Social Media & Messaging Engagement:

Chat, Social, Videoconferencing, Rich Media, and VoIP Apps

CONTRIBUTORS

Sam Rosen, Practice Director

Michael Inouye, Senior Analyst

November 11, 2014

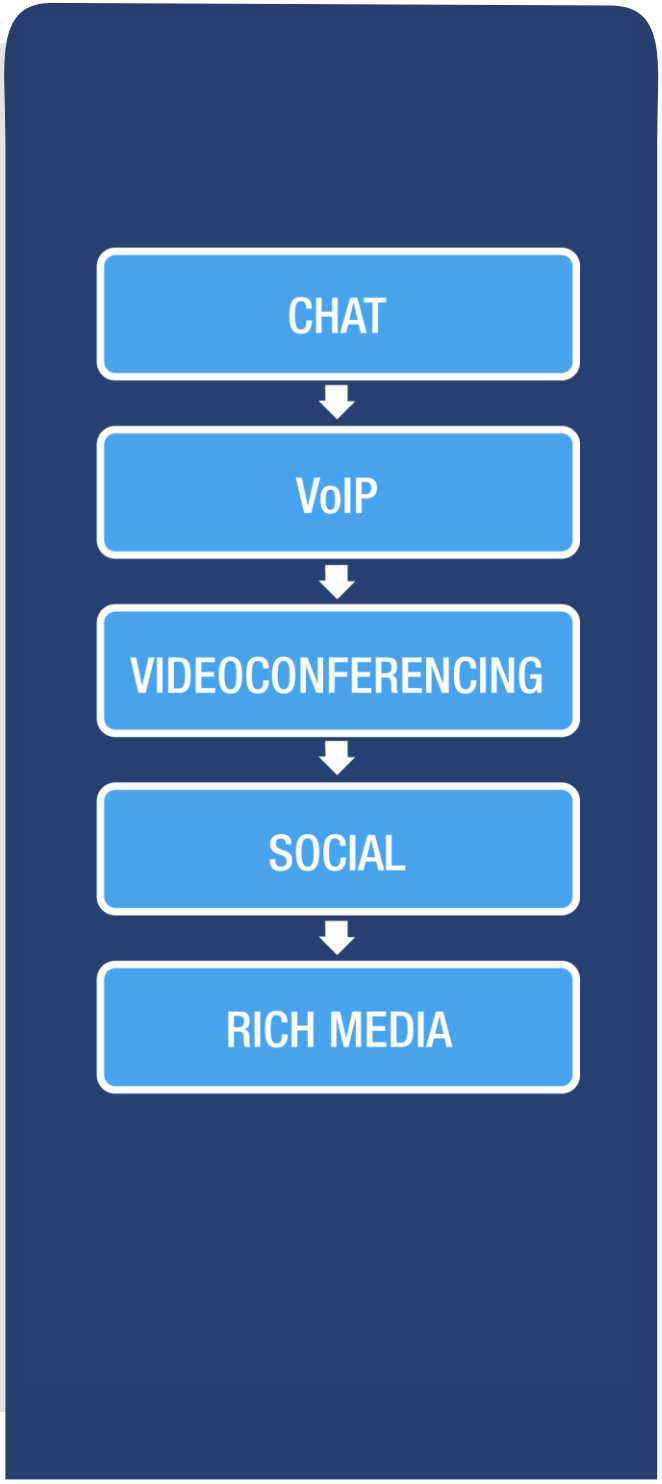
CONVERSATION, COMMUNICATION, RICH MEDIA

To state the obvious, smartphones and, to a lesser extent, tablets help us stay in touch with family and friends. In addition to native communication applications leveraging carrier voice minutes and SMS plans, consumers have turned to third-party applications for a variety of reasons. Key benefits of these include:

- Migration from plan minutes and messages to over the top (per MB) rates
- Ability to offload to Wi-Fi and avoid mobile carrier rates altogether
- Integration between mobile platforms and other PC-centric content ecosystems

We see an evolution in communication, driven by device and service capabilities. This evolution is generally additive in the short term, with consumers adding new tools into their habits. While real services are complex, and no two are alike, we find it useful to classify them as follows:

- **Chat**: Instant messaging (IM) is text-based on a one-to-one or one-to-many basis. Applications may support SMS (text) integration. Examples include: WhatsApp, Kakao Talk, and Facebook Messenger.
- **VoIP**: Voice over IP (VoIP) calling in a user community or integrated with the public phone network (PSTN), and may also have chat functions. Carrier and platform restrictions differ (Wi-Fi limitation, callback usage, *etc*.). Applications may focus on rate saving, home phone integration, extra phone numbers, *etc*. Examples include: Google Voice, TU Go, and BTSmartTalk.
- **Video**: Videoconferencing applications, most of which enable VoIP and video chat services. Examples include: FaceTime, IMO, and Skype.
- **Social**: Services enabling networking or content sharing to large groups of people simultaneously. Many integrate chat. The broadcast nature implies not all friends see all updates. Examples include: Facebook, Twitter, and VKontakte (Russia).



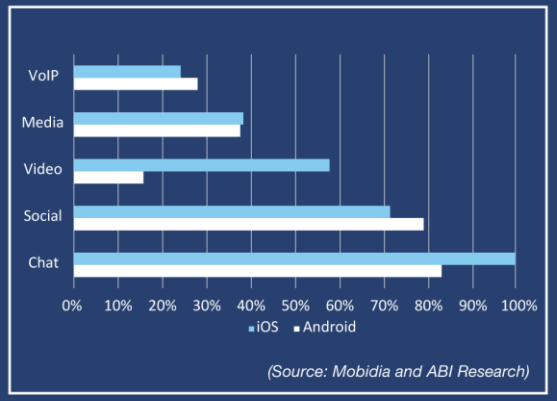
- **Rich Media**: Social services with the primary focus around photos and/or videos. Some provide full social functions, while others “piggyback” on other social networks. Examples include: Pinterest, Instagram, and Vine.

On a worldwide, basis, chat functions are the most commonly leveraged on a monthly basis, with social a close second. iOS users engage more in video calling than their Android peers, largely due to the tight integration of FaceTime. The high utilization of chat in iOS is likely not significant, but rather, due to the inclusion of iMessage into the data set, while not including the built-in Android messaging application. Beyond these differences, monthly active utilization is generally consistent (although higher engagement by other measures does occur in iOS.

