

## 1. APPS CHANGE SOCIETY

The fast global uptake of smartphones has completely changed the way we communicate and use the internet. This has now set the scene for a transformation of all other industries. We have entered a new phase of rapidly diversifying smartphone use, and people are looking for apps across all sectors of society to improve their everyday lives.

### Mass demand for services

Demand for new mobile services could potentially transform all aspects of city life. Consumers believe that mobile services can enhance satisfaction when it comes to activities such as shopping,

eating at restaurants and leisure activities. They can also alleviate dissatisfaction with areas like child daycare and elderly care, communication with authorities, and transportation.

We asked smartphone users in São Paulo, Beijing, New York, London and Tokyo to evaluate possible future service concepts related to these areas of city life. Figure 1 shows that they predicted an overall 25 percent increase in the availability of such services within a year, and a further 25 percent increase within 3 years. This mass demand for new ICT services could change everyday life beyond what we recognize today.

with authorities

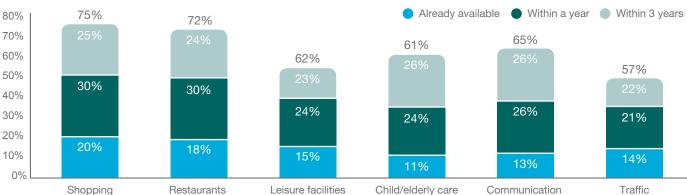
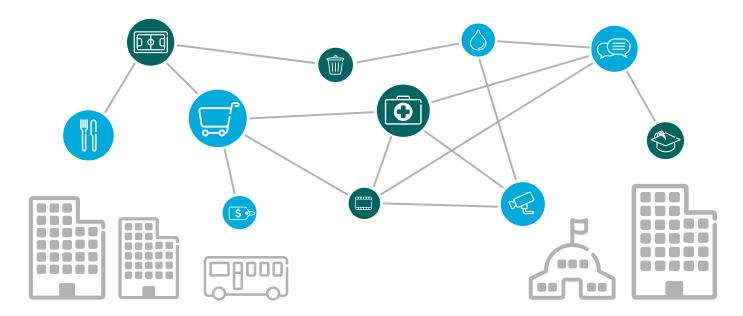


Figure 1: Predicted availability of mobile services

Source: Ericsson ConsumerLab, Smartphones Change Cities, 2013 Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo, who use internet daily

## MOBILE SERVICES COULD TRANSFORM CITY LIFE



# 2. YOUR BODY IS THE NEW PASSWORD



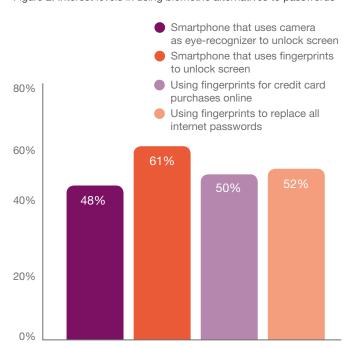
People are accessing more and more services through the cloud, and from a growing number of devices. Although consumers love to have their content and information available at all times, logging in to retrieve it is causing frustration. Sites are demanding longer passwords with a mixture of numbers, letters and symbols, making them almost impossible to remember. Password storage services and universal login systems offer a partial solution but still require passwords.

## No more passwords

All this is leading to growing fatigue in using passwords. Consumers would rather get rid of them completely, and for this reason are showing interest in biometric alternatives. For example, Figure 2 shows that 52 percent of smartphone users want to use their fingerprints instead of passwords, and half of consumers even want to use their fingerprints to authorize their credit card payments online.

A further 61 percent of people want to use fingerprints to unlock their phones, and 48 percent are interested in using eye-recognition. It doesn't stop there – 74 percent believe that biometric smartphones will become mainstream during 2014.

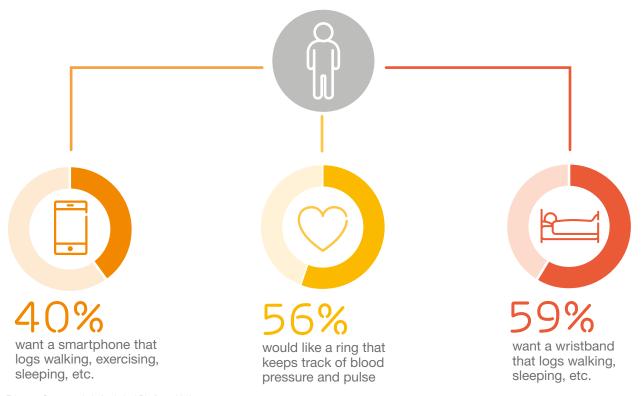
Figure 2: Interest levels in using biometric alternatives to passwords



