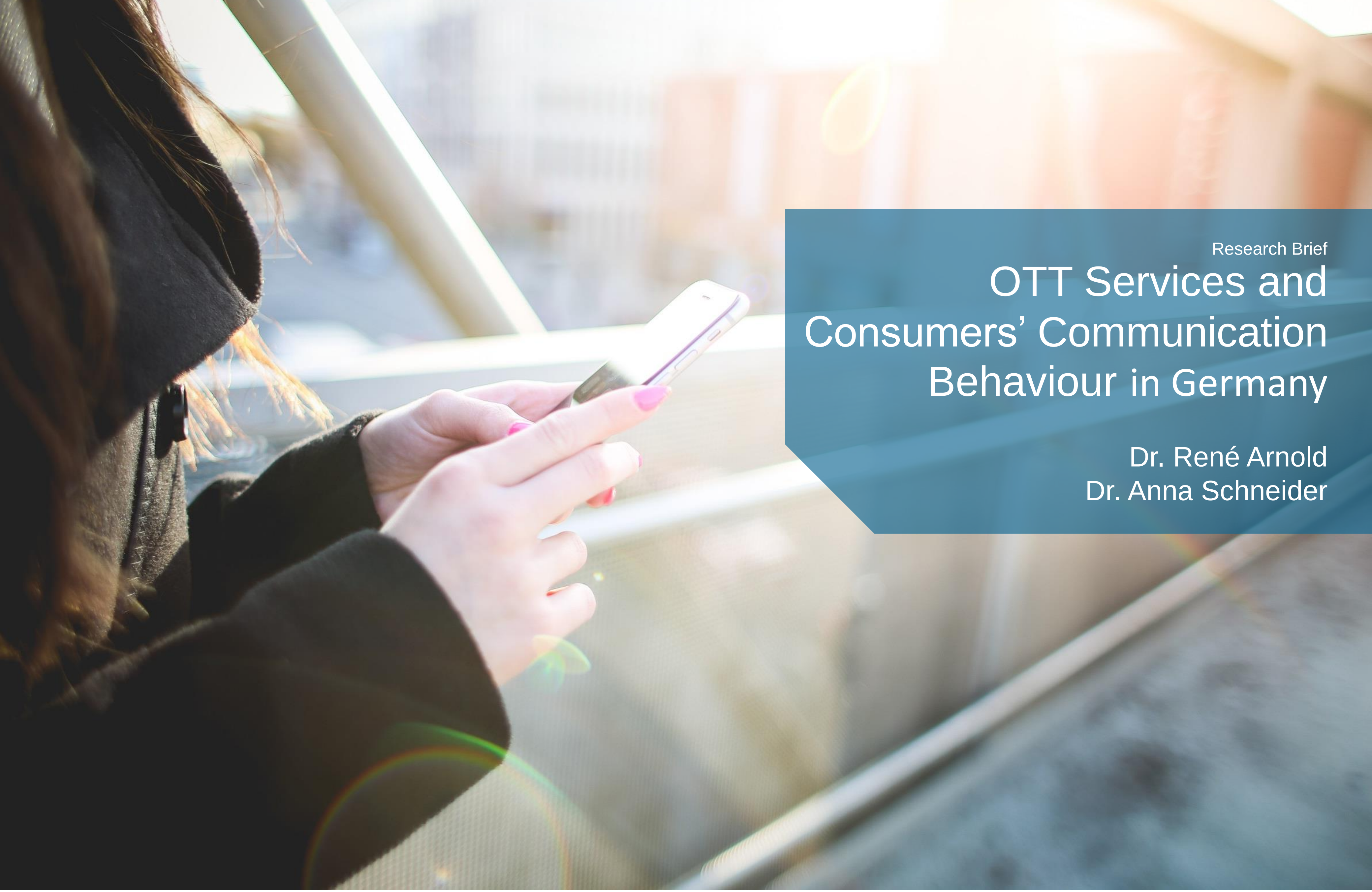

Research Brief

OTT Services and Consumers' Communication Behaviour in Germany

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Imprint

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Foreword

The text is not enough

National Regulatory Authorities (NRAs) around the world are trying to find a prudent response to Over-the-top (OTT) services that appear to fulfil the same functionalities as established Electronic Communication Services (ECS) such as telephony or SMS. Extending the existing regulation to new areas is often their initial, almost reflexive reaction, but is this really the best option?

The results of this study highlight the fact that consumers, instead of simply doing the same with a different application, are actually attracted to the new functionalities of Mobile Messenger Applications (MMAs) such as WhatsApp as compared to SMS. In fact, their communication behaviour is changing fundamentally.

More than 60% of German consumers send a mixture of texts, pictures and videos using OTT services in situations where they used to send an SMS. Almost half (49%) use MMAs instead of calling someone at least from time to time. For one out of ten Germans, it was MMAs that led them to share their thoughts with others over the phone at all.

In sum, the popularity of MMAs has increased the number of communication opportunities significantly. Thus, new business models and ways to interact have been emerging quickly around OTT communication services. Consequently, NRAs ought to consider relieving some of the regulatory obligations for ECS rather than the other way around.

Dr. Iris Henseler-Unger

… from type-writers to PCs

MMAs and innovative telephony services are changing consumers’ communication behaviour fundamentally. They offer significantly more functionalities to consumers. They can send text, picture and video messages to others or share them with a group of their contacts. For consumers switching to OTT communication services is like the switch from type-writer to PC. Yes, they will use WhatsApp and other services for texting, but what really attracts them is the wealth of possibilities beyond.

