MOBIMETER

A REPORT ON THE ADOPTION AND USE OF MOBILE MEDIA TECHNOLOGIES IN FLANDERS

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PREFACE

Mobile is booming. Several recent research reports agree that the chasm towards a large adoption of smartphone and mobile Internet usage is being crossed. From the results of Digimeter , representative for Flanders, we learn that the adoption of smartphones with mobile data subscriptions in Belgium increased by 12% over one year, to 36% adoption in 2012. In the slipstream of this definite adoption trend, the mobile app economy is in full expansion. Several of these sources agree that the gap to a sustainable economy is almost bridged.

Following this diffusion of mobile devices and services, it is also claimed that innovators and early adopters are no longer the only end-users of these devices and services. However, not all adopters are using a smartphone to its full potential. Some users stick to basic communication functions. The digital natives generation (born after 1980) on the other hand, have already domesticated these devices and display a more diverse and intensive use pattern. For them, smartphones are no longer simple communication devices, they have become multifunctional companion devices.

Besides the wide adoption and domestication of mobile devices and mobile Internet usage, there is a lot of buzz surrounding the So(cial)Lo(cal)Mo(bile) trend. SoLoMo arose as a result of the popularity of smartphones and tablets that integrate geo-location technology. These services are labeled as some of the core drivers for the mobile app economy.

Mobimeter has arisen from the increasing interest of academic and industrial partners in the mobile economy and users' attitudes and behavioral patterns towards mobile devices and services. The report is a research initiative of the iMinds Digital Society Department. Within iMinds, the Digital Society Department brings together two university research groups (iMinds-MICT-UGent and iMinds-SMIT-VUB) and a living lab facilitator (iMinds-iLab.o). It stands for a truly interdisciplinary approach towards ICT innovation, design, development, introduction and deployment from a societal point of view. This includes considerations about user, social, economic, cultural, legal and political aspects of technology.

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[1] Several international reports such as Forrester's 'Mobile Trends for Marketers' (2013), Deloitte's 'The state of the global mobile consumer' (2012) and Belgian sources (Barometer Informatiemaatschappij, FOD Economie 2013, Digimeter V, 2013) support the rapid adoption of smartphones and the use of Mobile Internet on mobile devices. The reports are based on representative samples.

[2] Digimeter wave V (2012): www.Digimeter.be

Several research projects concerning mobile technologies (a.o. ICON projects CoMobile and SoLoMIDEM) are strongly user-oriented and allow us to gain valuable insights into user adoption, diffusion, experience and domestication processes of mobile media. In addition to the core objective to develop methodologies for user-centric product and services development in the mobile area, the research tracks also allow us to gain insights into changing habits and experiences, attitudes, drivers and barriers concerning new "mobile" services (e.g. upcoming location based services, mobile payments etc.).

This Mobimeter report can be considered as a complementary report to the Digimeter report, which focuses on general ownership and user habits concerning recent (digital) media technologies, based on a representative sample of the Flemish population. Mobimeter mainly focuses on exploratory insights of the Digital natives and early adopters of smartphones and mobile Internet usage, however, one fourth of the sample also consists of digital immigrants.

The primary aim of Mobimeter is to gather and disclose reliable information about the "mobile device user" on a systematic and annual basis. Objectives of the recurrent monitor include trend flagging over time, identification of changing mobile habits and detection of opportunities within the fast growing group of mobile device users. Moreover, it gains in-depth information about attitudes towards arising services that combine social, location based and mobile characteristics as these services drive the new mobile app economy.

MOBIMETER METHODOLOGY

Mobile is an inherent part of the DNA of the Digital Natives generation. One of the key questions throughout Mobimeter is "What can we learn about this digital native adopter generation and their mobile uses, habits and attitudes?" Mobimeter also focuses on the specific use of SoLoMo services, as this generation serves as crucial actor in the mobile revolution and the mobile application economy. About 75% of the sample consists of Digital natives, but of course, Mobimeter also includes 25% digital immigrants (born before 1980) to indicate relevant differences.

In the context of several iMinds ICON projects (CoMobile, SoLoMIDEM), multiple quantitative surveys were performed with a large panel of mobile users. The results of this first Mobimeter were collected in May 2013. In total, 2302 respondents completely filled out the questionnaire. The sample was recruited from the iLab.o panel and an engaged mobile device user panel, both managed by iLab.o. A large proportion of this panel consists of community members of Mobile Vikings, a Mobile Virtual Network Operator (MVNO). Therefore, the sample has a rather specific profile, which overlaps to a large extent with typical early adopter profiles: predominantly male and between 20 and 39 years old.

This respondent base is not a liability. Mobile media are still moving towards widespread adoption. First of all, early adopter groups provide us with valuable lessons towards understanding these new media. Additionally, they strongly steer the development and impact of these new services, either by mere adoption and interaction, or by providing valuable feedback. The Mobimeter data, based on the habits, attitudes and preferences of this specific 'boost sample', therefore contain valuable information on potential opportunities for the "mobile economy".

MOBIMETER STRUCTURE

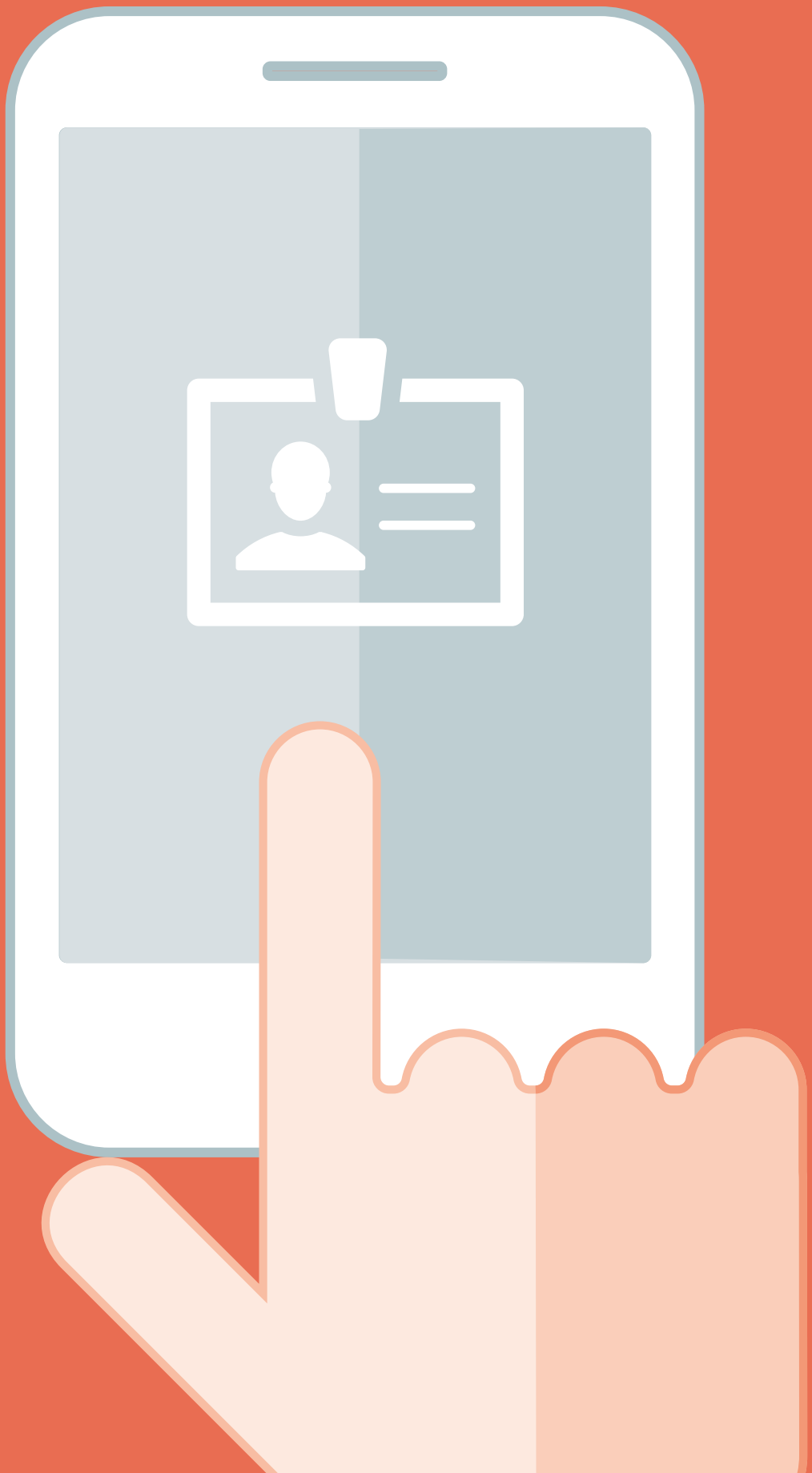
Mobimeter consists of three content blocks.

Firstly, it reports on the four segments of mobile users (light users, heavy users, social users and functional users) by describing their specific profiles. In addition to the digital natives/immigrants splits, these four segments will also be integrated throughout the report and serve as a guide to significant and meaningful differences between users.

The second part of the report will consistently cover the results that relate to the rising SoLoMo trends: Social, Location based and Mobile behavior. The core body of the report includes the key descriptive results in three chapters: mobile use patterns of smartphones and tablets, social media behavior, and behavior (or behavioral intentions) related to location based services.

Finally, a variable focus chapter covers a 'hot topic' in mobile technology. This chapter will be recurrent throughout future Mobimeter reports, featuring various content. In this first edition, it covers the adoption of mobile purchase and payment methods, and attitudes towards this technology. This special focus will be covered in the final chapter of the Mobimeter.

SAMPLE DESCRIPTION



SOCIO-DEMOGRAPHICS

The sample of smartphone users in this report are not representative for the Flemish or Belgian population. It is a random sample of mobile Internet users who are costumer with a large virtual mobile network operator (VMNO) in Flanders.

GENDER

In our sample of smartphone users, roughly two-thirds of respondents are men, a little over one third are women.

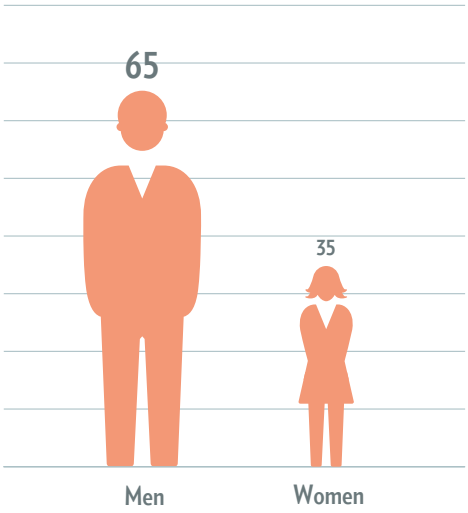


Figure 1: sample plotted by gender (%; N=2302)

AGE CATEGORIES

Young adults are strongly represented in the Mobimeter panel, reflecting the popularity of smartphones and new technology with young people, and the typical profile of early adopters. The two largest age groups (18-24 and 25-34) combine to 70.2% of our sample.

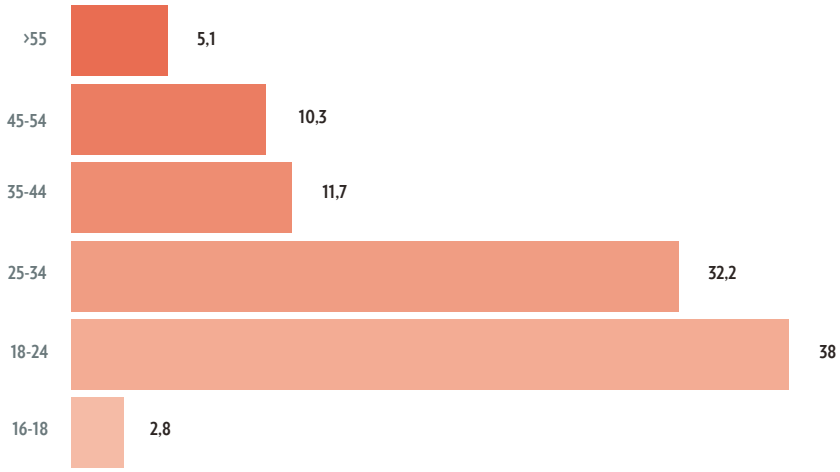


Figure 2: sample plotted by age group (%; N=2302)

Definition: Digital Natives

*In the Mobimeter report, age groups are sometimes split into two generations. When relevant, we talk about **Digital Natives** and **Digital Immigrants**. Digital natives were born and grew up with digital media, while digital immigrants adapted to these media later in life. This has a profound impact on how people interact with digital devices. While generational boundaries are set nor distinct, the Mobimeter report uses the year 1980 as the start of the digital native generation for practical considerations.*

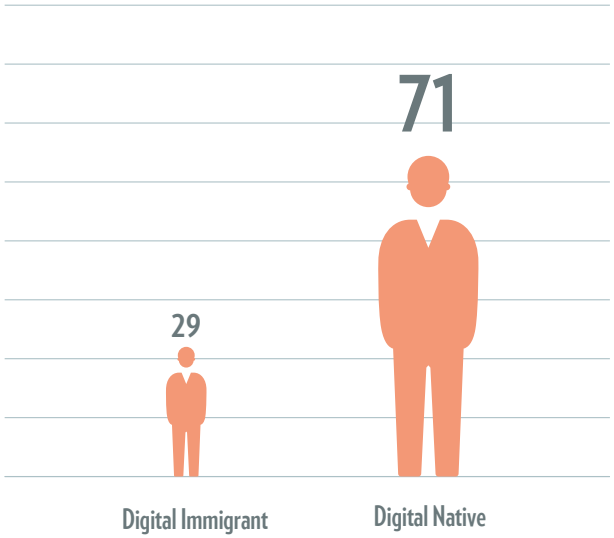


Figure 3: distribution of generations in sample (%; N=2302)

HOUSEHOLD SITUATION

The typical household situation in our sample reflects the age distribution, with 35.5% of respondents living in their parental home. Apart from this overrepresentation, the distribution of household situations is similar to the Flemish population, with a total of 38.2% of the sample living together, and 20.7% living alone.

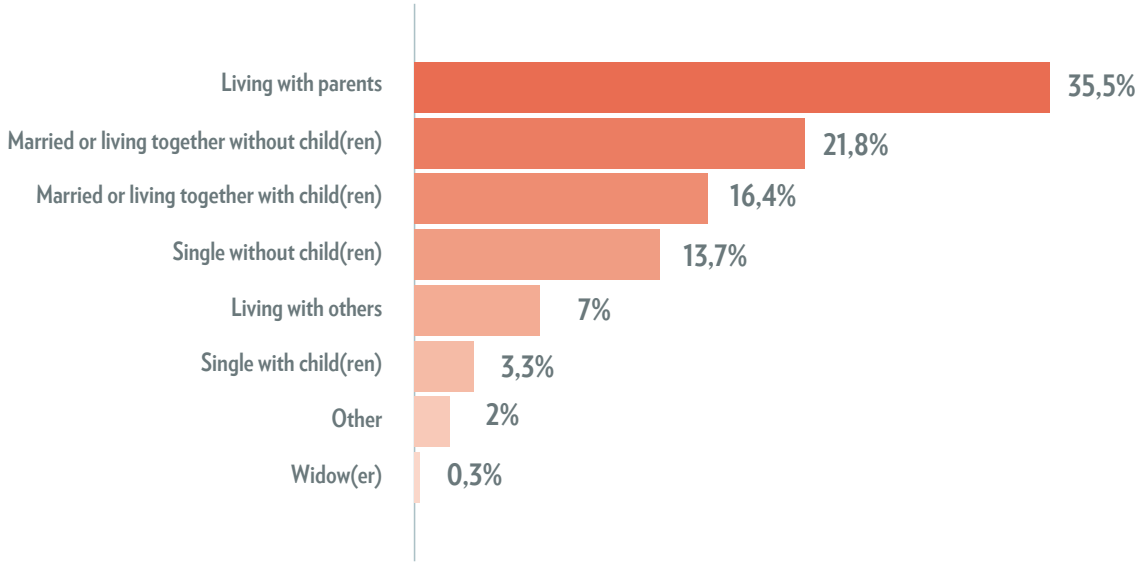


Figure 4: sample plotted by household situation (%; N=2302)

OCCUPATION

Workers and clerks make up almost half of the panel (44.7%). Students are the second most represented group (32.9%), an overrepresentation due to the age distribution of the sample. Retirees are underrepresented in the sample (1.6%).

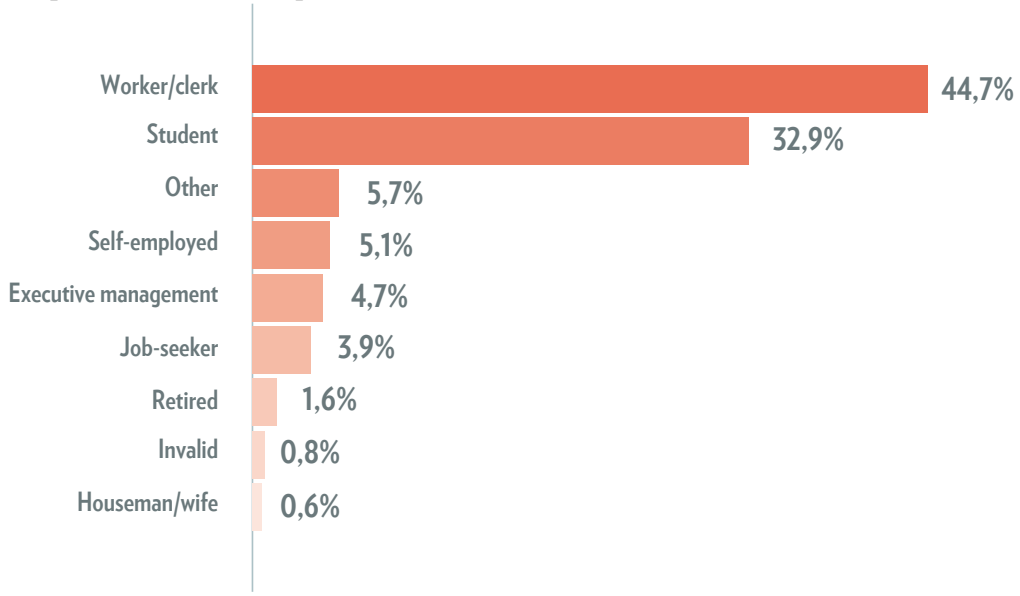


Figure 5: sample plotted by occupation (%; N=2302)

DEGREE

Our sample of smartphone users is highly educated. A majority of the sample has obtained a higher degree (53.7% total) at a university or university college, while a third (34.5%) has finished secondary education. Given the strong representation of students in this panel, we assume that at least a part of this group is in the process of obtaining a higher degree.