Source: Ericsson ConsumerLab Analytical Platform 2013
Base: 5,000 iPhone/Android smartphone users in 10 major cities, who use internet daily

## 3. THE QUANTIFIED SELF

Figure 3: Interest levels in using self-tracking technology to generate personal data



Source: Ericsson ConsumerLab Analytical Platform 2013
Base: 5,000 iPhone/Android smartphone users in 10 major cities, who use internet daily

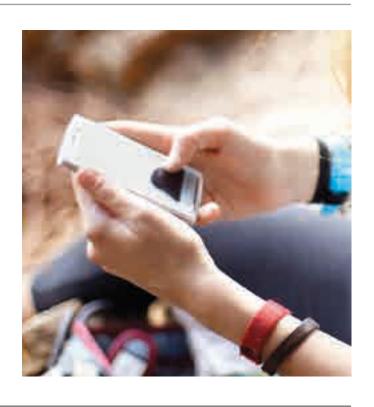
The history of self-tracking using wearable technology goes as far back as the 1970s. But with smartphones, the idea that we can monitor ourselves using personally generated data is becoming popular.

## Measuring your activities

You only need to start an app to track your activities and get to know yourself better. Figure 3 shows that not only do 40 percent of smartphone users want their phone to log all of their physical activities, 59 percent would also like to use a wristband to complement those measurements. In addition, 56 percent would like to monitor their blood pressure and pulse using a ring.

## Records will be private

Consumers who quantify themselves will be protective about their data collections. This is shown in the fact that 67 percent said they would not want to share their medical records. Further to this, some see their personally collected data as a counterbalance to the information that organizations have collected about them.



## 4. INTERNET EXPECTED EVERYWHERE

Having internet access in different locations is important to people. However, smartphone users are realizing that the signal bars on their phone no longer provide reliable guidance – since a signal that is adequate for a voice call may not be good enough for watching a YouTube clip – and finding a Wi-Fi connection is not always easy. These issues are aggravated when combined with mobility, and our research found that the lowest satisfaction with internet quality is experienced on the subway. Figure 4 shows that 39 percent of people in emerging nations are content with connectivity on the subway, and just 29 percent in industrialized nations.

## Poor quality of experience

Globally, consumers' quality of experience when connecting to the internet is falling behind their experience of voice connectivity. There is a similar pattern for both developed and emerging nations, but in emerging nations the quality of experience is generally higher.

## Inferior service is unsatisfactory

It is interesting to see how big a role expectations play. The difference between markets does not mean that overall coverage is worse in developed nations – it means that consumers are less forgiving of connectivity issues, and are no longer happy with an inferior service.

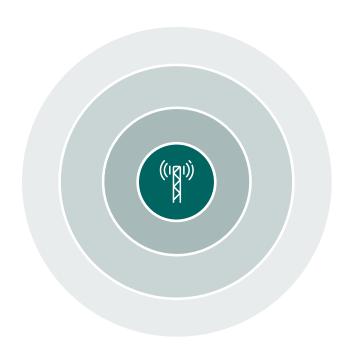
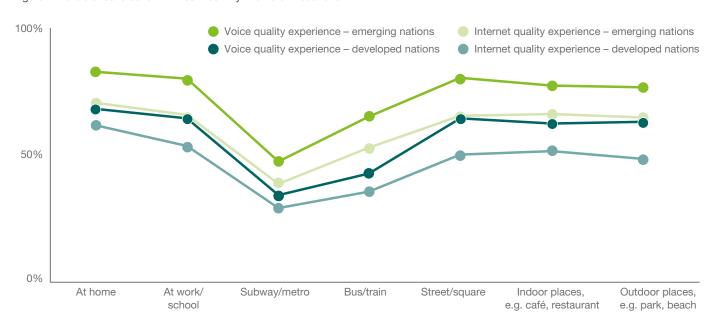




