



ERICSSON

# FROM APPS TO EVERYDAY SITUATIONS



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AN ERICSSON CONSUMER  
INSIGHT SUMMARY

# THIS IS ERICSSON CONSUMERLAB

Ericsson ConsumerLab is a knowledge-based organization. We provide consumer insight to influence strategy, marketing and product management within the Ericsson Group. Our knowledge helps operators develop attractive revenue-generating services.

We gain our knowledge through a global research program based on annual interviews with 80,000 individuals in more than 40 countries – statistically representing the views of 1.1 billion people. We have been doing this since 1995, using both quantitative and qualitative research. We spend hundreds of hours on in-depth interviews and focus groups with consumers from different cultures. Our research includes general market and consumer trends and in-depth insights into specific areas.

To be close to the market and the consumers, Ericsson ConsumerLab has team members in most of Ericsson's market regions. Being part of the Ericsson Group gives us a thorough understanding of the Information & Communications Technology (ICT) market and business models. This broad knowledge is unique and is the basis for our credibility and integrity. We see the big picture, understand where the individual fits in, and know what this means for future trends and services.

## REFERENCES

- > Ericsson ConsumerLab Media Map Study 2008
- > Ericsson ConsumerLab – Collaborative Applications Study 2008
- > Ericsson ConsumerLab 2010 Device Study
- > Ericsson ConsumerLab Additional Mobile Device Subscriptions Study 2010
- > Ericsson ConsumerLab Media in the Cloud Study 2010
- > Ericsson ConsumerLab 2011 MBB Network Quality Pre-Study
- > Ericsson ConsumerLab Research Platform 2011

# INTRODUCTION

Ericsson ConsumerLab research from the past 18 months is indicating an interesting turning point when it comes to consumer behavior around mobile internet access: people are finding it increasingly difficult not to be connected to the cloud. And while this behavior was initially heralded by smartphones, it is becoming increasingly relevant to other devices.

Prior to the smartphone, consumers tended to use the internet in “chunks” – confining their online activities to when they were close to a computer. But people are now using the internet constantly. And smartphones are not the only devices being used in this new era of constant internet access – tablets allow for the same behavior because they can be kept on constantly, they are open (they do not have laptop-like lids), and they have apps instead of hierarchical file structures.

With internet access, mobile phones are going beyond communication and entertainment, and entering the realm of everyday activities and chores. And it is the apps that are driving this growth. They are perceived as less time-consuming than browsers and less complex than applications on PCs; simply put, they provide direct access and the right functionality.

Ultimately, apps may in fact be more important than the devices they are used on as consumers increasingly associate everyday activities with specific software brands; in the US, for example, WeatherBug before leaving home in the morning, USA Today during the commute, and YouTube with friends during breaks, to mention a few. Consumers are using apps to form habits that integrate internet use into the most basic everyday activities, becoming dependent on cloud services without even noticing.

# STARTING THE DAY WITH A SMARTPHONE

Constant connection to the cloud is weaving itself ever deeper into the daily routines of consumers. They are increasingly interacting with their smartphones and the internet before they even get out of bed. For many people, the alarm clock they now use is in their phone, so when they wake, it is the first thing they touch. And if they are turning off an alarm in a smartphone, they also have a quick connection to the internet in their hands.

To date in 2011, 35 percent of US Android/iPhone users interact with non-voice applications on their smartphones before getting out of bed. The most common activity here is checking Facebook – 18 percent of social networking users log in while their heads are still on the pillow.

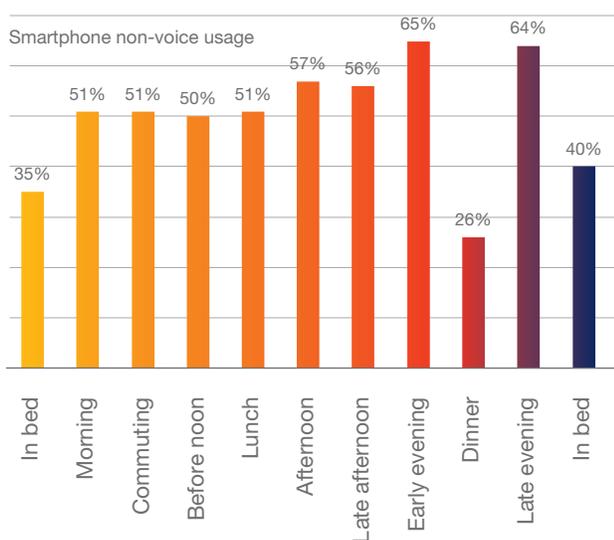
Apps for news, weather and even Craigslist are all becoming a part of the morning routine for US smartphone users. After getting out of bed, among those who use such services, 23 percent access the internet via their browsers, and 24 percent

check their mail. Facebook also remains important after people get up, with 22 percent of users checking in during the morning.

*“When I get up, I turn off the alarm on my phone. I set it for 6:25 every morning. So I get up and turn that off. Then I check my e-mail, clear all the e-mails from the morning. I usually make about two phone calls in the morning, one to my mom and one to my grandma. I usually check the internet, like Facebook,”* Sean, 16, San Francisco.