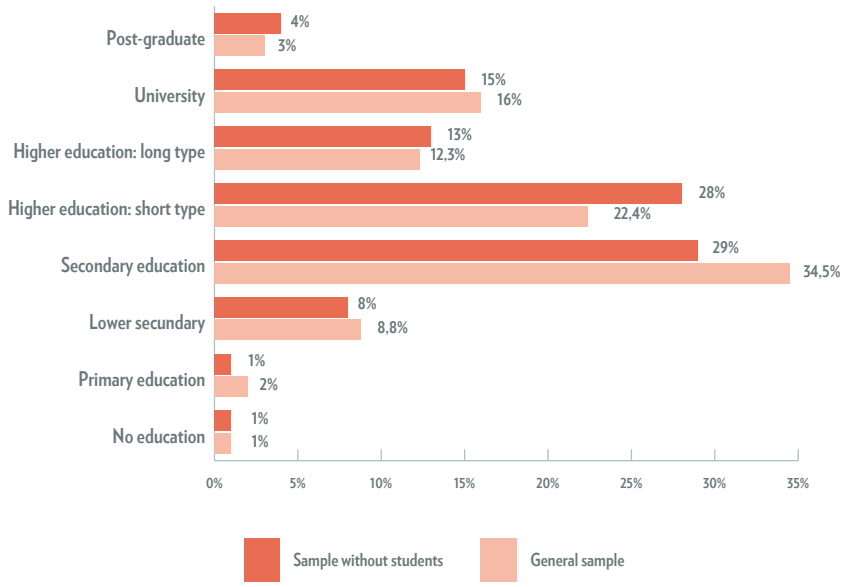


Figure 6: sample plotted by educational degree (%;$N_{total=2302}$; $N_{without\ students}$=1543)

NET INCOME

Because of the overrepresentation of students, income statistics for the total sample is biased towards lower or no income. Excluding the student group, the dominant income category is between €1001 and 2000 per month (55%) and 24% earn more than 2001€ per month.

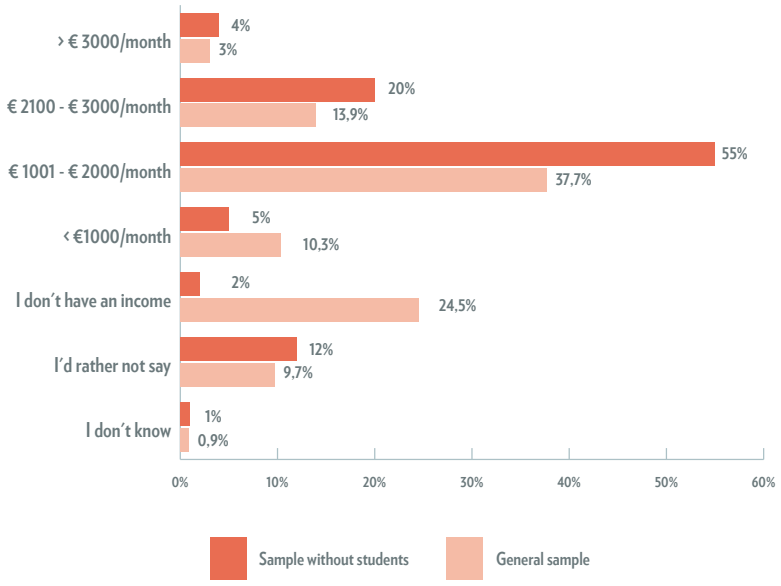


Figure 7: sample plotted by net income group (%; $N_{total=2302}$; $N_{without\ students}$=1543)

DEVICE OWNERSHIP

Basic Facts

- Smartphone adoption in this select sample is de facto at 100%
- 9 in 10 respondents own a laptop
- In this mobile panel, tablet adoption has doubled over the last year and is at 46,7%
- Smartphones and tablets are replacing single-purpose devices such as portable gaming consoles and e-readers

Note: Reported adoption trends are based on two separate surveys performed in February 2012 and April 2013.

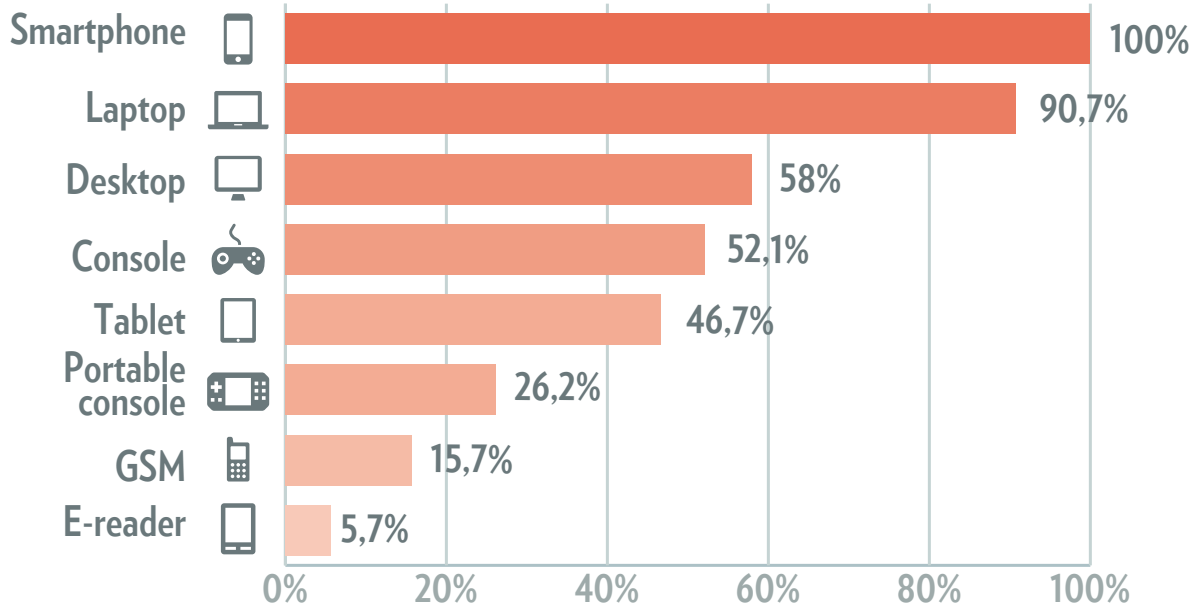


Figure 8: sample device adoption (%; N=2302)

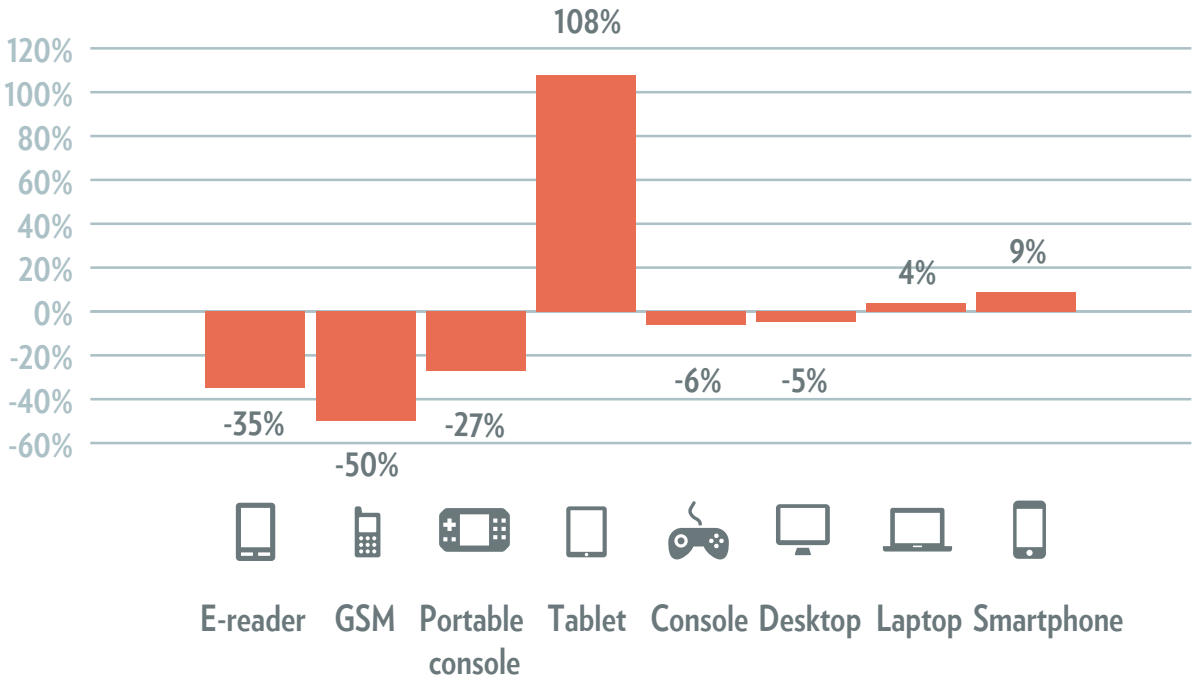


Figure 9: sample adoption trend (2012-2013) (% growth; N=1051)

SEGMENTS

SEGMENTS

The creation of user segments is a great way to quickly explore the survey data and illustrate differences between the smartphone habits of different types of users. These profiles are used throughout the Mobimeter report as a guide to enrich interpretation of facts and figures, but are not an 'ultimate' segmentation.

For Mobimeter, we clustered users according to their self-reported application use. These applications were clustered into four meaningful groups: social applications (e.g. social networks and messaging), functional applications (e.g. email, search, news, maps), leisure apps (e.g. gaming, music), and transaction applications (e.g. mobile banking, buying)

Four user profiles emerged from this analysis. Two profiles can be most clearly defined by their amount of smartphone use. Light users (21.2%) report the least amount of smartphone use, while heavy users (24.6%) use their mobile device the most. In between, two medium smartphone use profiles are best described by their specific use motivations. Social users (35.5%) are primarily interested in social contact. In contrast, functional users (18.6%) use their smartphone more than average for their connectivity and computing features.

LIGHT USERS (21,2%)

Light users are on average the 'oldest' group in the Mobimeter Sample (35 years old), with a large share of women.

When it comes to smartphones, this segments doesn't use their devices as intensively as other users, nor do they have strong confidence that they have 'mastered' their phones. They report the least amount of use and the least data use of all segments.

When using their smartphone, they use more WiFi connections than mobile Internet, but both are moderate. If they have a tablet, they use it mostly at home. Both behaviors indicate a nomadic use of mobile devices.

Light users show moderate to light use of just about any smartphone application. Basic functions such as email or search are used most, and more advanced functions are limited to social network interaction or messaging.

Social networks are also much less adopted by this segment, while use on smartphone is even less regular. This trend extends to location-based services and networks as well, which are rarely used.

In short, light users don't have strong motivations connected to smartphone use, nor do they exhibit strong habits or distinctive behavior. They are, in all aspects, light users.

"I'm happy with my smartphone. I would miss it if I lost it, although I don't use a lot of apps. It's a great way to spend time waiting around."
– Alexandra, 31, light user

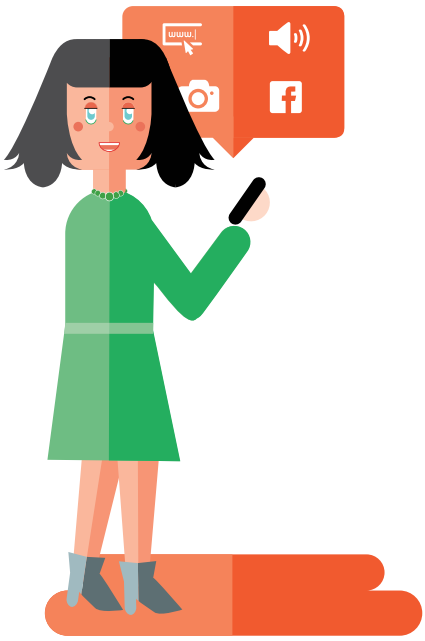
SOCIAL USERS (35,5%)

The social user segment consists of primarily twenty-something smartphone users, and contains the largest group of women.

Social users are more mobile with their devices than light or functional users. They use their smartphones more while in transit, and use their tablets in a somewhat more mobile fashion as well.

They score below average on the use of most smartphone applications, with the exception of social applications. This is where social users find the main purpose of their smartphone, as opposed to the functional users, the other medium use segment.

While social users' adoption of social networks is not as high as the heavy users', they do report frequent use on smartphones of large social networks and more mobile oriented networks. This extends to location-based services as well, which social users primarily use for social reasons.

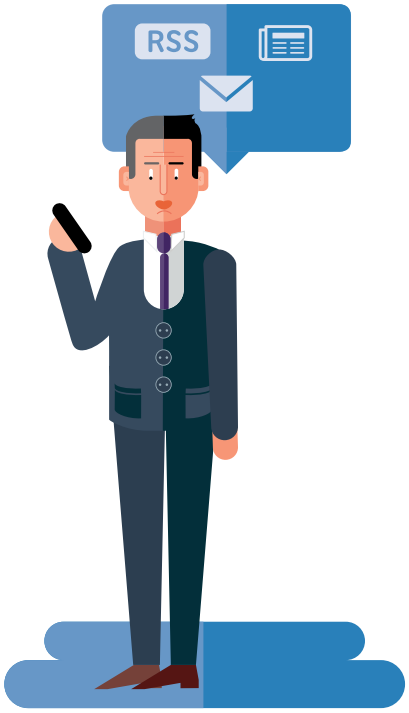


This preference for social applications strengthens social users' smartphone habit. They report more frequent and longer use of their smartphone than functional users.

***"I wouldn't describe myself as a hardcore smartphone user. I use it primarily for staying in touch with friends and family. I already did this with my old cell phone. Now I do it even more."* – Anne, 28, social user**

FUNCTIONAL USERS (18,6%)

Functional users are the second somewhat older user segment in this sample (33 years old), about half of them being digital immigrants, and they are the most predominantly male of all user groups.



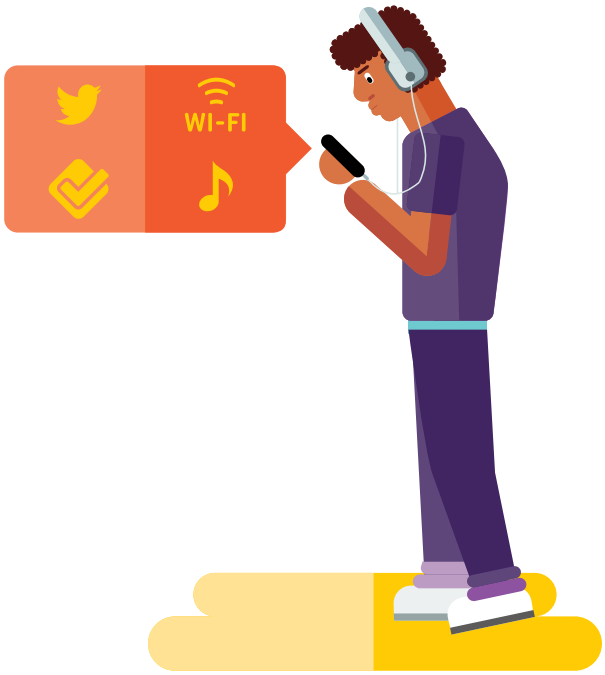
This segment reports average smartphone use and average data use. They use both wireless and mobile networks frequently.

Despite sharing their average age with the light users, this group shows a lot more confidence in their skills with a smartphone. With the exception of social network use, functional users report regular use of most smartphone functions, especially the basics (email, search, maps, ...).

This preference for the functional rather than the social, also translates into social network adoption. While functional users have accounts on most dominant social networks, their use focuses more than other segments on traditional networks or networks with a specific purpose. Location-based services are used in the same way, with attention for convenience rather than social function.

"I'm connected to the mobile web 95% of the time. [...] My private email, work mail, documents in the cloud, and calendar are all synced on my smartphone."
– Geert, 35, functional user

HEAVY USERS (24,6%)



Heavy users are on average a younger segment, and this segment is comprised of more men. Calling them technology lovers would be a fitting description.

This segment uses the most data, reports the most smartphone use and connects the most to both wireless networks and mobile networks. Their behavior is the most mobile of all, using their smartphones and tablets in the most settings.

Heavy users are among the most experienced with smartphones, but most of all display a strong sense of skill. They generally have strong motivations for all aspects of smartphone use, but are most of all information junkies. As such, they have a very strong smartphone habit and use their devices the most of all segments.

Their all-round motivation translates into an eclectic app collection, a collection which they use more than any other segment. Naturally, heavy users also have a big presence on social networks. Networks with a high intensity of information exchange, such as Twitter and Foursquare, are used above average.

Heavy users through and through.

"Since I got my smartphone, I use it all the time. Social media, SMS, taking photos, using apps, gaming, streaming music. I couldn't live without it.
– Thomas, 25, heavy user

CHAPTER 1: **MOBILE**

Definition: smartphone

Traditional definitions of a smartphone consider it as a mobile phone that is built on a classical operating system (iOS, Android, etc.) and that has extended computer functionalities. Initially, they were considered as extended PDA's (Personal Digital Assistants) but the adoption of these multifunctional devices was mainly driven by the rapid development of mobile app markets and mobile commerce. In the Mobimeter report, Smartphones are defined as mobile phones with a classical operating system, to connect to the mobile Internet.