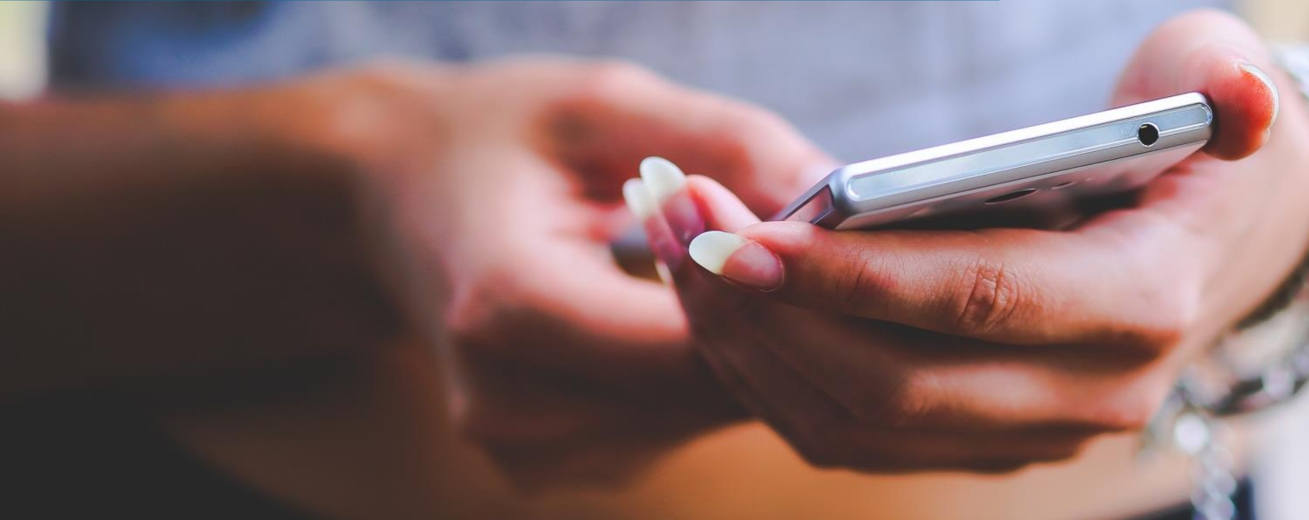
Introduction

More and more consumers are using OTT communication services. At the same time, usage of ECS is decreasing. Of course, this is hardly coincidental. Nonetheless, some crucial questions remain unanswered so far: Is the observed change in consumer preferences a like-for-like substitution? What are the drivers of this change? What are the implications for telecommunications providers?

The objective of this research brief is to provide answers to these questions, and some of the answers may be surprising. In any case, they bring the consumer's voice into a debate that has so far been overwhelmingly politicised and focused on thelevel playing field.

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

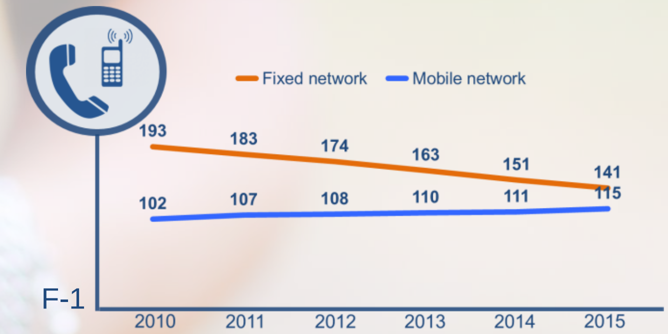
What’s Up? What’s Down?

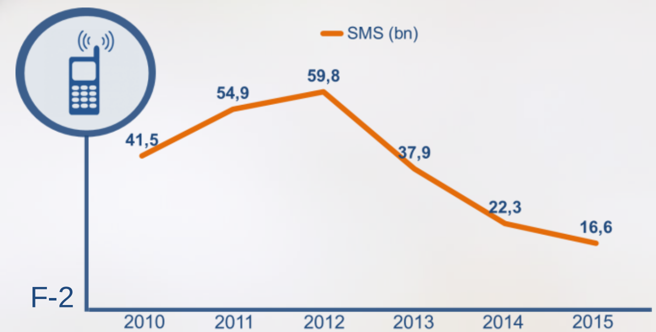


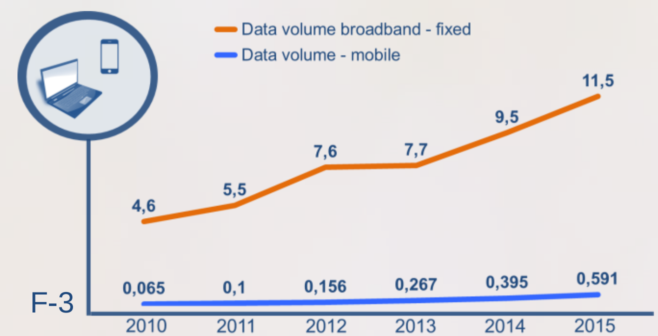
Consumers in Germany are using their landline phones less and less. The number of minutes spent making calls on mobile networks has practically been stagnating in recent years. While flat rate tariffs can secure telecommunications providers’ revenues somewhat, they fail to incentivise consumers to make phone calls more often.

The number of SMS messages sent in Germany has been declining sharply after several years of steep, continuous growth. Until 2012, revenues from SMS were flowing into telecommunications operators’ pockets, in particular from pay-as-you-go customers. With the uptake of MMAs, SMS usage has gone down, allegedly because MMAs fulfil the same functionality at no monetary cost to the consumer.