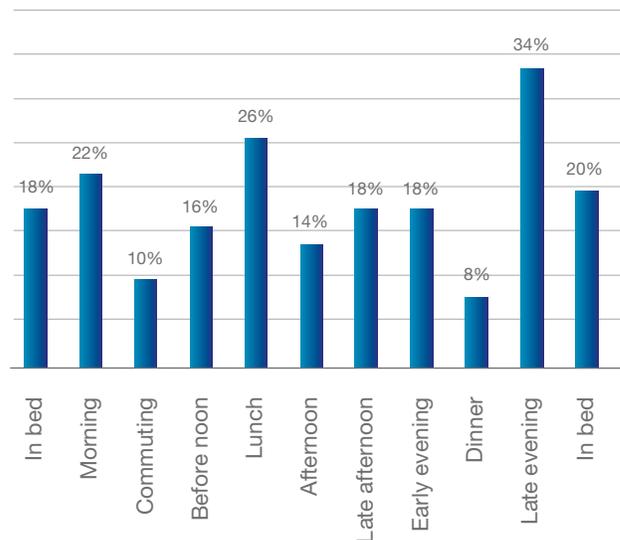
When starting the day, some consumers turn to the phone to check upcoming activities rather than the printed calendar or the laptop. During their morning commutes, 29 percent use Google Maps and other smartphone navigation apps, while 28 percent listen to music. Others find the name of a song they’re listening to on the radio with the Shazam app. In San Francisco, those who bicycle to work can use GPS tracking in their Motion X bicycle app.

## “My top 3 situations for using my smartphone”



Base: Android/iPhone smartphone users, USA  
Source: Ericsson ConsumerLab Research Platform 2011

## “My top 3 situations for using social networking”

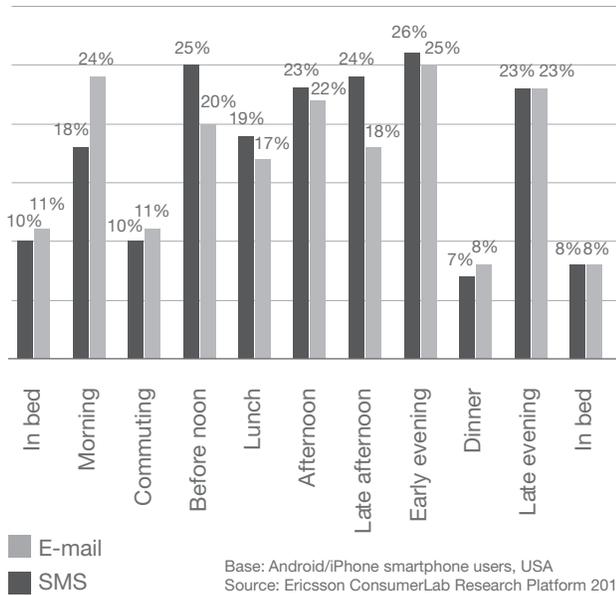


Base: Android/iPhone smartphone instant messaging and social networking services users, USA. Source: Ericsson ConsumerLab Research Platform 2011

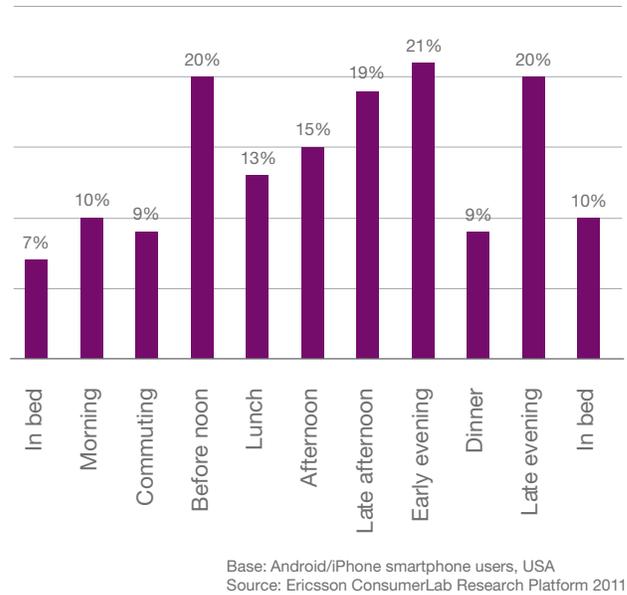
Smartphones are then used throughout the day for such things as sharing video clips with friends on YouTube or checking sports scores, as well as constant communication via SMS, e-mail, instant messaging and Facebook. Internet browsing reaches a peak during lunch, when gaming is also popular. Shoppers often use the Amazon app and also check out

recommendations via Yelp. After work, Yelp and UrbanSpoon can be used to find an evening meal – and those who go home may switch over to the Netflix app on the tablet. Just before and right after dinner, smartphone internet activity has its overall peak with games, internet browsing, instant messaging and social networking.