Regionally, on the Android platform, social monthly engagement in North America and Eastern Europe is higher than chat, due to the popularity of Facebook and Google+. Google+ appears to be active primarily for its photo backup functions, with very low levels of user engagement in minutes (fewer than 20), but moderate data usage (about 150 to 200 MB per month). In other regions, chat is more heavily leveraged by users, due, in most part, to the popularity of WhatsApp.

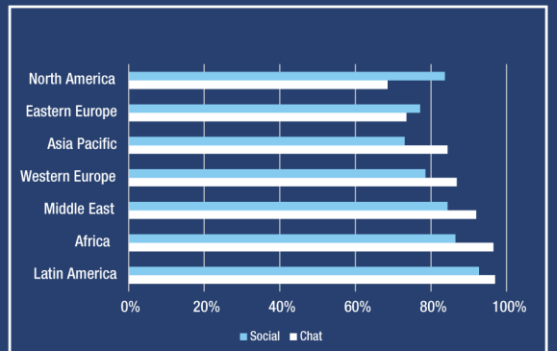
In addition, some of the regionally popular platforms, such as Kakao Talk (Korea) and WeChat (China) are classified as chat, rather than social. Further, Instagram’s level of usage in Latin America and the Middle East emphasize rich media somewhat when compared to social.

MONTHLY ACTIVE USERS BY APP CATEGORY, WORLDWIDE, SEPT 2014



(Source: Mobidia and ABI Research)

MONTHLY ACTIVE SOCIAL AND CHAT USERS BY REGION, SEPT 2014



(Source: Mobidia and ABI Research)

METHODOLOGY AND DEFINITIONS

ABI Research has collaborated with Mobidia to demonstrate the value of evaluating mobile apps from a rich data set, including usage metrics. This data set looks at app usage across a panel of nearly 1 million users on iOS and Android smartphones and tablets across 15 countries, further segmented into seven regions. Data were gathered by users opting-in to data sharing leveraging Mobidia's My Data Manager application. This award-winning app provides fully anonymized data sets from millions of smartphone and tablet users on an opt-in basis. My Data Manager helps consumers manage their personal data consumption. It has a bias to consumers that have higher awareness levels about data consumption and are seeking to maximize their data plan value. We believe the panel to be more tech-savvy than average, including trends to higher engagement and earlier adoption than the general population. At the same time, we believe it is the best independent usage data available. Mobidia has provided the data for this White Paper, while ABI Research has provided analysts' expertise in quantitative analysis and industry knowledge.

Leveraging this data set, we refer to the following usage-based metrics:

- **Monthly Usage**: Users invoking the application in a given month as a percentage of the panel size (typically, within a country or region). Invocation can occur *via* active methods, such as clicking on a notification or opening the app, or passive methods, such as receiving a call or uploading a photo.
- **Minutes of Engagement**: Total time in the application divided by the number of monthly active users provides an average engagement time in minutes per user.
- **Data Utilization (MB per Month)**: Total data generated by the application divided by the number of monthly active users.

Additionally, we reviewed installed user base, number of sessions per active user per month, cellular *versus* Wi-Fi utilization, MB per minute, *etc*.

TABLE OF CONTENTS

APPLICATION VALUE SCALES WITH USERS

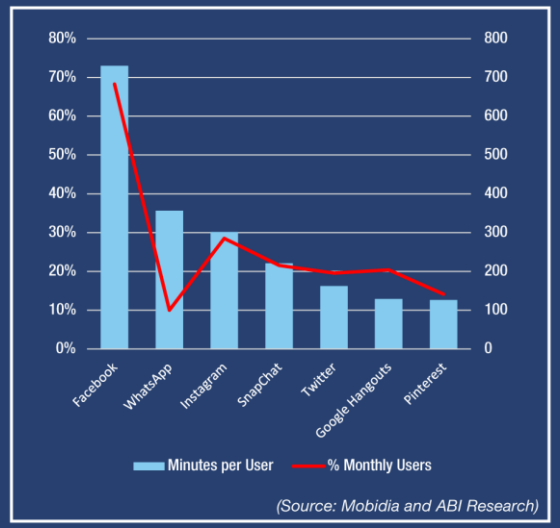
Engagement, measured in minutes of usage per month from the pool of active users of an application, should have some relationship with the user population for an application. Simply put, the value of a social network grows as the square of the number of users (due to possible interactions). At the same point, some “imported” applications work with ex-patriot populations, as well as those wishing to stay connected with people and events in their home country.

While, in some ways, this enforces the trends, we evaluated those applications exceeding 2 hours per month (roughly 4 minutes a day) of usage and 10% monthly use within a large population. This technique highlights the expected value of the network growing with the number of users.

Looking at the U.S. data, Facebook is the strongest application, with 68% of monthly active users spending around 730 minutes per month (about 24 minutes per day) on the platform. WhatsApp comes in at about half of the engagement among a much smaller population (10% with rounding error). This lone anomaly from the trend could be a measure of either a very small, engaged community, which is certainly possible within international expats living in the United States or tight networks, such as Silicon Valley or New York. In addition, WhatsApp is heavily used to stay in touch with international populations. Instagram, Snapchat, and Twitter follow.

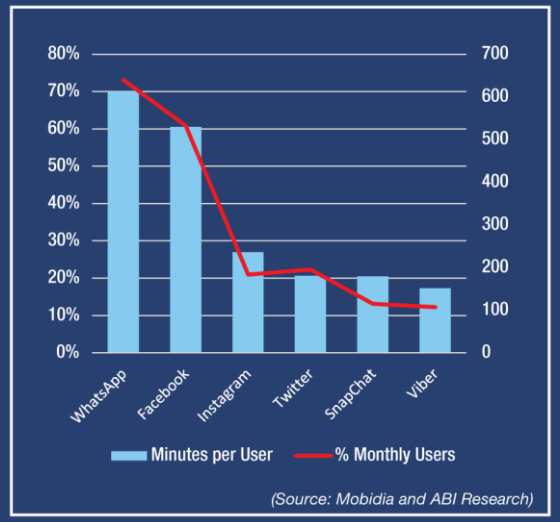
In Western Europe, the relationship is even stronger, with WhatsApp leading engagement with 73% users engaging monthly and 612 minutes monthly (roughly 20 minutes per day). Facebook is a close second, followed by Instagram, Twitter, and Snapchat.

