

About this study



■ Participating countries 2018

The Deloitte Global Mobile Consumer Survey 2018 spans six continents, 35 countries and 54,150 respondents, who answered questions about the mobile consumer devices and services they use. The 2018 survey for the first time includes Switzerland, where a representative sample of 1,001 consumers aged between 18 and 70 were surveyed online. This report features selected results. Due to rounding, the sum of all answers may not always add up to 100.

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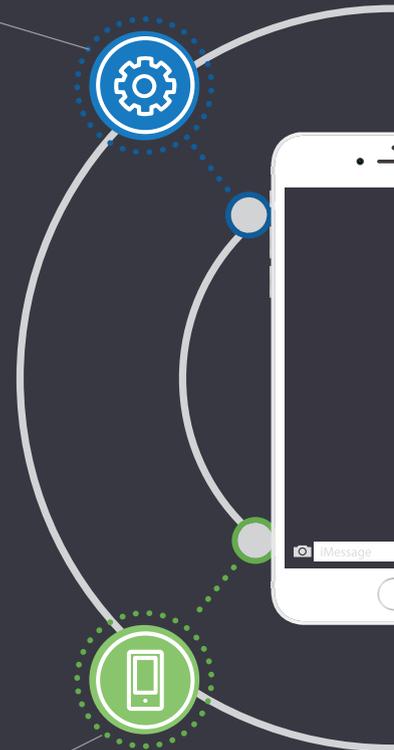
1. Executive Summary

Ownership and use of mobile devices in Switzerland (page 6)

- Use and ownership of smartphones outstrip all other digital devices in our lives: 92% of all people in Switzerland own one, with 97% of them using them every day. In an increasingly saturated market, the main scope for growth lies in software development and in new functions that make both personal and working life easier.
- Television sets dominate when it comes to viewing TV programmes but are not widely used for other functions. Modern televisions (smart TVs) offer a very large number of functions, but most remain unused, and a majority of sets are still used solely to view TV programmes and videos.
- Tablets are compromise devices: they are not consumers' favourite device for any activity, but they are often considered 'good enough'.

Smartphones – the universal interface (page 11)

- People are still using their smartphones for written messages – more than ever, in fact. Instant messaging is the most popular form of communication, while email is widely used across all age groups. Many people also still send text messages.
- Everybody watches videos – nobody watches videos. Mobile video consumption varies very much with age. Most young people often watch videos on mobile devices, but most older people do so seldom or never.
- People are more likely to use their mobile phone to take photographs than to make phone calls.
- Self-learning: machine learning and artificial intelligence have not yet caught on among Swiss consumers. These technologies often run in the background of other applications.
- Silent Switzerland: services using a voice interface are widely available and rather well known in Switzerland, but most consumers do not use them. Around a third of consumers have experimented with voice assistants, but only one in ten use them every day on their smartphone.
- Smartphones are becoming central to the way we run our lives: if new functions are to catch on rapidly, they need to be easy to use and offer clear benefits to users.
- Hardware and software providers should take risks and concerns seriously: three-quarters of all Swiss consumers are concerned about their data being shared with others, while almost one in two believe they use their smartphone too often. The more useful smartphones become, and the more functions they include, the more important it will become to manage what they should – and what they should not – be used for.



The 'Internet of Things': huge potential in the consumer sector (page 21)

- Increasing numbers of appliances can be connected to the internet and managed via a mobile device (the 'Internet of Things', IoT). The most popular appliance of this kind is the smart TV, which almost half of Swiss households own. Other appliances are much less popular, so the 'Internet of Things' represents considerable potential for growth.
- Manufacturers are pinning their hopes on smart speakers – speakers that users can give verbal instructions to. If these devices become more popular, they could help achieve a breakthrough in three technologies (voice services, artificial intelligence generally, and connected devices).
- As with advanced smartphone functions, the 'Internet of Things' must be easy to use, and the concerns of users must be taken seriously and their fears allayed.

New opportunities: mobile shopping, mobile payments and mobile financial transactions (page 25)

- Mobile shopping is already common, with 74% of all survey respondents using a mobile device to access product information at least occasionally. 59% make mobile purchases at least occasionally. Mobile devices are blurring the boundaries between online and offline shopping, with information and offers available at home, in physical shops and for people on the move.
- Mobile payments using a smartphone are less popular than mobile shopping. Mobile payment solutions compete with debit and credit cards. When consumers make a purchase on their smartphone, 71% pay by credit card. Around half use their smartphone to make payments at least occasionally. Only just over a quarter (27%) use mobile payment options in physical shops.
- Mobile financial transactions are made by 65% of respondents at least occasionally, although this is mostly for simple tasks, such as checking account balances. There is still huge potential for mobile financial services. Careful integration of smartphones into a coherent multi-channel strategy is crucial to future competitiveness, particularly for retail banks.

Working during leisure time, dealing with personal matters at work (page 33)

- Use of smartphones varies widely: mobile technology makes it possible to work during our leisure time, but being available all the time means they can be used for personal matters at work. A rigid separation between work and leisure time is now rare.
- Two-thirds of respondents report that their smartphone distracts them from their work at least occasionally.
- The most common uses of smartphones for work purposes are for emails, calls and diary management. 35% of respondents use instant messaging to communicate with colleagues and customers.
- Apps for recording working time or expenses could significantly reduce the time spent on administrative processes, but few respondents are using them so far. Mobile solutions could in future play a decisive part in making the benefits of digitalisation more effective in the working environment.



2. Who has what and why? Ownership and use of mobile devices

Who has what devices, and how often do they use them?

(Almost) everybody in Switzerland (92%) owns a smartphone, and (almost) all of them (97%) use it every day. No other device is anywhere near as popular (see Chart 1).

Laptop computers are also popular, with 82% of people in Switzerland owning one and 69% using it every day. Tablets are rather less popular: 62% of the population owns one, and 60% of them use it every day.

Desktop computers have fallen out of fashion, but many people are still using them: 52% of the Swiss population owns one, and 71% of them use it every day, the highest second frequency of use after the omnipresent smartphone.

Consumers are slow to embrace new device categories: smartphones are the only recent device whose use outstrips the older types of computer, despite themselves being the oldest of the recent innovations. All subsequent new devices have proved less popular. Tablets, for example, are more frequently used than desktop computers but less frequently used than laptops. Many people use a tablet every day, but tablets are still less frequently used than traditional computers with a keyboard. Manufacturers were optimistic about the prospects of other devices, such as smartwatches

and fitness trackers, but – so far, at least – these devices remain niche products. 17% of Swiss consumers own a fitness tracker, but only just over half (55%) use their tracker every day. 11% own a smartwatch, and around half of them use it every day, but 3% report that they have never used their smartwatch. Virtual reality headsets are even less popular, with just 3% of the population owning one and just half having used it at least once in the previous three months. None of those surveyed had used their VR headset over the previous 24 hours, and 6% had never used it.

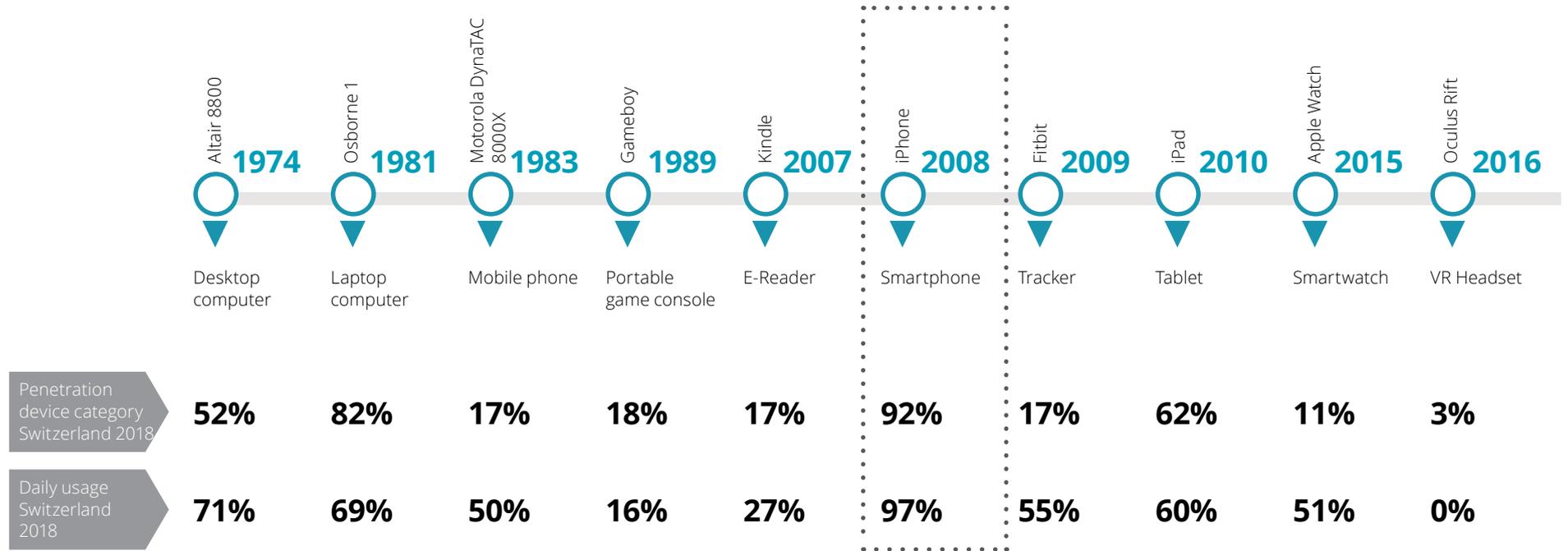
These low use figures for devices other than smartphones show that smartphones look set to dominate the market, at least in the near future. The wave of first-time purchases has now peaked, however, and many of those who have not yet acquired one have no plans to do so. Growth in sales of devices is now declining, although consumers are purchasing more expensive devices.

Key points from section 2

- Smartphones are by far the most widely owned and frequently used digital device: 92% of all people in Switzerland own a smartphone, and 97% of them use their smartphone every day.
- In an increasingly saturated market, software and new functions to make both personal and working life easier represent significant opportunities.
- Laptops are the second-most popular device, particularly for more complex activities requiring user engagement, such as online shopping and internet banking. In some older age groups, desktop computers top the list.
- Television sets are the device of choice for both live TV and on-demand viewing. However, consumers tend not to use their sets as a home entertainment and shopping hub.
- Tablets are a compromise – not the device of choice for most activities, but often good enough.