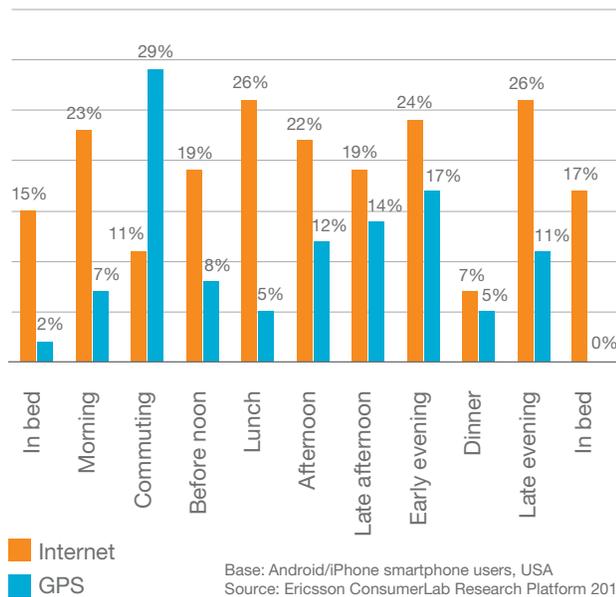
### “My top 3 situations for using e-mail & SMS”



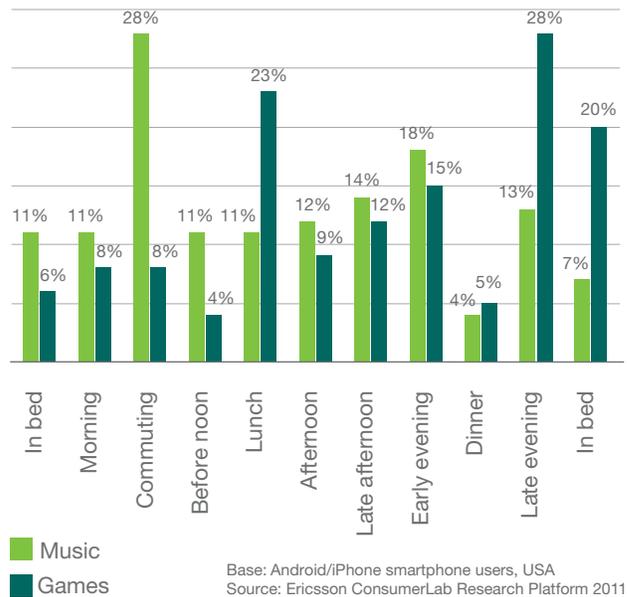
### “My top 3 situations for using instant messaging”



### “My top 3 situations for using internet & GPS”



### “My top 3 situations for using music & games”



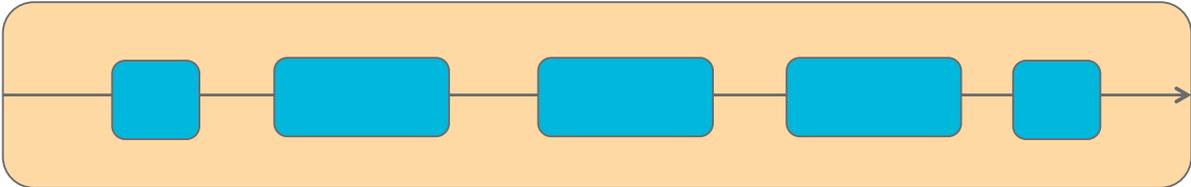


# CHANGING BEHAVIOR

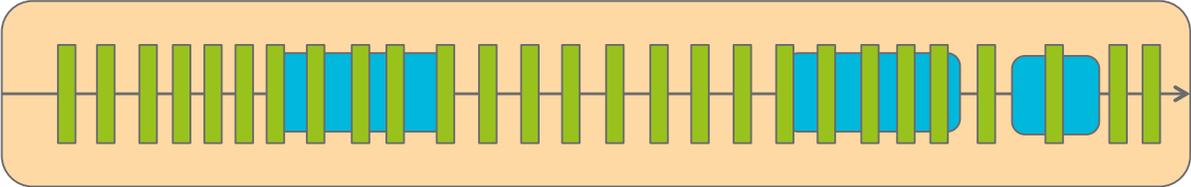
Ericsson ConsumerLab studies show that, prior to the introduction of smartphones, consumers tended to use the internet in “chunks” – they would tend to confine their internet activities to when they had an opportunity to sit in front of a computer. These opportunities would include internet use at home during the mornings, evenings and weekends, as well as at work or school during the day. But even at home, most people would not sit in front of the computer all day – they would wait until they had several reasons for starting the computer and accessing the internet.

In contrast, smartphones allow people to go online the very instant they get the impulse. Internet access is thus becoming more spontaneous and unplanned. One of the main reasons for this behavior is that smartphone apps hide a lot of complexity from users. They are perceived as easy to use because they require little or no navigation through file structures, they require no inputting of addresses, no searching or clicking on links. In other words, apps give users direct access to the content or online service of their choice.