MONTHLY ACTIVE USERS & MINUTES OF ENGAGEMENT, US, SEPT 2014



(Source: Mobidia and ABI Research)

MONTHLY ACTIVE USERS & MINUTES OF ENGAGEMENT, WESTERN EUROPE, SEPT 2014



(Source: Mobidia and ABI Research)

CHAT AND SOCIAL DRIVE ENGAGEMENT

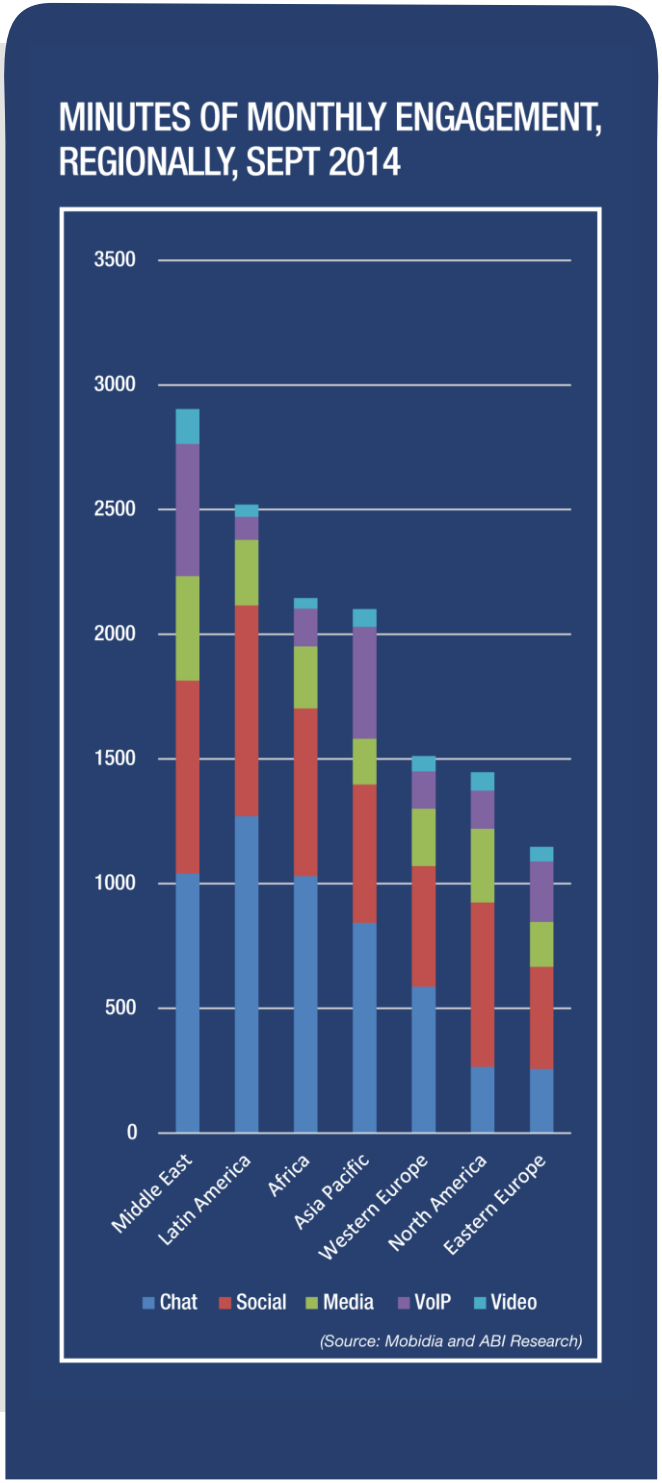
Engagement shows a generally consistent picture between chat, social, and rich media usage worldwide. This chart shows Android users in September 2014.

VoIP applications are strongest in the Middle East and Asia-Pacific, a response especially to expensive international and, in some cases, domestic calling plans. In other regions, VoIP-oriented applications are generally not as popular, as carrier phone calls may do the job quite effectively. Calling plans are under less pressure with the carrier cost structure shifting to data consumption from minutes of voice.

The videoconferencing category (video, at right) falls far short of the engagement in other categories, including rich media sharing. This is indicative of a lack of a "category halo" application (Skype and IMO do not stand out, while Apple has kept FaceTime away from Android devices). In addition, it fits into a general trend in asynchronous communication between users, keeping up in spare time, rather than synchronizing calendars. It is much harder to multitask while videoconferencing and this tests our social attention spans.

Generally, chat applications exhibit a large number of shorter sessions (with a session average of about 45 seconds), while average session length increases for VoIP (58 seconds), rich media (89 seconds), social (96 seconds), and videoconferencing (108 seconds). In general, the average session length scales with the richness of the media. One key anomaly, that rich media has a slightly shorter engagement time per session than social, is well explained by much production of content occurring in the rich media app (uploading to Instagram), while the viewing of that occurs in the social app, together with dozens of other updates.

Note that this chart is not strictly representative of a large population; the minutes of use are for monthly active users. However, they are stacked without accounting for the relative users of a category.