As mentioned earlier in this report, the accelerated adoption of smartphones and tablet computers has taken place throughout the last two years. This does not mean that every smartphone or tablet user is using their device to the fullest, as a multifunctional device. The four basic profiles of mobile device users described in the previous chapter already indicate this. Some user groups use their smartphones as basic communication devices, others only utilize more general functionalities.

However, for a lot of medium or heavy users, smartphones and tablet computers have already become indispensable pocket companions that allow them to expand the one-on-one communication of mobile telephony to web connectivity and interactivity.

This first chapter covers descriptive results about the behavior of mobile device users. These basic descriptions will form the basis for future trend flagging as Mobimeter continues to investigate mobile users.

Basic Facts (N=2.302)

Smartphones

- Social and functional users have a comparable number of self-reported smartphone usage sessions/day, but social users spend significantly more time with their smartphones
- Smartphones are used almost as often at home as at public transportation locations while tablets are typically used at home and more specifically in living rooms
- At least 25% of the respondents use smartphones for 20 different kinds of activities on at least a weekly basis
- Top three activities that are performed daily and more are e-mailing, watching pictures online through Facebook, Instagram, Flickr, etc. and consulting Facebook in general

MOBILE BEHAVIOR

Smartphones are most frequently used for mobile Internet connectivity. People still use tablets less often than laptops to connect to Internet daily, however, on a weekly base we notice that the difference is negligible (88% uses their tablet to have a mobile connection to the Internet weekly or more versus laptop 91%).

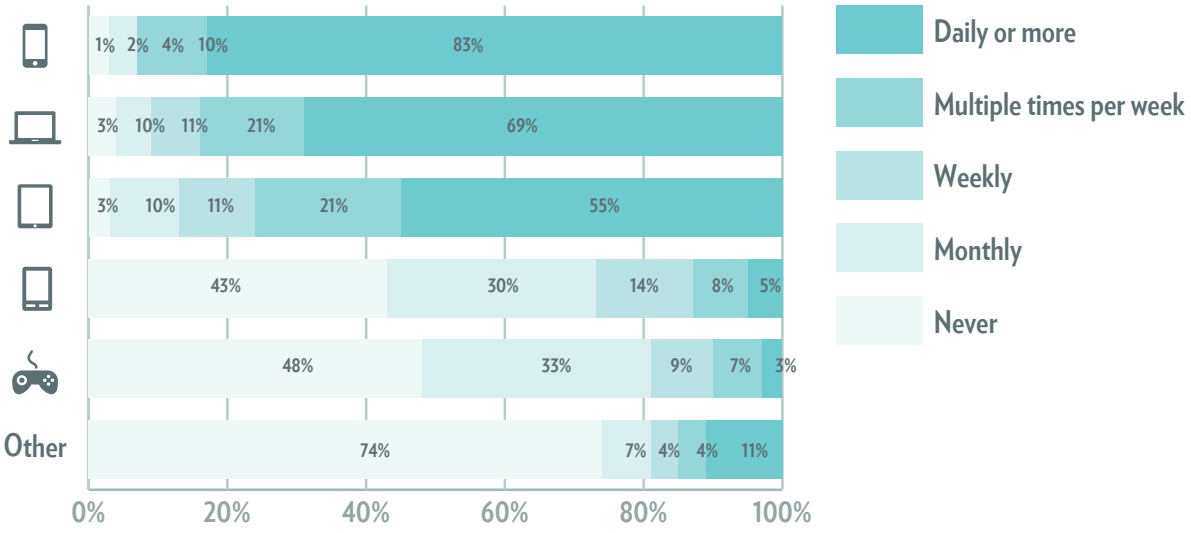


Figure 10: device usage frequency for mobile Internet usage (N=2302)

Taking a look at the specific regular device usage for mobile Internet, we notice that smartphone are the most popular devices to connect to mobile Internet with proportions of more than 95% with most user groups. Smaller proportions of light users (73%) and digital immigrant generation (85%) use smartphones several times a week or more for this purpose. Remarkably, tablets are most popular with digital immigrants (85%), and fewer digital natives (71%) and social users (72%) use tablets to connect to mobile Internet.

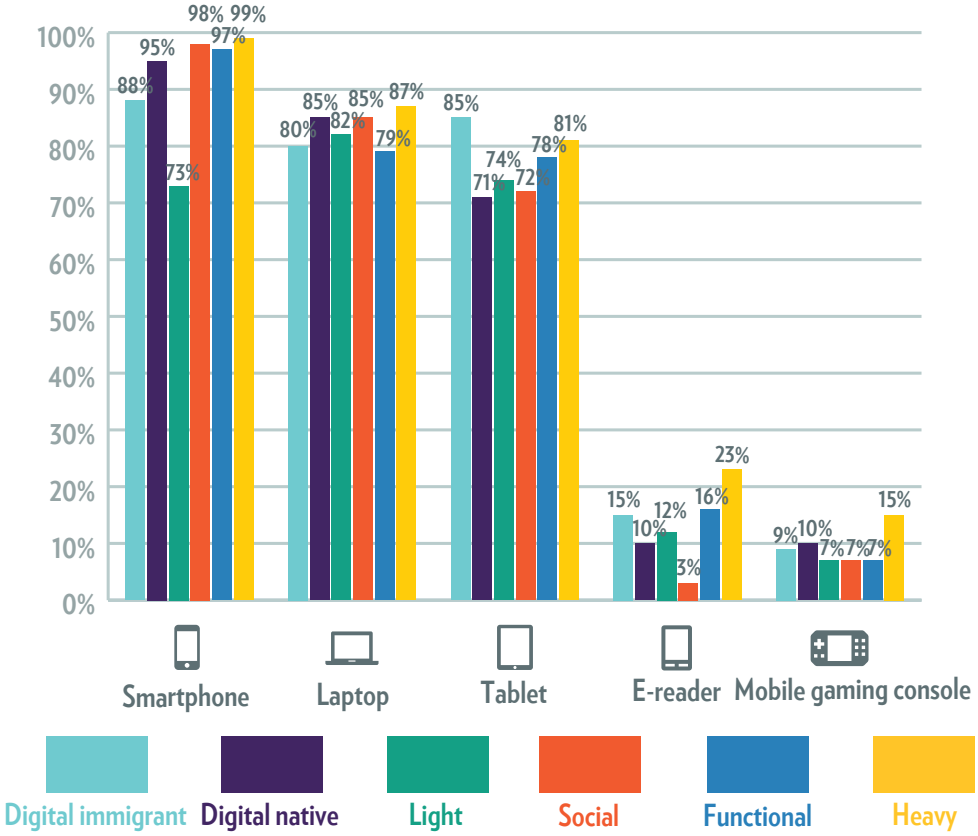


Figure 11: several times a week & more device usage frequency for mobile Internet usage (N=2302)

SMARTPHONE USE: USE SESSIONS

Respondents were asked to estimate the number of daily smartphone use sessions. A use session can be anything from checking for messages to playing a game for thirty minutes.

- Digital natives report significantly more use sessions (41 per day) than digital immigrants (31 per day)
- There is a significant gap between heavy users (48 use sessions per day) and light users (25 use sessions)
- Social and functional users report similar figures, despite different usage patterns

Figure 12: self-reported number of smartphone use sessions per day (N=2302)

SMARTPHONE USE: DURATION

Respondents were asked to estimate the amount of time they spend on their smartphones per day. While we need to take a significant margin of error into account, it allows us some indication of use intensity.

- Heavy users report an impressive 213 minutes of smartphone use per day. This is more than double the reported use of light users (92 minutes)
- Again, digital natives and immigrants show different usage (170 minutes vs. 118 minutes)
- While reporting similar amounts of use sessions, social users spend more time with their devices than functional users, thus averaging more time per session

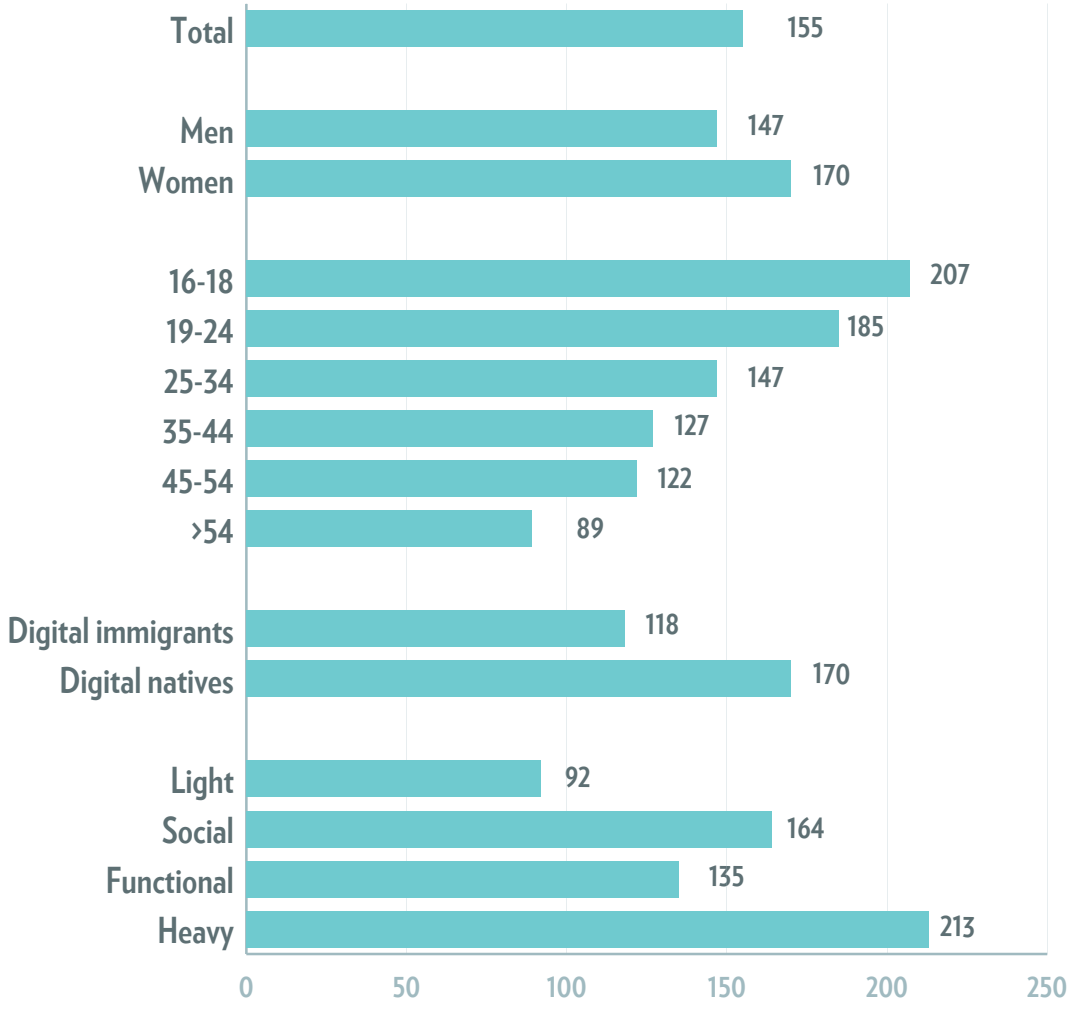


Figure 13: reported smartphone use per day (minutes; N=2302)

USE LOCATIONS

Mobility is a relative concept. Tablets and smartphones are used the most at home. This becomes especially clear with tablets, which display nomadic use patterns rather than true mobility. However, considering the results per segment, it is clear that mainly the heavy and social users use smartphones to connect to mobile Internet on public transportation.

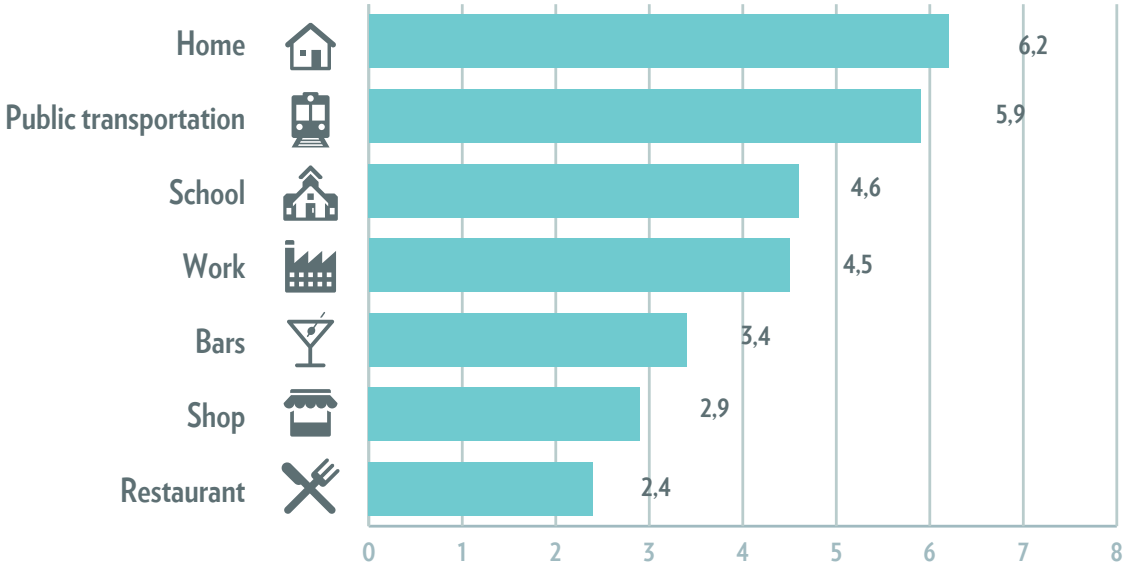


Figure 14: smartphone usage locations (mean on scale 0= never to 10=continuously; N=2.302)

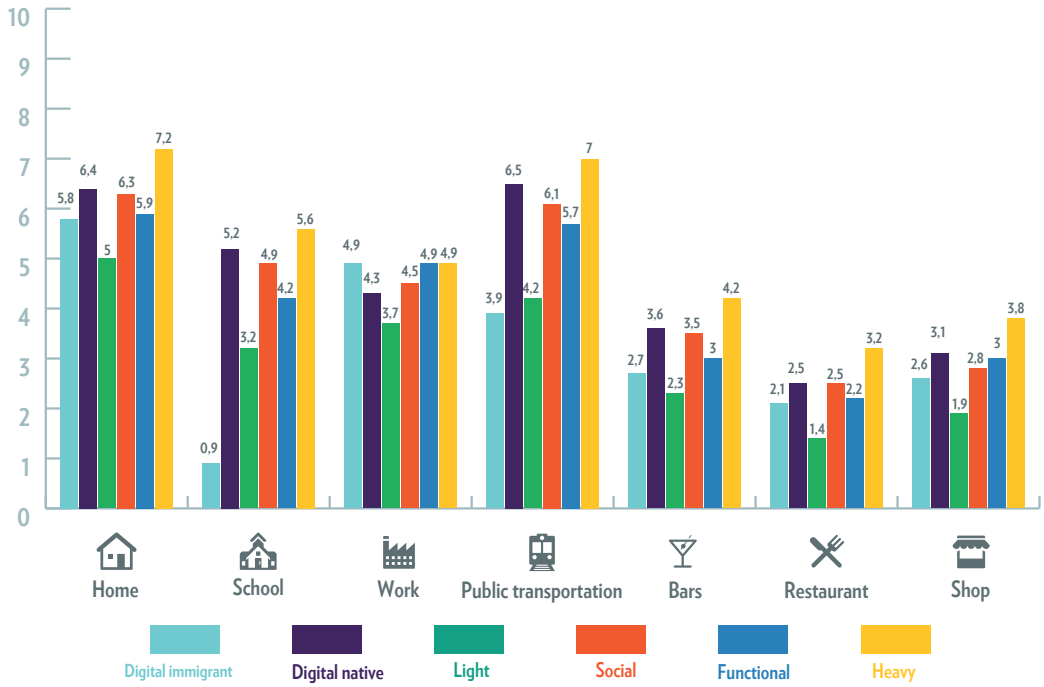


Figure 15: smartphone usage locations / segments (mean on scale 0= never to 10=continuously; N=2.302)

It is logical that more digital natives use tablets at school, and digital immigrants at work due to the nature of these groups (students vs. workers). However, it is remarkable that tablets are used the most in the living room by both groups, but in the bedroom digital natives score much higher. Digital immigrants, functional and light users do not take their tablets to bed, in contrast to the heavy and social users. Overall, heavy users use their tablets everywhere, and especially also on public transportation and on other locations besides at home.