Internet usage throughout the day prior to the smartphone



Internet usage throughout the day with the smartphone



Source: Ericsson ConsumerLab MBB Service Quality Study 2011

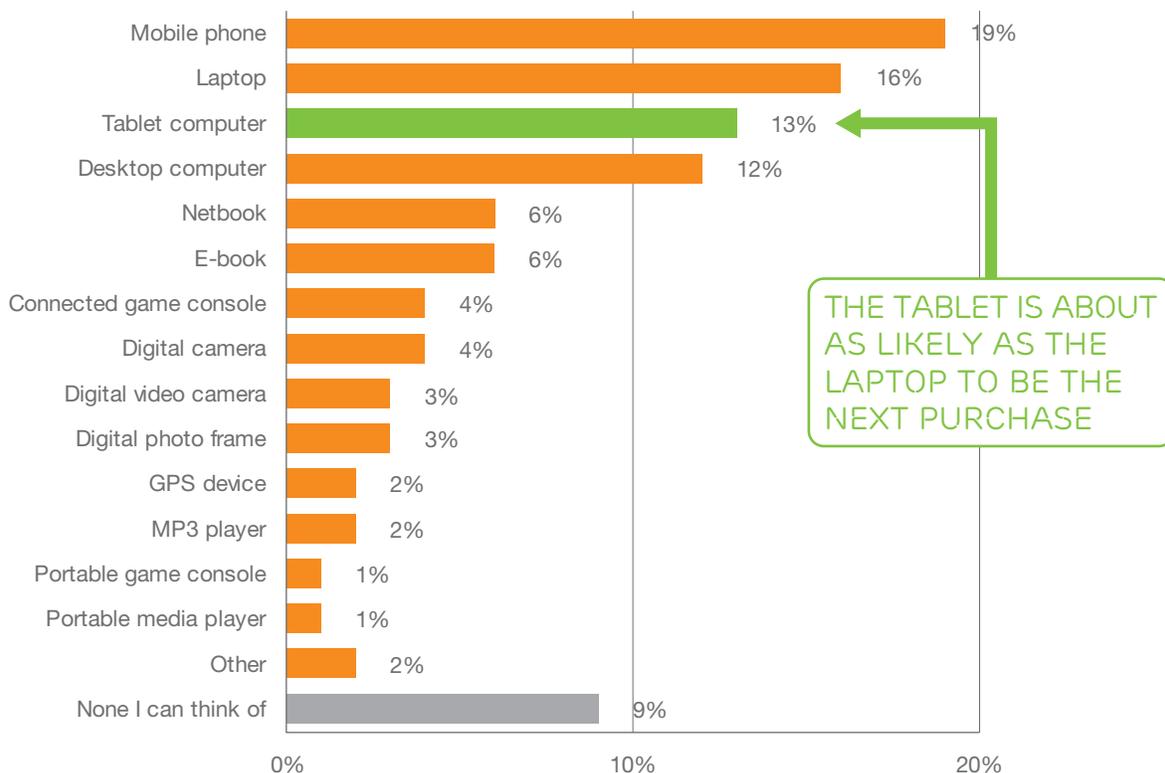
# TABLETS ALSO POPULAR

When smartphone users were asked what new devices they were considering purchasing, respondents to Ericsson ConsumerLab studies were almost as likely to choose a tablet as a laptop. Qualitative studies made with input from tablet users in the US and elsewhere show that the apps used in smartphones very clearly migrate with users to the tablet. So, while consumers place many laptop-like expectations on tablets, such as being more powerful than smartphones and having better keyboards, Ericsson ConsumerLab believes it is actually the directness of apps that

makes tablets popular. And whereby laptops hide their internal workings in various ways – such as having lids and directory structures that make files disappear – tablets signal openness in the same way as smartphones. Consumers who have grown used to spontaneous internet behavior simply prefer instant accessibility.

When studying tablet usage, we also see they are used more consistently throughout the day than laptops.

Which one device will you buy next?



Source: Ericsson ConsumerLab Device Study 2010  
Base: All (US)



### Tablets have flatter usage pattern than laptops



Source: Ericsson ConsumerLab Device Study 2010  
Base: Users of each device (US)