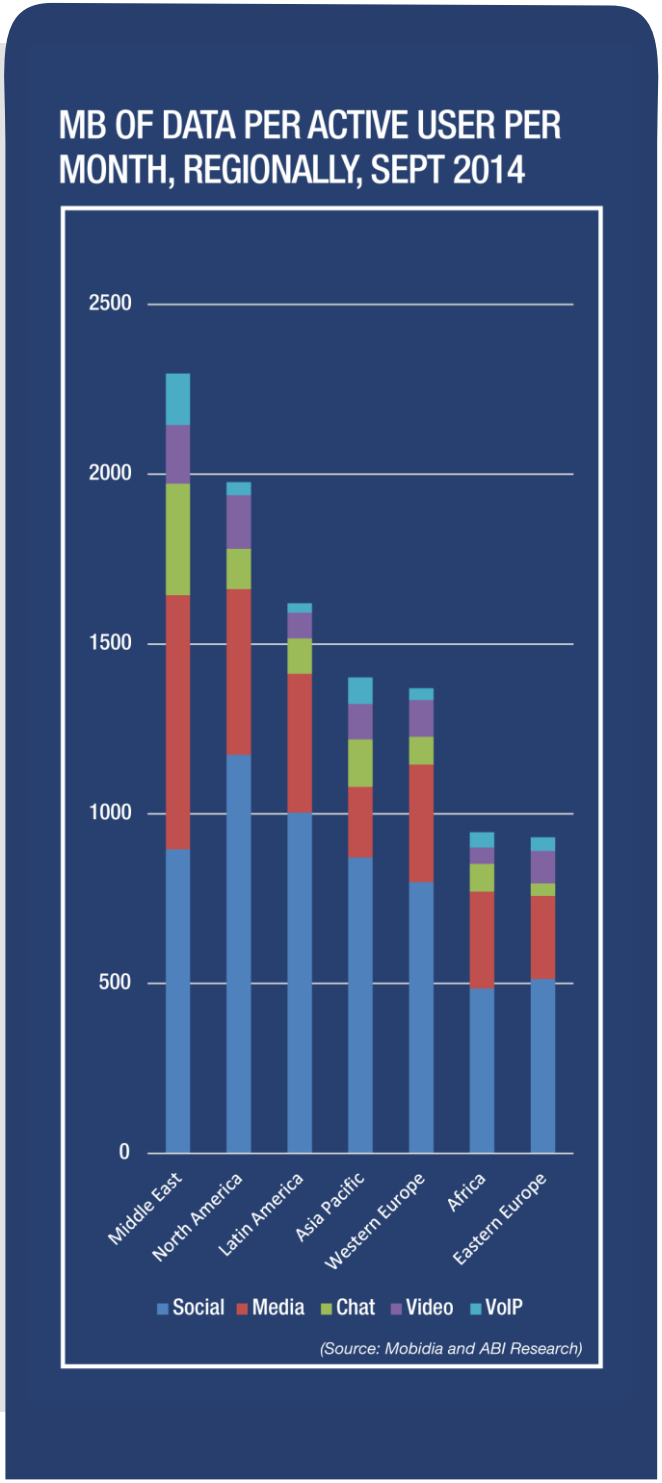
SOCIAL AND RICH MEDIA DRIVE DATA

Viewing applications from a data perspective, rather than a usage perspective, some social adoption trends are magnified. Specifically, they are magnified by the data consumption per application per month. This varies quite a bit regionally, due to the dominance of specific apps, typical camera sensor resolution and, therefore, photo sizes, as well as data plans (of course, Wi-Fi offload helps mitigate some of the impact of high priced data; we will view that separately later in this document). In North America, the data consumption in MB per minute varies from 0.25 (VoIP), 0.45 (Chat), 1.6 (rich media), 1.8 (social) to 2.2 (videoconferencing).

These measure the entire session, including time browsing directories, call initiation time, as well as a call itself. Not all calls are successful and, therefore, the average speed is reduced. Videoconferencing rates of 2.2 Mbps equate to nearly 300 kbps (around the range that Skype recommends for SD calling).

Social and rich media application categories consume the vast majority of data in all regions, with chat a distant third (a bit less distant where WhatsApp is strong). Videoconferencing fails to measure up due to its infrequent use (averaging 30 to 75 sessions per month), compared to chat, which can incur around 1,000 sessions per month in regions where it is used to replace SMS.

The most striking difference between the data-oriented viewpoint and the time-oriented viewpoint is that North America jumps from showing a less active use profile when measured in time, with much more significant usage from a data standpoint. Heavier use of carrier voice and messaging plays some role in this difference, coupled with high-spec phones that generate and consume large amounts of photos.



WI-FI CUTS THE BILL

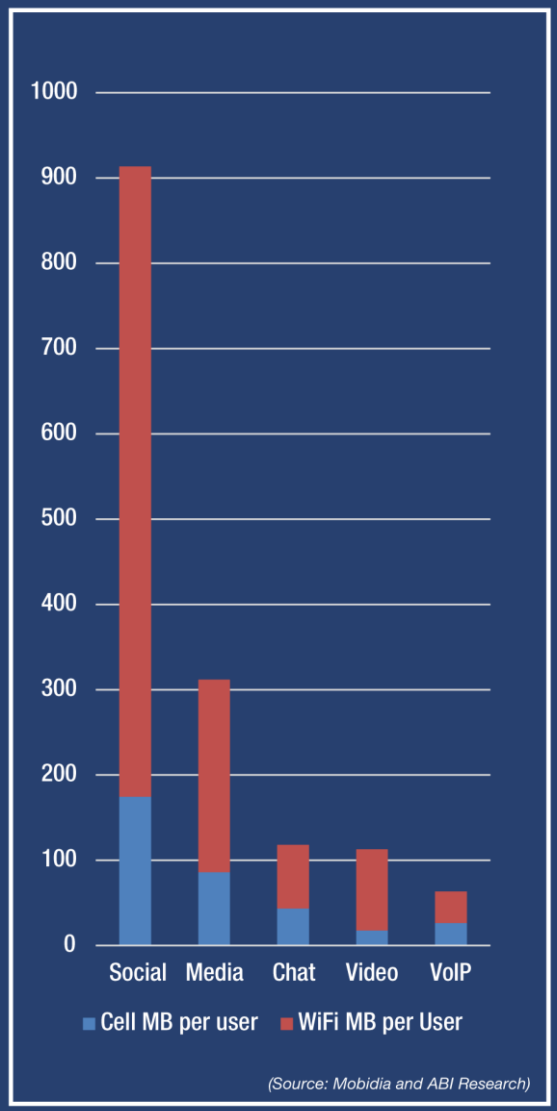
Smartphones' ability to roam between the cellular network and Wi-Fi is an important benefit. Applications like podcasting and email, together with app store updates, routinely have distinct cellular and Wi-Fi profiles for background data usage. However, communication applications do not have these settings, due to their interactive nature, compared to pushed or static data in email, for example. Carriers are working on ways to improve the Wi-Fi roaming experience, including extending their own Wi-Fi networks, signing interchange (including multi-national agreements), and improving Wi-Fi authentication. For most users, however, a large majority of consumption occurs in a handful of places (home, work, school, a coffee shop, *etc*.).

Wi-Fi accounts for data consumption ranging from 58% to 84% across social and communication apps, aggregated on a worldwide basis. Video relies the most heavily on Wi-Fi, at 84%. Some video applications were configured not to allow video calling over the cellular network. AT&T and Apple's rollout of FaceTime with the iPhone, for example, led many to question the benefits of the 3G network. We believe the decision was made to manage network capacity and prevent bill shock.

