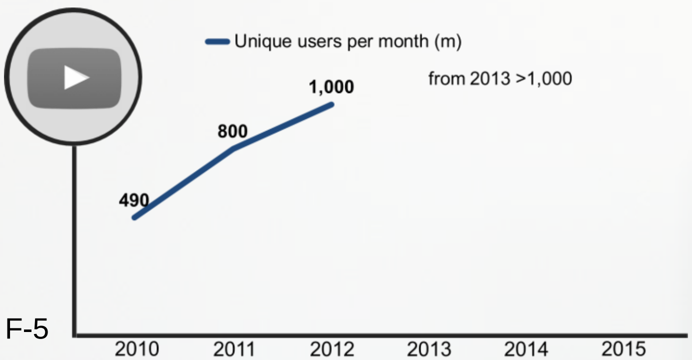

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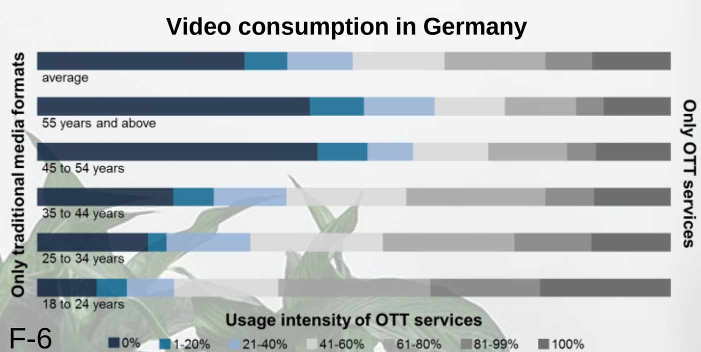

F-6

The freemium business model is less common with video and TV streaming services. After a free trial, it is usually either the paid subscription or no video content at all.

Just how popular video streaming is with consumers is reflected in their willingness to pay. Almost half of German consumers (49%) would be willing to pay for online video content. These consumers get 61% or more of the video content they watch from Netflix, Amazon and other similar services. From the interviews conducted for this study, it transpired that consumers find original content like “House of Cards” and “Orange Is the New Black” most attractive.

Young consumers show the strongest preference for video and online TV streaming services. In fact, a significant share of them hardly watches traditional TV at all. In total, 21% of consumers aged between 18 and 24 have not watched traditional TV in the past six months. However, 57% have watched videos and TV on their PC/laptop, 24% on their smartphones and 14% on a tablet.

F-4: Source: Netflix annual reports.
F-5: Source: YouTube annual reports and reports in technology press.
F-6: Referring to the German population (with video consumption). Source: Representative online survey N = 1,000; WIK calculations.

Let's go outside

Streaming services are often considered competitors for traditional media formats. However, the results of the representative survey conducted for this study also point to many instances of usage that simply would not happen with traditional media formats. Thus, streaming services change consumers' media consumption habits.

This is particularly true for music streaming. Almost half of consumers who use these services state that they now listen to music in situations when previously it would have been out of the question to listen to music at all. For video streaming, some 28% of users agree to the same statement.

From the interviews, we learned that these new situations are predominantly those taking place out of home. With the smartphone always at hand, the full range of beloved content is always available and there is no longer any need to carry additional devices around.
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Yes
No

Substitution music

Substitution traditional media formats*

29% 71%

New instances of usage through streaming services**

46% 54%

Substitution video

Substitution traditional media formats*

29% 71%

New instances of usage through streaming services**

28% 72%

F-7

F-7: in %; *Users of Internet-based services and respondents who previously used traditional media formats (does streaming replace traditional media formats?); **Users of music/video streaming (Do you use streaming services in situations in which you previously not listened to music or watched videos at all?). Source: Representative online survey N = 1,000; WIK calculations.