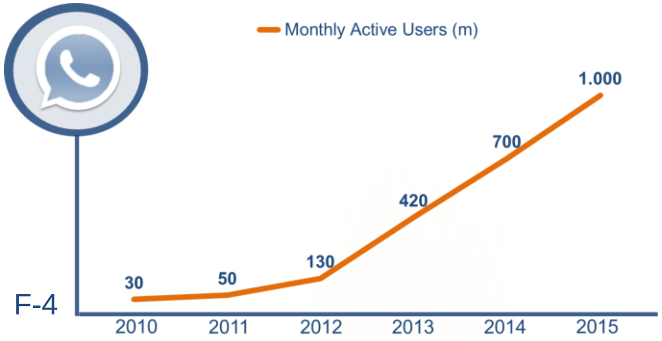
At the same time, data volumes in both fixed and mobile networks are increasing significantly. This is already an indication that consumers do not stick to 160 characters anymore.







F-1: Outgoing voice minutes (in billion minutes). Source: BNetzA (2016).
F-2: SMS messages sent (in billion). Source: BNetzA (2016).
F-3: In billion GB p.a.. Source: BNetzA (2016).



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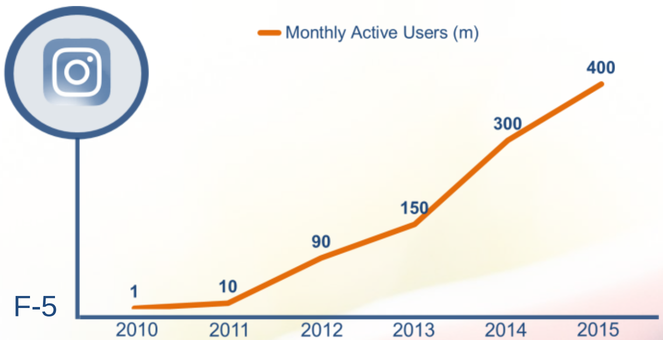

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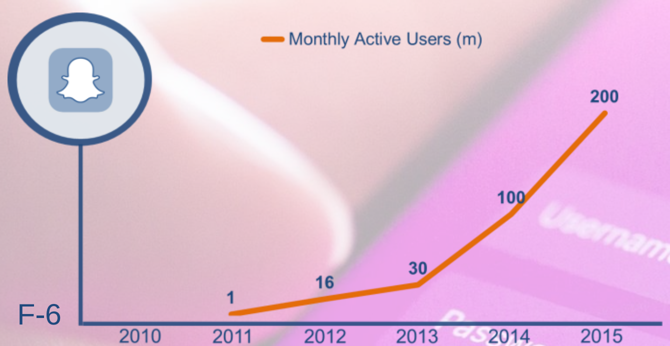

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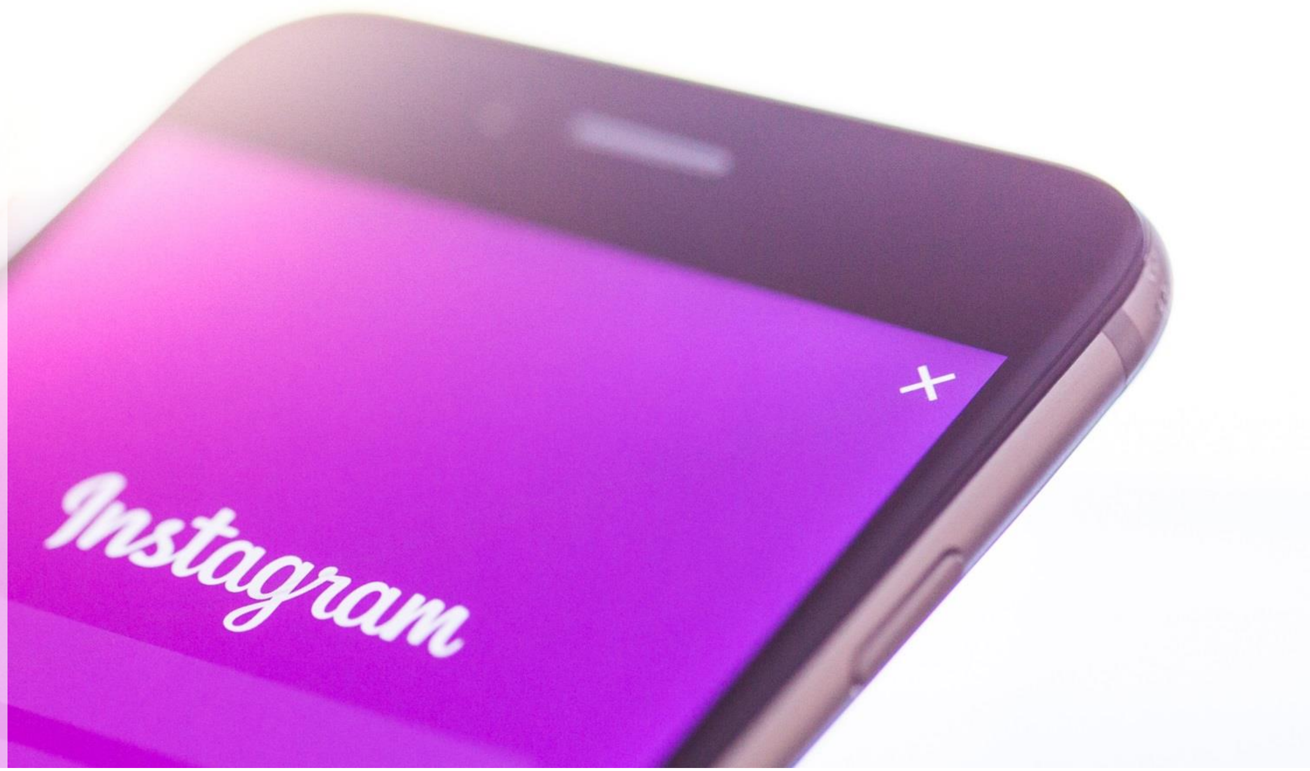
WhatsApp, Snapchat and Instagram grew rapidly between 2010 and 2015. They exemplify a broad and differentiated group of services. Each of these services has its own specific features and target group.