There are a few factors that drive the profile of the Wi-Fi offload curve. Consumers on small data plans may tailor their activities around data availability, choosing to defer uploading and social browsing until they can rely on Wi-Fi offload. In addition, preferred time of use consumption (checking social messaging in the lunchroom or while eating at one's desk) can also lead to relatively healthy offload rates naturally.

Some of the times when consumers rely heavily on mobile networks include during commutes. Wi-Fi on public transit (trains and busses) is fairly uncommon, especially for metro routes, accounting for some mobile data use. Further, use in the car (including drivers and passengers), as well as at restaurants and while in the checkout line are also factors.

NETWORK USAGE BY APPLICATION, WORLDWIDE, SEPT 2014



A WORLD OF APPS

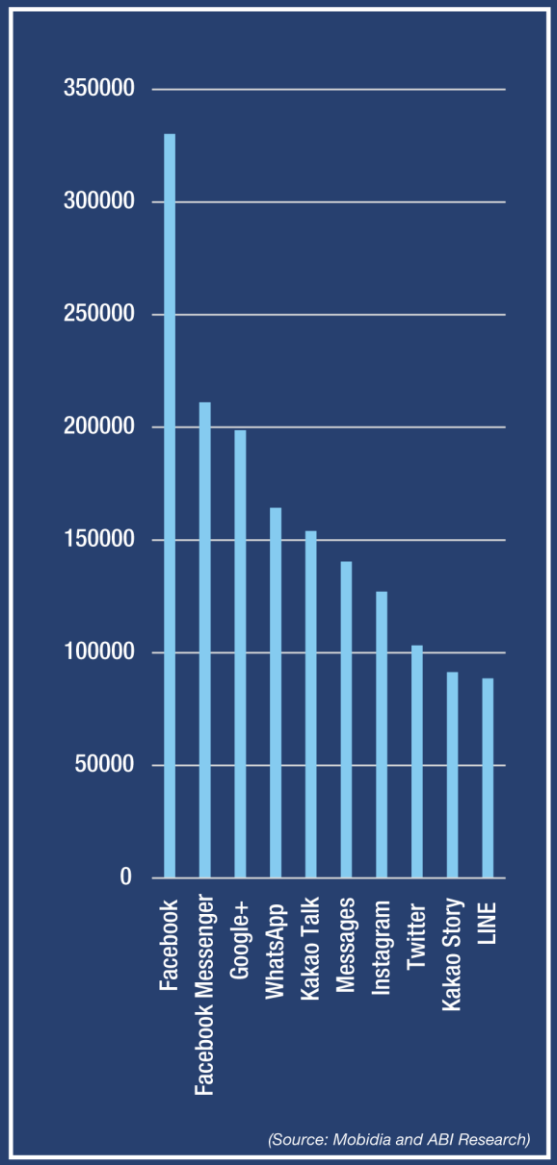
The top 10 apps worldwide were identified based on the number of monthly users, across all geographies from within the panel. This is not strictly accurate, as the panel strength varies across regions, but is a useful framework for evaluating apps.

A number of the applications displayed are used in many countries (with varying degrees of language support and localization). Facebook, for example, is relatively popular in nearly all geographies; it exceeds 50% monthly utilization in every region and in all countries evaluated, except Germany (48%), South Korea (38%), Japan (37%), Russia (28%), and China (11%). However, applications like Kakao Talk and Kakao Story are popular primarily in native South Korea (more on that in the next section), while falling to 14% in Indonesia, 10% in China, 7% in Malaysia, and 5% in Japan. LINE, a Japanese all-in-one, multi-platform, social/VoIP and chat application, has a wider regional profile, with 76% usage in Japan followed by 55% in Indonesia, 41% to 42% in Malaysia and Singapore, and extending to 28% in the Middle East.

Facebook Messenger falls only behind the primary Facebook application in terms of its monthly users; this is a significant feat. Facebook Messenger was launched in 2011, although most users leveraged the feature in the Halo Facebook app. Facebook messenger grew from about 15% of active users in the United States in January 2013 to 26% in July. Following the decision to abandon the chat function within the Halo Facebook application, it surged to 46% monthly utilization. While Facebook doubled down on chat following its social success, Kakao Talk, a Korean chat application, has elected to make the reverse move by expanding into social with its Kakao Story application.

Messages (sometimes referred to as iMessages) is native to Apple products and shows nearly 100% utilization for iOS users. We did not rank native calling and messaging apps on Android devices. Nonetheless, it represents a strong and widely leveraged platform for chat, as well as for SMS.

TOP 10 WORLDWIDE APPS BY TOTAL MONTHLY USERS



HOW HIGH CAN YOU JUMP?

A few applications have established nearly ubiquitous monthly usage among consumers within specific countries. Carrier relationships (in terms of native installation, placement, and default settings) can assist applications in gaining that market share. However, it is remarkable to see near-native levels of usage with third-party apps in the Android ecosystem.

We looked at the top applications (by monthly usage) within 15 countries. The list of "firsts" is relatively small, consisting of:

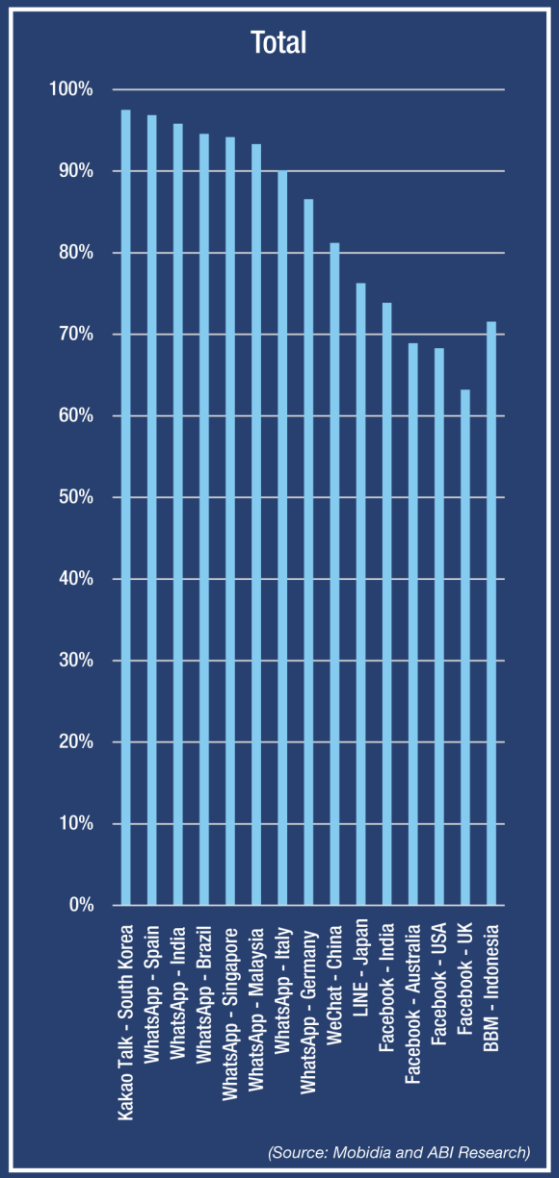
- **Kakao Talk**: South Korea (97.5%)
- **WhatsApp**: Spain (97%), India (96%), Brazil, Singapore, Malaysia, Italy (905 to 95%), Germany (87%)
- **WeChat**: China (81%)
- **LINE**: Japan (76%)
- **Facebook**: India (74%), Australia and the United States (68% to 69%), the United Kingdom (63%)
- **BBM**: Indonesia (72%)