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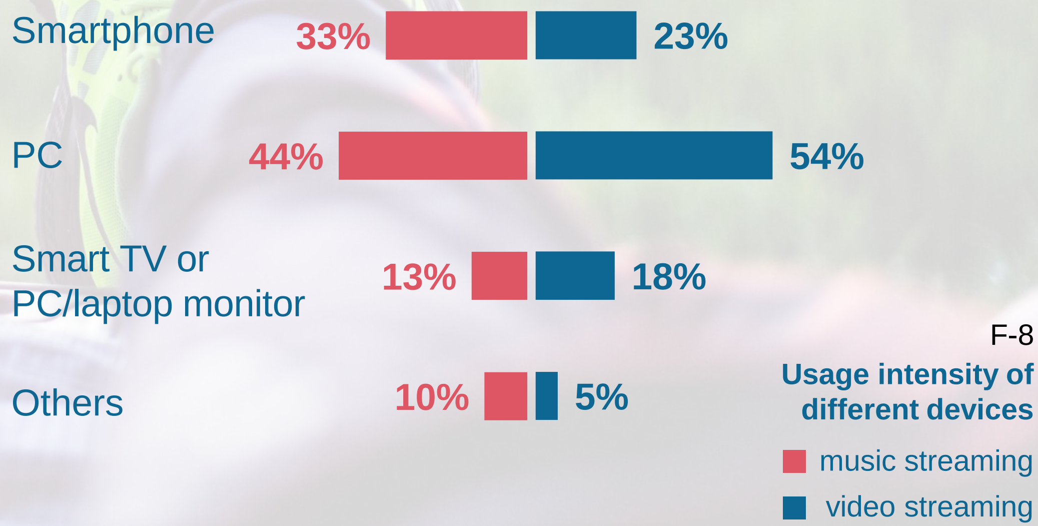
So long, sofa

The smartphone has already made life hard for cameras. With the increasing popularity of music streaming services, MP3 players and the stereo at home may become the new endangered species of devices. All that a smartphone or laptop needs is a pair of proper loudspeakers.

Even though the size of smartphone screens appears to increase every year, consumers seem to opt for the best screen available when they want to enjoy a video. On the go, consumers certainly value the qualities of smartphones, but at home there is nothing like the big flat-screen or at least the PC/laptop monitor.



F-8
Usage intensity of different devices

F-8: Referring to users of the respective services. Source: Representative online survey N = 1,000; WIK calculations.

Seamless joy

Consumers want to enjoy music and videos without any interruptions. A good broadband connection is thus essential and opens new potential for telecommunications providers. In fact, consumers who use streaming services intensively have a higher willingness to pay for their Internet access, both at home and mobile.

Analysis of the survey data shows that these consumers are statistically more likely to have a mobile plan including LTE and an above-average bandwidth for their home Internet subscription. Prices for these premium services are commonly higher than for the slower options. Furthermore, intense users of streaming services have taken out new plans for their mobile phones and home access within the last two years, stepping up high-speed data volume and bandwidth respectively.

OTT streaming services
Usage intensity

=

f (age, university, LTE plan, >16Mbit/s at home, new mobile plan, new at-home plan)

age	university	LTE plan	>16Mbit/s at home	new mobile plan	new at-home plan
----	++	+++	++	++	+

Data regarding regression: Linear OLS-Regression, n=829; R^2=.253; Adj. R^2=.247; F=46.305. All independent variables are statistically significant (p<.010).*
How to read this figure: the usage intensity of OTT streaming services, i.e. the share of OTT streaming services used, decreases with the respondent's age. It increases, however, if the respondent has got a university education, an LTE plan, more than 16 Mbit/s bandwidth at home, or if a new mobile plan with more high-speed data allowance and a new plan for at-home Internet access has been purchased within the last two years.

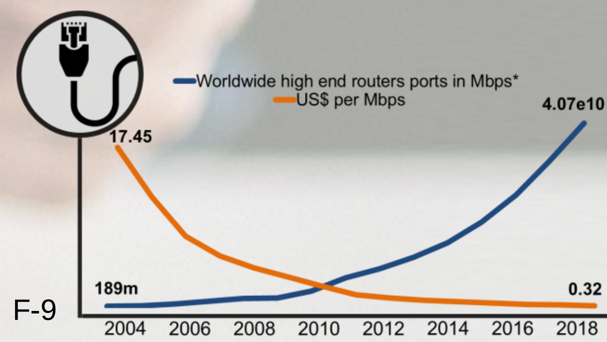
*All independent variables except for "new at-home plan" amount to p <.05.
Source: WIK (2016).