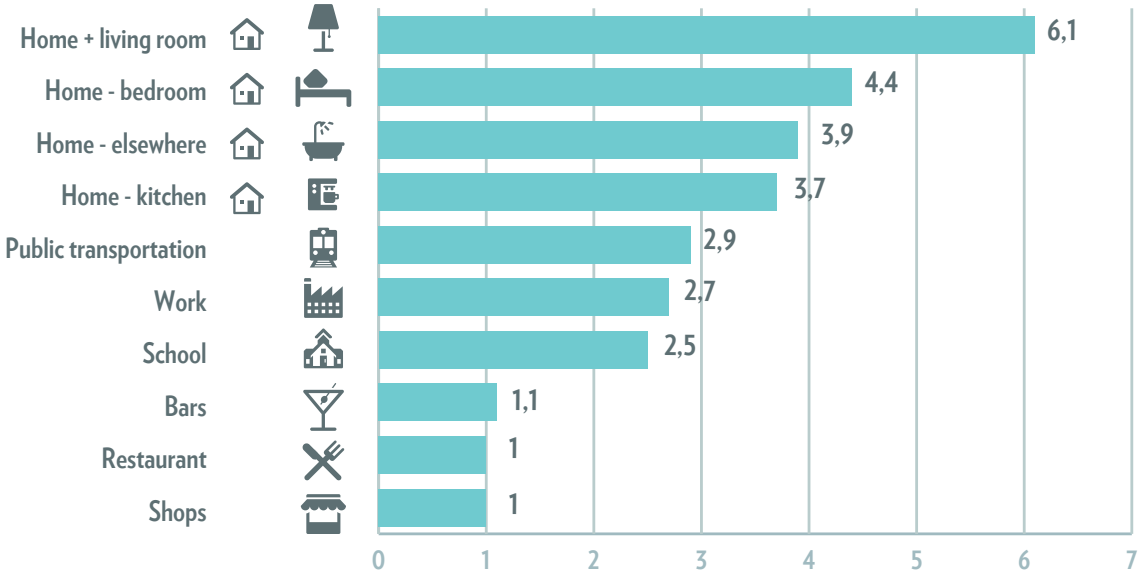


Figure 16: tablet usage locations (mean on scale 0= never to 10=continuously scale; N=3.203)

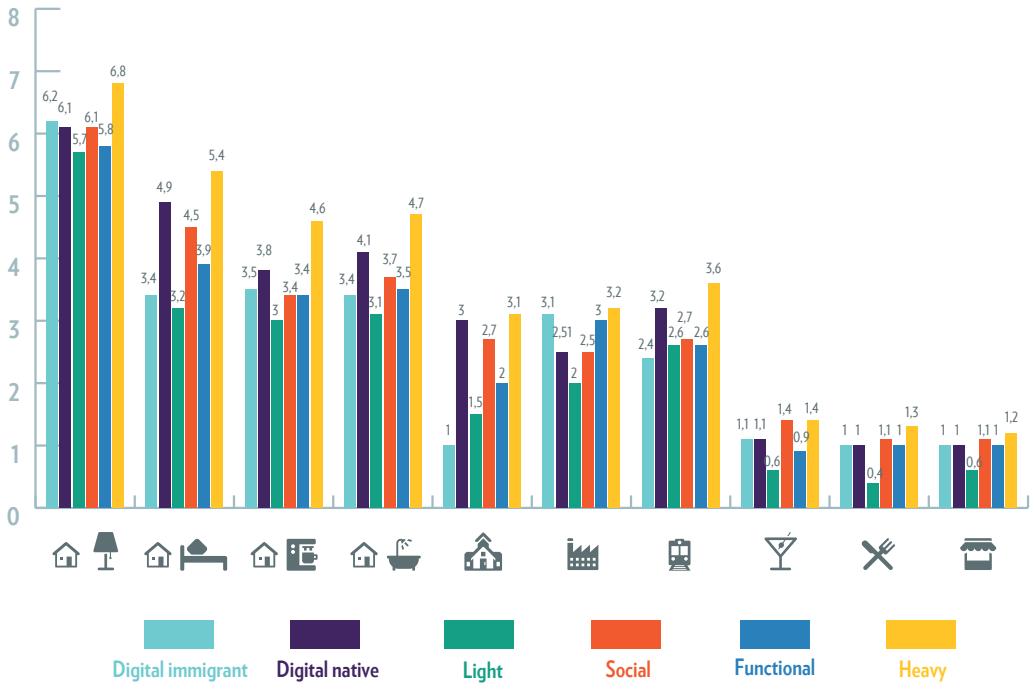


Figure 17: tablet usage locations /segments (mean on scale 0= never to 10=continuously scale; N=3.203)

MOBILE CONNECTIONS

- The sample consists of people with mobile data plans: 85% indicate the frequent use of mobile Internet
- Many also frequently connect to their domestic wireless network
- Wireless sharing initiatives such as hotspots, Homespots or FON spots are used only sporadically

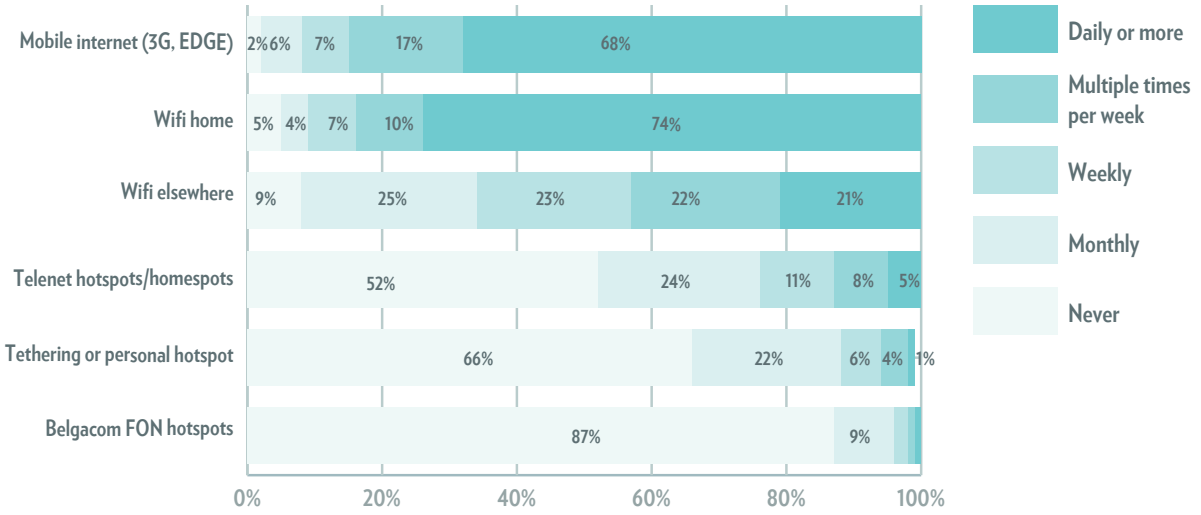


Figure 18: mobile Internet connection mode (%; N=2.302)

When we compare the user groups, data reveals that digital immigrants and light users prefer WiFi at home for mobile connection and a significantly smaller proportion of immigrants (77%) and light users (58%) uses 3G or EDGE. Heavy, social and functional users use WiFi at home as often as mobile Internet (3G, EDGE). Tethering has the highest penetration with the heavy (10%) and functional users (7%), but as for Belgacom FON spots and Telenet Homespots, the adoption is relatively low.

Heavy users are the most frequent users of WiFi elsewhere (61%) and there is still a large gap with the social (45%) and functional users (38%).

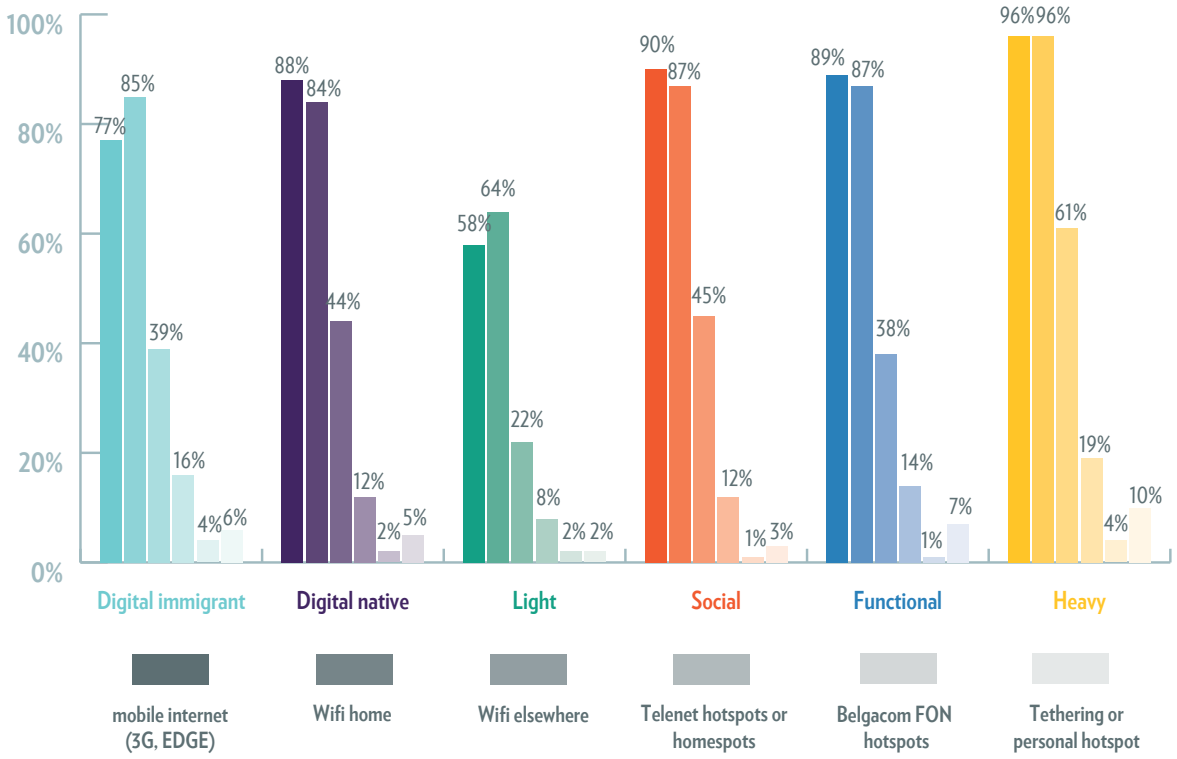


Figure 19: mobile Internet connection mode/segments (%; N=2.302)

MOBILE SPENDING

The dominance (73%) of monthly expenditure between 11€ and 20€ a month can be explained by the large presence of people with Mobile Vikings prepaid data plans.

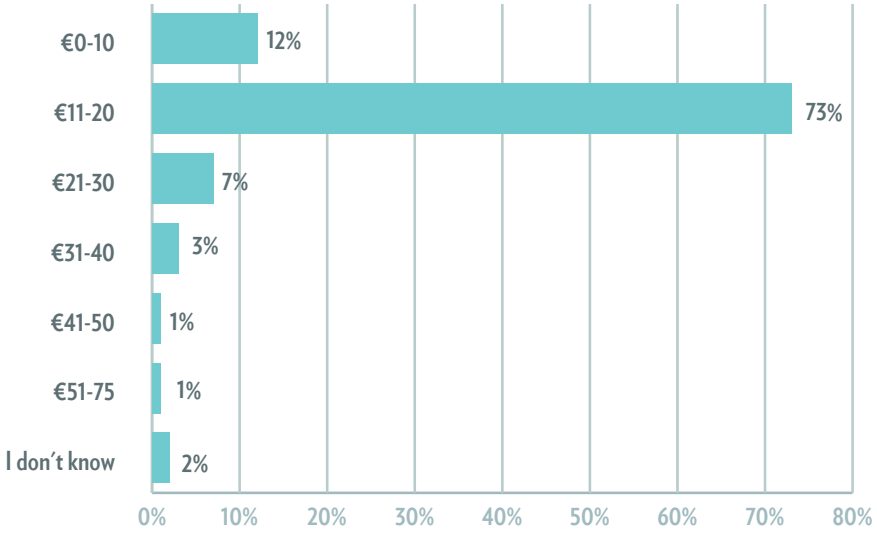


Figure 20: monthly to mobile communication and data plan (%; N=2302)

DATA USAGE

- Reported data usage is mainly concentrated (61%) between 0 and 1Gb per month
- Light users report significantly lower data usage, and almost one third of the heavy users consume more than 1.5GB a month
- Functional and social users have very similar profiles

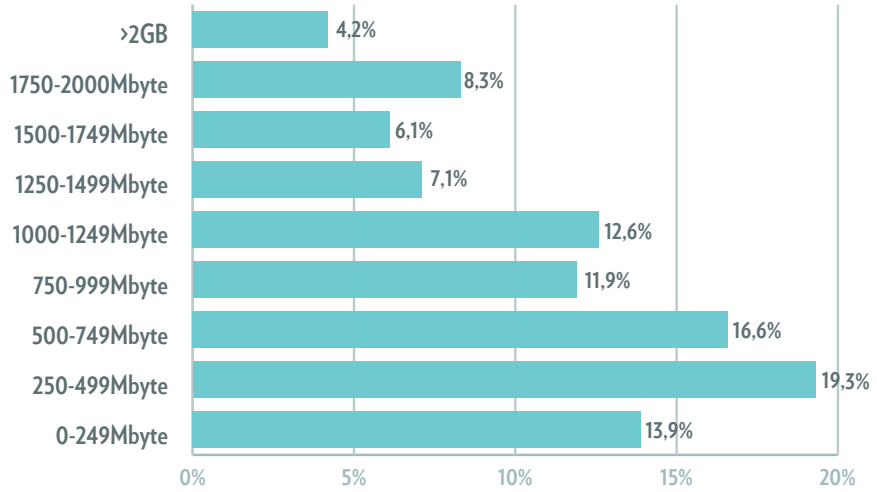


Figure 21: reported data usage (per month; N=2.302)

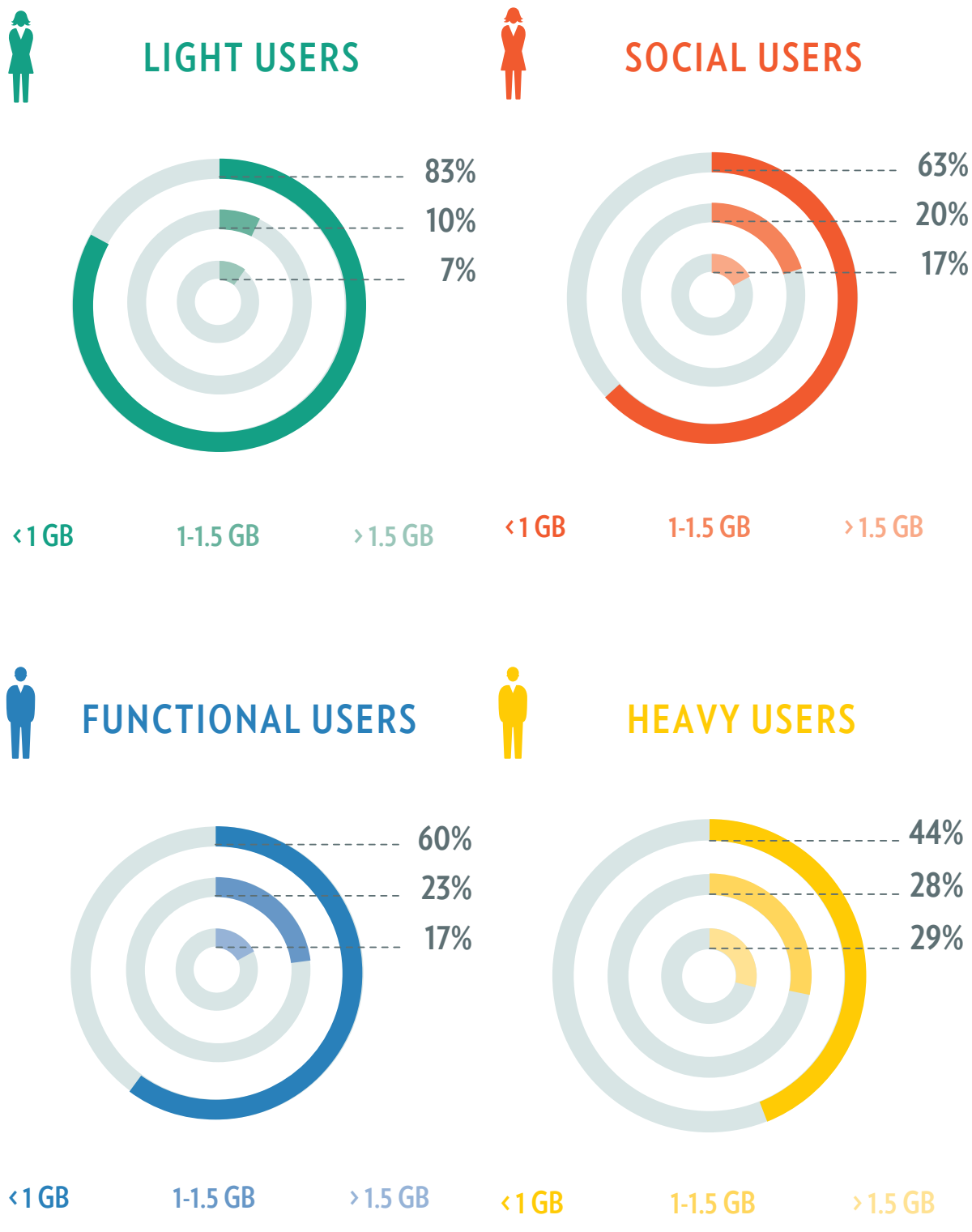


Figure 22: mobile data usage per segment (per month)

MOBILE APPLICATIONS

More than 25% of the respondents use smartphone applications for nine different kinds of activities on a daily basis (or more). When we extend the time frame to weekly usage or more, the number of activities performed by at least 25% of people increases to 20!