# MAKING THE DAY EASIER

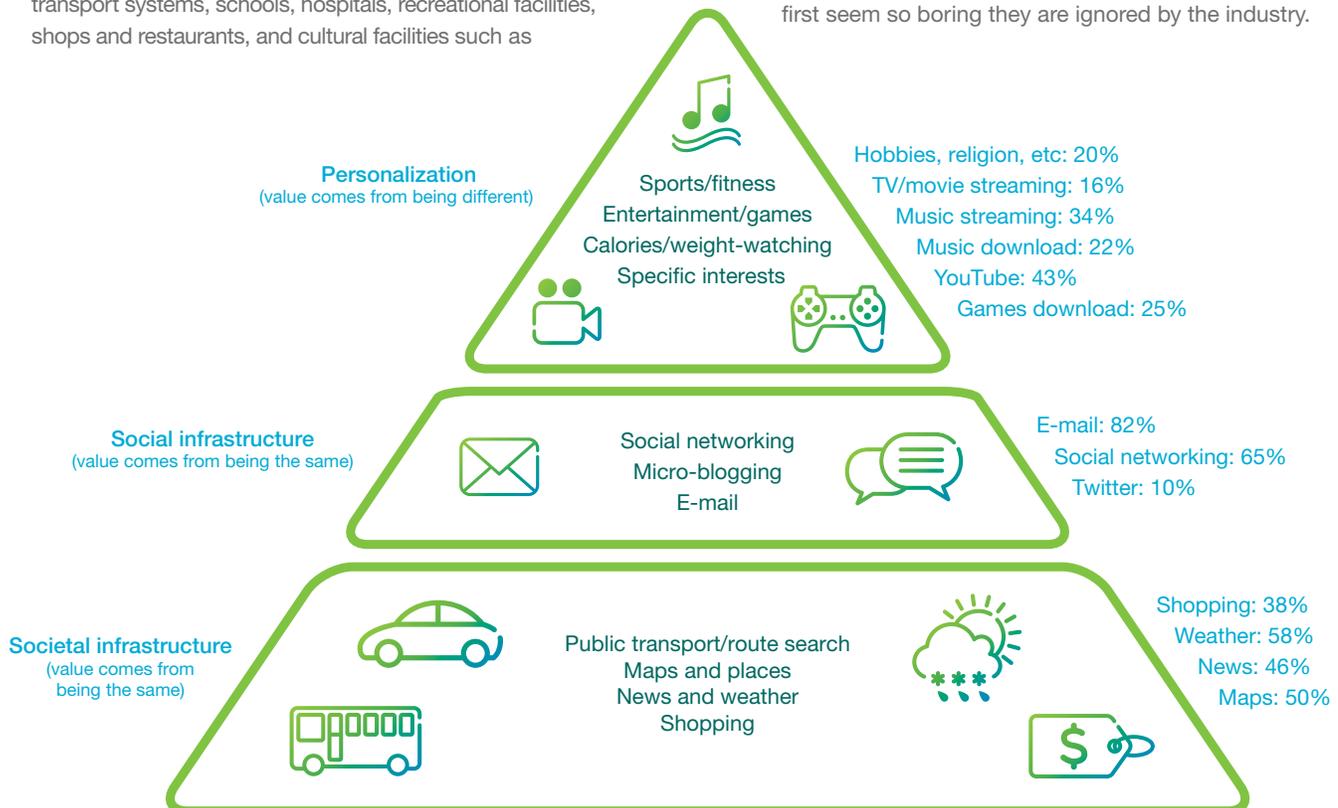
Personalization is just as important with smartphones as it is with other phones: it shows who you are. With smartphones, apps become a way to show personality and signal which subcultures you subscribe to, for music, games and other media as well as for personal interests, from yoga to archeology.

Retrieving information from the internet, communication and social networking are now basic tasks for smartphones. They are becoming hubs through which people manage their social lives – with messaging and social networking apps turning into the pillars on which our social infrastructure is built.

Now, with constant access to smartphones throughout the day, consumers are using apps to access yet another level of infrastructure: that of society itself. Everyday activities and tasks depend on what can be called the societal infrastructure – public transport systems, schools, hospitals, recreational facilities, shops and restaurants, and cultural facilities such as

libraries, concert halls and museums. Making up a considerable part of people’s lives, these activities are not usually associated with ICT, but consumers are increasingly using smartphones to get better control over them.

More and more apps that focus on everyday activities and tasks are being incorporated into people’s daily routines. Ericsson ConsumerLab studies show that smartphone users are spending considerable time using these types of “everyday” apps and, in the process, integrating internet use into a more basic level of everyday life than ever before. It seems only natural that there should be an app to help out with local weather, or with getting information about a product while in the store, for getting medical advice or for paying bills. Shopping lists, bar-code scanners, bank apps and bus schedules may in fact be the “killer” apps the industry is always looking for – even if they at first seem so boring they are ignored by the industry.



Base: Android/iPhone smartphone users, USA. Usage in percentage of smartphone users.  
Sources: Ericsson ConsumerLab MBB Service Quality Study 2011; Ericsson ConsumerLab Research Platform 2011

# APPS THE KEY – NOT DEVICES

Although smartphones are currently driving internet use into a plethora of new everyday situations, Ericsson ConsumerLab qualitative research in the US and Japan ironically seems to indicate that consumers ultimately associate the new online experience with the app or service rather than with the device itself. The habit becomes “checking my Facebook account in bed” rather than “using my smartphone in bed.” Similarly, opening the USA Today app replaces the habit of reading the morning paper at breakfast, using Google Maps on whatever device is at hand becomes routine when going places, checking Yelp becomes synonymous with finding a place to eat, and YouTube or Netflix apps are increasingly drawing people away from the TV set.

Most of these activities are now performed on smartphones.

But interviews with tablet users clearly show how app usage migrates between devices while the underlying app-related behavior remains. As an example, some tablet users interviewed transferred their morning USA Today readership, as well as their evening YouTube or Netflix viewership, from the iPhone to the iPad more or less completely while continuing to associate those specific apps with the same behaviors as before.