Chart 1. Consumers stick with more familiar devices: smartphones outsell all other categories of device

Year in which a specific device was first introduced and its popularity and use in Switzerland in 2018



Responses from all participants to the questions “Which (if any) of the following devices do you own or can you access?” and “When did you last use this device? Was it during the past 24 hours?”

Smartphones – bane or boon? Opportunities and risks for customers, consumers and companies

There are fewer dramatic technological advances, so many consumers are keeping their devices for longer. However, with new functions being developed all the time, the smartphone is likely to continue growing in importance. Scope for future growth is therefore greater in software than in hardware. Many advanced functions are still relatively unknown, so there is an opportunity but also a challenge in getting them better known and more popular.

Who is looking where?

Which device is most popular for which functions? Given the popularity of *smartphones*, the answer is unsurprising: they are consumers' device of choice for most activities (see Chart 2). Among 25- to 34-year olds, smartphones are the most popular device for all activities except viewing television programmes. Among 18- to 24-year olds, only television sets and laptops are used more frequently (for online shopping). Smartphones dominate across all age groups for accessing social media, viewing and recording short videos, accessing news, and taking photos.

Overall, the *laptop* is the second most popular device, particularly for more complex activities requiring consumer engagement, such as online shopping and internet banking. Desktop computers are the most popular device only among older users and only for specific uses.

Tablets are seldomly the favourite devices for Swiss consumers. While they are relatively popular and owners use them frequently (see Chart 1), they are not the device of choice in any use category, as Chart 2 illustrates. Just one age group (55- to 64-year olds) say they prefer tablets to all other devices except laptops, which they like to use for playing games. However, this is an age group in which games are relatively unimportant: 27% of this age group either do not play games at all or do not play them on an electronic device. Consumers use tablets but most prefer another type of device: if they want a large screen, they will choose a TV instead; if they want to access videos while out and about, they prefer a smartphone, which is more easily portable; and for work purposes, they prefer the keyboard that comes with a laptop or desktop computer.

Tablets are a compromise, though this also justifies their existence. They are unlikely to be the best device for most uses but are often good enough, which explains their popularity and frequent use. However, it is difficult to envisage further substantial potential for growth without radical innovation. The contrary is true, in fact: technological innovation may threaten tablets, especially if smartphones with a fold-out screen arrive on the market.

The *television* set dominates as a device for watching TV programmes but not for any other use. The idea of using the television as a home entertainment and shopping hub has not caught on. However, despite the competition from many other types of screen and the popularity of mobile video use, televisions continue to dominate in their core area.

Chart 2. Who does what and on which device?

Most popular devices by category of use

Switzerland	Total	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Browse shopping websites	Laptop	Laptop	Laptop	Phone	Phone	Laptop	Laptop	Laptop	Desktop computer
Make online purchases	Laptop	Laptop	Laptop	Laptop	Phone	Laptop	Laptop	Laptop	Laptop
Check bank balances	Laptop	Phone	Laptop	Laptop	Phone	Phone	Phone	Laptop	Laptop
Check social networks	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Video calls	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Laptop
Voice calls using the Internet (VoIP)	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Watch short videos	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Stream films and/or TV series	Television	Television	Television	Television	Television	Television	Television	Television	Television
Watch TV programmes via catch-up services	Television	Television	Television	Television	Television	Television	Television	Television	Television
Watch live TV	Television	Television	Television	Television	Television	Television	Television	Television	Television
Online search	Phone	Laptop	Phone	Phone	Phone	Phone	Laptop	Laptop	Desktop computer
Read the news	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Play games	Phone	Phone	Games console	Phone	Phone	Phone	Phone	Laptop	Tablet
Take photos	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Record videos	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone

Responses of all smartphone users to the question “What (if any) is your preferred device for each of the following activities?”

Smartphones – bane or boon? Opportunities and risks for customers, consumers and companies

The picture is very consistent, with more than 50% of respondents across all age groups preferring to watch TV programmes on a television set.

18- to 24-year olds are most the likely age group to watch TV programmes on their smartphone or laptop (13% and 16% respectively), but even among them 54% still prefer to watch on a TV set. This preference is less marked when it comes to streaming films or TV series: 36% of young people prefer to watch on a television set, followed fairly closely by a laptop (30%), with 17% choosing to watch on their smartphone. However, among older age groups, use of the television set is even more predominant: for example, 45% of 25- to 34-year olds favour a television set over a laptop, which ranks second at 14%. Above age 45, a greater proportion of consumers do not stream content, reducing the total number of users. However, the gap between the television set and the second most popular device remains constant at a ratio of about 2:1.

3. Smartphones take centre stage

Virtually all smartphone owners use their device every day, but for what activities? And what do they not use them for? The main use of smartphones is for communication, although not necessarily for making *telephone calls*: 24% of owners use them to make calls less than once a week. However, 89% use their smartphone to send *instant messages* at least weekly and 76% use instant messaging daily. 51% of 18- to 24-year old respondents had used an instant messaging app in the previous hour (see Chart 3).

It is striking that people send and receive written messages so frequently – probably more than ever before. Although many new non-text communication channels (e.g. video calls) have become available over recent years, written messages remain popular. And this is true not only of instant messaging, which is used by virtually all age groups, but also of *email*. 84% of respondents had used their smartphone over the previous week to send emails, the highest reported use after instant messaging. The figure is as high as 88% among 18- to 24-year olds, with 66% using their smartphone every day to send and receive emails. In this respect,

Switzerland substantially exceeds the global average (76%) and even China (71%) although our survey considered only towns and cities in China. This is unusual, because use of most communications channels in China is considerably higher than in Switzerland and globally (see Chart 4).

Short message service (SMS) or text messages are also relatively popular: 60% of Swiss consumers send a text message at least once a week. Even younger users, many of whom have grown up with instant messaging, still text, although they are less enthusiastic about this technology than older age groups. Texting is one of the few applications that attract older users more than younger ones: 70% of 65- to 70-year olds text at least once a week, compared with 56% of 18- to 24-year olds.

Key points from section 3

- Instant messaging is the most popular form of communication, while email remains popular across all age groups. Text messaging is also popular.
- Age is a major factor in the use of a mobile device for watching video content. Most young people do so; most older users do not.
- People are more likely to use their mobile phone to take photos than to make calls.
- Devices offering machine learning and artificial intelligence have not yet caught on among Swiss consumers. These technologies often run in the background of other devices and applications.
- Services with a voice interface are widely available in Switzerland and are well known, but not widely used. Around one-third of respondents has experimented with a voice assistant, but only one in ten use them via their smartphone every day.
- Smartphones are becoming central to running our lives; new functions must be easy to use and offer clear benefits for users if they are to be adopted quickly.
- Risks should be taken seriously and fears of users allayed. 75% of respondents report, for example, that they are concerned about companies passing on their personal data. Almost one in two believe that they use their smartphone too often.

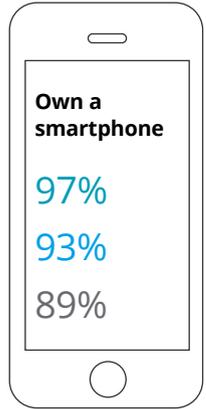
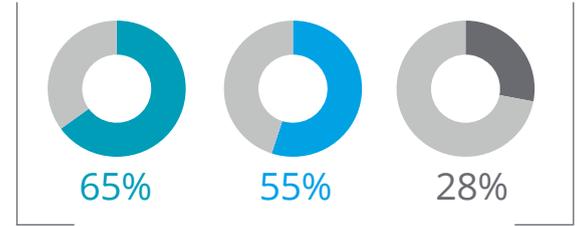
Chart 3. User profile by age group



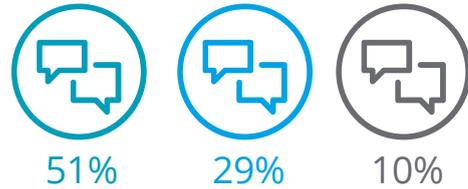
Using voice assistants



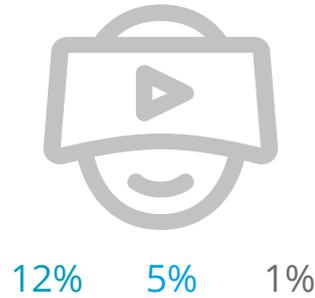
Think use smartphone too much



Used instant message app within last hour



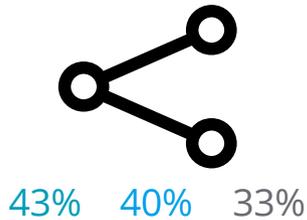
Using augmented reality



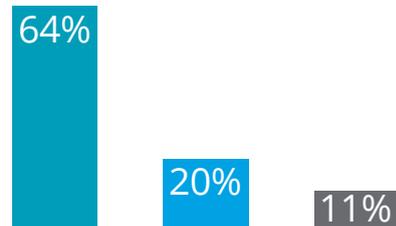
Think parents use phone too much



Share photos with smartphone at least weekly



Watch videos on smartphones daily



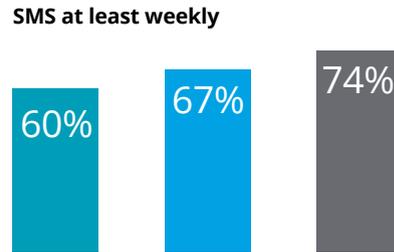
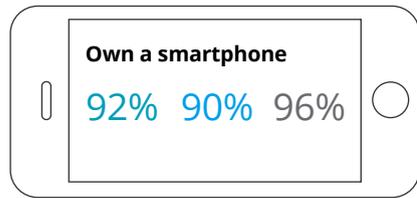
Using camera filters



Think children use phone too much



Chart 4. User profiles in Switzerland, China and the global average



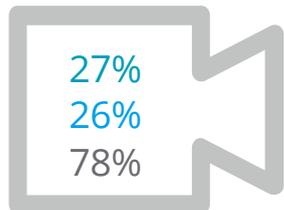
Voice call at least weekly



Instant messaging at least weekly



Video call at least weekly



Email at least weekly



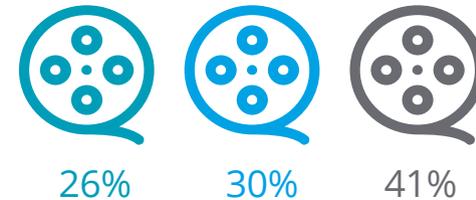
Take photos with smartphone at least weekly



Share photos with smartphone at least weekly



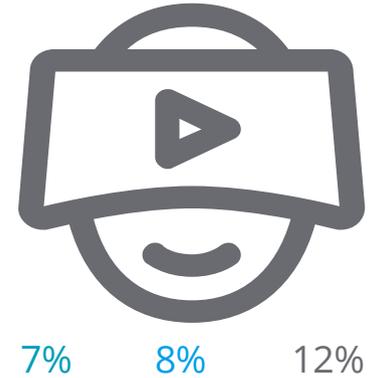
Watch videos on smartphones daily



Using camera filters



Using augmented reality



Using voice assistants



Concerned that companies share personal data with third parties



Smartphones – bane or boon? Opportunities and risks for customers, consumers and companies

The use of texting in Switzerland is low by international comparisons but still more frequent than other methods of communication. Its advantages are that texts are now often free or included as part of user packages, the technology is familiar and easy to use, and users can send and read texts on older mobiles as well as on smartphones. Texting is also much more popular than video calls across all age groups. Consumers tend to stick with what they know, not only with regard to hardware. However, the use of text messages is being overtaken by more flexible and versatile instant messaging systems, and the popularity of texting can be expected to fall over the medium term.

