Android™ App
Performance Report

by AVG Technologies

January to March (Quarter 1) 2015

The online security company™
Protecting **200 million** active users.

Whatever your device, we've got you covered.

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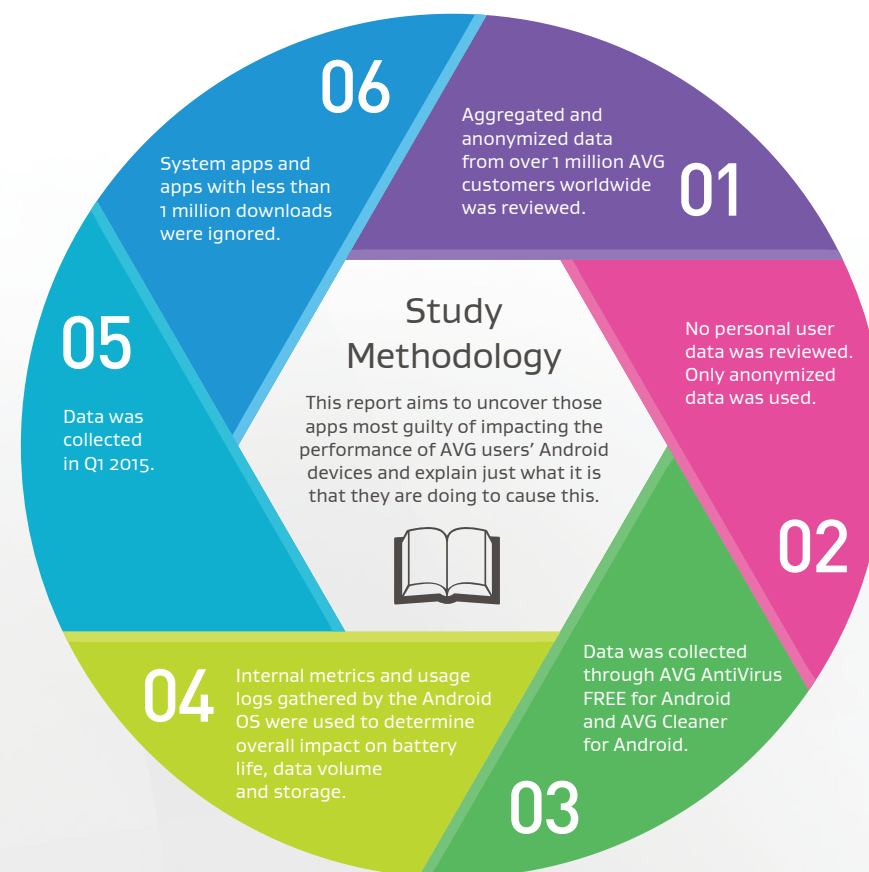
A Executive Summary
Introduction

This AVG study identifies the top battery, data and storage consuming apps on Android™ smartphones and tablets and includes the latest results from Q1 2015.

The huge choice of cool, interesting and engaging apps available today for Android handsets is what makes a phone more than just a phone. These apps bring social networks, entertainment, educational information, and productivity tools to our fingertips, at home, in the office or on the move.

Brilliant though they are, certain apps have a tendency to eat up the battery life, mobile data and storage

of our phones and tablets without us realizing – by constantly checking for content and feed updates, pushing through notifications, streaming audio in the background, delivering high-res graphics, or simply downloading data.

If you are tired of soaring data bills, sluggish devices, and that universally hated red battery symbol, then read on.

Study Methodology

This report aims to uncover those apps most guilty of impacting the performance of AVG users' Android devices and explain just what it is that they are doing to cause this.

06 System apps and apps with less than 1 million downloads were ignored.

01 Aggregated and anonymized data from over 1 million AVG customers worldwide was reviewed.

02 No personal user data was reviewed. Only anonymized data was used.

03 Data was collected through AVG AntiVirus FREE for Android and AVG Cleaner for Android.

04 Internal metrics and usage logs gathered by the Android OS were used to determine overall impact on battery life, data volume and storage.

05 Data was collected in Q1 2015.

The measured vectors – battery, storage and data plan – were normalized by calculating the percentile based on the median values of the apps, measured from when the app was installed, whether used or not.

Based on our experience with consumer preferences, AVG weighted each of the three vectors slightly differently when calculating the overall performance score for an app. The calculation was therefore:

Storage*3 + Battery*2 + Traffic

Data collected in the US, UK and Australia was statistically significant enough to be able to produce specific tables and insights for those markets. These can be viewed in the appendix.

Measurement was carried out as follows:

Battery Drain

We ranked the apps' battery consumption average based on real usage data. We ignored applications that have less than 1 million downloads according to Google Play. We also did not include core system apps but left in pre-installed but optional apps.

Storage Consumption

We ranked the apps' storage consumption average based on real usage data by measuring the size of not just the app itself but also the additional data (e.g. downloads, temp files or cache data) stored over time.

Data Plan

We ranked the apps' network traffic consumption average based on real usage data. We only took into account cellular transmitted data, ignoring the cost-free Wi-Fi traffic.

Note that our own **AVG AntiVirus and AVG Cleaner for Android** apps have been excluded because the data for this report is collected anonymously from these two apps, which would automatically have put them in first place as most installed.

A **Executive Summary**
Top Findings in Q1 2015

1 **Love makes you 'appy':
dating & chatting apps
surge into the top 10**

It seems that Android owners at the start of
2015 were trying to meet Mr or Mrs Right.
POF Free Dating entered the Top 10 and
there was a new entrant at number 6 from
the chat category, **OoVoo Video & Text**, a
cross platform application that's growing in
popularity and also managed to make it into
the Top 10 resource consuming apps that
run automatically at startup.

2 **Facebook Messenger becomes
the number 1 top communication
app: surpasses Skype, Gmail and
WhatsApp in popularity**

Facebook used to hold the number 3 spot
among the top installed communication apps
(see page 26), behind **WhatsApp** in position
2 and **Google Mail**, the previous number
1. Now it's the number 1 communication
app, outranking Google's own **Gmail** and
household chat apps like **WhatsApp** and
Skype.

Screen shots from ooVoo

Whatever your device, we've got you covered.

Executive Summary
Top Findings in Q1 2015

3 **Samsung KNOX, Samsung Push, and Beaming Service are the top battery drainers**

Consistent with Q4 2014, Samsung's **KNOX** security service is major invisible battery drainer on your Galaxy smartphone. In addition, the built-in **Samsung Push Service** now also runs in the background, placing it in 7th position for battery drainers. This service is required for **ChatON**, a WhatsApp rival that came with almost all of the company's handsets, but the good news is that Samsung turned it off on February 1st. In number 1 spot for battery drainers is a background service called **Beaming Service by Mobeam Inc.**, which also comes bundled with many Samsung phones.