Quenching the data thirst

Streaming services have got a great thirst for data. Video streaming services in particular drive consumers' data consumption. In fact, video streaming makes up the largest share of data transferred via communication networks, especially during peak times." Telecommunications providers have to invest in their networks in order to keep up with demand. Naturally, this is costly. However, it is not disproportionally costly, as a WIK study in 2014 showed.[1]

In fact, the cost of data transport remains relatively stable in fixed networks. The equipment used becomes cheaper and cheaper in line with Moore's law. Thus, the cost for each Mbps decreases dramatically.

In mobile networks, the continuously increasing data volume is more challenging. However, additional costs can be reflected in higher ARPUs on mobile plans. In order to use good-quality streaming services, as well as other Over-The-Top (OTT) services,[2] consumers are willing to pay more.



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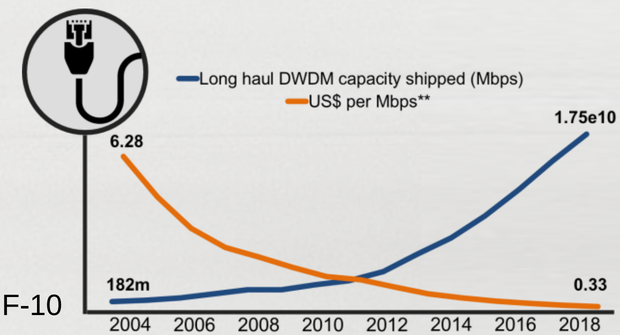


F-10

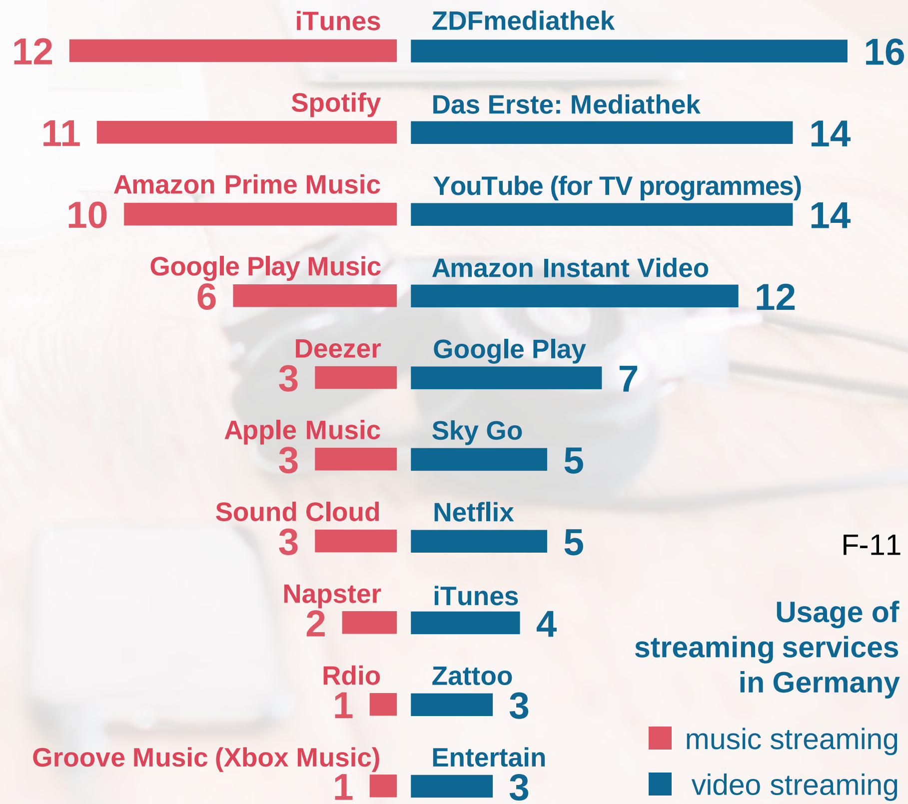
*including Ethernet. **for long haul DWDM.
1 Source: Marcus, J.S. (2014): The economic impact of Internet traffic growth on network operators. Study for Google. Bad Honnef: WIK-Consult. (F-9: p. 20, F-10: p. 21)
2 Arnold, R. & Schneider, A. (2016): OTT Services and Consumers' Communication Behaviour in Germany. Bad Honnef/Köln: WIK/HS Fresenius.