Linguistic similarities clearly create opportunity for standout applications, with Asian countries Korea, China, and Japan all featuring a native application. Indonesia relies heavily on BBM, as its e-Commerce systems (business buying and selling between merchants) have developed around the BlackBerry device and physical keyboard.

WhatsApps's strong showing, however, is evident worldwide. This monthly usage also translates to high engagement levels (in excess of 600 minutes of monthly activity in every region except for North America and Eastern Europe).

Meanwhile, Facebook fails to be as ubiquitous even in its native market, as WhatsApp (its newly adopted chat app) is in many European countries, while Facebook messenger will struggle for mindshare.

TOP APPS BY MONTHLY USAGE IN 15 COUNTRIES



SOUTHEAST ASIA—VORACIOUS, BUT …

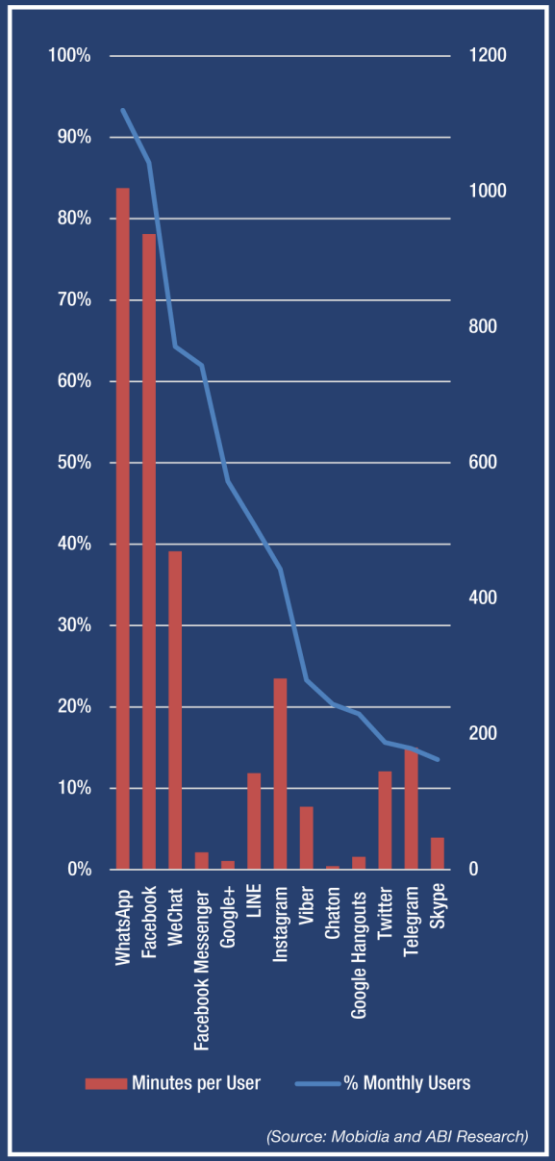
Southeast Asia is known to show a voracious appetite for apps. Consumption of top apps exceeds 1,000 minutes per month (over 30 minutes a day), and monthly average use tells a story that consumers are engaging with a large number of apps. However, look a little closer at the minutes of usage and gaps begin to form in the pictures.

A large number of applications are installed and active every month, while not generating meaningful engagement (*i.e.*, from a minutes of use perspective). For instance, in Malaysia, Facebook Messenger, Google+, ChatON, and Google Hangouts all have healthy monthly usage without any active engagement. LINE, Viber, and Skype fall significantly short of the engagement predicted by their usage.

In other markets, some applications are showing over 10% monthly average usage and some apps will fall drastically short on engagement. In the United States, for example, Google+ shows 46% of Android monthly utilization with a tepid 14 minutes per month, while Facebook Messenger shows 45% with 34 minutes per month. Western Europe has these holes as well, with Google Hangouts and Skype.

One positive reason for this discrepancy is that Southeast Asians may maintain relationships with people around the world and will adapt to the messaging platforms they prefer. Less flattering reasons include a failure to disable or uninstall applications pushed onto the device, or those installed for curiosity sake, after utilization has fallen off eventually. As seen with Google+ worldwide, inclusion of an application into an operating system and leveraging background tasks makes it possible to show usage in excess of engagement. Enticing consumers to click on notifications is another way to artificially inflate the value of an application with many readily available metrics.