Tip: See our all-new AVG Android Optimization Guide to identify and turn off such resource-hungry apps.

4 **Cleaning and security apps that don't always help your phone**

People looking to protect and clean their phone should know some of the top used apps, including **Lookout Security & Antivirus** and **Clean Master**, show up in the top spots of our lists of top battery drainers and traffic consuming apps. What's interesting is that 88% of all measured apps in the traffic consumption category consume less traffic than **Clean Master**, which clocked in at several hundred megabytes of data per user.

Whatever your device, we've got you covered.

Executive Summary
Top Findings in Q1 2015

5 **New gaming style on the rise: casino games start a new trend**

This quarter, we identified a massive spike in card and casino games as well as big blockbuster arcade games in our statistics for overall time spent per app. While the casino category didn't even exist previously due to its low usage, in the January to March period of 2015, it featured as up to 7% of usage, and arcade games also grew to 12% usage from 1.6% in the previous quarter. **Solitaire** and Zynga's **Livepoker** stood outas particularly popular.

Overall Time Spent per App Category

Q1 2015 – Latest

Q1 2015 – Latest pie chart: Games Category 48%; Casual 27.42%; Arcade & Action 12.18%; Cards & Casino 7.04%; Other 1.56%; Tools 7.94%; Education 3.70%; Personalization 1.25%; Communication 9.58%; Media & Video 2.89%; Social 10.29%; Travel & Local 8.31%; Music & Audio 3.07%; Productivity 2.74%; Other Games 1.64%

Q4 2014 – Before

Q4 2014 – Before pie chart: Games Category 49%; Casual 30.07%; Puzzle 3.91%; Family 1.53%; Brain & Puzzle 1.34%; Strategy 6.87%; Arcade & Action 2.37%; Other 1.67%; Books & References 3.46%; Tools 2.32%; Personalization 2.40%; Communication 10.30%; Media & Video 1.01%; Social 11.02%; Travel & Local 3.28%; Lifestyle 1.35%; Music & Audio 1.79%; Photography 2.88%; Shopping 1.40%; Sports 1.59%; Entertainment 2.67%; Productivity 2.79%; Other Games 3.97%

Whatever your device, we've got you covered.

A Executive Summary
Top Findings in Q1 2015

6 **Voyage around the world directly from your device: travel app usage rose by 5%**

Travel and location apps, particularly the **Google Maps** app (see "Top Engaged Apps") made up a total of 8% of the time we spent with our Android smartphones. That's quite a jump from 3% previously.

7 **Weather apps warning: spells of high data usage can be expected**

Apps like **Weather Channel**, **Weather & Clock Widget** and **Weather Bug** used up a significant amount of the users' data plan in the background. Go to our list of Top Traffic Consuming Apps to see if you can spot any that you have on your device.

8 **The true cost of preserving your privacy**

Truecaller Caller ID & Block may help you be anonymous but by doing so it ruins your battery in the background. Read more in our list of Top Battery Drainers.

9 **Simple words chew up traffic, battery, and storage**

The **New Words With Friends** game shows up in the top 10 of top traffic consumers, top battery drainers and top storage consumers – all at once.

10 **New apps on the block**

In this quarter, several new apps grew in popularity and made it both into the top resource consuming apps and top used apps categories. The new entries include **Soundcloud**, **CleanMaster**, **ooVoo**, **KakoTalk**, **PicsArt** and **Crossy Road**.
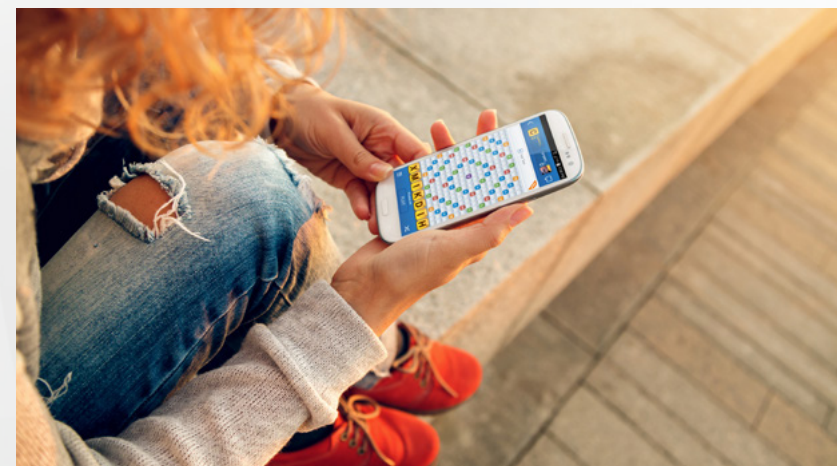
A Executive Summary
App Scoreboard

The following tables show the top five apps in each category which, according to AVG's study, have the most impact on your device. These tables do not include games.

OVERALL PERFORMANCE IMPACT

#	App	
1	**Spotify Music** Spotify Ltd.	
2	**Amazon Kindle** Amazon Mobile LLC	
3	**LINE: Free Calls & Messages** Instagram	
4	**Samsung WatchON** (Video) Samsung Media Solution Center	
5	**Snapchat** Snapchat Inc.	

HIGHEST DATA TRAFFIC

#	App	
1	**Tumblr** Tumblr Inc.	
2	**Snapchat** Snapchat Inc.	
3	**BBC News** Media Applications Technologies for the BBC	
4	**Netflix** Netflix Inc.	
5	**Spotify Music** Spotify Ltd.	

HIGHEST BATTERY DRAIN (auto-start apps)

#	App	
1	**Beaming Service** for Samsung Mobeam Inc.	
2	**SECURITY POLICY UPDATES** SAMSUNG OTA SOFTWARE UPDATE	
3	**Facebook** Facebook	
4	**Weather & Clock Widget Android** Devexpert.NET	
5	**Lookout** Security & Antivirus Lookout Mobile Security	

HIGHEST BATTERY DRAIN (run by the user)

#	App	
1	**Samsung WatchON** (Video) Samsung Media Solution Center	
2	**OLX Free Classifieds** OLX Inc.	
3	**Telstra** Telstra Corporation Ltd.	
4	**Snapchat** Snapchat Inc.	
5	**Walmart** Walmart	

HIGHEST STORAGE CONSUMPTION

#	App	
1	**Spotify Music** Spotify Ltd.	
2	**Chrome Browser** - Google Google Inc.	
3	**LINE camera** - Selfie & Collage LINE Corporation	
4	**Amazon Kindle** Amazon Mobile LLC	
5	**SoundCloud** - Music & Audio SoundCloud	

Executive Summary
App Scoreboard cont...

The tables below look at the top five games apps in each category which, according to AVG's study, have the most impact on your device.