Voice calls rank third, with 76% of respondents using their smartphone for this purpose. Voice calls are still popular in Switzerland, but less popular than the global average. Increasingly, people see telephone calls as an interruption and make them only when there is no alternative. They also tend to use them for calls of a complex or emotional nature.

The same is true of *video calls*, which are also less popular in Switzerland than the global average. With only 27% of respondents making them weekly, they are less popular than voice calls. Young people are slightly more likely than older people to use this form of communication: 12% of 18- to 24-year olds make video calls every day, compared with just 3% of 65- to 70-year olds. Overall, compared with the global average, Swiss consumers are less likely to make voice calls and are even less likely to want to see the person they are talking to.

Social media are a popular use for smartphones, with 69% of respondents using them at least weekly. Virtually every age group up to and including 34-year olds uses them (85%), although the rate of usage is lower among those over the age of 35. Rather less than half of all over-55s use social media, although another way of viewing this figure is that a fairly large proportion of older people are now using them.

Overall, perhaps the most striking difference between age groups lies not in different levels of popularity of the various forms of communication – relative popularity remains fairly stable across age groups, with the notable exception of texting – but in frequency of use. The younger the consumers, the more likely they are to engage frequently in communication across all channels.

Everybody watches videos – nobody watches videos

In fact, both these statements are only slightly exaggerated and both are true: the *use of mobile devices to watch videos* differs substantially according to age. 64% of young people watch short videos, live posts and social media stories on their smartphone at least once a day, and another 23% do so at least once a week. The figures for older consumers are almost exactly the reverse: 30% use a smartphone to watch short videos less than once a week, and 39% do not use it for these purposes at all. All age groups like watching animations, but younger people are much more likely than older people to do so on small mobile devices.

More people use their mobile phone to take photos than to make calls

The difference is only very small, but 77% of respondents use their smartphone to take photos at least once a week, compared with 76% who use it to make calls. Nor are there significant differences between age groups in this respect: (virtually) all smartphone and mobile phone users in Switzerland like taking photos with their device and are much more likely to do so than users in other countries, including China where consumers use a wider range of applications more frequently (see Chart 4). However, Chinese consumers are more likely than their Swiss counterparts to use smartphones to share photos via social media or to use instant messaging apps. Chinese consumers take fewer photos but share them more frequently. Among those up to the age of 64, there are few differences between age groups in Switzerland. Rather less than half of smartphone users in all age groups share photos, and the figure is still around one-third among the over-65s.

Recording videos is much less popular than taking photos, across all age groups. Only about one half as many respondents (32%) record videos at least once a week as take photos. Videos are more time-consuming to produce, take longer to watch and consume more storage. These factors limit the frequency of video recording, at least in comparison with photos. Although they are not quite as convenient as photos, however, videos are now becoming easier to produce and may well gain in popularity in future.

As with watching videos, the differences between age groups are greater when it comes to making videos than with taking photos: the younger the smartphone users, the more likely

they are to make and watch videos. More than one-third of young people make videos at least once a week compared to around one-quarter of older consumers.

Age differences are even greater when it comes to editing photos and videos, or using filters and augmented reality. 36% of 18- to 24-year olds edit their photos and videos, 38% use filters and 12% use augmented reality. Among 65- to 70-year olds, the corresponding figures are 13% for both editing and use of filters and just 1% for use of augmented reality. These percentages among users in Switzerland are consistently much lower than the global average.

There is major potential in the area of *augmented reality (AR)*. AR technology delivers additional information, mostly in visual form, for example by using arrows to illustrate street directions, by enabling consumers to visualise furniture in their own home, or by presenting fantastic creatures in genuine environments (which users can collect as a game). These AR functions require even more effort than videos and, as new technology, many users do not use them intuitively. This technology is also considerably harder to use, although this need not be a long-term disadvantage in the long-term if it offers real benefits.

Swiss consumers are not yet consciously adopting AI in large numbers

More and more mobile functions and services are now enabled or enhanced through artificial intelligence, (AI). Machine learning – where computers use data to recognise patterns and rules that can then be used to improve functionality and services – is a core aspect of AI. Chart 5 illustrates a range of such functions and services and the level of familiarity and use in Switzerland.

Smartphones – bane or boon? Opportunities and risks for customers, consumers and companies

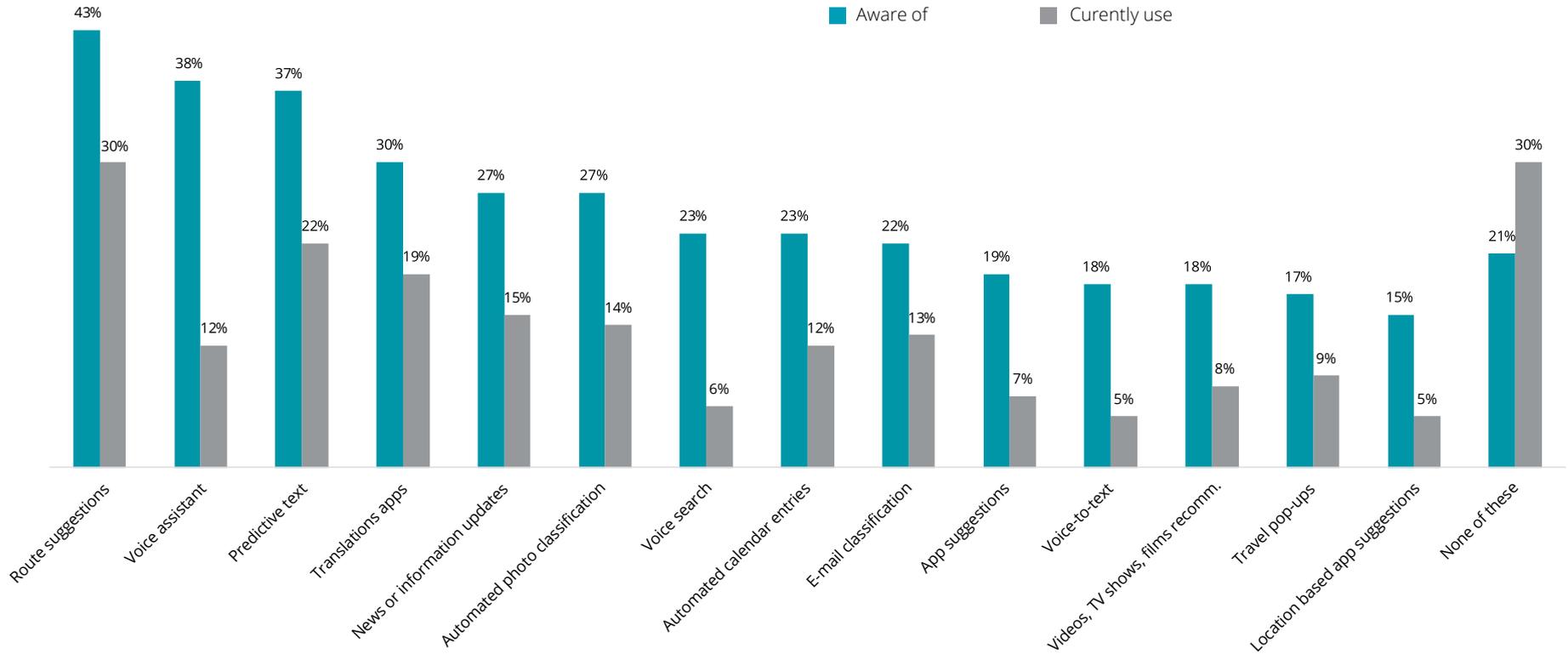
AI services have not yet caught on with Swiss consumers. Although 79% say they are aware of at least one way in which AI is used, less than half are aware of specific applications that rely on AI. The best known application of AI technology is satellite navigation (satnav), followed by voice assistants (digital assistants that follow spoken commands).

Only a minority use individual AI functions. Some respondents say they are aware of a particular application but do not use it.

Satnav systems are the most commonly-used application of AI (by almost one-third of respondents) while almost two-thirds of respondents are aware of them. In general, there is a correlation between awareness and use: consumers are more likely to use applications they know a lot about. In the case of AI, however, there are some marked discrepancies, in particular with voice-based services such as voice assistants. Here, the proportion of those actually using these services is never more than a third of those who are aware of them. Many of these services run in the background when other applications are used, so it is possible that consumers are unaware that they are actually using them. However, this does not explain the sometimes considerable discrepancy between awareness and use. When new technologies are launched, it can take some time for consumers to become used to them and willing to use them. It may therefore be the case that with increasing awareness, voice-based services will grow in popularity, provided that they offer benefits to consumers (see below).

Not everybody needs to use every technology. However, most of the services in Chart 5 are widely used. Increasing use requires not only increasing consumer awareness but also a closer correlation between use and awareness. If this does not happen, and if – for example – no more than one-third of consumers who are aware of voice services actually use them, then such services will not gain a strong foothold in the Swiss market.

Chart 5. Machine learning on mobile devices: low levels of awareness, even lower levels of use



Responses by all smartphone owners to the questions “Which (if any) of these features are you are aware of?” and “Which of these features (if any) do you actually use?”

Gradual improvement underpins artificial intelligence. AI learns by using huge quantities of data: the more data it has access to, the better it functions. As the use of a service grows, more data is generated and machine learning improves, creating a better service. This is true for both individual users and entire systems. As increasing amounts of personal data are accessed, services can be tailored more closely to individual users. And the more data a service has available to it, the better it will perform. Services based on AI will therefore improve gradually, and ongoing improvements are likely to be reflected in greater use in future. However, although AI systems improve continuously with use, it may be risky to launch a system too early: users may be deterred by any imperfections, and it may take a long time until they are willing to try again with another – and ideally better – system.