Concretely, WhatsApp grew from 30m users in 2010 to around 1,000m in 2015. The other two MMAs presented here had equally impressive growth rates averaging at 276% for Snapchat and 231% for Instagram per year (CAGR).

Compared to ECS, these services make use of the full variety of functionalities modern smartphones offer. Instagram and Snapchat revolve around images. While Instagram positions itself closely to social networking sites, Snapchat's main feature is that the pictures sent are erased after a few seconds.



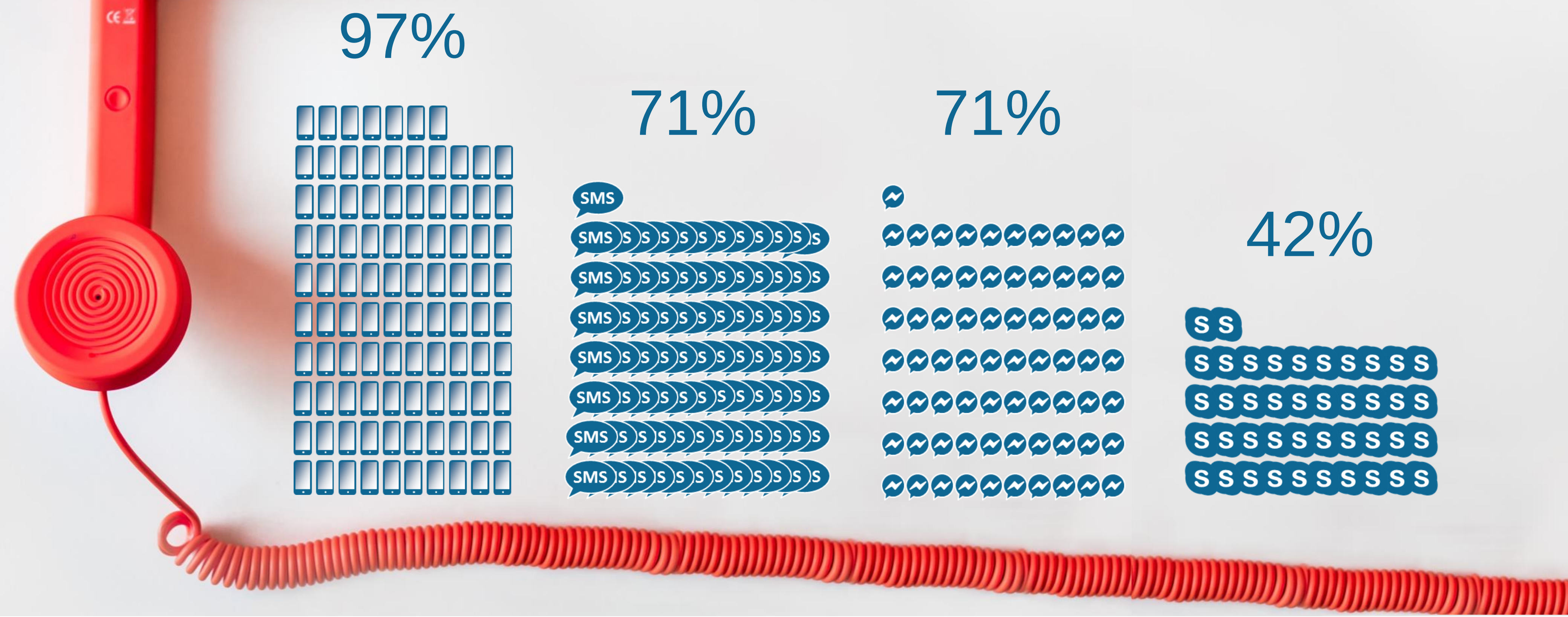
F-4: Worldwide. Source: Press releases, Business Intelligence (2014), TNW (2016).
F-5: Worldwide; 2010 and 2011 registered users. Source: Business Insider (2014); Mashable (2013); Statista (2014); AdWeek (2015).
F-6: Worldwide; 2011 and 2012 MAU of picaboo. Source: Business Insider (2014); Techweez (2014); CIO (2015), Press releases.

Who uses what?

Communication is a basic human need. Practically all German consumers make calls on their landline or mobile phones, and SMS and MMAs are used by 71% of consumers. Less than half of Germans use VoIP telephony.

Usage patterns differ significantly. While 22% can be categorised as traditionalists who use only ECS to communicate, only a little more than 1% of the population rely solely on OTT communication services.