MALAYSIAN MONTHLY USAGE AND ENGAGEMENT TIME



SMARTPHONE VS. TABLET

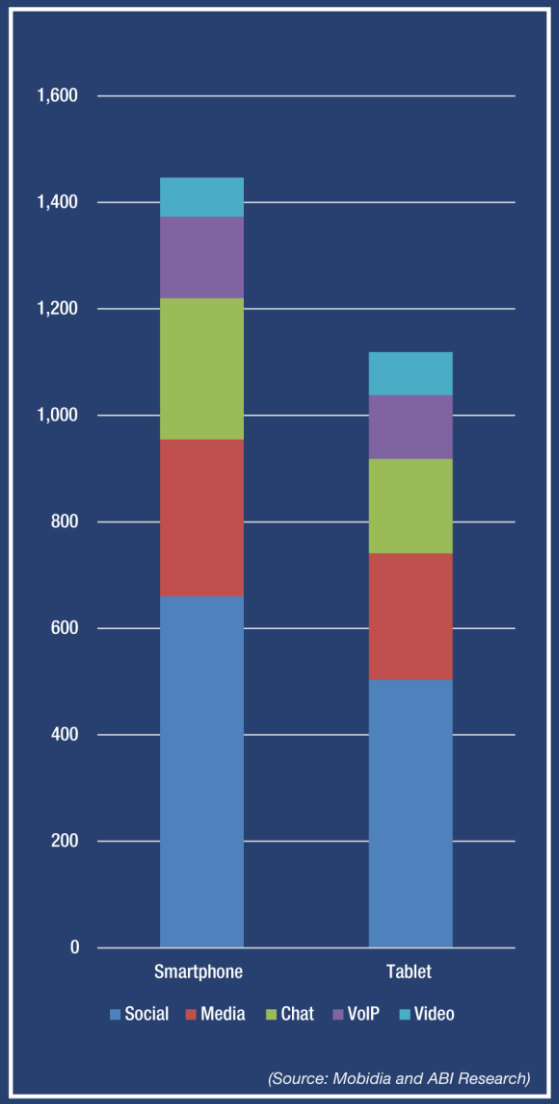
Technologists tend to lump “smartphones and tablets” into the same bucket. From a core technology perspective (ignoring some of the physical features, notably display size and battery), it makes sense. They run the same operating system, they use the same apps (or, in the best case, versions of the same apps with user interfaces (UIs) adapted for a larger screen), therefore, they are the same.

However, from a utilization perspective, they are, in fact, quite different. Consumers carry smartphones nearly ubiquitously, even in places where technology was once taboo, while tablets remain popular at home, in waiting rooms, or where laptops once ruled. Fewer tablets have cellular modems (although most of the tablets in this panel likely have cellular modems, due to their need for the My Data Manager App).

Smartphones are much more heavily used for social communication, representing, on average, about 1,500 minutes per month (about 48 minutes per day), while tablets are used only 1,120 minutes (about 37 minutes). Social applications accumulate the most amount of time for both smartphones and tablets, accounting for 46% of minutes spent using applications on the smartphone and 45% for tablets. Chat is responsible for more engagement on smartphones than tablets (18% *versus* 16% of minutes used), while videoconferencing applications are responsible for more engagement on tablets than smartphones (7% *versus* 5% of minutes used).

Of course, other use cases, including gaming and video consumption, fit in better with the tablet benefits. However, they are beyond the scope of this white paper.

SMARTPHONE AND TABLET ENGAGEMENT TIME, NORTH AMERICA, SEPT 2014

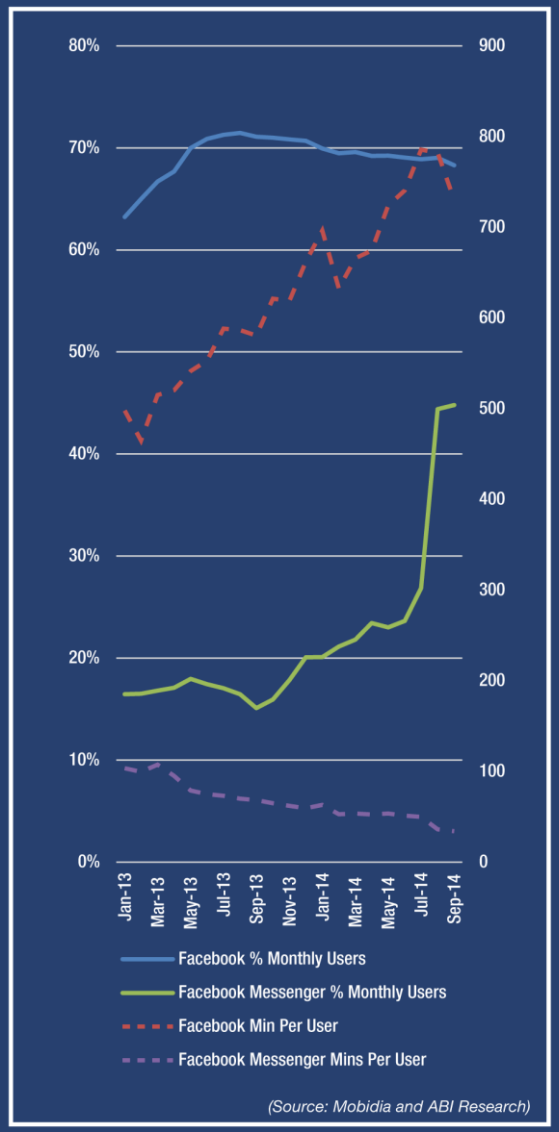


FACEBOOK MESSENGER'S RISE

Application launches are always interesting times to see adoption take off and, here, we will look at two events to see how consumer behavior changes. Facebook rolled out a standalone Facebook messenger app in 2011, while also offering that functionality within its flagship Facebook app. Access to the chat features required a handful of steps, and, as discussed in the introductions, in order to catch on, chat applications require a quick in-respond-out behavior.

Facebook announced in early July that it would remove the chat function from the flagship Facebook application. About 20% of the U.S. smartphone panel responded swiftly, adopting Facebook messenger into their monthly habits. The Facebook app saw a slight decline in usage (coinciding with the end of the summer vacation where a less dramatic fall occurred in the previous year), while Facebook messenger time dropped from 50 minutes to 36, while nearly doubling the number of users over a 3 month period. Overall, Facebook's total weighted time (including Facebook and Messenger) per U.S. Android user went from 514 minutes in May to 556 in July before dropping to 512 in September; if that time was better spent, all the better!