Top ten activities used on a daily basis or more	
Emails	42%
Watching pictures online (Facebook, Instagram, Flickr, etc.)	39%
Consulting Facebook stream	38%
Watching profile pages of others (Facebook, Netlog, etc.)	35%
Following the news (sports results etc.)	35%
Customizing own profile page on Facebook, Netlog, etc.	27%
Info search (Google, Wikipedia etc.)	26%
Online texting service (WhatsApp, Kik Messenger etc.)	26%
Chat (Facebook Chat, Google Talk, Meebo, etc.)	23%
Gaming	14%

Table 1: top ten daily activities (%; N=2302)

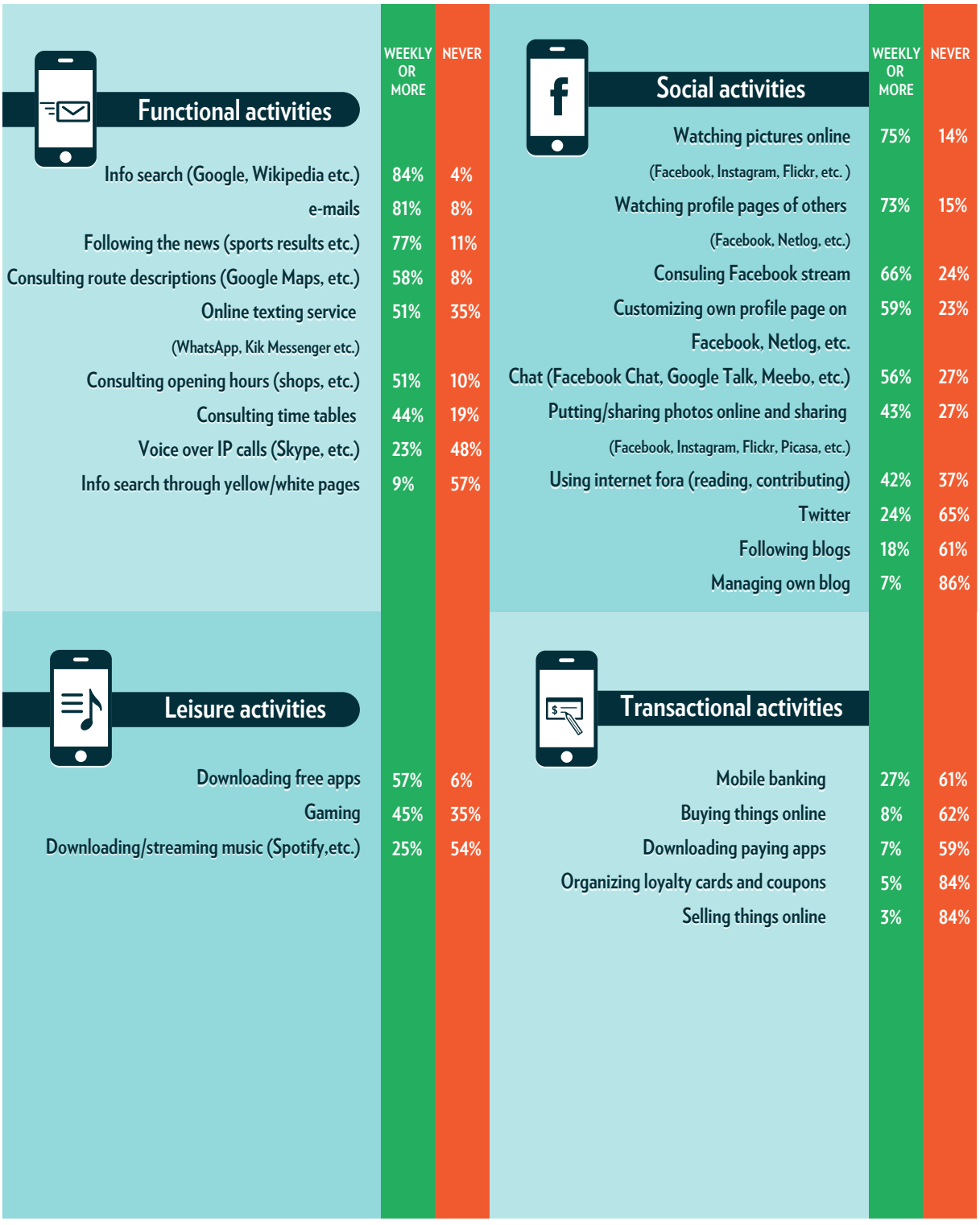
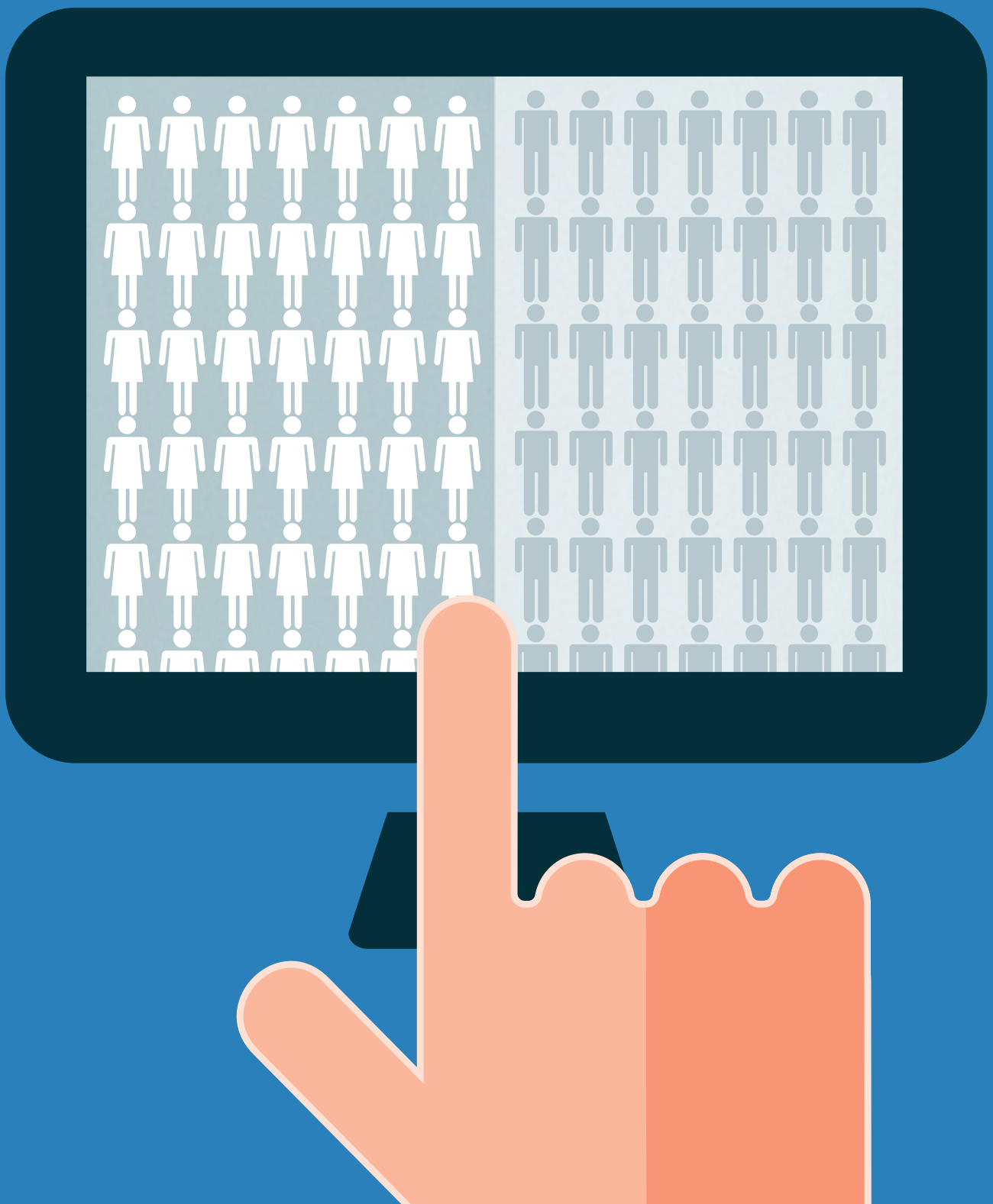


Figure 23: activities on the smartphone (%; N=2.302)

CHAPTER 2: **SOCIAL**



Definition: Social Media
In the Mobimeter report, social media are defined as various web services that allow the collection of a list of friends, and for which the interaction with these friends through updates, messaging or other means is an integral part of the service. This includes dedicated social networking services, content aggregation platforms, online communities, etc.

Smartphones and the current big social media networks have developed during the same time frame, and have been very symbiotic during this development period, each contributing to the other.

Today, smartphones play a crucial role for many social networks. A big portion of user-generated content is produced through smartphones. This isn't limited to text input, since photographs and video are easily produced and uploaded. This role can be illustrated by services such as Twitter and Instagram (now acquired by Facebook), which heavily focus on mobile devices.

Vice versa, various social media are incentives for smartphone use. As described above, browsing and updating social media are second only to basic Internet and communication applications in use frequency.

Basic Facts (N=2.302)

- Social media are a huge part of smartphone use
  - 57.1% of smartphone users check their friends' profiles regularly
  - 44.1% updates their social profiles regularly using a smartphone
- Facebook is the king of all social media
  - 89.3% adoption of Facebook among the Mobimeter sample
  - 71.8% uses Facebook regularly on their smartphone

SOCIAL MEDIA MEMBERSHIP AND MOBILE USE

When discussing social media use on smartphones, adoption percentages only tell a part of the story. Adoption rates give a first indication of how widespread social media are, but the extent to which they are regularly used on smartphones completes the picture. This smartphone activity can be expressed either as a percentage of the entire sample for size comparison, or as a percentage of each social media site's user base.

Basic Facts

- Facebook has the highest adoption rate among smartphone users (89.3%), followed by YouTube (64.4%), Skype (47.9%), Twitter (34.9%), and Google+ (31%).
- Not all social media are equal: some are used more frequently on smartphones than others
  - Facebook is used regularly on smartphones by 80.4% of its users.
  - Foursquare is smaller than Skype, Google+, and LinkedIn, but is bigger on smartphones

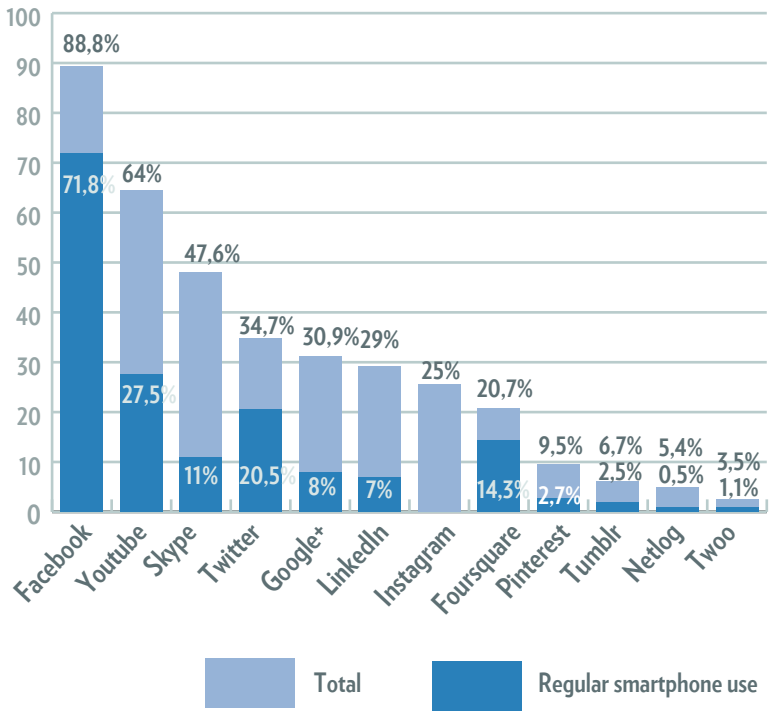


Figure 24: top ten social network membership and regular (multiple times per week or more) smartphone use (%; N=2302)

[3] No data is available on Instagram use frequency

- Among their user base, Facebook is used daily via smartphone by about two thirds of their users. This is more than any other social network. Even Foursquare, the most smartphone-centric of the included networks, only has 47.4% daily smartphone users.
- Despite a small user base among Flemish smartphone users, Reddit is used daily by over 40% of its adopters, more than most other services.
- In contrast, Netlog scores weakest on smartphones. Having reached their peak before the smartphone boom, almost half of their users never logs in via mobile device.

USING SOCIAL NETWORKS ON SMARTPHONE

	N	Never	Daily
Facebook	2086	2,8	65,2
Foursquare	487	1,9	47,4
Reddit	93	6,5	41,9
Twitter	815	5,3	36,7
Tumblr	157	10,9	16,7
Youtube	1505	7,4	15,6
Google+	725	14,5	11,8
Pinterest	223	13,5	9,9
Blogger	62	21,0	9,7
Skype	1119	15,1	9,3
Twoo	83	16,9	7,2
LinkedIn	682	15,9	6,8
Netlog	128	47,7	3,1

Table 2: social network adopters using smartphones for access (%; N=2302)

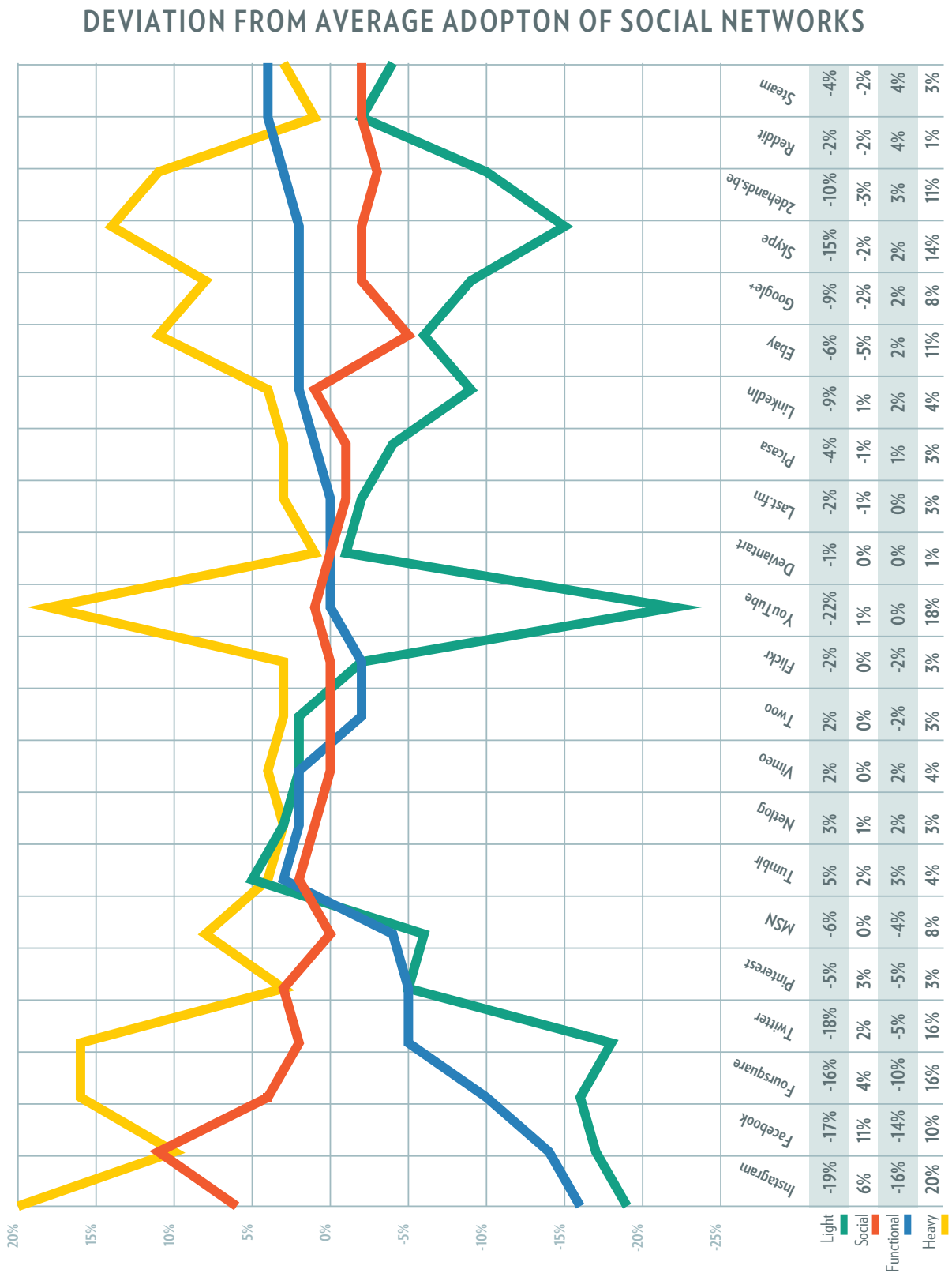


Figure 25: deviation from average adoption of social networks

The distinction between user segments can also be observed in social network activity. When comparing the average percentage of social network users per segment, we can easily distinguish heavy users from light users. Additionally, functional users are less likely to have an account on large, mobile oriented networks, yet they score above average when looking at more function-oriented networks.

Once again, adoption of social networks doesn't tell the whole story. There are large differences in the extent to which social networks are used frequently on smartphones. Heavy and social users tend to display much more frequent social network use. This is especially clear for Facebook, where only around 20% of light and functional users access the network daily via their smartphone, while social and heavy users score over 80% and 90% respectively. Generational differences are more network-specific.

	Light	Social	Functional	Heavy	Digital Immivgrant	Digital Native
Facebook	20,6%	83,4%	23,8%	90,2%	52,2%	69,1%
Twitter	19,3%	32,8%	25,2%	50,5%	35,6%	37,1%
LinkedIn	1,0%	8,0%	5,3%	9,2%	10,5%	4,9%
Netlog	0,0%	5,5%	0,0%	2,0%	2,4%	3,7%
YouTube	6,2%	12,3%	10,8%	26,0%	11,0%	16,7%
Foursquare	20,0%	45,3%	31,8%	55,8%	42,3%	48,9%
Tumblr	11,1%	15,7%	6,7%	21,0%	20,0%	15,8%
Skype	3,0%	7,8%	7,4%	15,0%	10,5%	8,9%
Google+	3,6%	11,6%	9,8%	17,3%	15,2%	10,0%
Reddit	8,3%	52,9%	42,4%	48,4%	33,3%	41,6%
Twoo	11,1%	6,7%	0,0%	8,1%	13,3%	6,5%
Pinterest	0,0%	9,3%	0,0%	16,7%	11,3%	9,6%
Blogger	0,0%	3,7%	0,0%	26,3%	18,2%	5,0%

Table 3: daily smartphone use of social networks, by segment and generation (%; N=2302)

- **Digital Natives** embrace smartphone-centric social media such as Instagram and Foursquare more enthusiastically than digital immigrants. They also are more active in general.
- **Digital Immigrants** mainly use smartphones as an extension of their familiar use patterns. Networks where they are more present than digital natives usually are more functional in nature (e.g. LinkedIn, Ebay, ...)