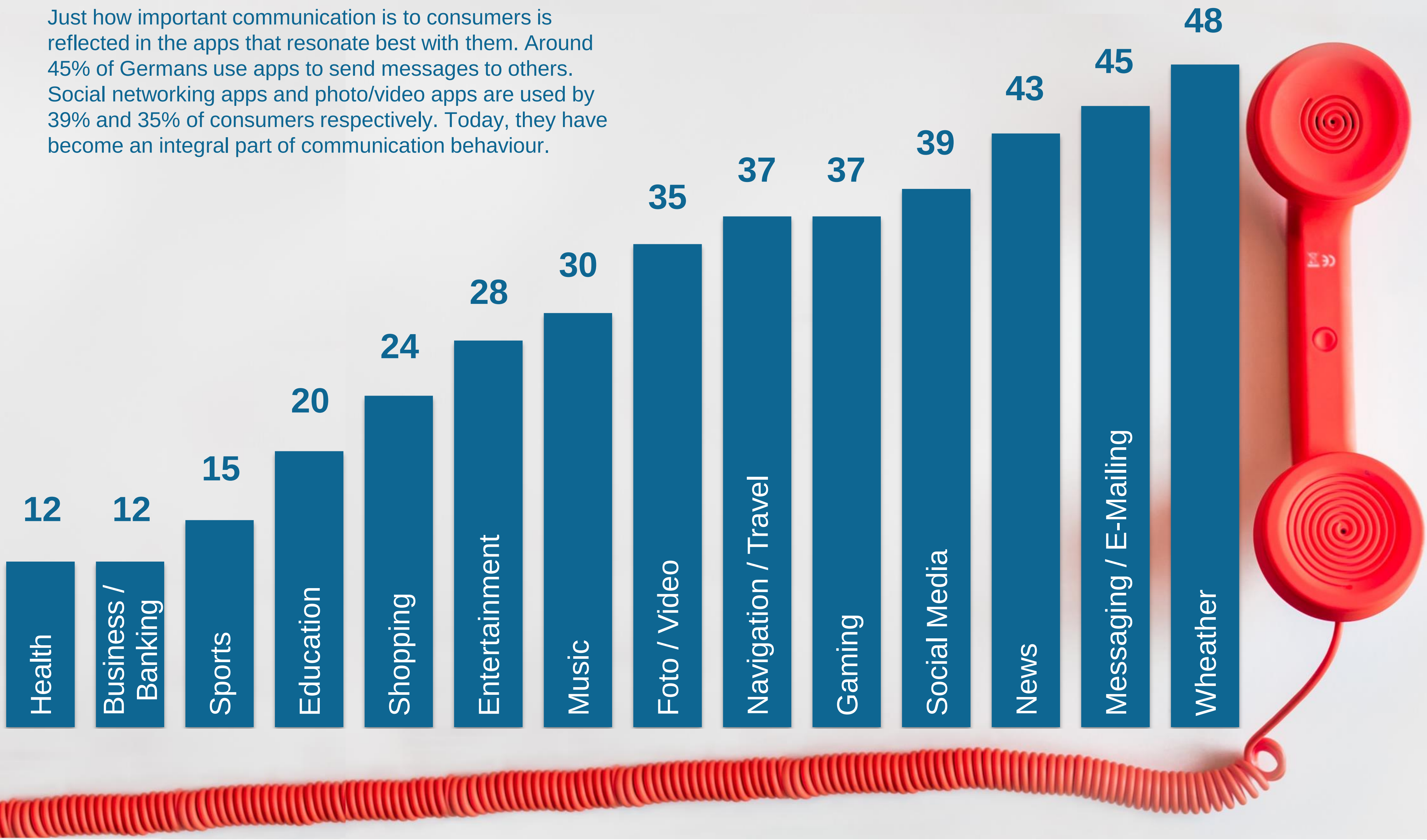
Thus, the vast majority – around 75% – mix and match individual services to fit their communication needs in any given situation. Around one in three of these consumers alternates between all four types of services depicted here..



Referring to the German population (18+).
Source: Representative online survey N = 1.000; WIK calculations.

Which apps do Germans use?

Just how important communication is to consumers is reflected in the apps that resonate best with them. Around 45% of Germans use apps to send messages to others. Social networking apps and photo/video apps are used by 39% and 35% of consumers respectively. Today, they have become an integral part of communication behaviour.



In %; referring to the German population.
Source: Representative online survey N = 1.000; WIK calculations.

Is it all or nothing?

Most consumers mix and match traditional and OTT communication services. Depending on the type of service, different usage patterns emerge. For calls within Germany, ECS dominate the field. OTT communication services are tried sporadically or are used for fun instead of actual conversations.

> *“Yeah, from time to time. But just for fun, you know, calling a friend on Facetime.” (Lars, 22)*

Calling abroad is very different. Consumers perceive these calls as very expensive when made over the phone. Thus, they rely more strongly on OTT communication services.

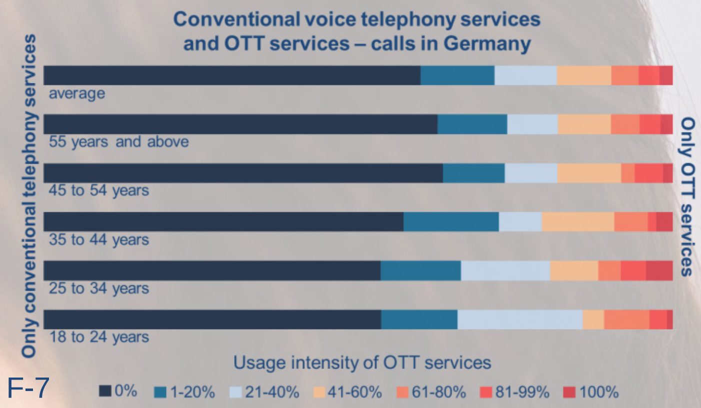
> *“I used Skype a lot when I was abroad […] because it was the best way to stay in touch with my folks […] and because it was the best option cost-wise.” (Leo, 25)*

Consumers quickly move to using MMAs to send most of their messages as soon as they are familiar with the functionalities they offer.