OVERALL PERFORMANCE IMPACT

1	Hay Day Supercell	
2	Boom Beach Supercell	
3	Crossy Road Yodo1 Games	
4	Farm Heroes Saga King	
5	Candy Crush Saga King	

HIGHEST DATA TRAFFIC

1	New Words With Friends Zynga	
2	Crossy Road Yodo1 Games	
3	Solitaire MobilityWare	
4	Hay Day Supercell	
5	Clash of Clans Supercell	

HIGHEST BATTERY DRAIN

1	Candy Crush Soda Saga King	
2	Hay Day Supercell	
3	Pet Rescue Saga King	
4	Candy Crush Saga King	
5	Clash of Clans Supercell	

HIGHEST STORAGE CONSUMPTION

1	Despicable Me Gameloft	
2	My Talking Angela Outfit7	
3	Hay Day Supercell	
4	My Talking Tom Outfit7	
5	Boom Beach Supercell	

B   Key Findings – Q1 2015
Introduction

New versions of the Android™ operating system introduce additional features that are specifically optimized for the latest devices. But at what cost?

While new Android versions can dramatically improve the experience for those who own the latest smartphone or tablet, the same is not true for older devices, whose users may see the battery life and speed suffer.

It's also the case that the more apps you install, the slower your phone or tablet will get. This is not just about the space those apps take up being on your device, but also the fact that a lot of apps, such as **Spotify**, **Skype** or **WhatsApp**, tend to be active even when not used and run quietly in the background.

In this section, we will take a closer look at the full list of apps which ranked in the top ten for impact on battery life,

device storage and data plan – as well as those with the overall highest ranking for performance when combining all three of these measurements.

The key findings are separated into two parts:

- All apps excluding games

- Games only, which we felt were significant enough to merit a separate category of their own

On page 28, we will look at possible ways to improve the battery drain, performance draw and data usage through various steps both inside the Android OS as well as in specific apps.

Whatever your device, we've got you covered.
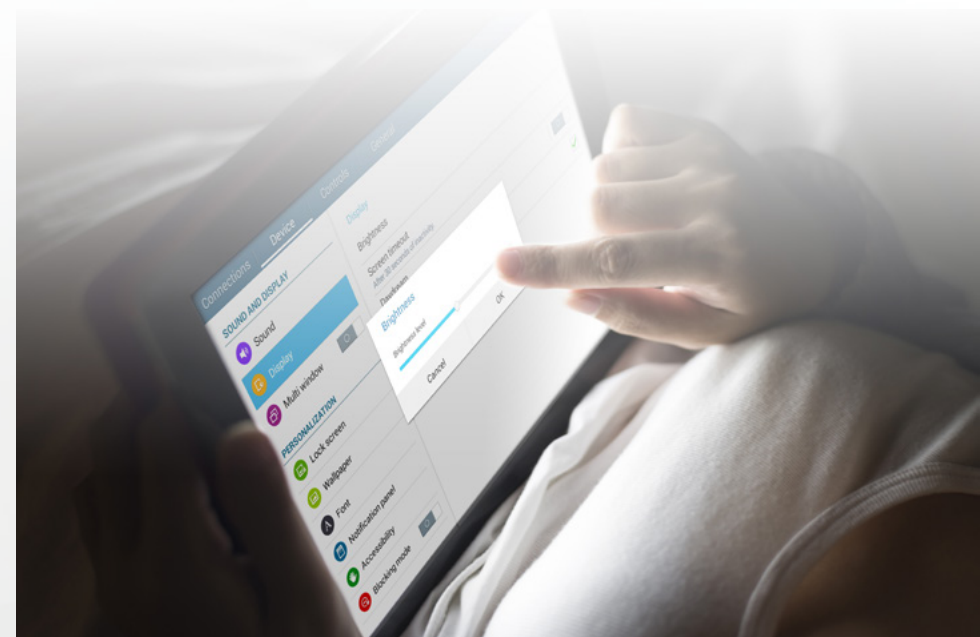
B Key Findings – Q1 2015

World's Greediest Mobile Apps

In this section, we discovered which apps had the most overall impact on mobile devices.

TOP 10 PERFORMANCE DRAINING APPS – RUN AT START UP

1	**Facebook** — Facebook	HIGHEST IMPACT
2	**BBM** — BlackBerry Limited.	
3	**8 Ball Pool** — Miniclip.com	
4	**Instagram** — Instagram	
5	**Messenger** — Facebook	
6	**WeChat** — Tencent Technology (Shenzhen) Company Ltd.	
7	**Facebook Pages Manager** — Facebook	
8	**ooVoo** Video Call Text & Voice — ooVoo LLC	
9	**KakaoTalk:** Free Calls & Text — Daum Kakao	
10	**Vine** — Vine Labs Inc.	

CATEGORY: 👥 Social ⚽ Sports 💬 Communication 💼 Business

Analysis

In this report, we split our analysis further to identify the top apps that users actively launch in order to use, and separately, the apps that automatically start or run continuously in the background and may impact your device without you even realizing.

Facebook is unsurprisingly still the No 1 resource-draining background app as it constantly checks for updates and messages.
The **8 Ball Pool** game was more of a surprise – we would not expect a game to register itself as a startup app and to run quietly in the background.

Key Findings – Q1 2015
World's Greediest Mobile Apps cont..

TOP 10 PERFORMANCE DRAINING APPS – RUN BY USER

1	**Spotify Music** Spotify Ltd.	HIGHEST IMPACT

2	**Amazon Kindle** Amazon Mobile LLC

3	**LINE:** Free Calls & Messages LINE Corporation

4	**Samsung WatchON** (Video) Samsung Media Solution Center

5	**Snapchat** Snapchat

6	**Netflix** Netflix Inc.

7	**SoundCloud** – Music & Audio SoundCloud

8	**Clean Master** (Speed Booster) Cheetah Mobile

9	**Tumblr** Tumblr Inc.