So, while people are currently on a smartphone honeymoon, the smartphone itself may turn out to be easier to replace than the actual apps. When new devices come along and capture the interest of consumers, they may indeed find themselves with shiny new things in their hands, but the habits that have developed around apps could prove harder to change.



# BECOMING DEPENDENT ON THE CLOUD

Ericsson ConsumerLab conducted a study in the US, the UK and South Korea in 2010 focusing specifically on how consumers thought about, and used, the cloud. The research revealed that they did not specifically think about anything called the cloud. Yet they were using online services to share social experiences and media in ways that had not been the case only a few years ago, even if it did seem very natural to them. The conclusion from this study was that the cloud really does have very hazy edges – it is something people walk into without noticing. Even though consumers had no name for it, to them the cloud was a concrete public space used for sharing that was characterized by easy exploration and access as well as low financial commitment.

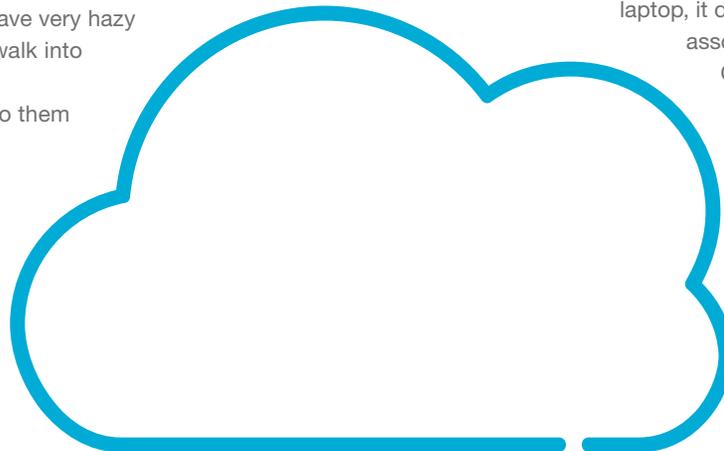
Similarly, when consumers think about apps they have no clear definition of the cloud. Instead, they talk about situational access, forming habits around everyday mobility and internet access. Consumers expect, and increasingly depend on, the ability to access online services easily at low cost and complexity from multiple locations during the day. In this respect

they have become dependent on the cloud. They can no longer handle their daily routine without intermittent access to services such as Facebook, Twitter, Yelp, USA Today, WeatherBug, Craigslist, Amazon and so on, from various locations and devices (at least the smartphone, tablet and the PC).

In the same vein, one of the reasons for the popularity of Gmail seems to be that, although it is easily accessed from the laptop, it does not have the same

association with the laptop as Outlook/Exchange has. Very few of the respondents in the recent Ericsson ConsumerLab qualitative research accessed Outlook from their smartphones, yet almost all were using Gmail – Android and iPhone users alike. Many of them also described how they switched devices for using Gmail depending on location and context: PC at home or at work,

smartphone during the commute, the computer at the library in school and so on. This is how people are becoming dependent on the cloud in real life.



# ALL DEVICES NEED CONNECTIVITY

During a study conducted in the US, the UK and Japan at the beginning of 2010, Ericsson ConsumerLab tried to assess consumer interest in having internet connectivity in devices other than laptops and mobile phones. Interest was very big in connecting a whole range of devices – from portable storage devices, cameras, MP3 players and portable game consoles to car navigators. Among Americans who were already using portable storage devices, 54 percent were interested in synchronizing the portable storage with their home PC files from anywhere and 51 percent wanted to directly exchange files between a portable storage device and online secure storage.

Forty-nine percent of camera owners in the US sample in the survey also wanted to have access directly from the camera to online secure storage and 47 percent were interested in uploading photos directly to social networking sites. Thirty-six percent of MP3 player owners and iPod owners wanted to be able to access home music and media collections directly from the player – and 34 percent of iPod owners as well as 33 percent of owners of other MP3 players wanted to have music-streaming services directly in their players.

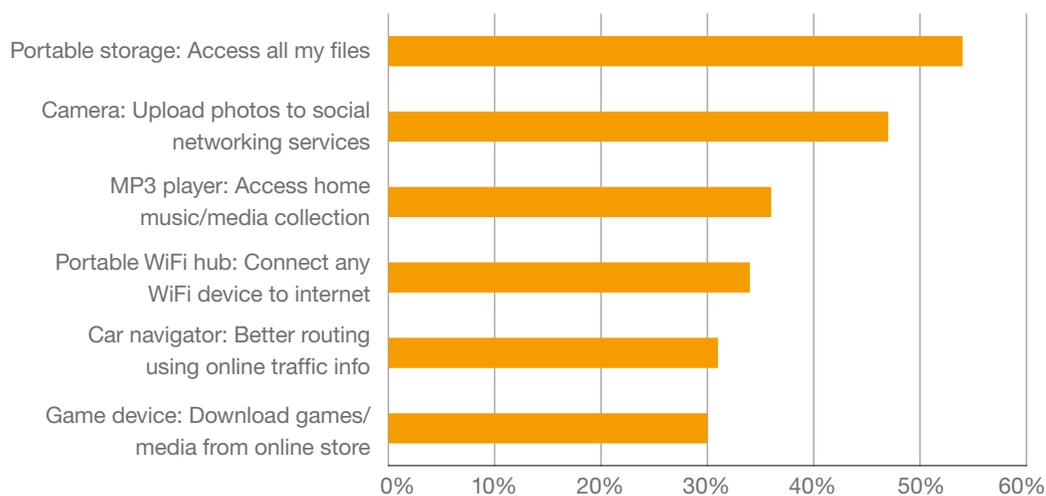
Of those who had a WiFi hub, 34 percent were interested in connecting any WiFi-enabled device to the internet from anywhere with a portable WiFi hub; 33 percent also wanted to be able to connect via USB to a portable WiFi hub. Thirty-one percent of those who had car navigators were interested in having access to online traffic info in the navigator to get better routing suggestions. And among those using portable game devices, 30 percent wanted to have game and media download stores directly in the game devices, while 29 percent wanted direct access in the game device from