> *“WhatsApp was a complete change, a new quality of living altogether. It is the small things like staying in touch with those, whom I otherwise would have no contact with.” (Emma, 19)*

For all three types of communication services, there is a strong correlation between usage intensity and age. The younger the consumer, the stronger the use of OTT communication services becomes.

> *“I am dyslexic when it comes to mobile phones.” (Maria, 46)*



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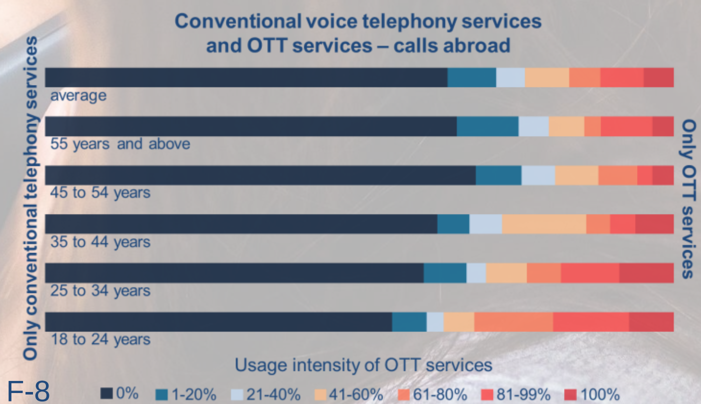

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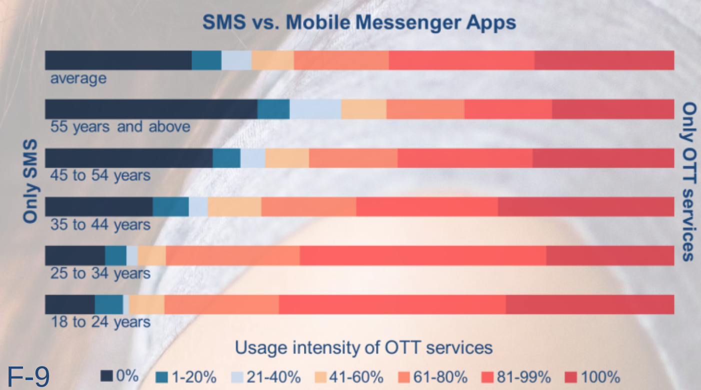

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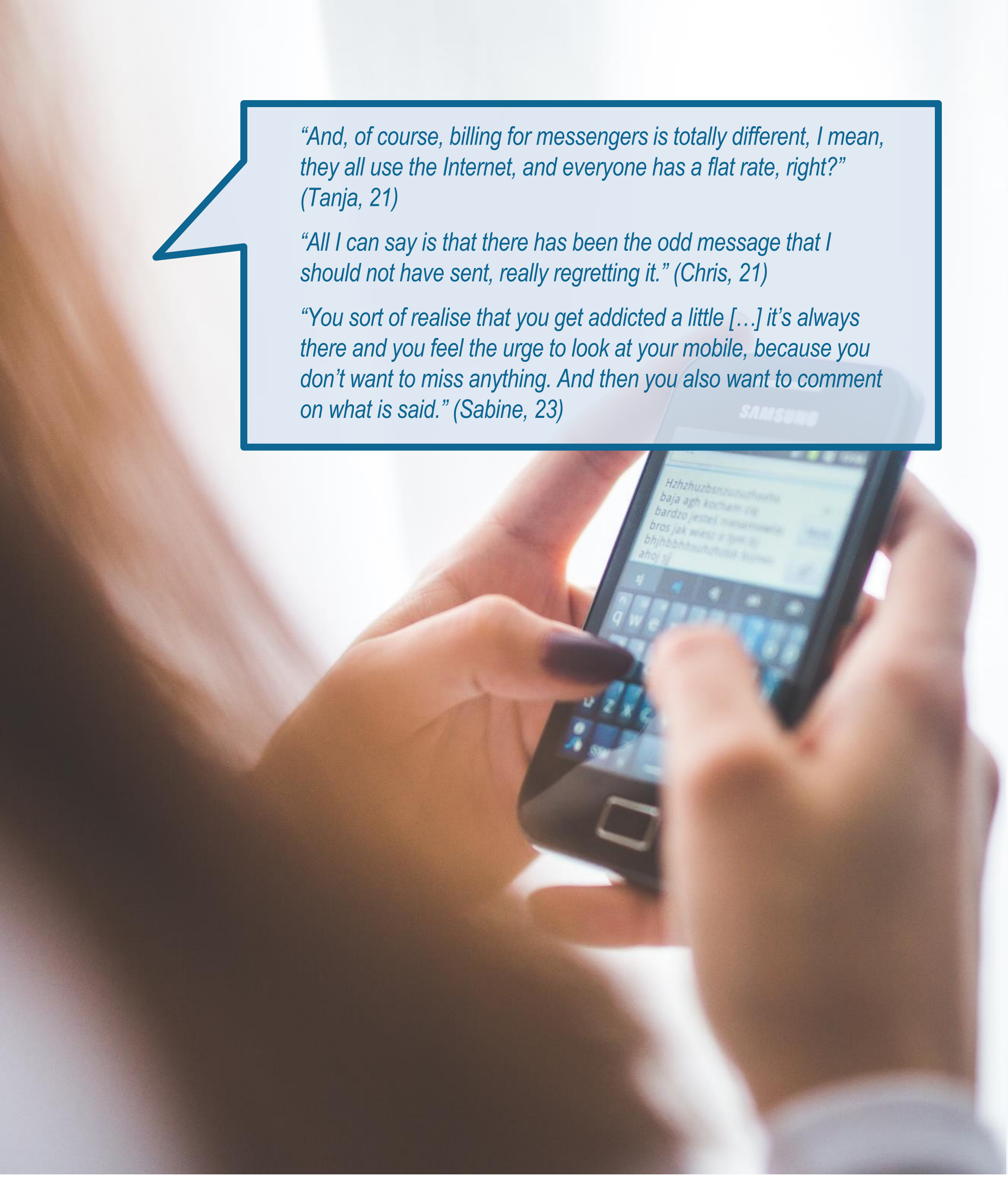
F-7, F-8, F-9: In %; referring to the German population.
Source: Representative online survey N = 1.000; WIK calculations.