Figure 4: Levels of satisfaction with connectivity in different locations

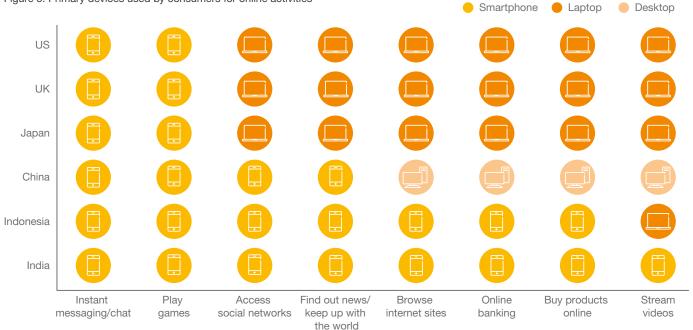


Source: Ericsson ConsumerLab Analytical Platform 2013

Base: Mobile phone users

# 5. SMARTPHONES REDUCE THE DIGITAL DIVIDE

Figure 5: Primary devices used by consumers for online activities



Source: Ericsson ConsumerLab Analytical Platform 2013 Base: Mobile phone users' total time spent on respective service per device

Internet access on a global scale is still inadequately and unequally distributed, giving rise to what is referred to as the digital divide. This is amplified by the economic inequality between the different consumer segments in any market – as well as their different experience levels and overall attitudes towards technology.

## Reducing the barriers

However, with the advent of cheaper smartphones, at least one of the barriers creating these differences is eroding. Consumers no longer need costly computing devices to access internet services. Furthermore, smartphones are easier to hide from thieves than laptops, reducing security risks and widening their appeal.

Laptops are still the primary device used by consumers in developed nations to access



online services. Despite this, 51 percent of consumers globally feel that their mobile phone is the most important piece of technology that they use when carrying out their daily activities. Tablets are not yet a primary device in any country, but serve to complement existing devices.

## Smartphones are top

Figure 5 shows that in India and Indonesia, smartphones are the primary internet device for nearly every service. In the US and the UK, smartphones are the primary device for instant messaging/chat and games.

# 6. ONLINE BENEFITS OUTWEIGH CONCERNS

As the internet becomes an integrated part of our daily lives, the risks associated with being connected are becoming more apparent.

For this reason, 56 percent of daily internet users in the US, Mexico, Sweden, Egypt, Pakistan and Thailand are concerned about

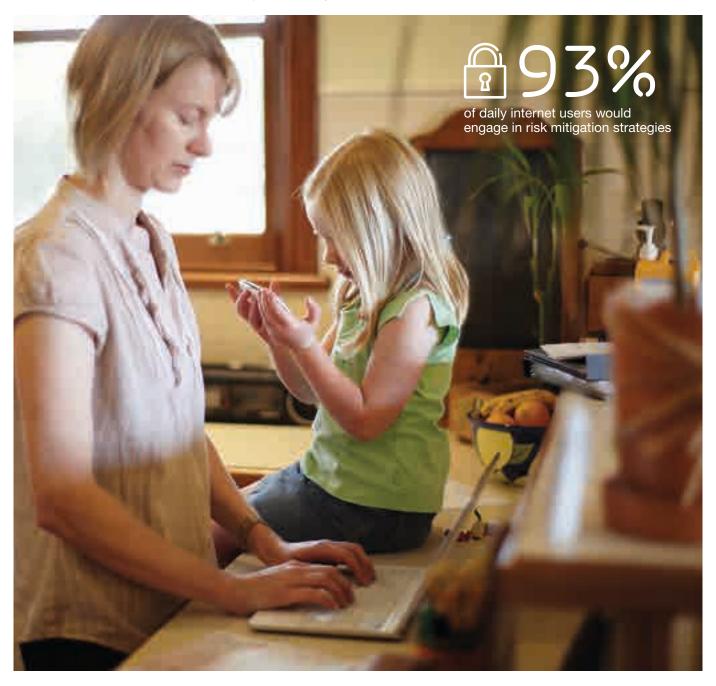
privacy issues. However, only 4 percent said that they would actually use the internet less.