10	**PicsArt Photo Studio** PicsArt
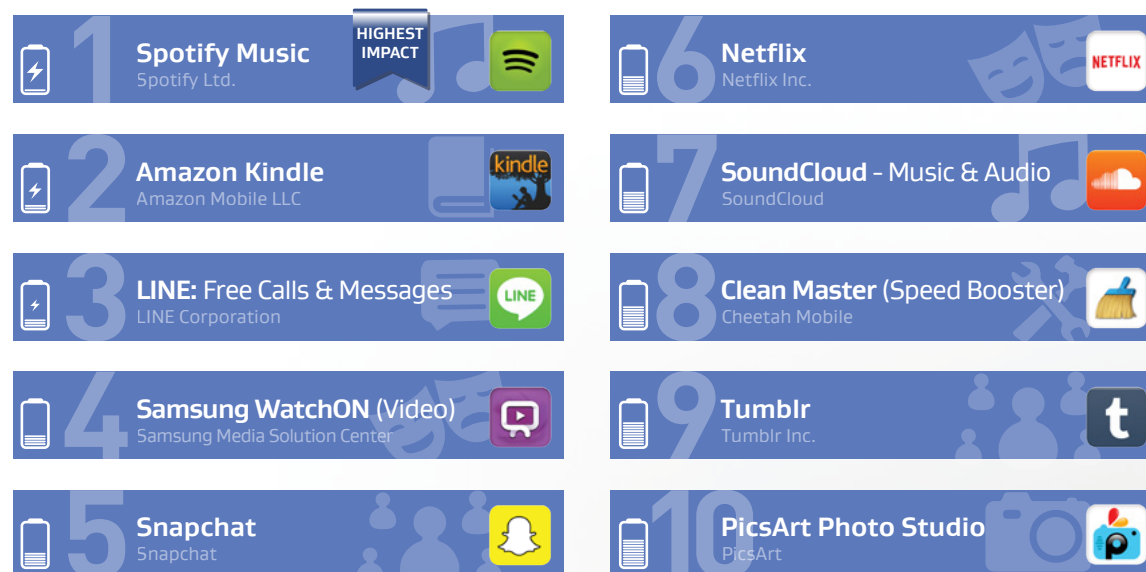
CATEGORY: Social 🎵 Music & Audio Communication 📷 Photography 🛠 Tools 📖 Books & Reference Entertainment

Analysis

On the side of user-initiated apps, **Spotify**, **Amazon Kindle** and **LINE: Free Calls & Messages** took the top slots for impact. Newcomers like **SoundCloud** or **PicsArt Photo Studio** are apps users should be aware of using carefully.

B Key Findings – Q1 2015
Top Ten Battery Drainers

In this category, we split out those apps which run automatically when you turn on your smartphone or tablet and keep on running in the background all the time as part of their core functionality. This could, for example, include antivirus apps, messaging apps or social apps.

TOP 10 BATTERY DRAINERS – RUN AT START UP

1	Beaming Service for Samsung HIGHEST IMPACT Mobeam Inc.
2	SECURITY POLICY UPDATES SAMSUNG OTA SOFTWARE UPDATE
3	Facebook Facebook
4	Weather & Clock Widget Android Devexpert.NET
5	Lookout Security & Antivirus Lookout Mobile Security

6	WhatsApp Messenger WhatsApp Inc.
7	AppLock DoMobile Lab
8	KakaoTalk: Free Calls & Text Daum Kakao
9	WeChat Tencent Technology (Shenzhen) Company Ltd.
10	Truecaller – Caller ID & Block True Software Scandinavia AB

CATEGORY: 👥 Social 💬 Communication 🗐 Productivity 🛠 Tools ☀ Weather

Analysis

Some surprise apps came up when we looked at those that keep running in the background. These included the **Weather & Clock Widget**, the barcode scanner **Beaming Service for Samsung**, and **Truecaller – Caller ID & Block**.

B Key Findings – Q1 2015
Top Ten Battery Drainers cont..

TOP 10 BATTERY DRAINERS – RUN BY USER

1	**Samsung WatchON** (Video) Samsung Media Solution Center	HIGHEST IMPACT
2	**OLX Free Classifieds** OLX Inc.	
3	**Telstra** Telstra Corporation Ltd.	
4	**Snapchat** Snapchat Inc.	
5	**Walmart** Walmart	

6	**LINE**: Free Calls & Messages LINE Corporation
7	**Amazon Kindle** Amazon Mobile LLC
8	**BBC News** Media Applications Technologies for the BBC
9	**Spotify Music** Spotify Ltd.
10	**Retrica** Venticake Inc.
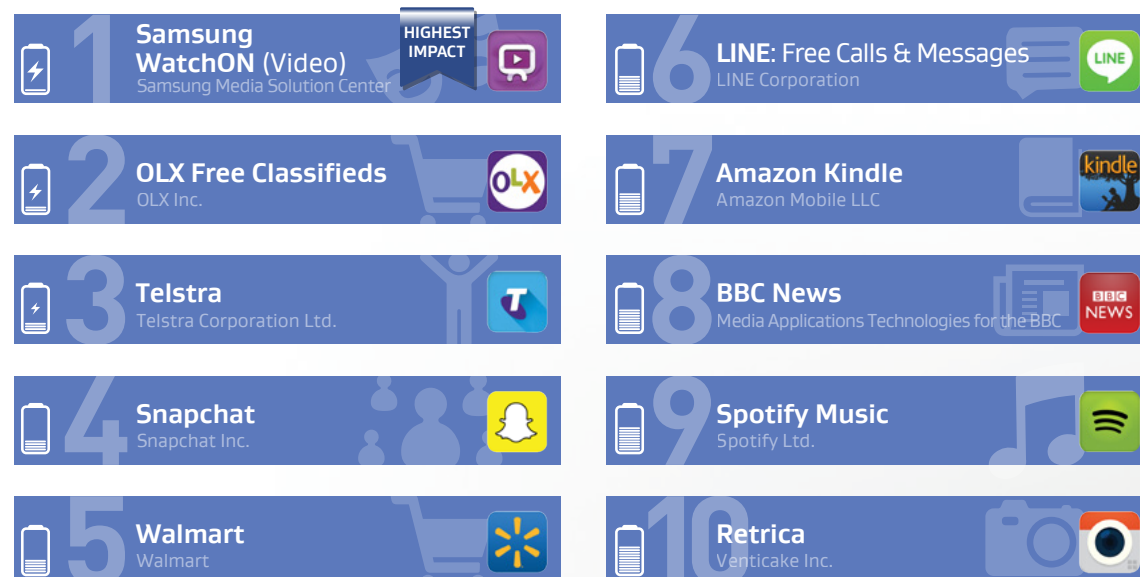
CATEGORY: Social Music & Audio Shopping Newspaper & Magazines Communication Lifestyle Photography

Analysis

As battery life is often the number 1 concern for smartphone users, apps that make it to the top 10 in these lists should be monitored quite closely. Some are necessary, some aren't: for example, the mobile remote app, **Samsung WatchON**, is likely to be left on while users are switching channels. Some apps like **OLX Free Classifieds** or **Walmart** shouldn't be in the top 10 of consuming apps, though.

B Key Findings – Q1 2015
Top Ten Storage Hogs
Your favorite everyday apps could be using up more of the precious limited storage on your device than you might realize.

TOP 10 STORAGE EATERS – RUN AT START UP

1 Tango Messenger
Video & Calls
Tango
HIGHEST IMPACT

2 Facebook
Facebook

3 8 Ball Pool
Miniclip.com

4 Instagram
Instagram

5 Vine
Vine Labs Inc.

6 Facebook Pages Manager
Facebook

7 WeChat
Tencent Technology (Shenzhen) Company Ltd.

8 Google
Google Inc.

9 Firefox Browser for Android
Mozilla

10 BBM
BlackBerry Limited.

CATEGORY: Social   Music & Audio   Shopping   Sports   Newspaper & Magazines   Communication

This is because the longer some apps are installed, the more storage they consume. In this section of our study, we examine which of the apps with more than 1 million installs in the Google Play store consume the most storage space over time.