"And, of course, billing for messengers is totally different, I mean, they all use the Internet, and everyone has a flat rate, right?" (Tanja, 21)

"All I can say is that there has been the odd message that I should not have sent, really regretting it." (Chris, 21)

"You sort of realise that you get addicted a little […] it's always there and you feel the urge to look at your mobile, because you don't want to miss anything. And then you also want to comment on what is said." (Sabine, 23)

Saving money is the most commonly cited reason for switching from SMS to MMAs in the public debate. Although saving money is mentioned by many consumers in the interviews, the actual reasons for preferring MMAs over SMS go deeper.

Not wanting to be excluded from one's established social contacts is the most frequently cited reason for installing an OTT communications service in the first place. Without them one is not only considered a technological dinosaur but also quickly loses their place at the fire. The sports club, one's children and friends, all of them use an MMA such as WhatsApp to communicate, bond and socialise.'

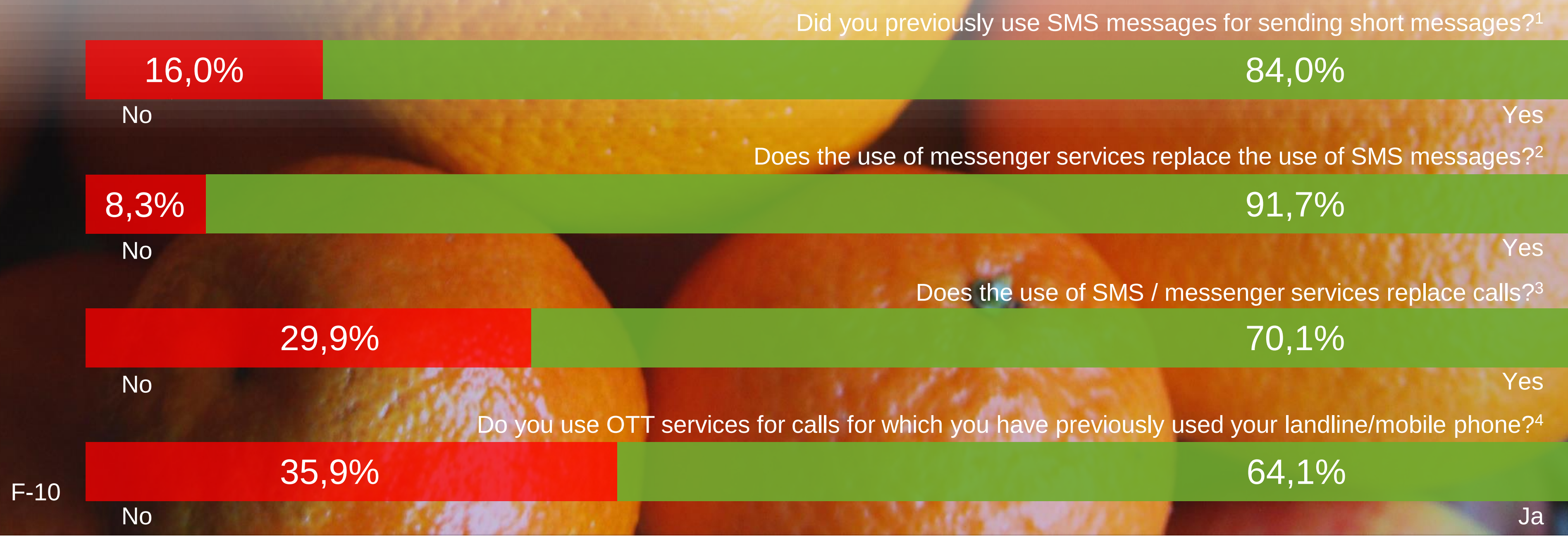
This is reason enough for consumers to set aside any data privacy concerns. They do not read terms and conditions, yet a vague fear remains. To them, it is unclear what companies like Facebook actually do with their private data. The things that the recipient of their messages can do with them is, however, quite obvious to them, sometimes because they have sent messages themselves that they later regretted. Consequently, most consumers keep compromising content away from digital communication services.

Being tightly bound into one's circle of peers is one of the main drivers for using MMAs. At the same time, it is exactly this tight bond that can be problematic for consumers. The non-linear communication enabled by MMAs impedes the necessary breaks from communication with others that existed when there were only telephones. This puts pressure on consumers to be available all the time.