anywhere to their home game and media collections. With some variations, interest was comparably high in the UK and Japan.

While surprising at first, the reason for these results soon became clear: once apps that can easily access online services from anywhere become an integrated part of everyday life, it is natural that consumers will want electronic devices in general to have this type of functionality. To put it another way, devices that do not have internet access of some form are slowly becoming perceived as more complex and difficult to use: a camera without direct Flickr access is more cumbersome when trying to get the pictures to friends, a game console without an online game store means a new game has to wait for a trip to the shopping mall, and an MP3 player without Pandora is a device without music.

Although many consumers may not yet be specifically asking for this type of advanced functionality, Ericsson ConsumerLab studies from the past 18 months are indicating what may be a turning point: with smartphones, people are discovering how difficult it is to not be connected to the cloud at any time and in any situation – and they are starting to see that it may be just as difficult on any other device.

## Devices consumers want to connect



Base: Top three interested in each connectivity service, USA

Source: Ericsson ConsumerLab Additional Mobile Device Subscriptions Study 2010

## WHO IS USING SMARTPHONES?

In the wake of the success of the iPhone release in 2007, Ericsson ConsumerLab conducted two studies in late 2008 to understand just who was using them. The studies found they were primarily consumers, not business users, and were heavy users of media.

Predictably, they were frequent users of search, browsing and messaging, but more interestingly many of them were women – and mostly so in the US, where the two sample groups consisted of 67 percent and 47 percent women respectively.

More than 80 percent were already using apps on their phones, and while more than one-third classified their apps as “entertainment and music,” and more than 10 percent classified their apps as “social networking,” only 6 percent classified their apps as related to “business.”

Close to 60 percent stated the reason they used apps on the phone was because they were “fun.”

In 2011, the situation has stabilized somewhat. Among American full-time workers who have a mobile phone, 12 percent use it mainly for work. Users of iPhones are still significantly below this level, although Android users are slightly above. Unsurprisingly, the situation is different for BlackBerry users, with 26 percent of American full-time workers who have one using it mainly for work.

But the overwhelming purpose for phone use is still personal, with 80-95 percent of American users of any of these devices (iPhone, Android, BlackBerry) identifying personal reasons. Men have now also caught on to the smartphone trend with roughly 60 percent of users now being male.

The smartphone market is very clearly driven by consumer needs, leading Ericsson ConsumerLab to believe that smartphones will continue to rise in popularity and become true global mass-market devices.

## THE APP CULTURE

Fast, easy access to internet services is of course a major factor in why apps have generated strong consumer interest. But Ericsson ConsumerLab research reveals they mean much more – apps appeal to people on an emotional level:

- > Apps make people feel they have better control of their lives. Not only can they control information and communication in general, more specifically apps provide control over concrete things such as budgets, exercise schedules and eating habits. Using apps can turn tasks that were perceived as tedious and difficult into ones that are fun and playful.
- > Apps make people feel like they belong to subgroups, from niche-oriented apps for the few “in the know,” to larger social contexts via Facebook, Twitter and LinkedIn and to society at large via apps for commuting, weather and local contextual info such as Yelp. A 2010 Ericsson ConsumerLab study found 68 percent of respondents felt apps were a great way to personalize the phone.

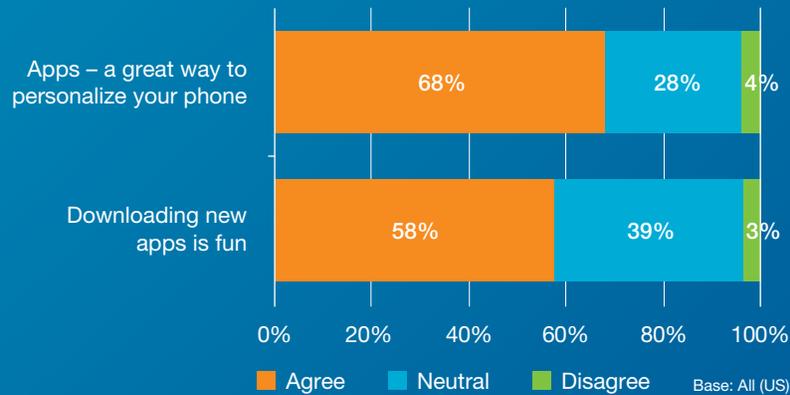
*“I didn’t really think about how I would use it. I was just sort of curious. Everybody was talking about this app and that app and stuff like that, so I said ‘okay, well, I want to see what this is about.’”* Carla, 38, New York.