Breaking the silence: voice services offer considerable potential

The low level use of voice-based services, such as voice assistants, is striking. These services are an increasingly important interface for managing a range of functions through the use of speech rather than, for example, a touchscreen. They are widely available, but while many consumers are aware of them, they are not yet using them on a large scale. Other AI services are used by almost three-quarters of those who are aware of them; voice assistants, however, are used by only one-third.

Voice assistants – digital or virtual assistants that respond to speech input – are the second-best known of all AI services, with 38% of respondents saying they are aware of them, but only about one-third of this group (12%) actually use them. 10% of respondents use a voice assistant on their smartphone every day, while two-thirds have not yet experimented with one. Among the one-third who have experimented, two in three use a voice assistant at most once a week and most of them less frequently or not at all. The remaining one-third, however, are regular daily users and seem to be enthusiastic about the application.

Just 6% of consumers use *voice searches*, in which a search engine uses spoken, not written, input to locate information online. This percentage figure represents just under a quarter of those who are aware of the service. 18% are aware of *speech-to-text conversion (speech recognition)* technology, in which text such as emails can be generated by voice, but only 5% actually use it.

The use of voice services in Switzerland is lower than the global average, which is itself low. Around the world, just 15% of consumers on average make use of these services, with use low even in China (26%, see Chart 4).

Although use in Switzerland is lower than the global average, particularly in the German-speaking cantons, use in the west of the country exceeds the global average slightly. A comparison between Germany and France follows the same pattern: it would appear that Germans are less keen than French people to speak either to other humans or to machines, and they make fewer voice calls. Germans are more willing than the Swiss to speak to machines but more reluctant to speak to other humans. Low take-up of voice services may therefore be partly cultural: the Swiss in general are less communicative than other nationalities, preferring written communication to telephone calls (see above) and showing a marked disinclination to speak to a machine. However, culture is likely to be only part of the explanation. The future potential of voice services is enormous, and they could well become the interface of the future, at least for private use. However, there is little sign yet of this potential being translated into actual use. As with all functions, the technology will have to be easy to use and beneficial if it is to catch on.

Dismantling obstacles to use: doing more with the smartphone?

The providers of any services, including voice-based services, hope to win mass usage, but while some services are successful, others are not, or at least not equally successful in all countries. So how can providers secure wider use of their products? Widespread use requires easy operation and clear benefits for users.

Smartphones with touchscreens rely on simple and intuitive operation, for example for emails, photos and instant messaging. Many recent and more sophisticated services are not yet so familiar, however, and have more complex operating procedures and require more practice in use. Editing photos, for example, is more complex than taking photos.

Cultural factors also have a powerful influence. Should photos be authentic and portray individuals and events realistically? Or is the aim to produce an 'improved' or optimised version of reality? In China, for example, optimisation is gaining ground¹, so it is more common for users to edit their pictures or to use filters. 32% of Chinese respondents edit photos or videos at least once a week, compared with 22% in Switzerland. And almost twice as many Chinese as Swiss respondents use filters (33% as against 17%). The picture in Taiwan is similar – 38% of Taiwanese respondents edit their photos and 32% use filters – reinforcing the impression that cultural factors are at work.

Cultural factors can be hard to change. Nevertheless, providers could do more to improve familiarity with the more advanced functions of their devices, for example by providing more tutorials when, for example a system is updated or a new operating system is introduced.

However, the use of tutorials and similar guidance is at odds with the claim that smartphones are simple and intuitive. For many consumers, it may be more important to have a smartphone that is easy to use than to be able to get the most out of all its functions.

It is therefore crucial to promote the benefits to users. Only devices and systems that are perceived as useful will secure mass use, so benefits must be evident. If something is useful, word will get around and use will grow. Taking the wishes and aspirations of users into consideration is therefore key, rather than creating new functions that the developer merely believes might be popular.

The same is true of managing the risk from smartphone over-use. 48% of all respondents believe they spend too much time on their smartphone, so it is important that users themselves should decide consciously how and how often they use their phone.

Fears and concerns of users must be taken seriously. In Switzerland, for example, consumers are very concerned about the storage, use and sharing of their personal data. 75% of respondents are concerned about companies sharing their data. This is a high figure, but Swiss consumers are far from alone in this respect: the global average is even higher, at 80%, and in China it is 87% (see Chart 4). Manufacturers and service providers must guarantee data protection and data security, while users must be informed transparently about how their personal data is being used. Concerns about data protection do not necessarily depress use; for example in China concerns are high, but so too is use. However, the greater the concerns of consumers are, the more likely they will be to limit their use of services. Greater transparency could therefore lead to greater trust and confidence, potentially boosting use.

¹ The New Yorker (2017), China's Selfie Obsession

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One for all, not all for all

The convenience of smartphones does not, however, depend on universal use of every single one of its functions. Quite the contrary: individuals do not need to use every function. Smartphones are extremely flexible and can meet a wide range of everyday needs as well as being used for some highly specialised purposes. One of their key advantages is precisely that they can be adapted to the requirements of individual users, by the users manually and automatically.

Smartphones are increasingly useful as they offer more niche applications that could previously be used only on another device or that are easier to use on a smartphone. By no means all new functions will attract large numbers of users, but the wide range of functions they offer are an immense advantage compared to other devices. The greater the range of functions becomes, the more consumers will use their smartphone. The potential for growth therefore lies primarily in the software area – developing new functions and new opportunities (see sections 5 and 6). The onward march of the smartphone continues.

4. The 'Internet of Things': huge future potential in the consumer sector

Increasing numbers of devices and appliances are now connected to the internet and with each other, enabling them to communicate and collaborate. This 'Internet of Things' (IoT) can be sub-divided in the consumer sector into three categories:

- connected self
- connected entertainment
- connected home

Connected self devices are worn on the body and include fitness trackers and smartwatches. Connected entertainment devices are mostly static entertainment devices for domestic use, such as smart TVs and games consoles. Connected home devices are networked domestic appliances.

Chart 6 shows which networked devices belong to which category and how widely they are currently used in

Switzerland. *Connected entertainment* is by far the most widely-used category, with smart TVs the most popular.. Smart TVs can also be used to surf the web and use apps, although very few consumers actually use them for this purpose (see Chart 2). Despite this, smart TVs are the core of the Swiss consumer IoT sector: virtually all the networked devices used in Switzerland can be used in combination with a smart TV.

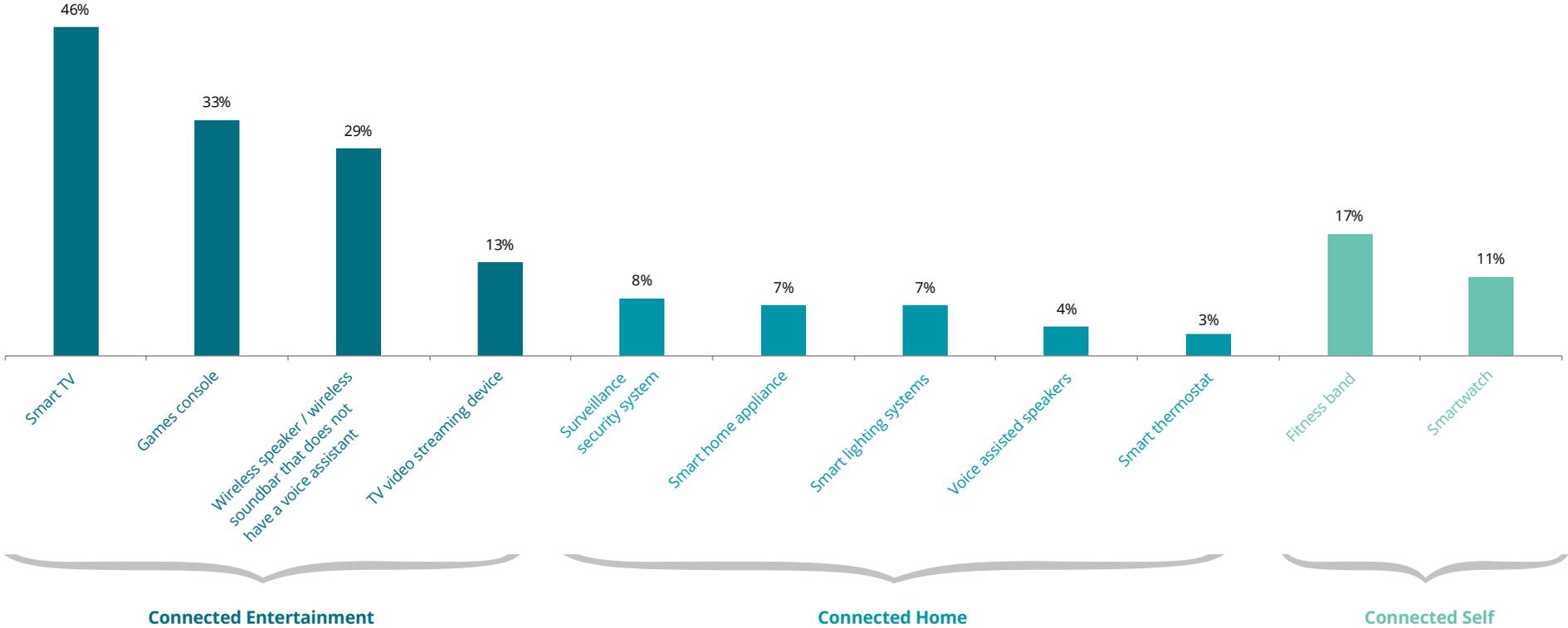
Use of smart TVs may actually grow relatively easily, because most modern TVs are networked. Much of the demand for smart TVs may be accounted for simply by the demand for television sets of any kind, with the 'smart' properties being a secondary factor. Much the same is true of games consoles, which are also frequently available as networked devices with online functions that users of other devices can easily master.

Key points from section 4

- Increasing numbers of devices and appliances can be connected to the internet and controlled via a mobile device (the 'Internet of Things'). The most popular appliance is the smart TV, which almost half of Swiss households now own. Other devices are less common: the 'Internet of Things' still has considerable potential for development in Switzerland.
- Manufacturers are hoping to see growth in the use of smart speakers – speakers that humans can communicate with by voice commands. If they become more widely used, these devices will help to achieve a breakthrough in no fewer than three technologies: voice services, artificial intelligence more generally, and networked devices.
- As with advanced functionality for smartphones, however, the 'Internet of Things' also needs to be easy to use and offer clear benefits for users. Providers also need to take consumers' concerns seriously and take measures to allay their fears about the risks.