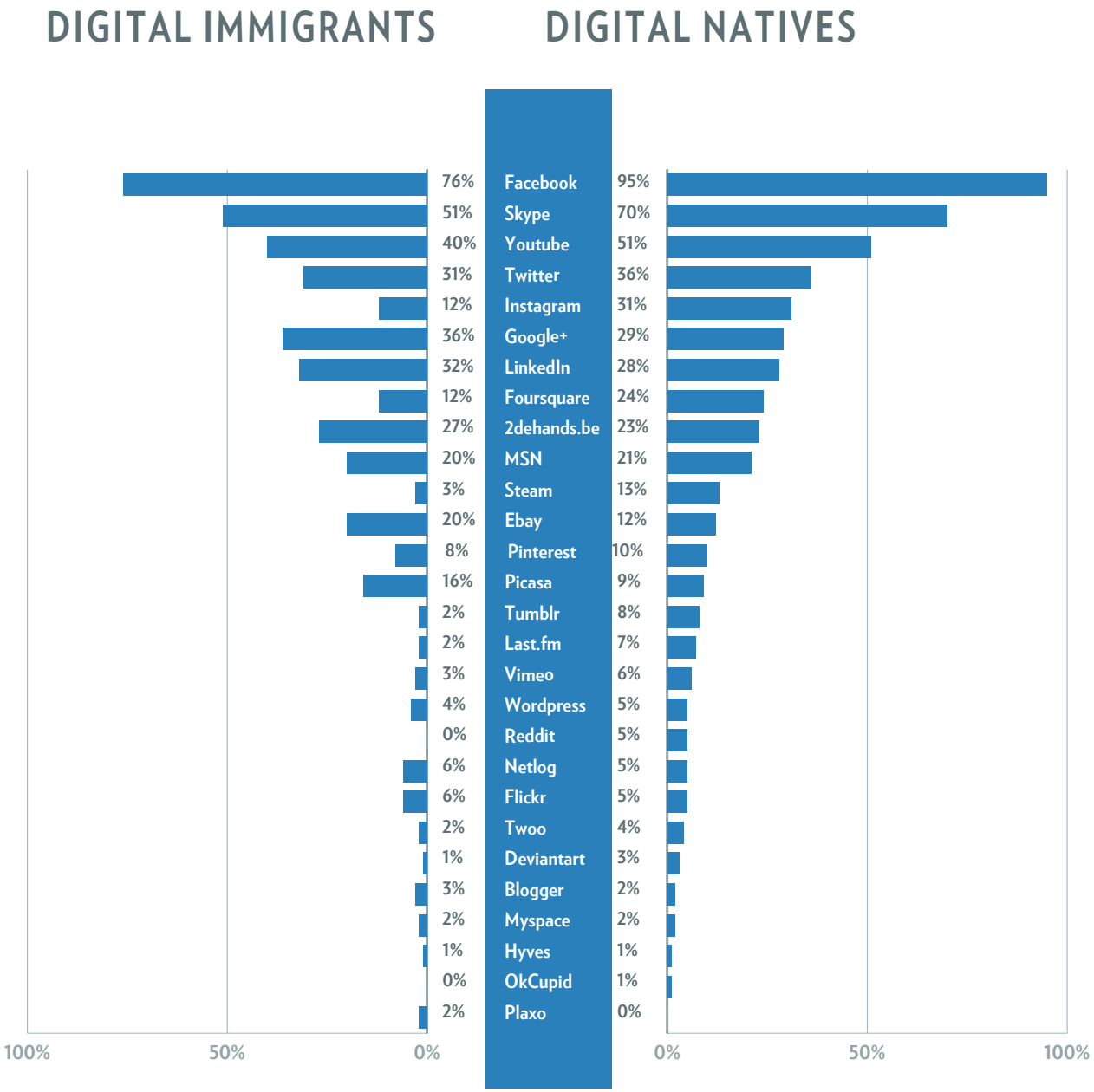


Figure 26: social media membership among digital natives and immigrants (%; N=2302)

More than 70% of the sample has six or less social network site accounts. This distribution is typical for all segments, although the specific networks vary.

NUMBER OF SOCIAL NETWORK SITE ACCOUNTS

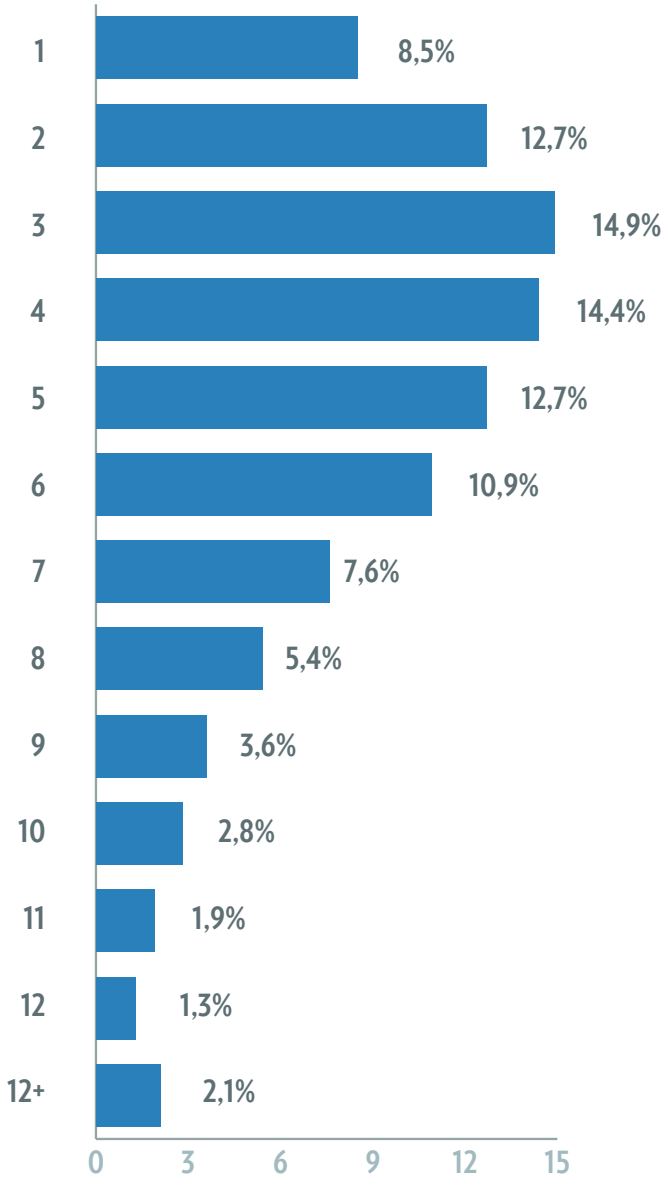


Figure 27: number of social network site accounts per respondent (%; N=2302)

SOCIAL NETWORK SIZE

- In general, digital natives have more contacts on social network sites
- On average, women and digital natives have the largest social network on Facebook
- Digital natives have a larger network on Twitter. On top of this trend, immigrants have comparatively less followers compared to the number of people they follow.
- LinkedIn is the exception. Digital immigrants have more contacts, due to their better developed professional networks
- Social and heavy users have larger networks on Twitter and Facebook

		Immigrant	Native	Light	Social	Functional	Heavy
Facebook	*< 20*	9,20%	1,00%	7,00%	1,34%	6,81%	0,69%
	20-49	13,90%	2,50%	8,68%	3,40%	12,07%	1,90%
	50-99	17,30%	6,90%	11,48%	7,53%	19,81%	4,84%
	100-199	23,10%	19,80%	26,33%	18,96%	22,91%	18,34%
	200-500	26,90%	49,00%	36,13%	48,48%	30,65%	48,10%
	> 500	8,00%	19,50%	8,40%	19,20%	6,81%	24,22%
	No idea	1,60%	1,40%	1,96%	1,09%	0,93%	1,90%
Google+	*< 20*	54,00%	53,90%	60,91%	54,13%	60,14%	47,11%
	20-49	18,60%	19,70%	12,73%	18,60%	18,88%	22,67%
	50-99	6,30%	9,10%	8,18%	5,79%	9,09%	10,22%
	100-199	5,10%	3,20%	2,73%	3,31%	3,50%	4,89%
	200-500	1,30%	1,10%	1,82%	1,24%	0,00%	1,78%
	> 500	2,50%	0,60%	0,91%	1,24%	1,40%	1,33%
	No idea	12,20%	12,30%	12,73%	15,70%	6,99%	12,00%

		Immigrant	Native	Light	Social	Functional	Heavy
Twitter Following	*< 20*	30,80%	20,00%	31,33%	19,67%	37,01%	17,23%
	20-49	24,00%	20,30%	14,46%	24,59%	22,83%	18,92%
	50-99	16,30%	20,70%	16,87%	20,98%	13,39%	21,62%
	100-199	12,50%	18,00%	22,89%	15,74%	14,17%	16,22%
	200-500	11,50%	13,20%	7,23%	13,11%	9,45%	15,20%
	> 500	3,80%	4,10%	3,61%	4,26%	1,57%	5,41%
	No idea	1,00%	3,70%	3,61%	1,64%	1,57%	5,41%
Twitter - Followers	*< 20*	53,80%	36,40%	53,01%	39,34%	58,27%	31,42%
	20-49	14,90%	24,40%	16,87%	22,62%	15,75%	25,00%
	50-99	11,50%	16,10%	15,66%	15,41%	11,81%	15,20%
	100-199	6,30%	9,30%	4,82%	8,52%	5,51%	11,15%
	200-500	6,70%	6,60%	3,61%	7,54%	3,15%	8,11%
	> 500	4,30%	3,10%	2,41%	4,26%	3,15%	3,04%
	No idea	2,40%	4,10%	3,61%	2,30%	2,36%	6,08%

		Immigrant	Native	Light	Social	Functional	Heavy
LinkedIn	*< 20*	10,00%	17,00%	14,71%	17,93%	11,36%	12,89%
	20-49	16,70%	26,20%	30,39%	22,31%	26,52%	19,07%
	50-99	19,10%	23,70%	21,57%	19,92%	21,97%	25,26%
	100-199	23,90%	15,90%	24,51%	18,33%	19,70%	13,92%
	200-500	19,60%	10,50%	4,90%	14,34%	12,88%	17,53%
	> 500	9,10%	1,30%	1,96%	3,59%	5,30%	3,61%
	No idea	1,40%	5,40%	1,96%	3,59%	2,27%	7,73%
Foursquare	*< 20*	42,30%	29,60%	48,00%	26,87%	40,91%	32,09%
	20-49	29,50%	38,70%	36,00%	44,28%	31,82%	31,16%
	50-99	16,70%	17,20%	12,00%	16,42%	20,45%	18,14%
	100-199	2,60%	6,80%	0,00%	7,46%	0,00%	6,98%
	200-500	2,60%	2,00%	0,00%	0,50%	0,00%	4,19%
	> 500	0,00%	0,50%	0,00%	0,00%	0,00%	0,93%
	No idea	6,40%	5,10%	4,00%	4,48%	6,82%	6,51%

Table 4: social network size among adopters (%; N=2302)

CHAPTER 3: **LOCAL**

Definition: Location-based services (LBS)
In the Mobimeter report, location-based services are defined as services which use the physical location of a device to offer a customized service. These services range from active location logging (e.g. Foursquare) to consented location tracking (e.g. Glympse, Find My Friends) and recommendation systems. Examples of such applications are friend-finder applications, navigation applications and location-based deal services. Mobimeter excludes web services which passively incorporate location tracking for advertising or other purposes (e.g. mobile advertising networks, social media, etc.)

The increasing adoption and omnipresence of smartphones is strongly tied to the growing interest in location-based applications. Many developers make use of the characteristics of smartphones to offer location-based services and users begin to adopt these services widely.

The location layer is a core aspect of the smartphone experience, and brings a new dimension to how people find and share information on the go. For example, location tagging offers a new way of how to share context around photos and other information shared on social networks.

One of the most popular location-based services worldwide is Foursquare, with 40 million users, 55 million places and 1,5 million businesses worldwide (September 2013). Foursquare lets users check in to certain locations and share their location with friends, find new spots, write and read recommendations and unlock local deals. In Mobimeter, we measure a 25% adoption of Foursquare, half of which use the application daily. In the US, 18% of cell phone owners who use location surfaces, use Fourquare (Pew Research Centre, September 2013).

These numbers illustrate the relative importance of active location based services. However, a lot more apps use location information to enhance their services. This offers a lot of advantages and opportunities to both users and businesses, but sharing location information can also lead to important privacy concerns.

FAMILIARITY WITH LOCATION-BASED SERVICES

There seems to be some confusion concerning the term 'location-based services'. Few people know what these services are, and even among users the concept isn't standard knowledge. However, unfamiliarity does not mean non-use. This suggests that users might see these apps as social networks, or perhaps are not aware of their location being used.

Basic Facts

- 50.4% claim to have never heard of 'location-based services', and only 17.4% know exactly what location-based services are.
- Strikingly, among those unfamiliar with location-based services as a concept, some do indicate that they are using one or more: almost 4 in 10 among those that are completely unfamiliar with the concept and 5 in 10 that are somewhat familiar with the concept.

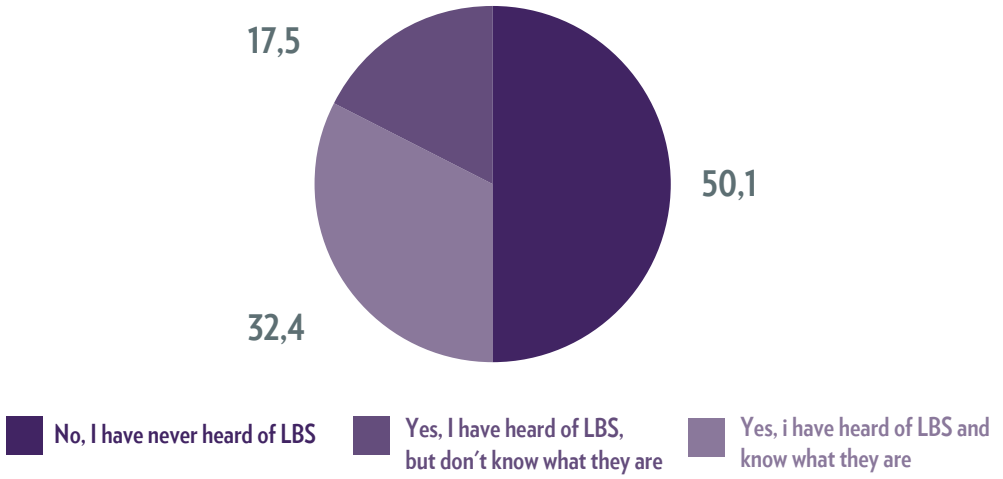


Figure 28: familiarity with LBS (%; N=2302)

	No, i have never heard of LBS	Yes, i have heard of LBS but don't know what it is	Yes, i have heard of LBS and know what it is
Non-usage	63,4%	47,9%	28,6%
Usage of LBS	36,6%	52,1%	71,4%

Table 5: LBS familiarty and usage (%; N=2302)

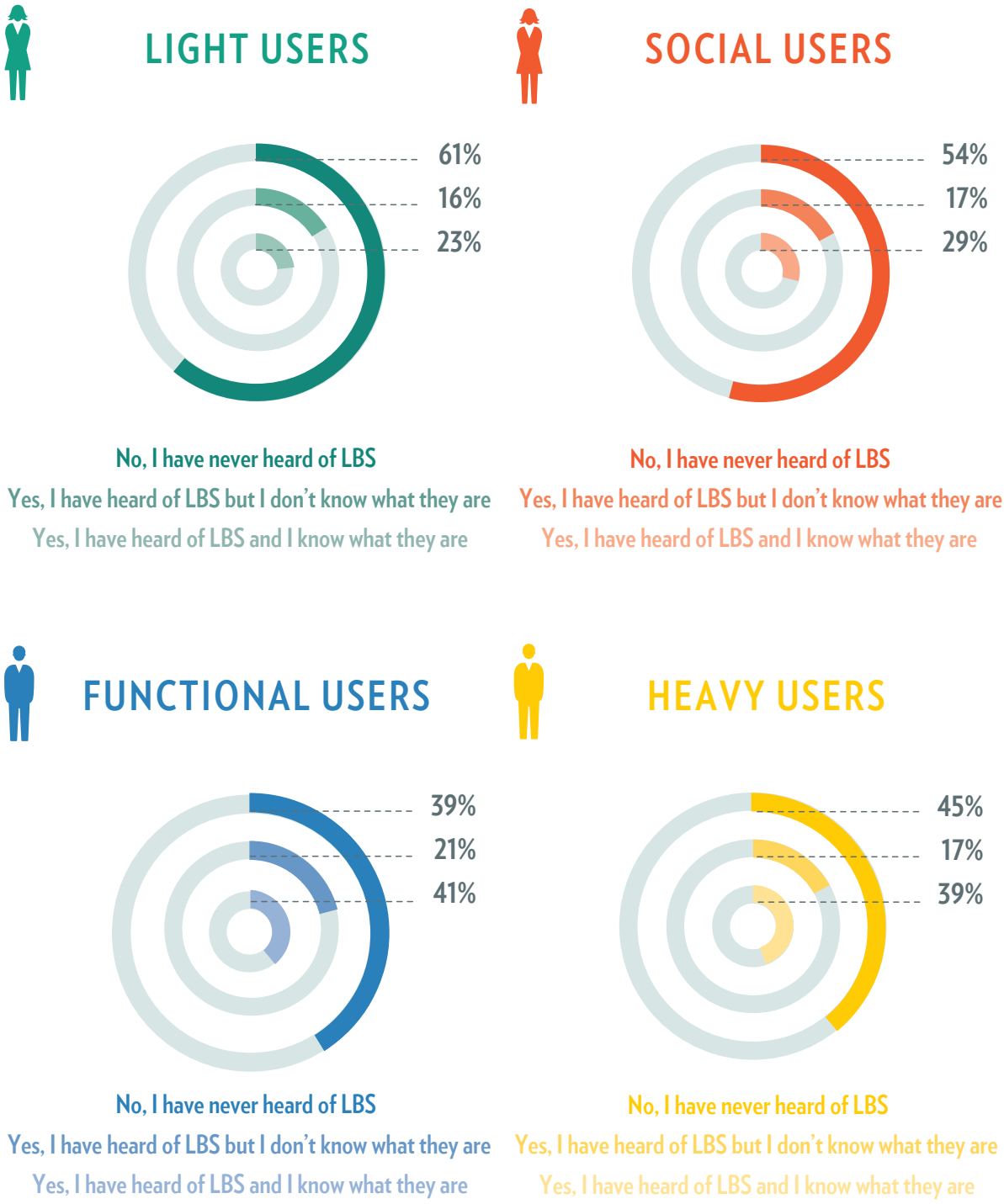


Figure 29: familiarity with LBS / segments (%; N=2302)

Remarkably, in addition to the heavy users, functional users are the most familiar with location based services. About 41% of the functional users have heard of LBS and know what they are, as opposed to only 29% of the social users. This raises important questions on how to create awareness on LBS in groups that already use them, or what motivations for (non-)adoption are.