Fighting for users

14% use 3 or more streaming services for music in parallel

30% use 3 or more streaming services for video in parallel

Competition for users is strong among streaming services in Germany. So far, no obviously dominant service has emerged. Furthermore, many consumers use more than one streaming service at a time; so-called multihoming is most common with video streaming.



F-11: In %; referring to the German population; usage within the last month.
Source: Representative online survey N = 1,000; WIK calculations.

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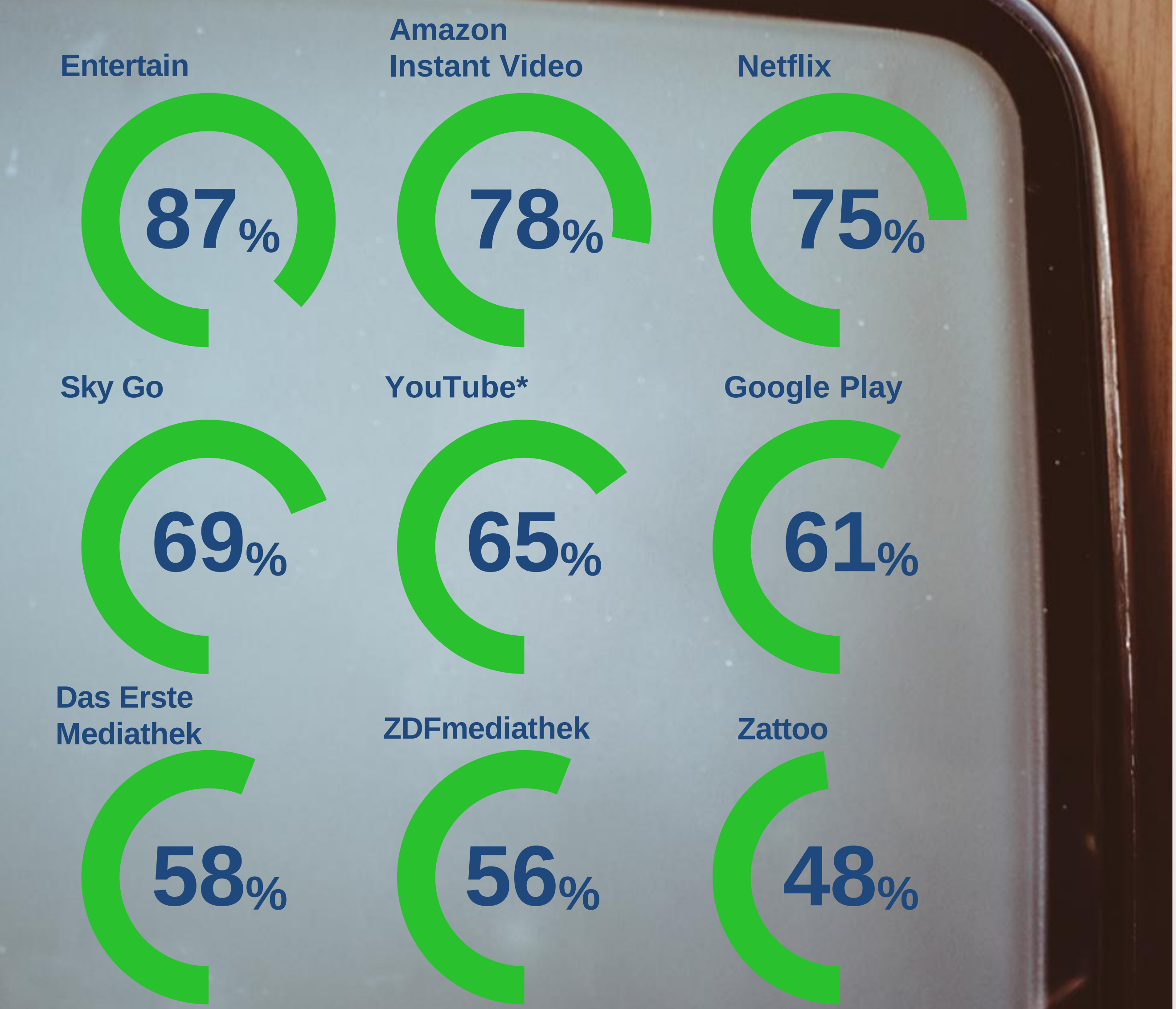


Regular users' share of total users in %

F-12

Whose customers are the most loyal?