## Being cautious reduces risk

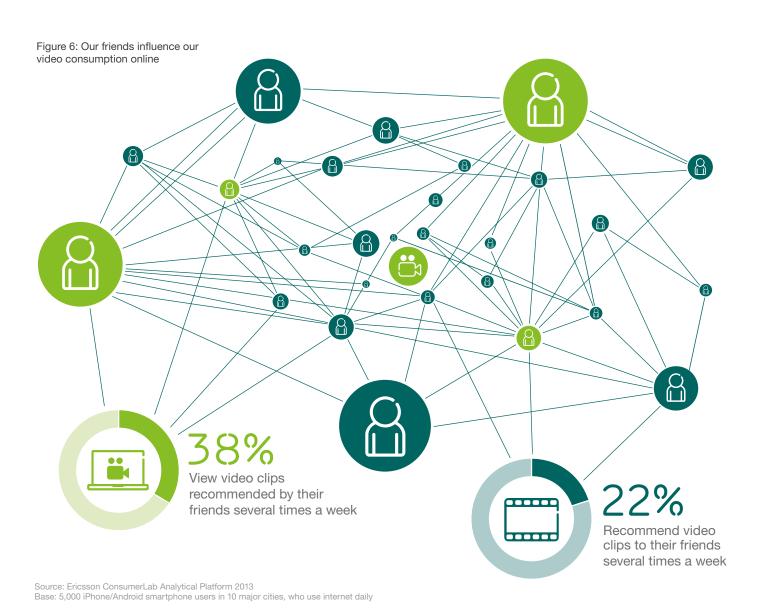
Instead, 93 percent would engage in risk mitigation strategies such as being more cautious about the type of personal information they provide. They would also think

twice about visiting certain sites, in the same way that people may avoid using ATM machines in certain areas of a city.

People may be more aware of risk, but if precautions are taken, they are likely to continue going online to share photos, download content and browse the internet.



## 7. VIDEO ON COMMAND



Despite having greater media choice, we seem less prone to choose what we watch ourselves. In fact, we often consume content at the command of our friends – although we in turn have considerably less command over their media consumption.

Figure 6 shows that our friends are particularly influential when it comes to viewing video material. We found that 38 percent of respondents say they watch video clips recommended by their friends several times a week. This sway does not hold true when reversed though, as only 22 percent of people influence their own friends. Given that we still watch videos of our own choice, the likely result is that we will watch

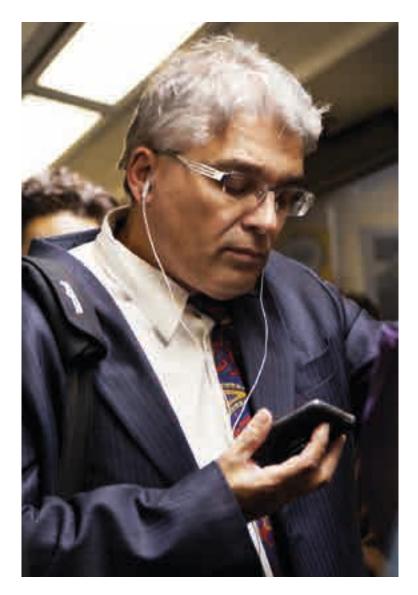
more than ever before. This may be to please our friends by commenting on their choices or liking their posts.

## Social content consumption

On top of this, every week one third of consumers act on tips or advice posted by friends or people that they follow, showing that people value content recommended by someone they know.

Our friends have almost as much impact on our blog-reading and music-listening habits too. This shows that social networks have become media hubs and the power to influence content consumption has gone truly social.

## 8. MAKING MY DATA VISIBLE



As human beings, we gain an understanding of how things work by experiencing the world around us. When pumping air into a bicycle tire, we know it is inflating because we can see it happening. We also learn from a young age how to transfer such experiences into measurements, such as reading an air pressure gauge to know when to stop pumping.

## Translating bits and bytes

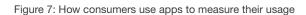
However, the internet is not a physical object and there is nothing comparable to help us understand it. Therefore, we struggle when trying to translate bits and bytes into measurements that make sense in everyday life.

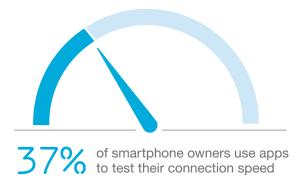
## Taking control of data

As internet use becomes more widespread, consumers strive to comprehend it, particularly to make sure they are not over-charged for the data they are using. Figure 7 shows that 48 percent regularly use apps to get information about their data consumption. While 38 percent just want to know how much data they use, 28 percent want to make sure they are billed correctly and 35 percent don't want to exceed their operator's data cap.

## A need for speed

Research also revealed that 37 percent of smartphone owners regularly use apps to test their connection speed. 42 percent said they just wanted to know the speed, but 35 percent also think that their operator's network is sometimes too slow.