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Chart 6. The 'Internet of Things': how common are networked consumer devices in Switzerland?



Responses from all respondents to the question “Which (if any) of the following devices do you own or are you able to access?”

The second most common category of IoT device is *connected self*, which includes fitness trackers and smartwatches. However, this is currently a relatively small category in comparison with smartphones and tablets (see Chart 1). Connected self devices are also less popular than smart TVs (which are owned by three times as many consumers) and networked games consoles (owned by twice as many consumers).

The *connected home* category, comprising networked domestic appliances, is even less popular. These devices are relatively more complex to use and are more expensive. They consist of a range of appliances, including lighting systems and thermostats to networked washing machines: they mostly involve controlling lighting, heating, ventilation and similar functions by means of the internet, an app or a voice assistant. A networked smoke alarm, for example, can automatically send a message to the fire brigade, while a networked fridge can independently reorder food, which can then be delivered and placed in the fridge by a delivery service using a smart door locking system. Overall, however, very few Swiss households (less than 10%) currently own networked domestic appliances, and their use lags substantially behind that of other digital devices, on a par with smart watches and significantly behind desktop computers.

Some networked domestic appliances are expensive and difficult to install, and this may be deterring those who rent their home. Nowhere near all IoT systems and related services are yet (officially) available in Switzerland, and it is often unclear what advantages networking offers. Networked washing machines, for example, can be switched on and off via the internet, but the internet cannot help with sorting laundry or unloading the machine, so the benefits are limited.

Other networked appliances offer greater functionality and are low-cost and easy to order and install. These include, for example, *smart speaker*, which make voice assistants available in users' homes, offering the same functionality as mobile devices. For example, consumers can launch an internet search, find a weather forecast or have recipes read out to them without needing to use a keyboard. Smart speakers can also be used to control other networked appliances, such as lighting systems. And of course, as speakers, they can also play music and audiobooks in all networked rooms in the house. If smart speakers do become more popular, they could help achieve a breakthrough in no fewer than three technologies: voice services, artificial intelligence more generally, and networked appliances.

Smart speakers in particular, which are easy to use, will prove whether or not Switzerland has a wider interest in networked domestic appliances. They have become more popular in a number of other countries, such as the United Kingdom, where 12% of households – three times as many as in Switzerland – already own smart speakers. These systems are quite new and are constantly being improved, which could boost their popularity. Networked appliances could also be a boon to individuals with limited mobility. Voice assistants are currently most popular among the over-65s, 14% of whom use them (see Chart 3), although there are only small differences across age groups.

However, as with advanced functionality on smartphones, these appliances need to be easy to use and offer clear benefits. Manufacturers also need to take consumers' fears seriously and to offset risk. Cyber-attacks on computers may seem bad enough but they are only virtual and have no physical impact. A cyber-attack on networked domestic appliances, however, may have a tangible impact if, for example, hackers gain control over heating and lighting systems or door entry systems. Cyber-security must therefore be a crucial component of smart home devices. The same is true of data protection and users' control over their personal data, to allay fears over privacy.

5. New opportunities: mobile shopping, mobile payments and mobile financial transactions

New smartphone functions may boost growth. For different reasons, mobile shopping, mobile payments and mobile financial transactions are all potential areas for growth for companies in the consumer goods, retail and banking sectors. First, use of mobile devices is currently less popular in these areas than in others (see Charts 2 and 7), so there is room for growth. Second, these three sectors are of direct commercial interest, so greater use of mobile devices would bring benefits both to consumers and to retailers or service providers. Consumers would be able to shop, make payments and carry out financial transactions more easily and conveniently; and retailers/ service providers would access an attractive direct interface with customers and an additional sales channel. Mobile devices, and particularly smartphones, are very suitable for making payments, because consumers always have their device to hand and are familiar with it, ensuring ease of use.

Implementation needs to be careful, however, to realise the potential benefits. Specifically because apps and mobile websites offer direct customer interface, poorly-designed solutions may have a negative impact on customer perceptions and drive customers away in the long term. Any apps and mobile websites that are non-intuitive, do not offer clear benefits or are insufficiently attractive will create a poor customer experience, deterring consumers from using the entire company and its products or services.

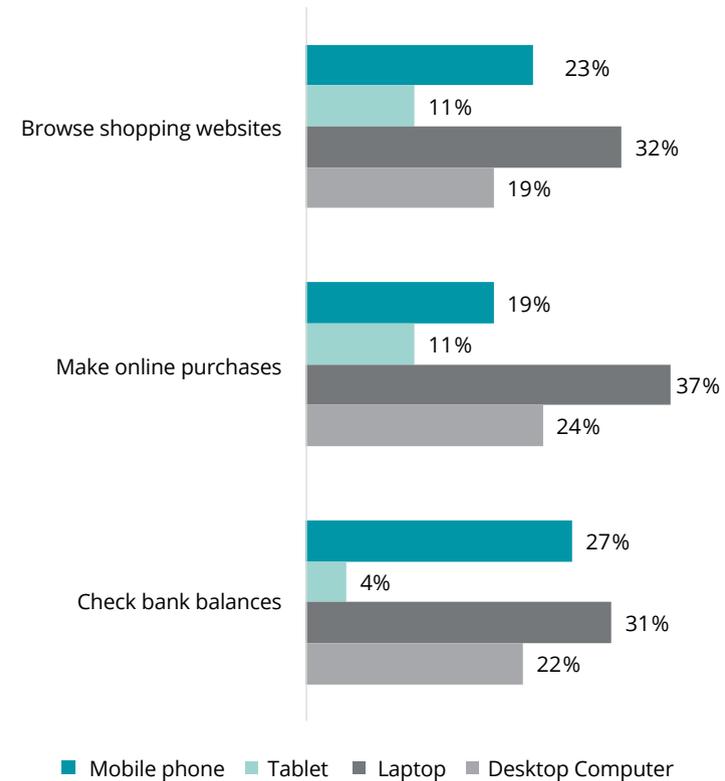
However, there is an opportunity to improve customer perceptions. Well-designed mobile solutions for shopping, payments and other financial transactions will not only make customers' lives easier and boost potential growth: if the quality is high, they could actually transform perceptions of the service provider. For example, the first banks to offer online mortgages were perceived as experts and market leaders. The same is true about the pioneers of online retail: good solutions enabled them to benefit from the advantages of being a first mover. There is a similar opportunity for first movers in the mobile sector.

Key points from section 5

- Mobile shopping is already very popular: 74% of consumers use the internet at least occasionally to access product information, and 59% shop online at least occasionally. Mobile devices are blurring the boundaries between online and offline shopping, with information and offers available at home, in physical shops or for people on the move.
- Mobile payments are less popular than mobile shopping. Mobile payment solutions compete with debit and credit cards. 71% of consumers still choose to pay by credit card even when using their smartphone to make purchases. Around half of all consumers pay by smartphone at least occasionally, while only just over a quarter (27%) use mobile apps to pay in physical shops.
- 65% of consumers use mobile devices at least occasionally for financial transactions, although this is mostly confined to simple activities, such as checking balances. Mobile financial services represent substantial untapped potential. Careful integration of smartphones into a coherent multi-channel strategy will be crucial to future competitiveness, in particular for retail banks. Transparent, straightforward and user-friendly mobile solutions will increase customer loyalty and satisfaction levels.

Chart 7. Popularity of devices for digital shopping, mobile payment and digital financial transactions

Percentage of respondents using the following devices as their device of choice for various activities. Where totals do not add up to 100%, the difference is accounted for by other devices and respondents indicating no preference.



Responses of all smartphone owners to the question “Which (if any) of these devices do you prefer to use for each of the following activities?”

This may seem surprising, given that smartphones have now been popular for a long time, but many solutions in the Swiss market – particularly in the financial sector – are still relatively underdeveloped. Even existing solutions often fail to exploit fully all the advantages of mobile devices, giving new entrants the opportunity to outperform established competitors with new and innovative solutions. As with e-commerce, the winners in the mobile commerce race may well come from an unexpected direction.

Mobile shopping

Many consumers use mobile solutions to access product information, but there is still relatively large potential for purchasing by mobile. Mobile devices – smartphones and tablets – are already outstripping laptops in this area (see Chart 7), although laptops remain the most popular device, followed by smartphones. Smartphones are particularly popular among 25- to 34-year olds (41%), while 18- to 24-year olds also turn to their smartphone for browsing (36%). Older consumers are more likely to use both laptops and desktop computers to browse.

While mobile devices are almost as popular as computers for accessing information, computers are still the most popular for actually making purchases.

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30% of respondents say they are most likely to use a mobile device for online shopping, only half as many as those who prefer to use a computer (61%). Mobile devices are more popular than computers only among 25-to 34-year olds and then only by a small margin (48% and 46% respectively).

Mobile shopping is not only popular: it is also relatively frequent (see Chart 8). 37% of respondents use their smartphone at least once a week to access information about a product or service; almost the same number (38%) do so but less frequently, with just under a quarter (24%) reporting that they never use their smartphone to access information on products or services. Browsing on shopping websites is almost as popular, although fewer consumers use mobile devices to read product reviews. In general, young people are much more likely to use their smartphone to make purchases. Switzerland lags only slightly behind the global average in this respect. For example, an average of 72% of consumers around the world use smartphones or mobile phones to browse shopping websites, compared with 69% in Switzerland. And as with other mobile activities, China far outstrips the global average, with 95% of Chinese consumers using a mobile device at least occasionally to access shopping sites. This pattern – China the most enthusiastic leaders, followed by a lower global average, and with Switzerland lagging – is replicated across all mobile shopping activities, with one exception (see Chart 8). The only purchases that Swiss

consumers are more likely to make via a mobile device, compared to the global average, is services, although even here the Swiss lag behind the Chinese.