Germany's public broadcasters ARD and ZDF lead the way with their online content libraries as regards consumer reach. Only YouTube can keep up with them.

However, neither the public broadcasters nor YouTube get their users to visit regularly, i.e. at least weekly. This is the strong suit of Amazon Instant Video, Netflix and Deutsche Telekom's Entertain video-on-demand service. With these services, at least three-quarters of users are regulars.

But how can this difference be explained? The trump card for paid-for services is their virtually infinite variety of shows, films and TV series. In particular, the American competitors resonate well with consumers due to their original content.

This is where public broadcasters fall short of consumers' expectations. Their disadvantage is a (legally) limited selection of the content they hold. Often, the shows and series published online also have to be removed after a few days. However, consumers are likely to prefer ARD and ZDF, now and in the future, when it comes to news and regional programmes.

F-12: Referring to users of the services in Germany; users with weekly usage/users with usage within the last month.
Source: Representative online survey N = 1,000; WIK calculations.
*for TV programmes

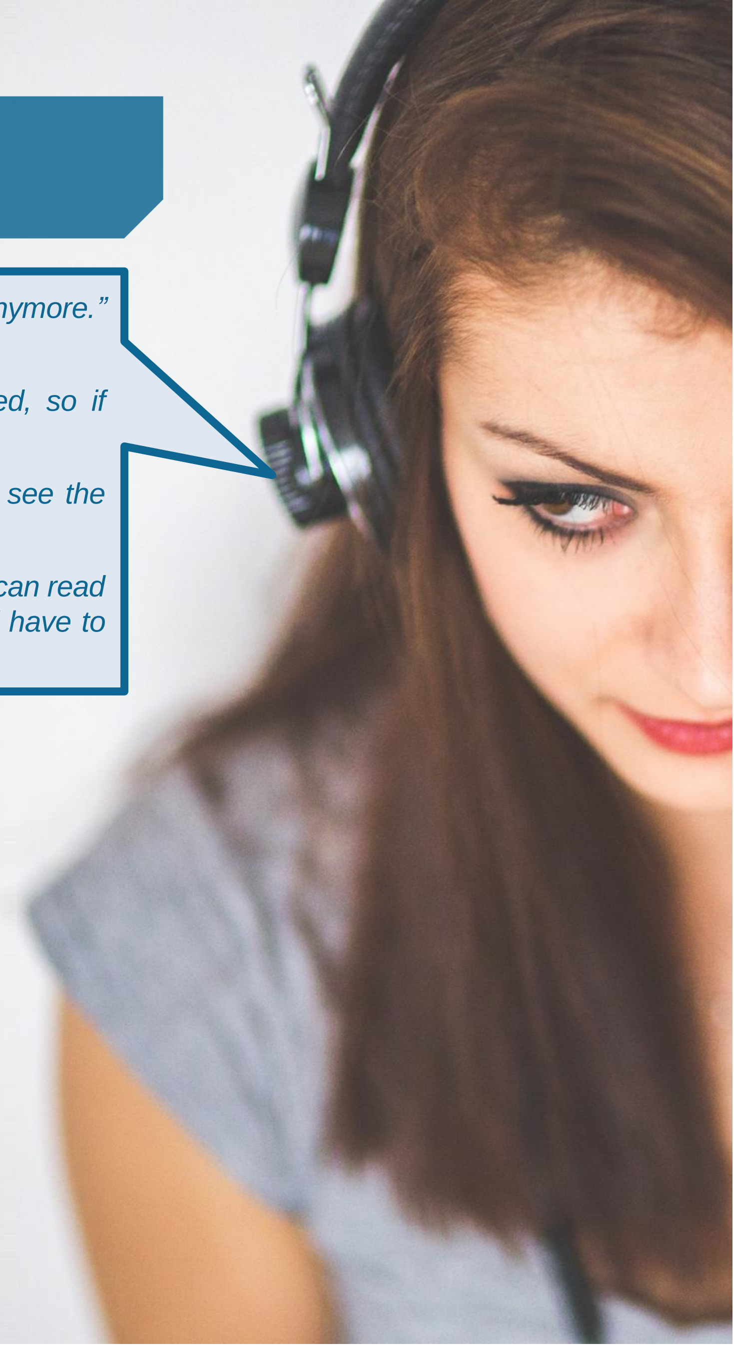
Freedom of choice and passion…

“Somehow music doesn’t feel the same anymore […] because there is no limit to it anymore.” (Lianne, 20)