Analysis

A simple 2D game **8 Pool Ball** should not need to eat up storage while chat apps like **WeChat** or browsers like **Firefox** need to be cleaned up regularly by deleting conversation logs and browser caches.

Key Findings – Q1 2015
Top Ten Storage Hogs cont..

TOP 10 STORAGE EATERS – RUN BY USER

1 Spotify Music
Spotify Ltd.
HIGHEST IMPACT

2 Chrome Browser - Google
Google Inc.

3 LINE camera - Selfie & Collage
LINE Corporation

4 Amazon Kindle
Amazon Mobile LLC

5 SoundCloud - Music & Audio
SoundCloud

6 LINE: Free Calls & Messages
LINE Corporation

7 Amazon Shopping
Amazon Mobile LLC

8 TripAdvisor Hotels Flights
TripAdvisor

9 Photo Editor by Aviary
Aviary Inc.

10 NFL Mobile
NFL Enterprises LLC

CATEGORY: ♫ Music & Audio 🛒 Shopping 🌐 Sports 📰 Newspaper & Magazines 💬 Communication ✈ Travel & Local 📷 Photography

Analysis

However, apps like **Amazon Shopping** or **NFL Mobile** shouldn't consume much storage. They're not downloading massive video or audio files for offline usage, so using a cleaning app should help you get rid of the temporary data.

Seeing **Spotify** as the number 1 storage consuming app makes a lot of sense since **Spotify** officially allows 3,333 songs to be stored locally. If you're running out of storage, deleting some offline songs, albums or playlists may be a good idea.

B Key Findings – Q1 2015

Top Ten Data Traffic Hogs

Many of the apps you love the most can impact heavily on your data plan, which is why if you are watching your monthly bills, you might want to use these apps with care.

TOP 10 DATA TRAFFIC HOGS – RUN AT START UP

#	App	Publisher
1	**Facebook** HIGHEST IMPACT	Facebook
2	**Yahoo! JAPAN**	Yahoo Japan Corp.
3	**Instagram**	Instagram
4	**Yahoo Weather**	Yahoo
5	**The Weather Channel**	The Weather Channel
6	**Mobile Security & Antivirus**	AVAST Software
7	**Weather & Clock Widget Android**	Devexpert.NET
8	**Groupon** – Daily Deals Coupons	Groupon Inc.
9	**WeatherBug**	
10	**Beaming Service** for Samsung	Mobeam Inc.

CATEGORY: Social   Shopping   Productivity   Tools   Weather

Analysis

If you're not on an unlimited 3G or 4G plan, it's useful to be aware of the main apps in this category as every unnecessary megabyte of traffic will impact your data plan. Even when it's not running, **Facebook** is still the number 1 traffic consuming app because it keeps on loading data to give you all the latest notifications, contact requests, and messages. You can help by turning off all the **Facebook** notifications (see more in our AVG Android Performance Guide).

Surprisingly, we've also got no less than 4 different weather apps in the top 10 of invisible traffic eating apps. One particular example is **Weather & Clock Widget Android** as it is set to download weather information every hour over your mobile connection. To use this more effectively, you could switch this to Wi-Fi usage only if your data plan is limited.

Top Ten Data Traffic Hogs cont..

TOP 10 DATA TRAFFIC HOGS – RUN BY USER

1 Tumblr
Tumblr Inc.
HIGHEST IMPACT

2 Snapchat
Snapchat Inc.

3 BBC News
Media Applications Technologies for the BBC

4 Netflix
Netflix Inc.

5 Spotify Music
Spotify Ltd.

6 Spotify Ltd.
Telstra Corporation Ltd.

7 Samsung WatchON (Video)
Samsung Media Solution Center

8 Clean Master (Speed Booster)
Cheetah Mobile

9 Photo Editor by Aviary
Aviary Inc.

10 Tinder
Tinder
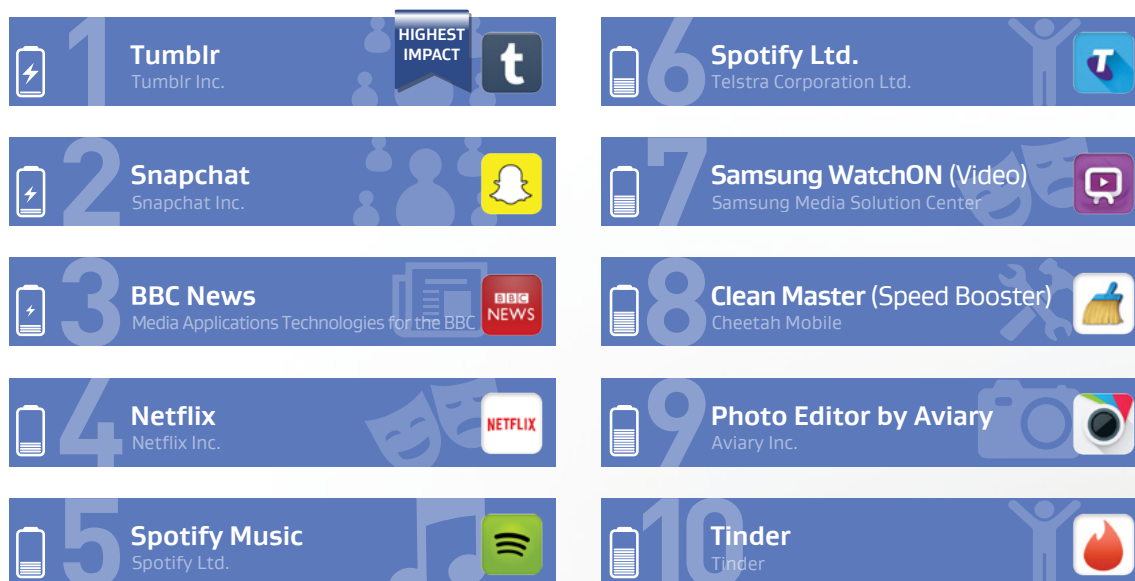
CATEGORY: Social | Music & Audio | Newspaper & Magazines | Photography | Lifestyle | Tools | Entertainment

Analysis

In the user-run apps department, text and photo driven apps, including **Snapchat** and **BBC,** strangely consume more traffic than **Spotify**, even with its data-heavy video and music consumption requirements.

Whatever your device, we've got you covered.

B # Key Findings – Q1 2015
Mobile Gaming – What Gamers Should Know

Many of the games you love the most can impact heavily on your device performance, so if you are watching your battery or storage levels, you might want to choose when to use these apps.