LBS ADOPTION AND ACTIVE USE

Similar to the broader collection of social media, not all location-based services are equal. Awareness and adoption percentages only tell part of the story. The amount of regular activity varies greatly among LBS, as can be seen when comparing the adoption rate and the active user base of Foursquare and Facebook Places.

Note: Google Latitude was shut down by Google on August 9, 2013. Location sharing has been merged into the Google+ platform.

Basic Facts

- Half of our sample has an account on at least one LBS
- Facebook Places (26%) and Foursquare (25%) are most widely adopted.
- Foursquare is more actively used, with 56% of their user base reporting regular use. In comparison, this is only 14% for Facebook Places.
- Belgian-based CityLife (former VikingSpots) has been adopted by 7% of the sample.
- Heavy users dominate the LBS scene, with other segments barely using these apps

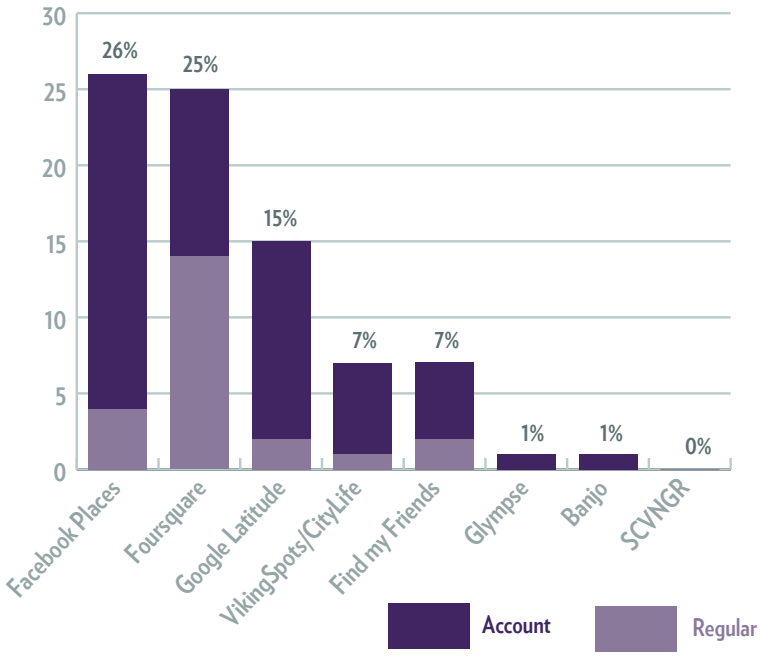


Figure 30: location-based service adoption and regular (weekly or more) use (%; N= 1164)

MOTIVATIONS FOR USING LBS

Individual reasons for using location-based services vary among users. In addition, the relative importance of use motivations also varies across platforms. These motivations can be to see and be seen (broadcasting, surveillance), see which friends are near (proximity), business oriented (discovery, reviews, specials), 'gamification' or merely habitual.

Basic Facts

- Broadcasting your location is the most important motivation for using LBS, as is following up on friends' locations
- Habit plays a big part in the use of LBS
- Unlocking specials is the least important, probably due to the limited offer in Belgium
- Functional users of LBS have the most distinct user profile, with getting directions and tracking their activity as the most important motivations

Definitions:

Broadcasting: sharing your location with others

Surveillance: following others' location

Proximity: checking which friends are near

Gamification: game elements connected to checking in (points, badges, ...)

Tracking: registering your locations over time

Discovery: discovering new places

Specials: getting discounts or deals by checking in with merchants

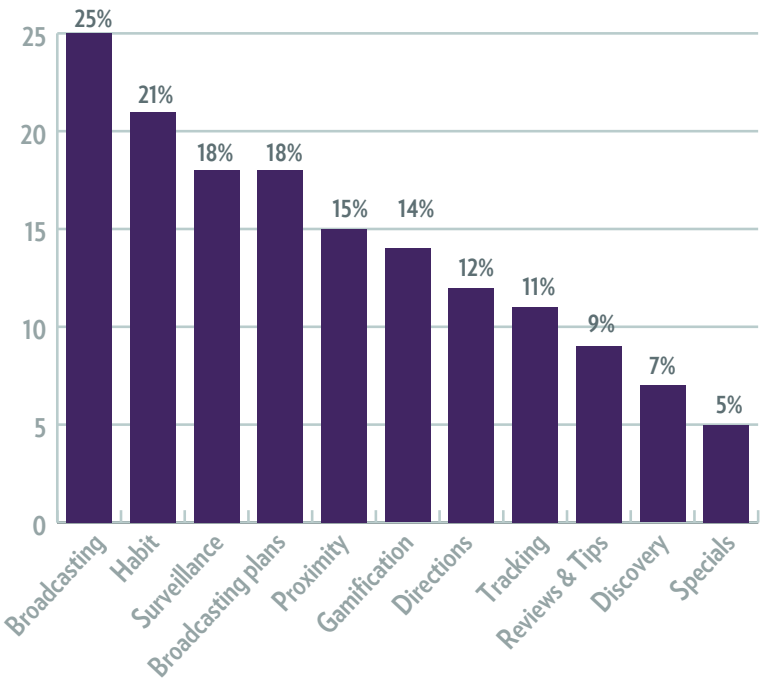


Figure 31: motivations indicated as important for the use of LBS (%; N=1164)

	LIGHT USERS	SOCIAL USERS	FUNCTIONAL USERS	HEAVY USERS
1	Broadcasting	Broadcasting	Directions	Broadcasting
2	Habit	Habit	Tracking	Habit
3	Broadcast plans	Broadcast plans	Broadcasting	Broadcast plans
4	Surveillance	Surveillance	Habit	Directions
5	Directions	Proximity	Reviews	Surveillance

Table 6: top 5 LBS motivations, sorted by importance per segment (N=1164)

Basic Facts

- Motivations are closely linked to the characteristics and type of location-based services
- Social functions (broadcasting, surveillance, proximity) and the strong habitual aspect are dominant with the use of Foursquare, the most widely used location–based service
- Less-used LBS, such as Find my Friends or Facebook Places, have only one clear motivation connected to their use. These applications lack the strong use motivation connected to social contacts and habits

Foursquare	VikingSpots/ CityLife	Facebook Places	Google Latitude	Find my Friends
Broadcasting	Specials	Broadcasting	Routing	Surveillance
Habit			Tracking	
Gamification				
Surveillance				

Table 7: dominant motivations for specific LBS (N=1164)

LBS INTEREST AMONG NON-ADOPTERS

The aspects of location-based services that seem of interest to non-adopters differ strongly from the motivations of users.

Basic Facts

- Learning about new venues is viewed as the most interesting feature of LBS
- Gamification is an unwanted factor
- 24% of non-users are interested in special deals, while this isn't a strong use motivation for adopters. This might be caused by the limited offer of deals in Belgium, which causes some disillusionment with users

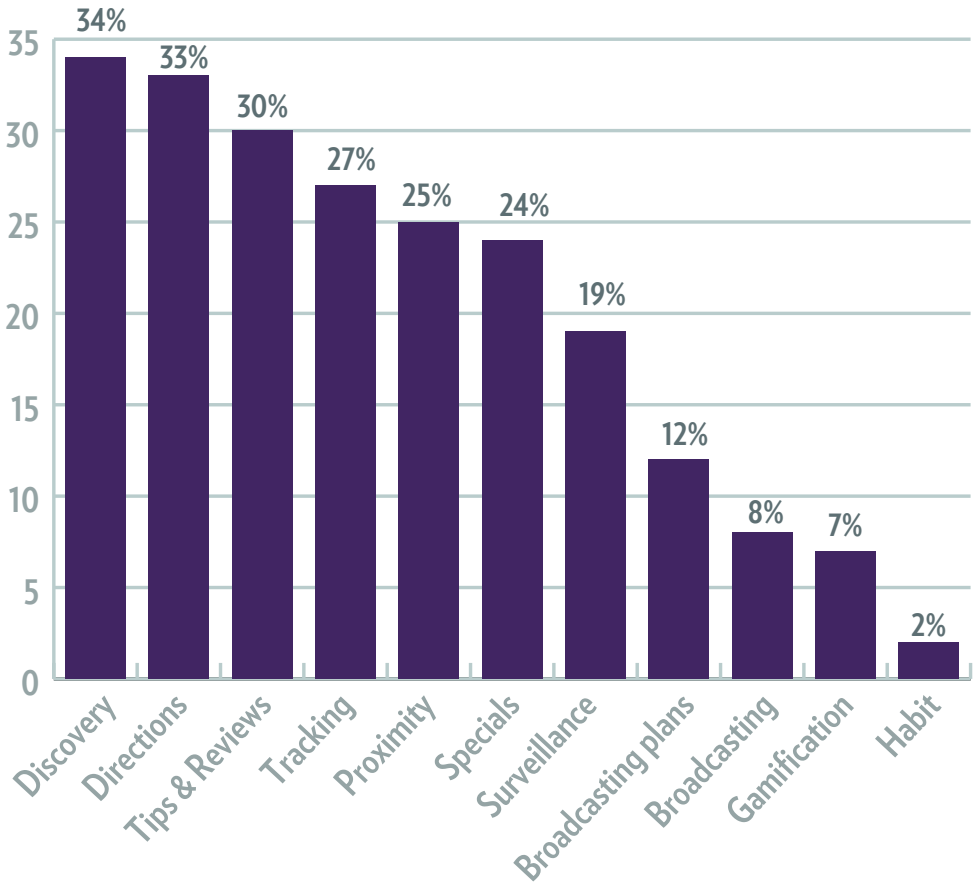


Figure 32: non-user interest in aspects of LBS (%; N=1138)

RISK PERCEPTION

Privacy concerns about sharing (location) information is a possible threat for using mobile applications. However, there often is a gap between users' concerns and their behavior. Despite privacy concerns, users often don't change their privacy settings. Only 7.9% indicate to always adjust the location based settings, while almost one quarter of the Mobimeter panel never does this. A possible explanation here is a lack of knowledge about how to change the location settings.

Basic Facts

- Around 50% admit to be worried that mobile applications collect too much personal information
- 50% are also worried that mobile applications can monitor their activities and their location
- Despite these location-monitoring concerns, only 26% frequently adjusts location settings
- There is surprisingly little correlation between privacy concern and adjustment of settings
- 55% of the light users never adjust their location settings, as opposed to the heavy users (28%). However, the proportion of heavy users that frequently adjust the location settings (31%) is not that much higher than that of the social (25%) and functional users (26%)

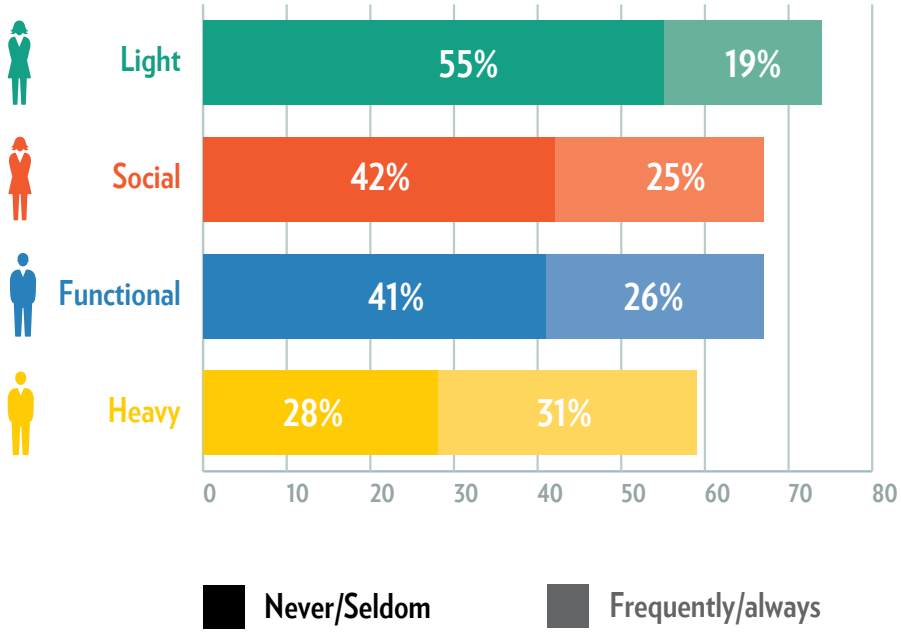


Figure 33: adjusting of privacy settings per segment (%; N=2302)

PRIVACY ATTITUDES & MOBILE PHONE BEHAVIOR

The aspects of location-based services that seem of interest to non-adopters differ strongly from the motivations of users.

Basic Facts

- Privacy concerns are the highest among the functional users, and the lowest among the heavy users
- Those that always adjust their location settings, seem to have more privacy concerns about location monitoring than those that adjust their location settings less frequently. For example: 14.4% that never adjust its location settings is rather unworried versus 28.3% that always adjust its location settings is rather worried.
- There are no significant generational differences in the Mobimeter panel

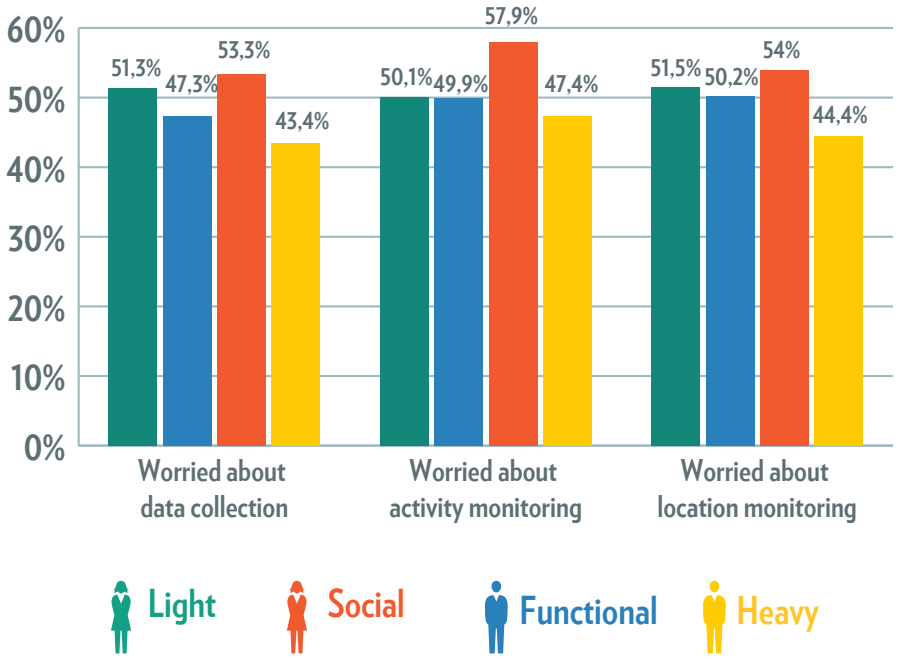
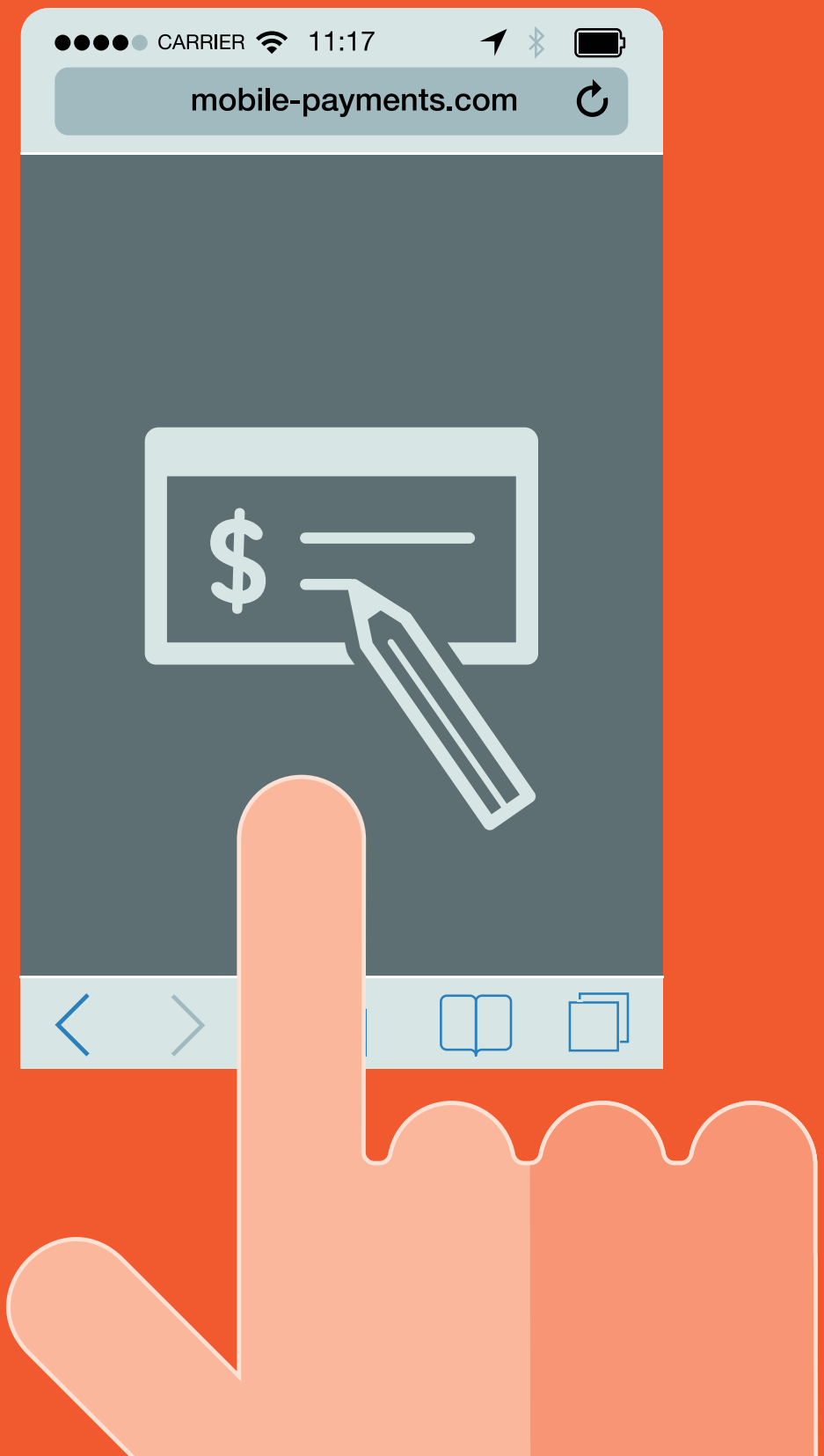


Figure 34: privacy concerns among segments (%; N=2302)

FOCUS CHAPTER:
MOBILE PAYMENTS



A study performed by Mercator Advisory Group in June 2013 concludes "*Mobile payment use and interest is growing, but there needs to be a compelling reason to launch a payment app at checkout. Greater automation in the couponing and loyalty programs to enable consumers to get a discount with a purchase will help move the needle of consumer adoption of mobile payments.*" [4]. Mobile payment solutions should be transcended to create mobile value, by adding complementary services with high added value for end-users, such as couponing, loyalty cards, (group) deals etc.