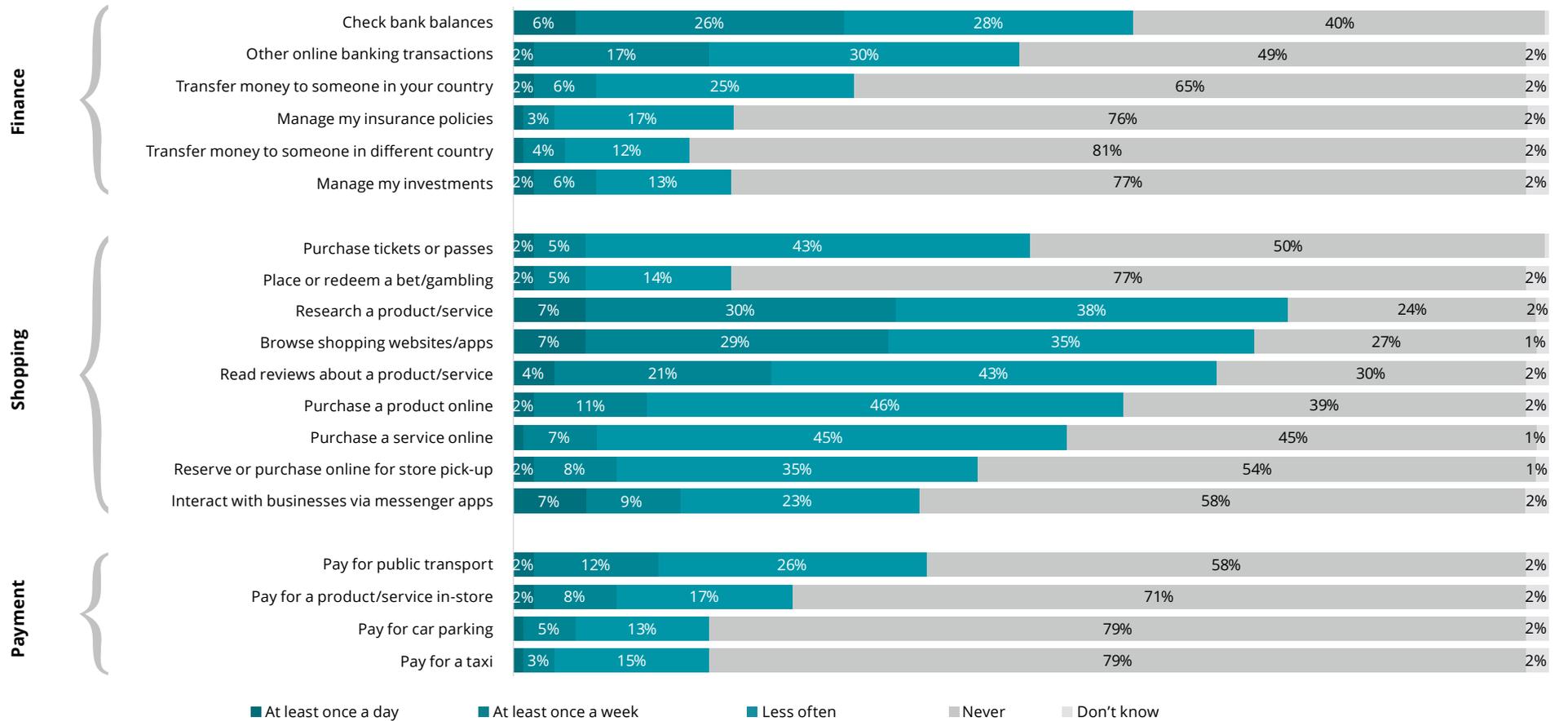
Mobile devices offer the clear advantage of being more accessible than a computer, enabling consumers to access information both from home and in a physical shop or to people on the move. A pattern of accessing information online but purchasing offline is actually more common than buying online. A Deloitte study has shown² that 29% of purchases in shops are influenced digitally, mostly by digital mobile devices (19%). This study takes account of the frequency of both visits to shops and also the use of digital devices during the purchasing process.

The boundary between online and offline commerce is becoming blurred, with physical shops now also competing directly with online offers. A primarily offline selling strategy for a retailer that emphasises the advantages of physical shops, such as customer advice and product assessments, can be meaningful if it is delivered appropriately. However trying to sell without any digital presence can be a risky strategy for a business when more than two-thirds of shoppers get their information online at least occasionally. And when it comes to purchasing electronic goods, more than 80% of consumers access information online before making a purchase, as another Deloitte study has found.³

² Deloitte (2017), The digital consumer

³ Deloitte (2018), Der ungebrochene Trend zum Online-Einkauf (Perspective article in German)

Chart 8. Frequency of shopping, payments and financial transactions on a smartphone



Responses from all smartphone owners to the question “The list below gives activities that you may carry out on your mobile phone. Please indicate which (if any) of these activities you use a smartphone for.”

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Purchasing by mobile lags behind the use of mobile devices to access information but is still a frequently-used application (see Chart 8): 13% of respondents use their mobile at least once a week to purchase goods,; 46% do so less frequently and 39% never. The picture is similar for purchases of services, though with less frequency. Around half of all respondents use mobile devices at least occasionally to purchase online tickets for cinemas, theatres or leisure attractions, and rather less than half use their devices to reserve goods or to collect them from a shop. 21% use a mobile at least occasionally to place bets or enter prize draws.

The discrepancy between the numbers using mobile devices to access information and those using them to make purchases can be explained partly by the fact that once they have accessed information, consumers then purchase items in a physical shop so that they can assess the product themselves or obtain information from shop staff. However, the discrepancy may also indicate that the use of mobile sales channels may not yet have been optimised and that there is potential for growth if the mobile shopping experience can be improved.

39% of consumers are already using instant messaging apps to communicate with retail outlets. Given the popularity of such apps, providers have scope for direct customer communications, subject to obtaining shoppers' consent. Instant messaging need not be restricted to communications: some apps also enable shoppers to make payments.

Mobile payments

Mobile payments are less popular than mobile shopping, and mobile payment solutions are compete with debit and credit cards. 71% of consumers using a smartphone to make a purchase normally use a credit card to pay; 42% use online payment systems, 26% use banking apps, and just 8% use mobile payment apps (see Chart 9).

Rather less than half of all consumers use their smartphone at least occasionally to make a payment (see Chart 8). Smartphones are most frequently used to purchase tickets on public transport: 42% use their device for this purpose, including 14% who do so at least once a week. Less frequent uses for mobile payment systems include payments for parking or for taxis (21% in both cases – see Chart 8).

The use of smartphones to make payments in shops is even less frequent. Just over one-quarter of shoppers (27%) ever do so: 2% use their device for this purpose every day, 8% once a week, and 17% less frequently. This puts Switzerland below the global average (34% with mobile phone or smartphone) and well below the Chinese average of 94%. Nevertheless, mobile payments within shops are more frequent in Switzerland than in some other European countries, including Germany and France.

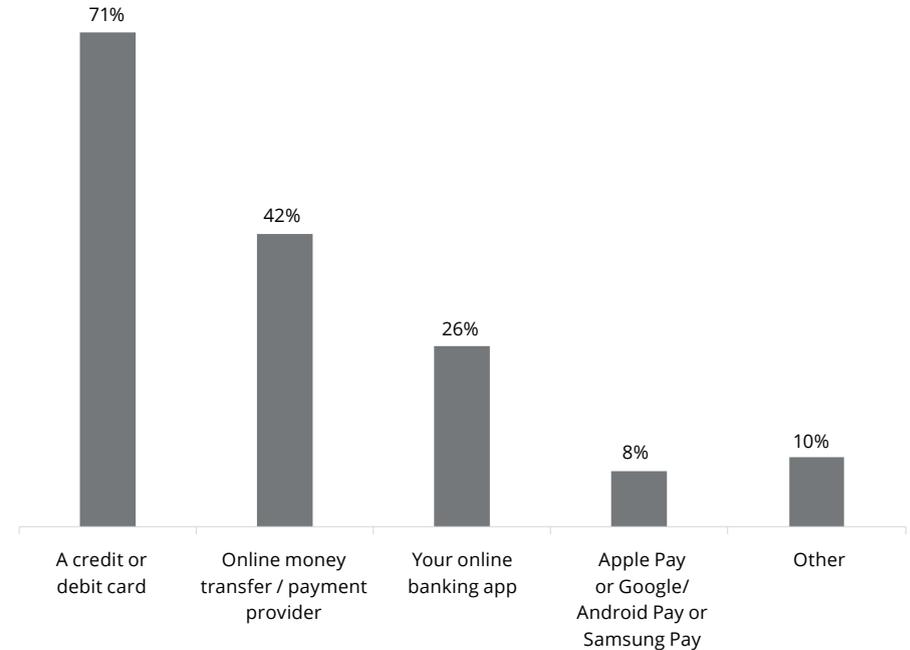
Chart 9. Which applications do consumers use to pay for purchases made on their smartphone?

Multiple answers possible

Mobile payments using the near field communication (NFC) interface on a smartphone are very rapid: this technology enables data to be exchanged in a contactless process between a customer's mobile phone and the payment terminal. However, cards can also be used to make contactless payments, so mobile payment solutions offer very little by way of enhanced rapidity or convenience. For payments by both card and mobile, an item – a wallet or purse or a smartphone – has to be held physically against the reader, so there is no advantage to using one rather than the other. And in both cases, payment can also be made and confirmed via an app.

Depending on the retailer's technological set-up, it may be slower to make payment via smartphone than by card where additional security checks and scans are required. Card payments below 40 CHF can be made without security checks, so payments are made very quickly. Payment via smartphone using the NFC interface and biometric security checks are also fast, but payment apps that do not use the NFC interface on a smartphone take longer.

Consumers now also have the choice of doing without a wallet or purse at all to make payments by smartphone, but this major advantage is unlikely to be achieved until smartphones take over not only payment solutions but also other functions, such as for identity cards, customer loyalty cards, public transport season tickets and so on. This is the way things are moving, however, and the more common it becomes, the more likely it will be that smartphones gain a firm foothold as a means of payment.



Responses from all smartphone users who have used their smartphone to make purchases to the question "Which of the following payment methods do you normally use when purchasing goods or services online with your smartphone?"

At present, mobile payment solutions are dependent on both a customer interface and the payment methods, such as cards or accounts, operating in the background. The customer interface is new, but processing of payments is more well-established, and all interface providers still resort to traditional payment service providers, such as banks and card companies. This situation is unlikely to change until providers of mobile payment systems become financial service providers themselves. This would be no small undertaking but not impossible. Non-financial companies, such as automotive businesses, conglomerates or retail companies, have in the past served as financial service providers. However, today's financial service providers now invest more heavily in mobile financial solutions, beyond payment services, thus making better use of the mobile customer interface.

Mobile financial services

Smartphones are popular for carrying out financial transactions, with 65% of consumers using them for such transactions at least occasionally. Switzerland lags some considerable way behind China on this indicator, but is only slightly below the global average. The exception is mobile cash transfers to individuals (see below).