TOP 10 PERFORMANCE DRAINING APPS – GAMES

1	**Hay Day** Supercell	HIGHEST IMPACT
2	**Boom Beach** Supercell	
3	**Crossy Road** Yodo1 Games	
4	**Farm Heroes Saga** King	
5	**Candy Crush Saga** King	

6	**Candy Crush Soda Saga** King
7	**Pet Rescue Saga** King
8	**My Talking Angela** Outfit7
9	**Clash of Clans** Supercell
10	**Despicable Me** Gameloft
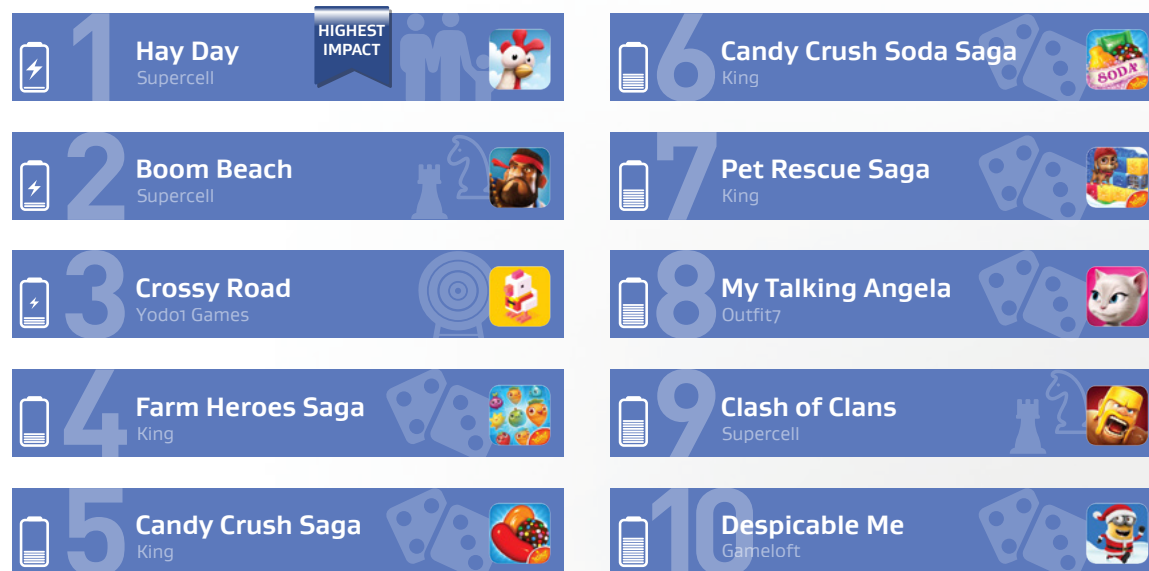
CATEGORY: 🏛 Strategy 🎲 Casual 🎯 Action 👥 Family

Analysis

Games tend to consume more phone resources and have greater impact on performance than any other app category as they require lots of graphic and processor power. Constant holders of the top spots are games like **Hay Day**, the various **Saga games** and **Clash of Clans**. New in this category for Q1 2015 is a game called **Crossy Road**.

B Key Findings – Q1 2015
Mobile Gaming – What Gamers Should Know cont...

TOP 10 BATTERY DRAINERS – GAMES

1	**Candy Crush Soda Saga** King	HIGHEST IMPACT
2	**Hay Day** Supercell	
3	**Pet Rescue Saga** King	
4	**Candy Crush Saga** King	
5	**Clash of Clans** Supercell	

6	**Boom Beach** Supercell
7	**Farm Heroes Saga** King
8	**Crossy Road** Yodo1 Games
9	**Solitaire** MobilityWare
10	**Bubble Witch 2 Saga** King
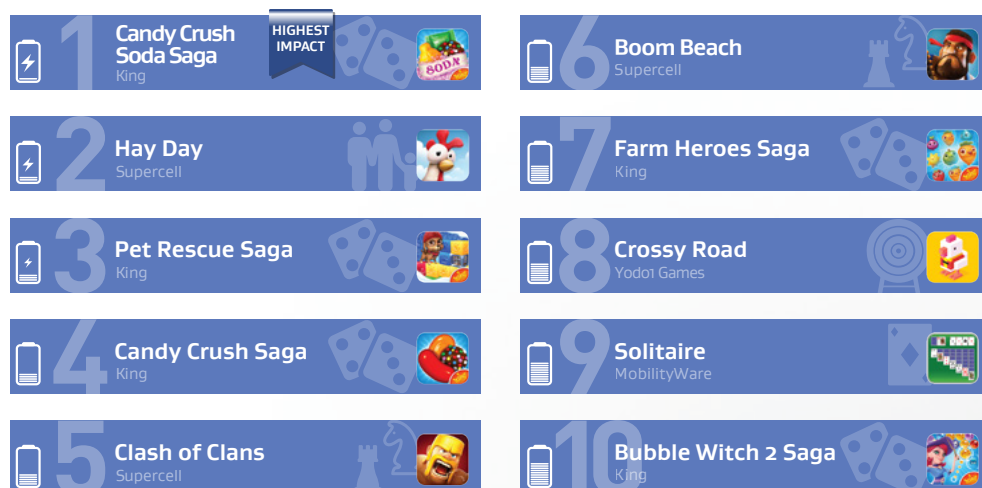
CATEGORY: Strategy | Casual | Action | Family | Card

TOP 10 STORAGE HOGS – GAMES

1	**Despicable Me** Gameloft	HIGHEST IMPACT
2	**My Talking Angela** Outfit7	
3	**Hay Day** Supercell	
4	**My Talking Tom** Outfit7	
5	**Boom Beach** Supercell	

6	**Crossy Road** Yodo1 Games
7	**Subway Surfers** Kiloo
8	**Farm Heroes Saga** King
9	**Temple Run 2** Imangi Studios
10	**Candy Crush Saga** King

CATEGORY: Strategy | Casual | Action | Family | Arcade

Mobile Gaming – What Gamers Should Know cont...