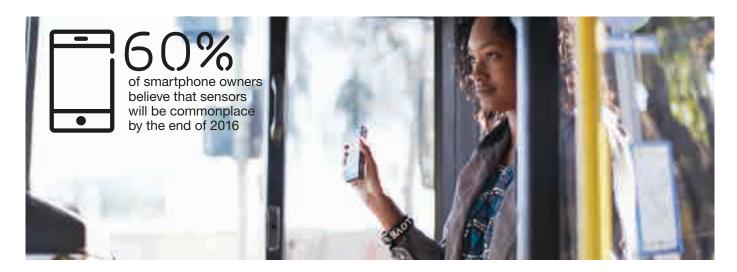




of smartphone owners use apps to measure their data consumption

Source: Ericsson ConsumerLab Analytical Platform 2013 Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo, who use internet daily

## 9. SENSORS IN DAILY PLACES



As interactive internet services are now commonplace, consumers are increasingly expecting our physical surroundings to be equally responsive.

### Interactive environment

Figure 8 shows that around 60 percent of smartphone owners believe that sensors will be commonplace by the end of 2016. These are expected to be used in everything from healthcare and public transport, to cars, homes and our places of work. In addition, 66 percent of smartphone users predict that doors and gates at work which recognize you and

automatically open will be widely used within 3 years. Another 56 percent of consumers also believe that cars with sensors that exchange information to avoid accidents will be available in 2016.

### Privacy must be considered

However, there must be some caution when installing sensors, as they could be perceived as intrusive. For example, 28 percent of smartphone owners thought store sensors that make recommendations based on the purchases of people with a similar profile and behavior to them was a bad idea.

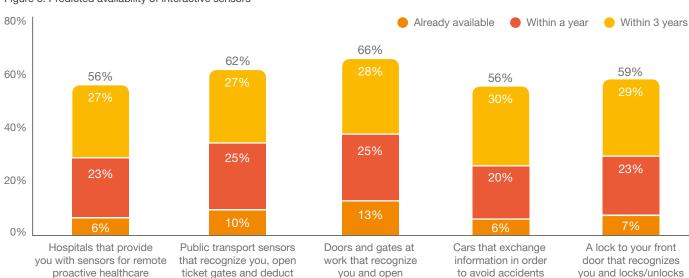
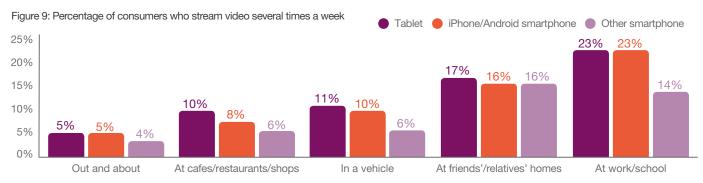


Figure 8: Predicted availability of interactive sensors

Source: Ericsson ConsumerLab Analytical Platform 2013
Base: 5,000 iPhone/Android smartphone users in 10 major cities, who use internet daily

ticket cost

## 10. PLAY, PAUSE, RESUME ELSEWHERE



Source: Ericsson ConsumerLab Analytical Platform 2013. Base: Users of respective device

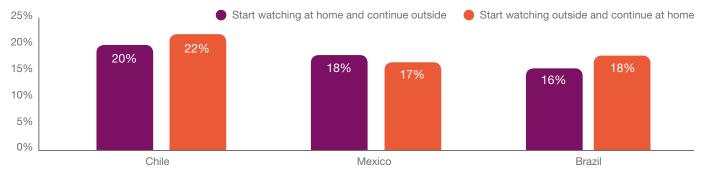
## Switching devices to suit the location

Since the introduction of the video recorder, consumers have welcomed the opportunity to organize their activities independent of TV program schedules. With the rise in streaming services on tablets and smartphones, consumers can now view the content of their choice from any device. As a result, consumers are increasingly changing the locations where they watch TV to suit their daily lives. For example they might start viewing content at home, pause it, and resume watching during their commute to work. When moving between locations, it can also make sense to switch device. We might start watching an episode of our favorite show on a laptop, pause it midway through, continue on a smartphone and catch the end on a tablet. Figure 9 shows how different devices are used in different locations.

Globally, 19 percent of total streamed TV and video time is spent on phones or tablets. Figure 10 shows that in Chile, Mexico and Brazil, an average of 18 percent of smartphone owners who watch video begin doing so at home, and then continue watching the same content elsewhere. On average, 19 percent also say they shift their viewing of TV and video content from outside to inside the home.



Figure 10: Percentage of consumers who watch video inside and outside the home



Source: Ericsson ConsumerLab Analytical Platform 2013. Base: Smartphone owners in Chile, Mexico and Brazil

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