Smartphones are slightly less popular than laptops for checking balances (see Chart 7). 31% of consumers prefer to check their balance on a laptop, 27% on their smartphone and 22% on a desktop computer. Tablets lag significantly behind all of these, with only 4% of consumers using them to check balances. There is a clear link between choice of device and age group: younger consumers are more likely to use a smartphone for this purpose, with 45% of 18- to 24-year olds preferring smartphones compared with 13% of 65- to 70-year olds. Older consumers are much more likely to prefer a desktop computer (33% as against 8% among younger consumers). Laptops are the device of choice for one-third of respondents across all age groups.

More consumers use a smartphone to check their bank balance than for any other financial transaction (see Chart 8). 6% use a mobile device to check their balance daily, 26% weekly and 28% less frequently. Another common use is to pay bills. 49% use their smartphone at least occasionally for this purpose. Smartphones offer the advantage of integrated processing: consumers can use the smartphone camera to scan invoices and then make payments on the same device. 21% of consumers manage their insurance policies this way and almost as many – 20% – use a smartphone to manage their investments.

Few consumers use a smartphone to transfer cash to other individuals (peer to peer). 33% use a smartphone at least occasionally to transfer money domestically and 19% to make international transfers. These peer-to-peer transactions offer advantages over traditional transfers because they are faster and more convenient. Swiss payment apps already offer this option, so it is particularly surprising that Switzerland lags well behind the global average for mobile transfers (50%) and even more so behind the Chinese figure of 94%. Swiss consumers make more peer-to-peer payments than their neighbours in Germany and France, but there is scope for further growth here.

For established financial service providers, there is scope for improving customer loyalty by offering an attractive additional interface. Additional functions, such as integrated processing of invoices, can improve customer satisfaction. However new market entrants or providers with ambitious growth plans have opportunities for winning customers. Mobile solutions should be offered on a consistent basis. Identity checking, customer on-boarding and customer support, for example, should all be available via smartphone.

6. Working during leisure time, dealing with private matters at work

The boundaries between work and leisure are blurring – but not for all

A majority of people use their smartphone all the time – including for work purposes during their leisure time and for personal matters during working hours. Only just under one-third say that they never use their smartphone for work purposes outside working hours (see Chart 10); two-thirds do so at least occasionally, and 29% frequently or very frequently. Men use them slightly more than women, and young people slightly more than older people.

Only 16% say they never conduct personal business on their smartphone during working hours. Most do so occasionally (45%), and 35% do so frequently or very frequently. The difference between age groups is relatively small: young people are more likely to conduct personal business at work, but across all age groups, more than 80% use their smartphone for this purpose at least occasionally.

This has an impact on concentration at work: two-thirds of respondents say they are at least occasionally distracted by their smartphone whilst working. Only one-third believe that using their mobile for private purposes has no impact on their performance at work. Distractions are mostly on a small scale, but 19% are distracted frequently or very frequently: among 18- to 24-year olds, this figure is 34%, compared with 28% among 35- to 44-year olds.

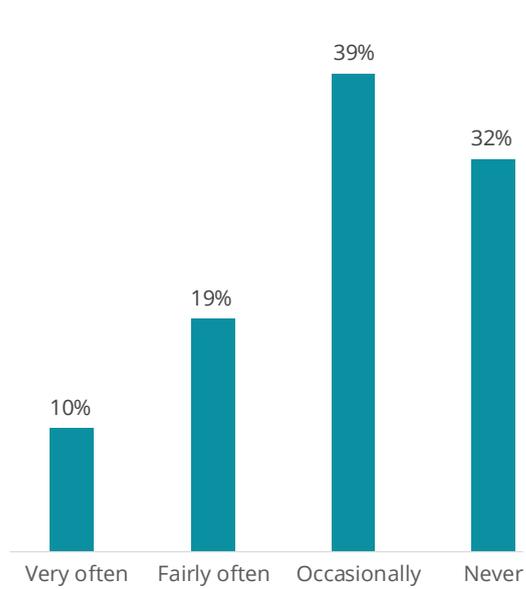
In general, both employees and employers are equally affected by the blurring of the boundaries between work and leisure: working time is lost when employees conduct personal business at work, but employees sacrifice leisure time for work purposes. However, it is far from being an equal trade-off: more respondents never use their phone for work purposes during their leisure time than admit to conducting personal business at work.

Key points from section 6

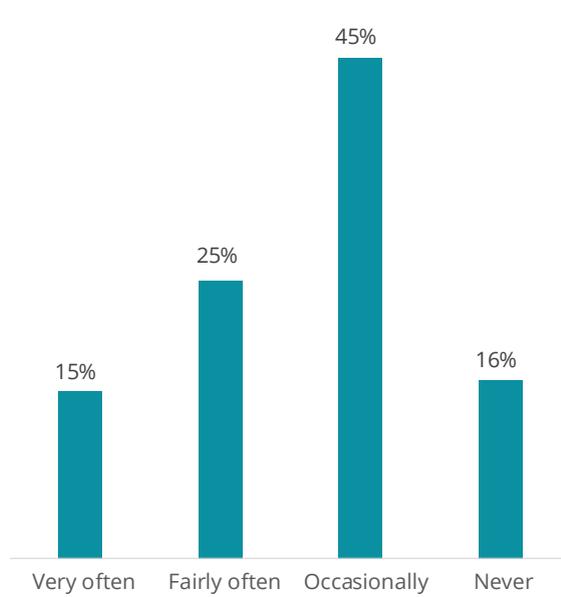
- Smartphones blur boundaries: mobile technology enables individuals to work during their leisure time, and also makes it easier for them to communicate for personal purposes while they are at work. A strict divide between work and leisure is therefore largely a thing of the past: only one in ten respondents do not use their mobile phone for work purposes outside working hours or to conduct personal business during working hours.
- Two-thirds of respondents say they are distracted at least occasionally by using their smartphone for private purposes at work.
- Use of smartphones for business purposes mostly involves emails, calls and diary functions. 35% of respondents use instant messaging to communicate with colleagues or clients.
- Apps to record hours worked or expenses may substantially reduce the time spent on administrative processes, but few individuals use them. In future, mobile solutions will make a decisive contribution to the use of digital devices in the working environment.

Chart 10. Blurred boundaries between working hours and leisure time

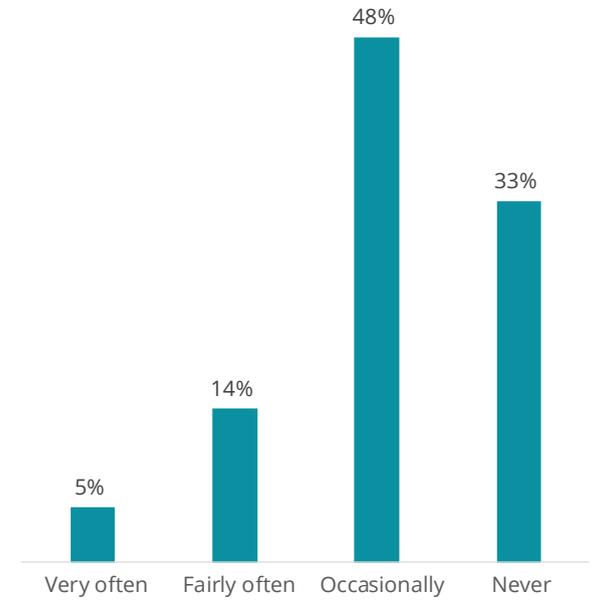
Work smartphone usage outside of normal working hours



Personal smartphone usage during normal working hours



Smartphone distraction during normal working hours



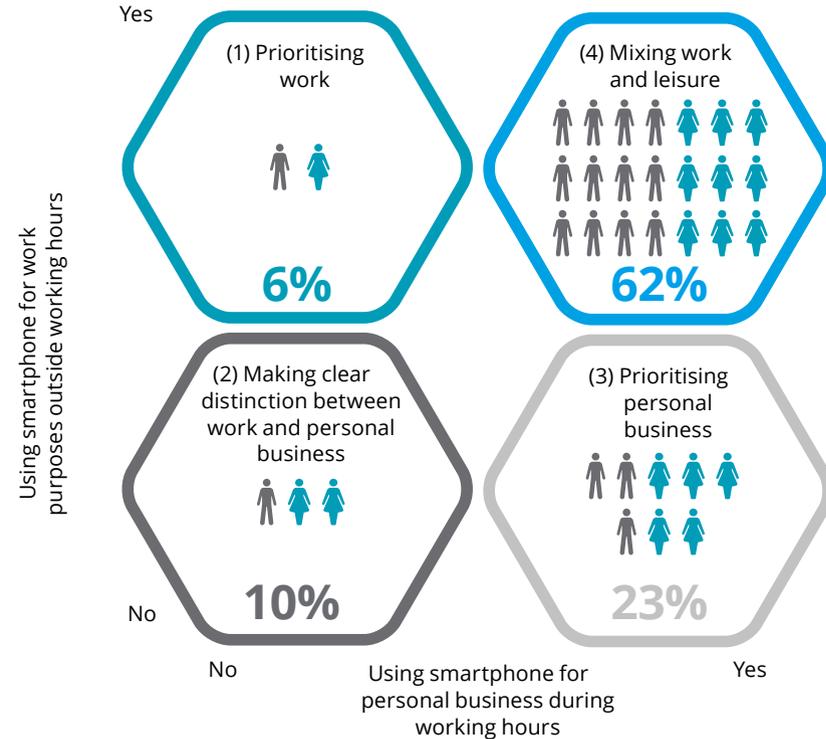
Responses from all smartphone owners in employment to the questions “How often (if at all) during a typical week do you use your smartphone for work purposes outside regular working hours?” and “How often (if at all) does using your smartphone for private purposes distract you from your work?”

Chart 11. Blurring the boundaries between working time and leisure on smartphones

The symbols represent the percentage and approximate gender ratio within each group

Employees can be divided into four categories on the basis of how they use their smartphone at work and during leisure time: (1) those who use a smartphone for work during leisure time but never for personal business during working hours; (2) those who do not use a smartphone for work during leisure time or for personal business during working hours; (3) those who do not use a smartphone for work during leisure time but do use it for personal business during working hours; and (4) those who mix work and leisure use (see Chart 11).