TOP 10 DATA TRAFFIC HOGS – GAMES

1	New Words With Friends — Zynga	HIGHEST IMPACT
2	Crossy Road — Yodo1 Games	
3	Solitaire — MobilityWare	
4	Hay Day — Supercell	
5	Clash of Clans — Supercell	
6	Farm Heroes Saga — King	
7	Candy Crush Saga — King	
8	Boom Beach — Cheetah Mobile	
9	Pet Rescue Saga — King	
10	Candy Crush Soda Saga — King	
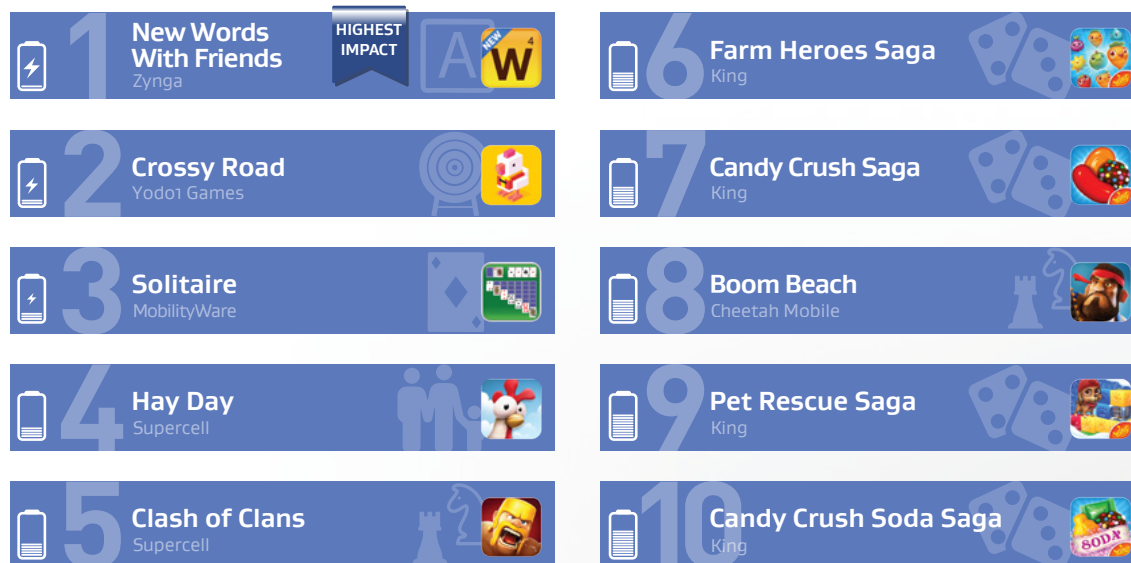
CATEGORY: Strategy   Casual   Action   Card   A Word   Family

Looking at these tables which outline the impact on battery, storage and traffic individually, it's particularly puzzling that a simple word game like **New Words With Friends** would consume far more traffic than a blockbuster game like **Clash of Clans**. **Despicable Me**'s applications cache tends to grow out of control, so performing a regular clean on your device will help keep this under control.

C App Usage Trends
Introduction

Based on AVG's global statistics, the following list shows the top 20 most used apps on AVG users' Android devices.

C App Usage Trends

Apps Users Spend the Most Time On

This quarter, instead of **Candy Crush Saga** being the most used app, it's now **Google Maps**. The new messenger service **Kik** also made it into the top 20, and may be threatening **WhatsApp**, **WeChat** and **Viber** in the popularity stakes. The latter is now in position number 8 of the most used league, but still behind other messenger apps **Facebook** and **WhatsApp**.

TOP 20 APPS USERS SPEND THEIR MOST TIME ON

#	App	Developer
1	Maps	Google Inc. — **HIGHEST IMPACT**
2	Facebook	Facebook
3	Candy Crush Saga	King
4	Messenger	Facebook
5	Instagram	Instagram
6	WhatsApp Messenger	WhatsApp Inc.
7	Twitter	Twitter Inc.
8	Viber	Viber Media S.r.l.
9	LINE: Free Calls & Messages	LINE Corporation
10	Vault-Hide SMS Pics & Videos	NQ Mobile Security
11	Clash of Clans	Supercell
12	Google	Google Inc.
13	GO Keyboard - Emoji Emoticon	GO Dev Team
14	WeChat	WeChat Tencent
15	Super-Bright LED Flashlight	Surpax Technology Inc.
16	BBM	BlackBerry Limited.
17	Shazam	Shazam Entertainment Limited
18	YouTube	Google Inc.
19	Hay Day	Supercell
20	Kik	Kik Interactive

CATEGORY: Social · Travel & Local · Casual · Communication · Business · Tools · Productivity · Music & Audio · Family · Strategy

App Usage Trends
Installed Tools

TOP INSTALLED TOOLS

1 Clean Master (Speed Booster)
Cheetah Mobile
HIGHEST IMPACT

2 DU Speed Booster
Cache Cleaner
DU Apps

3 Mobile Security & Antivirus
AVAST Software

4 Adobe AIR
Adobe

5 CM Security Antivirus AppLock
Cheetah Mobile (AntiVirus & AppLock)

6 Tiny Flashlight + LED
Nikolay Ananiev

7 Lookout Security & Antivirus
Lookout Mobile Security

8 AppLock
DoMobile Lab

9 GO Keyboard - Emoji Emoticons
GO Dev Team

10 Smart Connect
Sony Mobile Communications
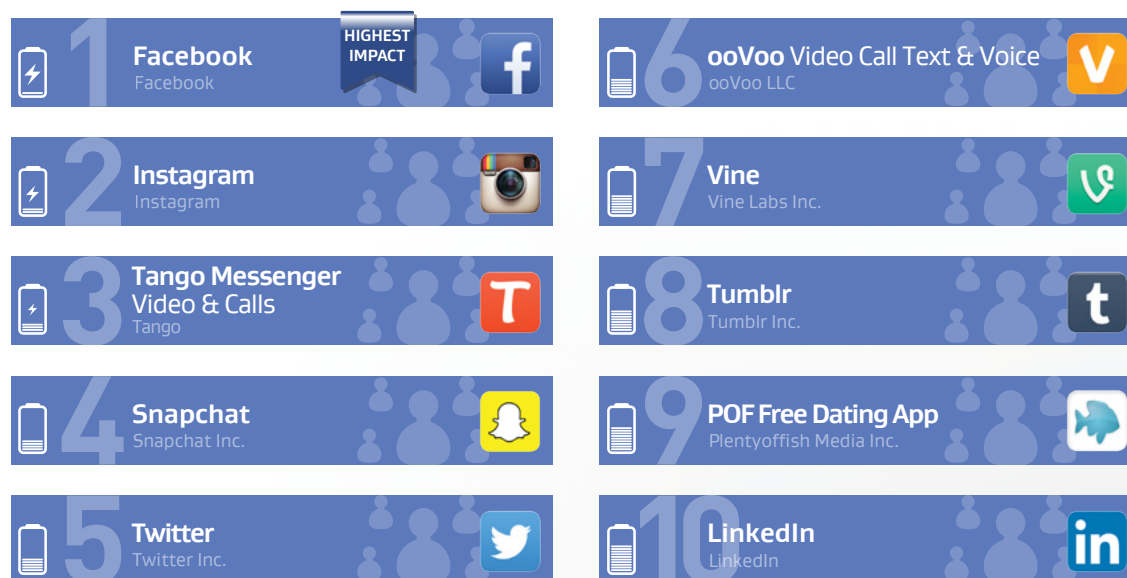
CATEGORY: Tools

Last quarter, **Tiny Flashlight + LED** was the number 1 installed tool across our measured user base of 1 million but has now been pushed down to 6th position. Top spots now go to a selection of cleaning and security tools showing users are trying to manage their devices – but they should note that some of these tools have a heavy impact on battery life, storage and traffic.