FACEBOOK AND FACEBOOK MESSENGER MONTHLY USERS & ENGAGEMENT, JAN 2013 TO SEPT 2014

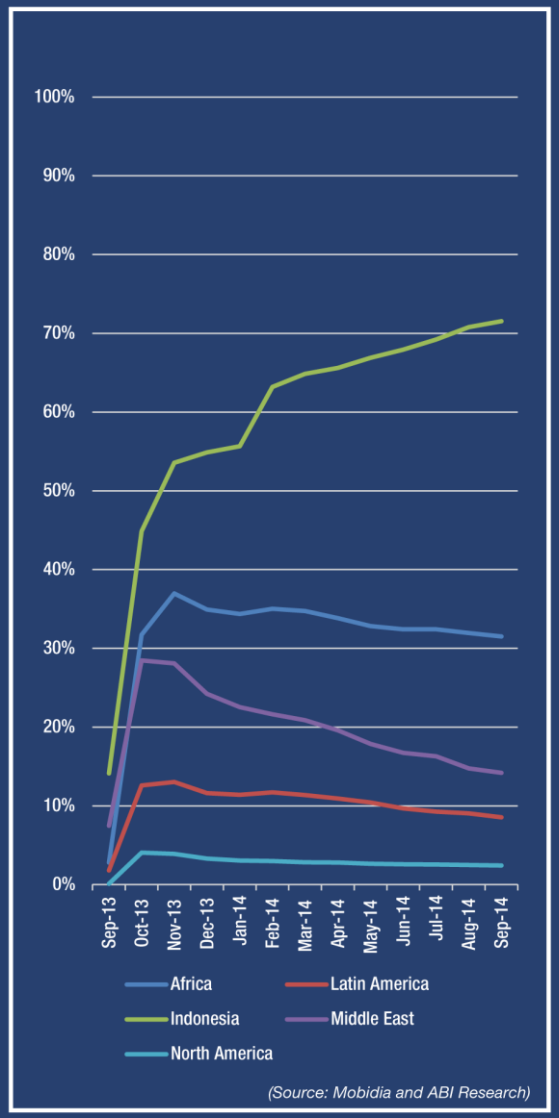


BBM'S ANDROID LAUNCH

BlackBerry, having largely lost its hardware battle, chose to push its core secure, network-efficient communication protocol through a rollout to Android and iOS devices. The success of this rollout varied significantly by region, with a disproportionately strong impact within Indonesia, as well as in Africa and the Middle East. This, coupled with the Facebook messenger optimization described above, serves to show that where pent-up demand for an application exists, it can achieve its potential relatively rapidly; in the BBM case, in most regions, it peaked within 3 months before consumers fell back to old (non-BlackBerry) habits.

Note that engagement, measured by monthly app minutes per user shows similar trends, although Latin America and the Middle East switched ranks. Indonesian users have stabilized at about 900 minutes per month, while other regions range from 500 minutes down to 200 (from greatest to least: Africa, Latin America, the Middle East, and North America).

BBM MONTHLY USAGE IN INDONESIA & SELECT REGIONS, SEPT 2013 TO SEPT 2014



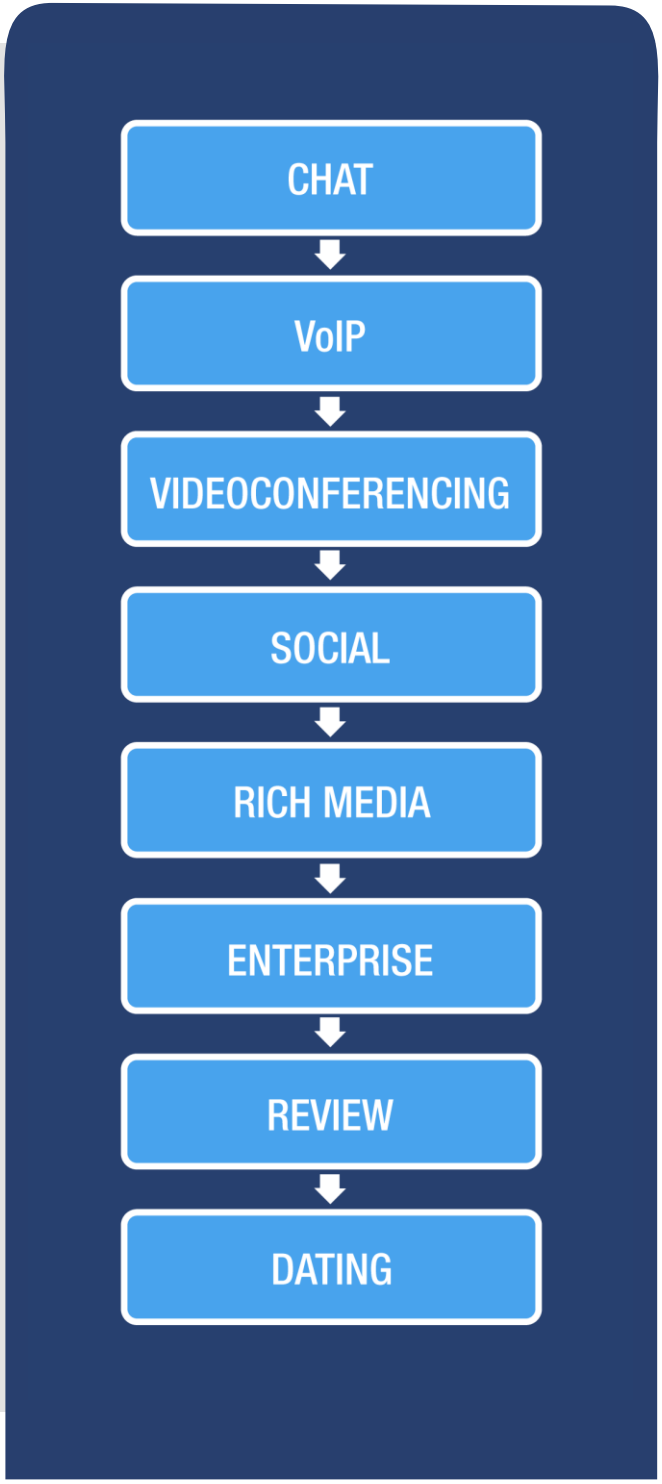
COMPLEXITY OF THE APP ECOSYSTEM

All in all, the international communication app ecosystem is a complex entity. Digital relationships and communication take on a form of their own, with a number of emerging and competing categories closely associated with the five social categories described here. These include:

- Enterprise communications applications, including Microsoft Lync, Cisco Jabber, and Polycom RealPresence
- Review-oriented applications, such as Angie's List, Yelp, and Zagat
- Dating-oriented sites that are interacting with social networks, including Mamba, Blendr, and Tinder, as well as Match.com and OkCupid

Decisions are frequently made on a single metric, such as total application downloads, while understanding that usage behavior tells drastically different stories about monthly usage, user engagement in minutes, and data consumption. A proper understanding of application engagement can yield to better decision making around dozens of technical criteria, including network planning, battery life, storage, screen size, UI, and promotions.

.



Published November 11, 2014

249 South Street
Oyster Bay, NY 11771 USA
Tel: +1 516-624-2500
Fax: +1 516-624-2501
http://www.abiresearch.com/contact/analyst-inquiry/