- (1) Those who prioritise work: individuals who use their smartphone for work purposes during their leisure time but never conduct personal business during working time are the smallest group, representing 6% of respondents (with equal numbers of men and women).
- (2) Those making a clear distinction between work and leisure: this group is the second smallest (10%). They neither use their smartphone for work purposes outside working hours nor use it for personal purposes at work. Women make up the majority of this group (61%), which tends to be older, with an average age of 42 and only 8% under the age of 25.
- (3) Those who prioritise personal business: this group is nearly four times as large as group (1), and while they conduct personal business during working hours, they never use their smartphone for work purposes during their leisure time (23%). This group is also dominated by women and has a slightly lower average age (38). Most use a smartphone to only access their social media accounts or exchange personal direct messages on an occasional basis, but one-third do so frequently or very frequently. Virtually all of this latter group could be termed ‘power users’: 96% report using their mobile phone or smartphone very often at work, with 69% saying they think they use it too often.
- (4) Those who blur the boundaries between working life and leisure time: the overwhelming majority of Swiss employees belong to this group, which mixes work and leisure when it comes to using their mobile phone or smartphone. They are – on at least an occasional basis – always available, whether for personal matters during working time or for work purposes during their leisure time.



Responses from all smartphone users in employment to the questions “How often (if ever) in a typical working week do you use your smartphone for work purposes outside normal working hours?” and “How often (if ever) during a typical working week do you use your smartphone for private purposes during normal working hours?”

The groups are not equal in size, so it is not clear whether the blurring of the boundaries between work use and personal use produces winners and losers – or who exactly these winners and losers might be (the employer or the employee). Both lose time – whether working time or leisure time – but both also gain time. Smartphones offer flexibility, and as long as this greater flexibility also meets the needs of employers and reflects the preferences of employees, then both sides win overall.

The world of work in general now focuses more than ever on flexibility, collaboration and connectivity. Mobile devices and their flexible and autonomous use are a key element in shaping this new world of work. However, there is still some catching up to be done. For example, 42% of participants in a Deloitte study reported that their employer does not provide them with a mobile device, and 29% have no access to either a chat facility or videoconferencing.⁴

It is also important to focus on the risks of flexibility. These include distracted employees and a lack of screen-free time. Being able to manage a smartphone consciously and responsibly is as important in the private sphere as it is in the working environment. The more useful a smartphone becomes and the more functions it acquires, the more important it is to manage when tasks should be carried out and when not.

How do employees use their smartphone for work purposes – and how are they not yet using them?

The main use of smartphones at work is to read and send emails (48% of respondents). Employees also frequently use them to make calls (41%) and to manage their diary (36%) (see Chart 12). 35% of employees also use their smartphone for to communicate with clients

and colleagues via instant messaging. This is a high percentage and almost matches the frequency of voice calls. However, the use of instant messaging for work is only half as frequent as the rate for private use (see section 3), showing the untapped potential for use at work.

There is also great potential for the productive use of smartphones, although not for all tasks. Tasks that benefit from a larger screen, such as editing documents, are likely to offer limited potential. Only 8% of respondents currently edit documents on their smartphone, although mobile devices with larger screens may become available in the future. The picture is different for tasks that can already be carried out effectively on a smartphone, such as logging hours worked or expenses.

In reality, however, smartphones are still rarely used for recording hours and expenses: just 6% of respondents log their hours on a smartphone and only 2% use them to log their expenses. Nevertheless, their advantages mean that using smartphones is likely to be used increasingly for such administrative processes in future, reducing costs and time.

The future: smartphones as a leisure device are becoming increasingly useful as a productive working tool

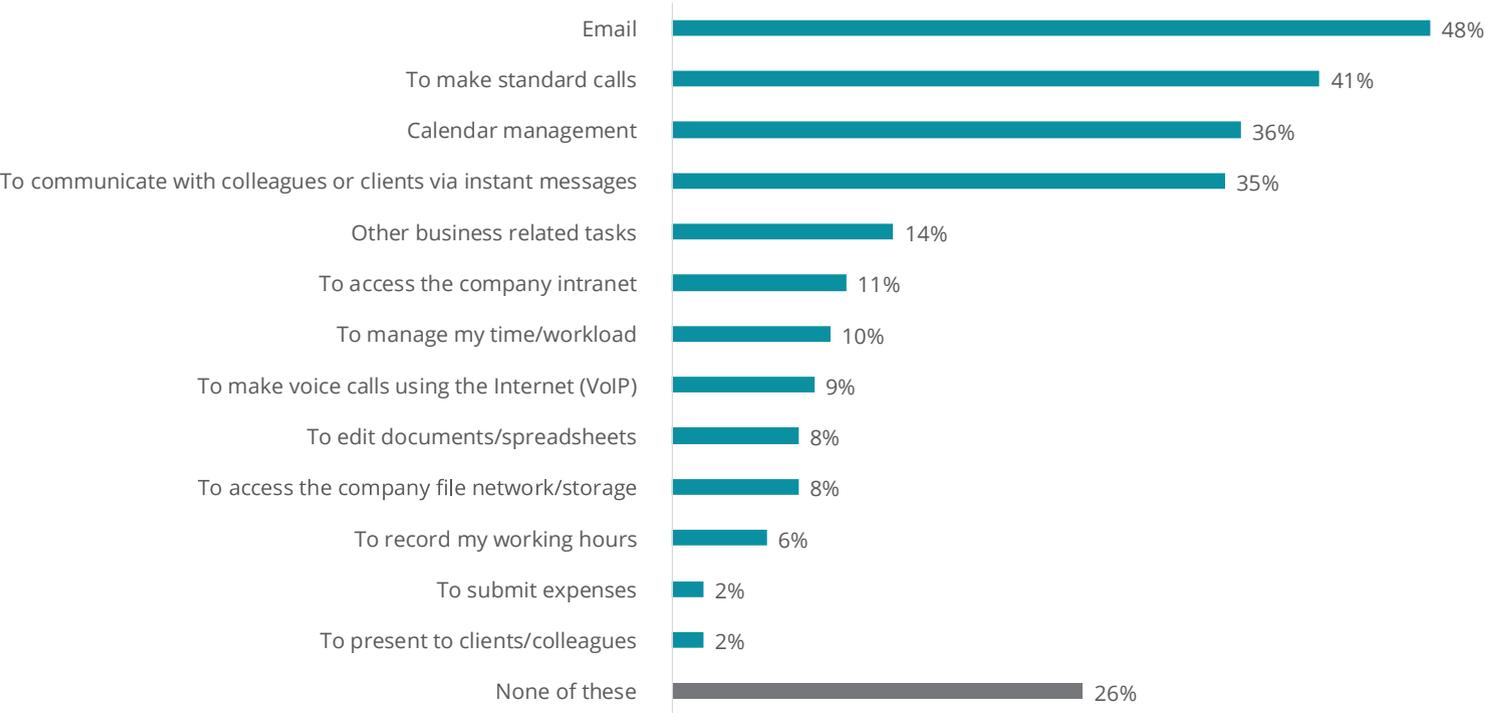
In particular because of the strength of the Swiss franc and the impact it is having on companies' profit margins, productivity gains remain a key priority for Swiss businesses. Productivity gains as a result of ongoing digitalisation have been disappointing over recent years. There are a number of reasons for this, but a major factor is likely to be the fact that the advantages of digitalisation at work are still not being fully exploited.⁵ Mobile solutions could well play a key part in making greater use at work of the benefits of digitalisation.

⁴ Deloitte (2018), Workplace transformation in the digital age

⁵ Deloitte (2018), Digital innovation capacity of Switzerland

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Chart 12. What are the uses of smartphones at work?



Responses from all smartphone users in employment to the question "For which work activities (if any) do you use your smartphone?"

The current situation is comparable with the early days of the internet, when companies were just beginning to use online technology, fundamentally transforming working processes and employee and customer access to data. The use of mobile solutions within companies is now at a comparable early stage. The impact of smartphones on the world of work will be far-reaching and multi-layered.⁶

First, more efficient management of administrative processes at work is just one benefit, although an important one. The advantage of smartphones lies in well-designed apps with a simple and intuitive user interface. Smartphone technology can also integrate different stages in a process, such as using the phone's camera to scan documents directly into an app. Apps can also replicate and update all information in one place and digitalise entire processes, including input, processing, documentation, review and archiving. For example, an invoice can be generated once a job has been completed, and the work documented: this would be faster and more convenient on a smartphone than on a laptop and would do away with the need to use IT equipment located in an office.

Second, however, digitalisation of processes and the use of mobile technology at work go beyond administrative processes. Greater use of mobiles will lead to a more efficient flow of information, real-time availability and updating of information, and integration of relevant processes and data in one place, enhancing the quality of services both online and offline, and companies' competitiveness.

Third, the integration of new technologies into smartphones, such as augmented reality (AR), can transform the processes and technologies used for work. AR has applications in a number of sectors, such as training, medicine and manufacturing. Instructions and information can be projected directly via a work interface and are then directly available as well as more accurate and clearer. For example, on maintenance jobs, weak spots in equipment can be highlighted, while working processes can be demonstrated on equipment during training.

⁶ Deloitte (2018), Die digitale Innovationsfähigkeit der Schweiz

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Fourth, greater use of digital and mobile technology is making the cyber security industry ever more important. IT departments and external IT service providers will have to deal with the opportunities but also the vulnerabilities of mobile digital systems. Because such systems are relatively new, and there is relatively little experience of past problems, the risks should not be underestimated. Networked databases and real-time transfer of data bring additional risks, such as more rapid and widespread false entries, access by non-authorised persons from both within and outside the company, and issues concerning what client information may be used, how, when and by whom. Alongside data security, greater personal data protection is essential.

The more smartphones are used at work, the more likely it will be that employers provide them to employees. This could drive the sales of smartphones, providing manufacturers with a welcome boost to growth given the already high levels of smartphone ownership. However, it is unclear whether this would generate a net increase in sales of the device. It may also be the case that a degree of ‘cannibalisation’ occurs, with ownership of a smartphone as a work device prompting individuals to dispense with their existing personal phone. This would depend on the rules laid down by the employer (for example, whether employees are able to use a phone provided by their employer for private purposes), on user preferences, and on the technical specification of the devices. If, for instance, dual SIM cards become widely used, it will be possible to separate out private and business contracts and introduce separate billing on a single device.

7. Contacts and authors

Contacts



Bjørnar Jensen
Managing Partner Consulting
+41 58 279 73 91
bjensen@deloitte.ch



Roger Lay
Director Deloitte Digital
+41 58 279 71 38
rolay@deloitte.ch

Authors



Dr. Michael Grampp
Chief Economist and Head
of Research
+41 58 279 68 17
mgrampp@deloitte.ch



Dennis Brandes
Research Manager
+41 58 279 65 37
dbrandes@deloitte.ch



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