Is it all substitution?

For some types of service, consumers quickly turn to OTT communication services. Despite this fact, these services do not necessarily replace ECS. For instance, one in six consumers, who use only MMAs, has never sent any messages before. The same effect emerges for telephony. In this case, almost 36% of calls would not have been made if were not for OTT communication services.

Furthermore, there is a significant movement from calls to messages in general. Today, more than half of consumers send a message, with or without additional content like a picture or a video, in situations where they otherwise would have called someone.



F-10: In %; [1]Users of 100% Internet-based services;
[2]Users of Internet-based services and respondents who previously used SMS messaging; [3]Users of SMS/Messenger services;
[4]Users of Internet-based services and respondents who previously used conventional voice telephony.
Source: Representative online survey N = 1.000; WIK calculations.

Are we comparing apples and oranges?

Consumers use OTT communication services for the many additional functionalities they offer as compared to ECS. They send text, voice and video messages. They use pictures and videos to capture their impressions and express their emotions to others. Consumers describe communication on these services as more natural than when they use ECS. They can judge how their counterpart is doing not only from the words they read or hear, but also from facial expressions and gestures. All in all, this adds up to a new quality of experience/communication for them.

When consumers think of SMS texting, they mostly think of the (to them) arbitrary limit of 160 characters and a formal way of communicating. Every word has to be chosen carefully. With WhatsApp and similar services, they feel that they text in the same way that they speak. Thus, they find their conversations to be more natural than when using SMS.

The “read” tick is also an important difference between MMAs and SMS for consumers. Although most consumers know how to deactivate this function, they choose to leave it switched on. It has become a measure of the intensity of personal relationships. The quicker the response arrives after a messages has been read, the stronger the personal bond is. This introduces a new layer into conversations that SMS messages lack completely.

Furthermore, MMAs satisfy consumers’ aesthetic needs as well as their self-representation needs substantially better than SMS. The user interface of most MMAs can be tailored to one’s individual needs and preferences, giving it a personal touch. SMS messages have a pragmatic and technocratic look and feel to them, according to the interviewees.

The various profile options and, above all, the profile picture that features in many MMAs enable self-representation, but they also have a social facet. The combination of contact details and picture increases the perceived closeness to one’s contacts. Thus, it is unsurprising that consumers choose their profile picture carefully, with some of them changing it frequently to broadcast their current feelings.

Who is going to win?

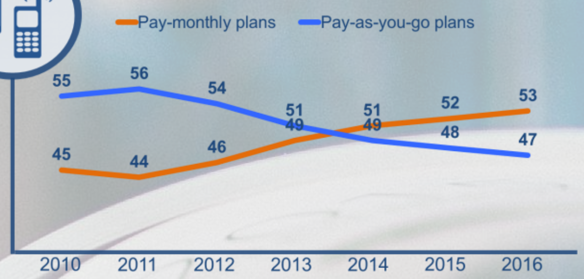
This study shows that there is a close link between the decline of SMS and the sustained growth in users of MMAs. However, it is not a like-for-like substitution. Instead, we are observing a fundamental change in communication behaviour. Its implications are more positive for telecommunications providers than one might expect.

From an in-depth analysis of the survey data, it emerges that telecommunications providers may actually profit from this change in consumer behaviour. In fact, the consumers who use OTT communication services intensively are also the ones who have purchased a new contract with more high-speed data allowance for their smartphones. They are also more likely to use Apple devices. In essence, they have a greater willingness to pay for both their mobile Internet access and their devices, which opens up new business potential for telecommunications providers.

$$\text{OTT communication services usage intensity} = f(\underset{--}{\text{age}}, \underset{+}{\text{household income}}, \underset{+++}{\text{smartphone}}, \underset{+}{\text{Apple user}}, \underset{+}{\text{new mobile plan}})$$

Linear OLS regression, n=638; R^2=.256; Adj. R^2=.250; F=43.5. All independent variables are statistically significant (p<.010).

How to read this figure: The usage intensity of OTT communication services, i.e. the share of OTT communication services used, decreases with the respondent's age. It increases, however, with increasing household net income, e.g. if a smartphone is used, if an Apple device is used or if a new mobile plan with more high-speed data allowance has been purchased within the last two years.



F-11

Secure revenue from pay-monthly mobile plans

Consumers who use OTT communication services intensively have likely purchased a new mobile plan with more high-speed data allowance within the last two years. These new contracts are more likely to be pay-monthly plans than pay-as-you-go ones.

Thus, the trend towards OTT communication services helps telecommunications providers sustain their revenues and plan ahead. As most pay-monthly plans cover both telephony and SMS in flat rates, there is also little additional risk of losing revenues due to further increases in the popularity of OTT communication services.

Conclusions

Many consumers initially tried OTT communication services to save money they would otherwise have spent on telephony and SMS. In the long run, innovative functionalities and novel opportunities for self-representation convinced them to stick with MMAs. Today, a life without WhatsApp and similar services is unthinkable for most consumers.

In fact, OTT communication services are not a like-for-like substitute for ECS. Instead, they enable various new communication opportunities. Although using them leads to a decrease in ECS usage, we are observing an evolution in communication behaviour rather than a like-for-like substitution.

As the main usage situation is on the go, consumers are willing to purchase new mobile plans and more expensive devices. Consequently, the change in communication behaviour also holds business potential for telecommunications providers.

F-11: In % ; Germany.
Source: WIK-Consult (2016) calculations based on annual reports of mobile network operators.

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.

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