- > Apps provide people with a newfound sense of freedom. They can provide a sense of confidence that, if a new situation arises, there is an app out there that can help. US smartphone users now have 35 apps on average, mainly downloaded directly to the phone. Fifty-eight percent of respondents in one study said that downloading apps was actually fun.

- > Adding to this sense of freedom is the fact that apps are either free or very cheap. Some analysts have been negative about the fact that many apps are only used for a short time – 88 percent of smartphone users frequently download new apps, while on average only actively using 13 – but Ericsson ConsumerLab sees this as a strength for consumers. Downloading an app is not a commitment. The first qualitative iPhone study in 2008 found a surprisingly high number of people who compared apps to candy: *“Going to the AppStore is like going into a candy store,” “It’s easy to overindulge,” “Lots of choice,”* and *“Tempting.”*

A few years later, this way of looking at apps has become part of everyday culture: *“Getting apps is just very addicting. It’s like going shopping in your phone, but you don’t pay for it, because it’s free,”* Nikki, 31, New York.

### How much do you agree or disagree with the following statements?



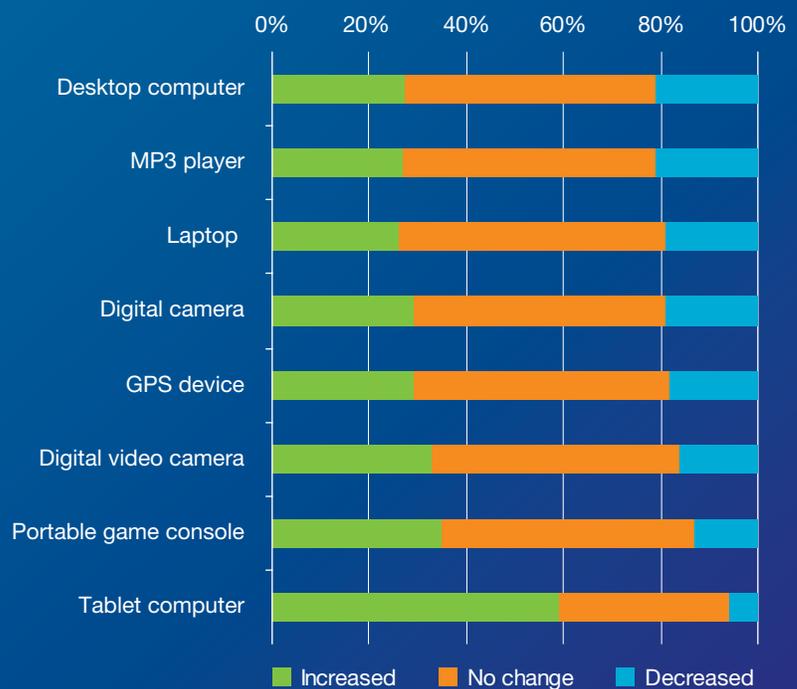
This app culture is now spreading to tablets: *“So when the iPad was announced, I preordered one, and so did my husband. And it was just so much better to use. They also updated the [operating] software and optimized it for the iPad, which made it less practical on the iPhone.”* Yukiko, 29, Tokyo.

For most, the tablet becomes a complement to the smartphone and for others it is a replacement – but it is clear that both groups see the devices as part of the same app culture. In Ericsson ConsumerLab’s 2010 device study, 59 percent of respondents said their use of tablets started, or increased, in

relation to using apps on their smartphones. In contrast, 20 percent stopped or drastically decreased their use of desktop computers, laptop computers, MP3 players, digital cameras and GPS devices.

Simply put, the app culture is a new way of living. And given the strong emotional grounding this culture has among consumers, Ericsson ConsumerLab believes that some device categories, now suffering from a lack of consumer interest, will rebound as they adapt to the app culture – and computers are already on their way.

### Smartphone usage effect on other devices



> Over 20% stopped using or decreased their usage of desktop computers, MP3 players, digital cameras, and GPS devices.

> 59% say the use of tablet computers started or increased after they started using the app phone.

Source: Ericsson ConsumerLab 2010 Device Study  
StudyBase: Device users (US)

Ericsson is the world's leading provider of technology and services to telecom operators. Ericsson is the leader in 2G, 3G and 4G mobile technologies, and provides support for networks with over 2 billion subscribers and has the leading position in managed services. The company's portfolio comprises mobile and fixed network infrastructure, telecom services, software, broadband and multimedia solutions for operators, enterprises and the media industry. The Sony Ericsson and ST-Ericsson joint ventures provide consumers with feature-rich personal mobile devices.

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