Mobile payment transactions are already conquering the US with 3.15 million dollar being processed daily. In Flanders however, mobile payment has been introduced only very recently by Bancontact/Mister Cash and it is currently only being tested in a living lab setting. The launch of the app for the general public is planned in 2014. Besides the Bancontact/Mister Cash app, there are occasional crossover initiatives of e.g. Google Wallet and Mastercard, or a payment app which stresses the social dimension such as the Bill4Friends-app of BNP Paribas Fortis to split bills among friends.

Among the barriers for fast and wide diffusion of this technology is the lack of a technological standard such as NFC (Near Field Communication) and the risk perceptions of end-users concerning privacy and safety of mobile payment systems.

In order to provide some insights into people's attitudes towards mobile banking and mobile payments, Mobimeter includes this short dedicated section, based on items from two large scale surveys that were conducted in 2012 and 2013.

[4] http://www.mobilepaymentstoday.com/article/219407/Mobile-payments-study-kicks-off-2013-research-series-on-consumer-payment-banking-trends

ONLINE TRANSACTIONS

Online transactions (shopping, payments) are widely used by the user sample when we make no distinction between devices. The Internet has become a marketplace. Three people out of four report to have bought and sold items on the Internet. These high adoption rates do not mean that this is frequent practice for most. Only 10% of users who have spent money online do this weekly or more.

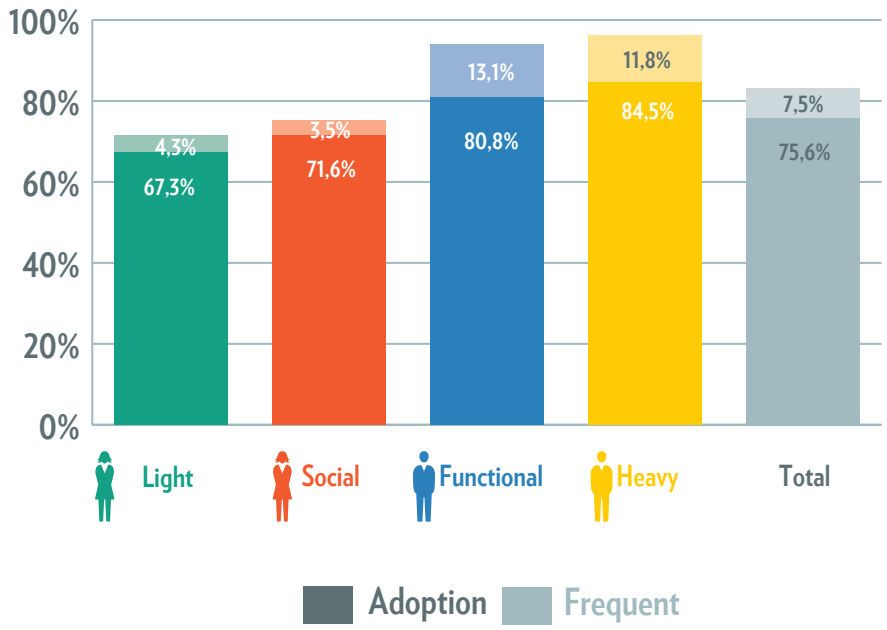


Figure 35: online buying adoption and frequent (weekly or more) behavior per segment (%; N=2302)

ONLINE PAYMENT METHODS

Basic Facts

- Debit cards and bank transfers are used most online, most likely for domestic transactions.
- Credit cards are used by two thirds of users.
- PayPal is adopted by 58% of our panel.

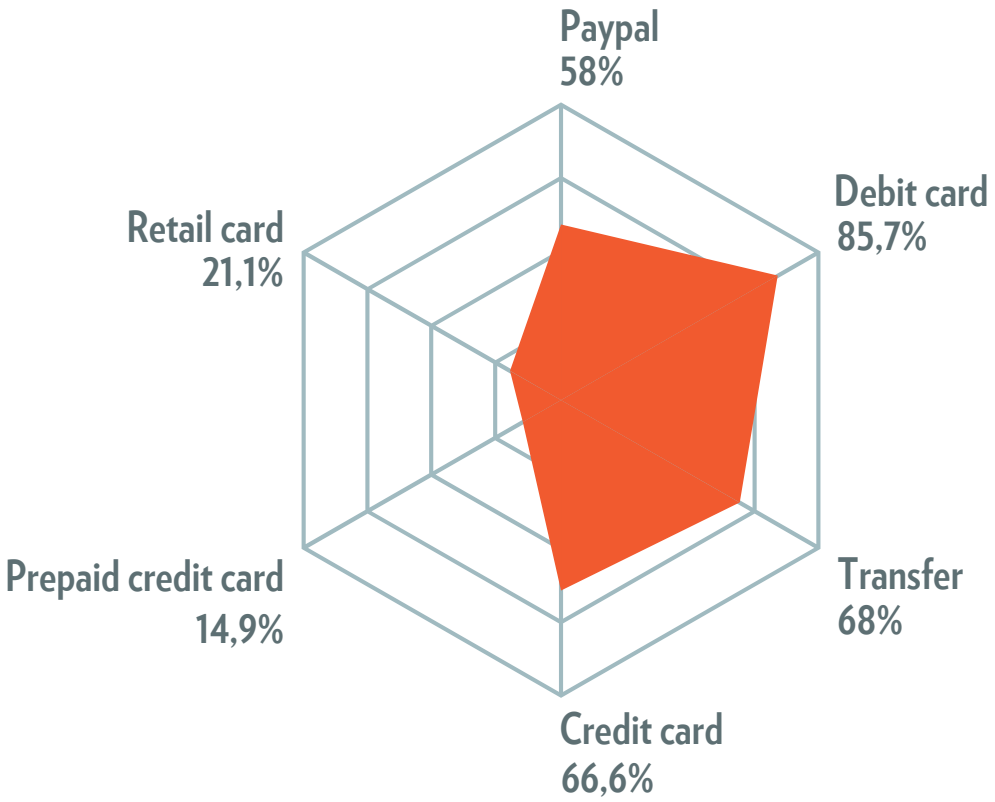


Figure 36: payment method adoption for online transactions (%; N=1740)

SMARTPHONE PAYMENT

Basic Facts

- Approximately one third of our panel has paid for something using their smartphone
- Large differences can be seen between user segments. More than half of the heavy users have used their smartphone for payments, while less than 10% of the light users have done so.
- There is some correlation between online payments and smartphone payments, but frequencies are too low to make strong claims.

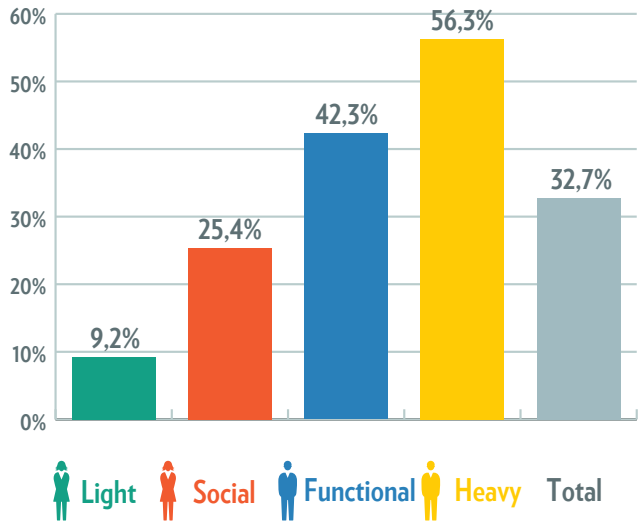


Figure 37: adoption of smartphone payments per segment (%; N=2302)

		Smartphone payment frequency				
		Never	Less than monthly	Monthly	Weekly	More than weekly
Online payment frequency	Never	22,2%	1,6%	0,5%	0,2%	0,0%
	Less than monthly	24,0%	10,7%	2,5%	0,3%	0,0%
	Monthly	17,9%	7,3%	4,4%	0,9%	0,0%
	Weekly	3,2%	1,7%	1,2%	1,4%	0,0%
	More than weekly	0,0%	0,0%	0,0%	0,0%	0,0%

Table 8: online vs. smartphone payment frequency (%; N=2302)

SMARTPHONE PAYMENT METHOD

Basic Facts

- Of those who have used smartphone payments, most have done so using Ogone services or similar methods on a mobile website
- Paypal Mobile has been adopted by 40,2% of users
- Mobile banking applications have quickly reached one in five users of smartphone transactions
- Smartphone payments are used more by functional and heavy user segments, which is not surprising considering their general mobile behaviour. Age is much less a factor

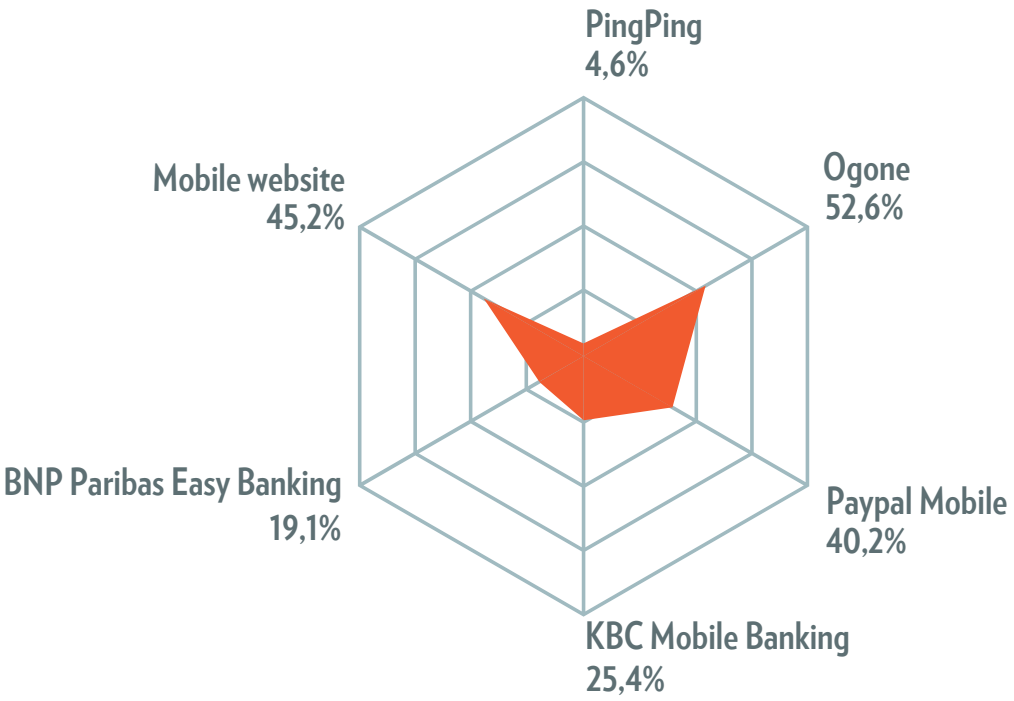


Figure 38: payment method adoption for online transactions (%; N=1740)

Smartphone payment frequency	Light	Social	Functional	Heavy	Digital Immigrant	Digital Native
Never	90,7%	74,5%	57,6%	44,2%	64,0%	68,6%
Monthly or less	7,5%	18,8%	28,2%	31,8%	21,0%	21,5%
Monthly	1,8%	5,7%	10,5%	17,1%	11,5%	7,4%
Weekly	0,0%	1,1%	3,7%	6,7%	3,5%	2,4%
Daily or more	0,0%	0,0%	0,0%	,2%	,2%	0,0%

Table 9: smartphone payment frequency across segments and generations (%; N=2302)

EVALUATION OF MOBILE PAYMENT SYSTEMS

Basic Facts

- Smartphone payments are evaluated as valuable by 64.8% of respondents
- Despite this, less than half believes that smartphone payments are safe, with approximately one quarter of users deeming them unsafe.

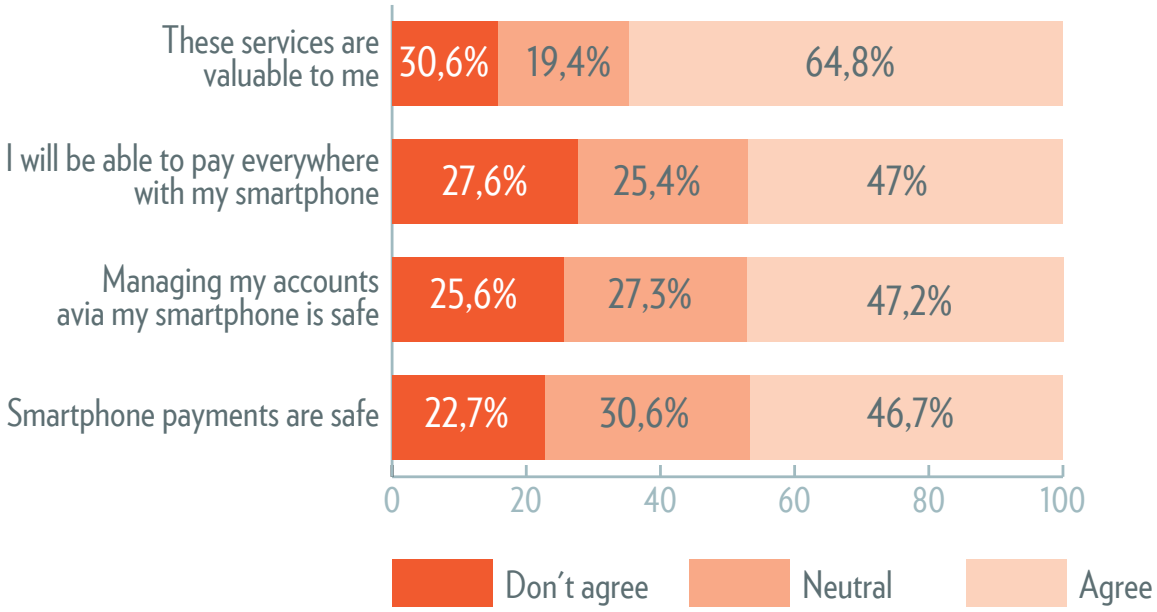
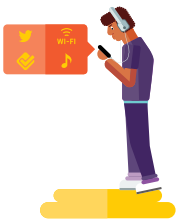


Figure 39: evaluation of mobile payment systems (%; N=653)

CONCLUSION



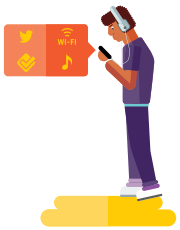



	LIGHT	SOCIAL	FUNCTIONAL	HEAVY
MOBILE				
- Use - Frequency - Data	Least (2/4) Least sessions Least data used	Average (3/4) Average Average	Average (3/4) Average Average	Most (4/4) Most Most data used
- Locations	Mainly home use and nomadic patterns	More mobile, aimed at social interaction	More mobile	Most evolved, truly mobile use patterns. Case in point: public transport.
- Connection - Tablet use	WiFi oriented Not mobile: living room	WiFi + 3G Craving for social updates makes these users take the tablet to their bedroom	WiFi + 3G Living room	WiFi + 3G Living room and bedroom use
- Application types	Light overall	Below average	Above average	High overall

FAMILIARITY WITH LOCATION-BASED SERVICES

The first Mobimeter report provided insights into mobile users and their mobile habits, social behavior on mobile devices and attitudes concerning location based services. To conclude, the differences between the four segments are summarized in the specific infographics below.





	LIGHT	SOCIAL	FUNCTIONAL	HEAVY
SOCIAL				
- Type	Low adoption overall	High adoption of general social networks, and above average interest in mobile-specific networks	Above average adoption of traditional networks or networks with a clear function	High adoption overall
- Typical SNS	Facebook	Facebook, Instagram, Foursquare, Pinterest, Twitter	Facebook, LinkedIn, Google+, Skype	Overall high adoption!
- Use on smartphone	Least regular use on smartphone, Facebook as most used	Networks with a dominant social function or mobile focus are used most regularly (Facebook, Twitter, Foursquare)	Overall irregular use, despite presence on most networks	Overall regular use on smartphone
- Network size	Smallest network	Large networks on Facebook and Twitter	Average network size, even on functional SNS (LinkedIn)	Largest network
LOCATION-BASED				
- Awareness	Low awareness, low risk perception	Low awareness	High awareness, high risk perception	High awareness
- Adoption	Low	Above average	Average	High
- Motivation	All-round	Easy updates on location of friends	Discovery of new places, location tracking, reviewsage	All-round
PAYMENTS				
- Online payments	Medium adoption	Medium adoption	High adoption	High adoption
- Smartphone payments	10% has tried it	25% has tried it	40% has tried it, some occasional users	50% has tried it; some regular users

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