“With the arrival of the Internet, you were suddenly able to access anything you wanted, so if something was not as good as expected, it didn’t really matter.” (Lorenz, 23)

“Streaming could replace traditional TV for about half of what I watch, because I want to see the news live and the public broadcasters’ regional coverage.” (Kerstin, 46)

“The way you watch a series today, it’s much more like reading a book than anything else. I can read a chapter a day, or two, or even the whole book, and there is nobody to say, ‘ah no, you’ll have to wait a week before you can carry on’.” (Tom, 27)



Consumers enjoy exploring new artists and genres on streaming services at no additional cost. They can easily get to know new things, and there is no risk of spending money on something that they don’t like. However, consumers also struggle with their new freedom. Music remains an essential part of their lives, but since it’s always around, it loses some of its value. Real passion for one artist is not part of one’s “weekly mix”.

Video streaming has not (yet) replaced traditional TV completely. One reason is consumers’ ambivalent position about the role that editors play in scheduling linear TV programmes. On the one hand, consumers find a certain charm in relaxing and not having to think about what to watch next. On the other hand, they feel patronised. Streaming services convince consumers by offering full flexibility; however, constantly having to make decisions about what to watch can be tiring. Thus, many consumers would potentially appreciate a personal “weekly mix” composed by a smart algorithm for video streaming.

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Conclusion

Streaming services such as Spotify, Deezer, Netflix and Amazon Instant Video have changed consumers' media consumption, both in the way it is watched and where. To enjoy one's favourite content anywhere without any interruptions, consumers are willing to pay more for good broadband access.[1] Telecommunications providers in Germany can thus profit from the trend towards streaming services. In turn, investments in network infrastructure become feasible.

Consumers are also willing to pay for so-called specialised services, covering for example pre-selected categories of online services, that can deliver guaranteed quality of experience. The regulation on net neutrality enables such specialised services. Regulators and policy-makers should enable market actors to use this potential. Only the right framework conditions can enable a gigabit society.[2]

While streaming services hold great potential for both telecommunications and content providers, there are also significant challenges. The most important question for artists will be how they can spark real passion with their fans that goes beyond short-lived popularity in the YouTube Top 10.

Amazon and Netflix are very successful at producing original content to bind users to their streaming services. It is not surprising, therefore, that they have got the highest share of regular users among video-on-demand services in Germany. The omnipresence of the smartphone enables various new consumption situations. Stereo and TV manufacturers, as well as manufacturers of other dedicated equipment, should observe the trends presented in this study closely; they ought to reflect carefully upon consumer behaviour in order to avoid becoming obsolete.

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1 Arnold, R. et al. (2015): The Value of Network Neutrality to European Consumers. A Study for BEREC. Bad Honnef: WIK-Consult.
2 Gries, C.; Plückebaum, T. & Strube Martins, S. (2016): Treiber für den Ausbau hochbitratiger Infrastrukturen (Drivers for the rollout of high speed broadband infrastructure). Study for 1&1 Telecommunication SE. Bad Honnef: WIK-Consult.

About this study:

The results presented here are part of WIK Discussion Paper No. 409. The full Discussion Paper can be purchased for 7.00 Euro from Ute Schwab (u.schwab@wik.org or +49 (0)2224 / 92 25 41). The Discussion Paper is only available in German.

The online survey for this study with a representative sample of 1,027 consumers in Germany (age 18+) was conducted between 30th November 2015 and 7th December 2015 by the international market research institute YouGov. The results were weighted to draw representative conclusions for the German population (age 18+). Additionally, 28 qualitative interviews were conducted in April and May 2016.

About WIK:

Founded in 1982, WIK (Wissenschaftliches Institut für Infrastruktur und Kommunikationsdienste) in Bad Honnef, Germany offers consultancy for public and private clients around the world. Its focus is on the telecommunication, Internet, post and energy sectors giving advice on policy, regulatory and strategic issues. More information is available at: www.wik.org.

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