App Usage Trends
Installed Social Apps

TOP INSTALLED SOCIAL APPS

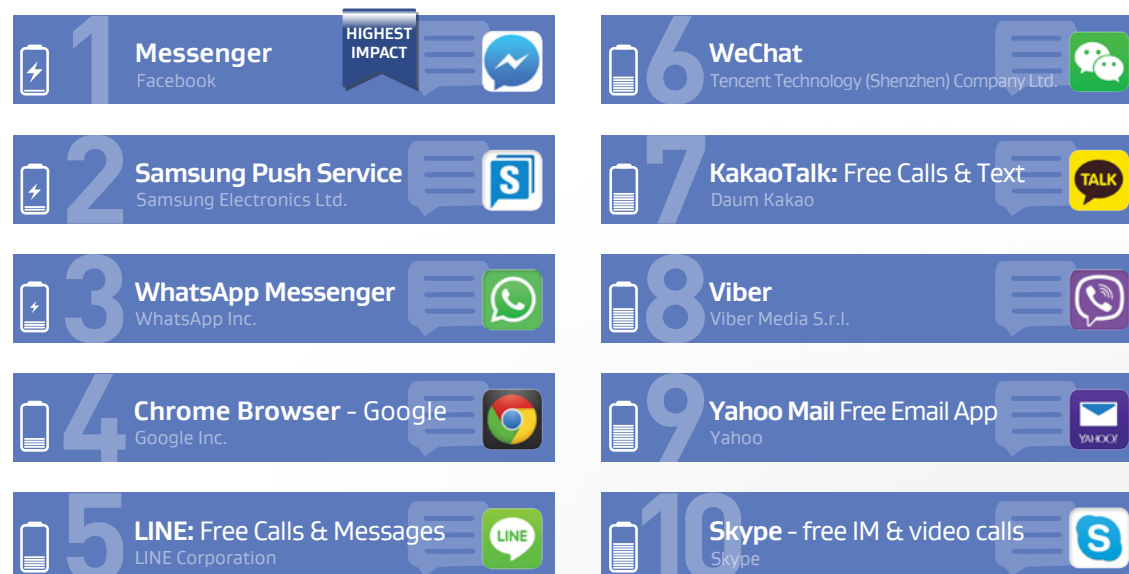|		
1	**Facebook** Facebook	HIGHEST IMPACT
2	**Instagram** Instagram	
3	**Tango Messenger** Video & Calls Tango	
4	**Snapchat** Snapchat Inc.	
5	**Twitter** Twitter Inc.	
6	**ooVoo** Video Call Text & Voice ooVoo LLC	
7	**Vine** Vine Labs Inc.	
8	**Tumblr** Tumblr Inc.	
9	**POF Free Dating App** Plentyoffish Media Inc.	
10	**LinkedIn** LinkedIn	

CATEGORY: Social

The top 5 apps in the social world have not changed from quarter to quarter. What's new is **ooVoo Video Call Text & Voice** which has been around for years but which now seems to be getting more traction. Also new is the **POF Free Dating App**, while apps previously included in this list, such as magicApp, have now dropped out of the top 10.

App Usage Trends
Installed Communication Apps

TOP INSTALLED COMMUNICATION APPS

1 Messenger **HIGHEST IMPACT**
Facebook

2 Samsung Push Service
Samsung Electronics Ltd.

3 WhatsApp Messenger
WhatsApp Inc.

4 Chrome Browser - Google
Google Inc.

5 LINE: Free Calls & Messages
LINE Corporation

6 WeChat
Tencent Technology (Shenzhen) Company Ltd.

7 KakaoTalk: Free Calls & Text
Daum Kakao

8 Viber
Viber Media S.r.l.

9 Yahoo Mail Free Email App
Yahoo

10 Skype - free IM & video calls
Skype

CATEGORY: 💬 Communication

The previous king of communication apps, **WhatsApp**, has now been dethroned by **Facebook Messenger**. **Facebook**, however, as the owner of both apps continues to dominate the communications space.

D **Addressing the Issues**

Insights into Android Device and App Optimization

Android devices have to walk a fine line trying to restrict the resource consumption of apps but not limit their functionality too much.
We all love our apps and we don't want to stop using them.

⚠ **Memory Full**

Not enough phone storage space.

OK

D **Addressing the Issues**

7 Ways to Boost Battery Life, Free Up Storage and Reduce Mobile Data Traffic

Here are 7 easy steps to help you boost battery life, stop storage eaters and save mobile traffic.

We've put together a comprehensive guide for all consumers and businesses looking to address the issues outlined in this report.

Click **here** to download the full PDF guide.

☑ **Limit notifications to save battery life, performance and mobile data:**

Phone notifications are one of the most useful mobile inventions, giving users information they need to know about new appointments or messages at a glance. But not all of them are useful and they can consume resources.

☑ **Limit apps battery & performance drain:**

Reduce background features, refresh intervals, location usage or in-app notifications.

☑ **Free up space:**

Apps collect clutter over time. Use AVG Cleaner for Android to get rid of temporary files.

☑ **Reduce data traffic:**

Turn off background data transfers or any offline reading features within your app if you don't want it to consume mobile traffic.

☑ **Turn off Wi-Fi, Bluetooth and GPS:**

To save more battery life, turn off all the hardware features you don't need at any given moment.

☑ **Turn down brightness:**

If you're not in bright sunlight, we recommend turning the brightness levels down to 50-70%. Why? On many of today's big phones and tablets, the display is responsible for up to 80% of the entire power consumption.

☑ **Get rid of performance–sapping apps:**

Our AVG Cleaner for Android analyzes the top battery, storage, and traffic hogging apps on your device. If you don't need one of these apps, you can easily uninstall it and look for more resource-friendly alternatives.

D Contact Information

For further information, please visit:.

Our blogs, press information and resources on how to get the most out of your connected devices at AVG Now: http://now.avg.com

Our website for details about our performance products: http://www.avg.com/performance

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Whatever your device, we've got you covered.

App Resource Consumption Analysis

In this section, you can find the app resource consumption analysis for the United States, the United Kingdom and Australia. We used the same methods to calculate the rankings as before but this time only took into account performance data of users from these specific countries.

E Appendix
USA

TOP 10 PERFORMANCE DRAINING APPS – EXCLUDING GAMES

1	**Facebook** — Facebook	HIGHEST IMPACT
2	**Spotify Music** — Spotify Ltd.	
3	**Amazon Kindle** — Amazon Mobile LLC	
4	**iFunny :)** — Okrujnost'	
5	**Snapchat** — Snapchat Inc.	
6	**Instagram** — Instagram	
7	**Samsung WatchON (Video)** — Samsung Media Solution Center	
8	**Netflix** — Netflix Inc.	
9	**Yahoo Mail** — Yahoo	
10	**ooVoo** Video Call Text & Voice — ooVoo LLC	
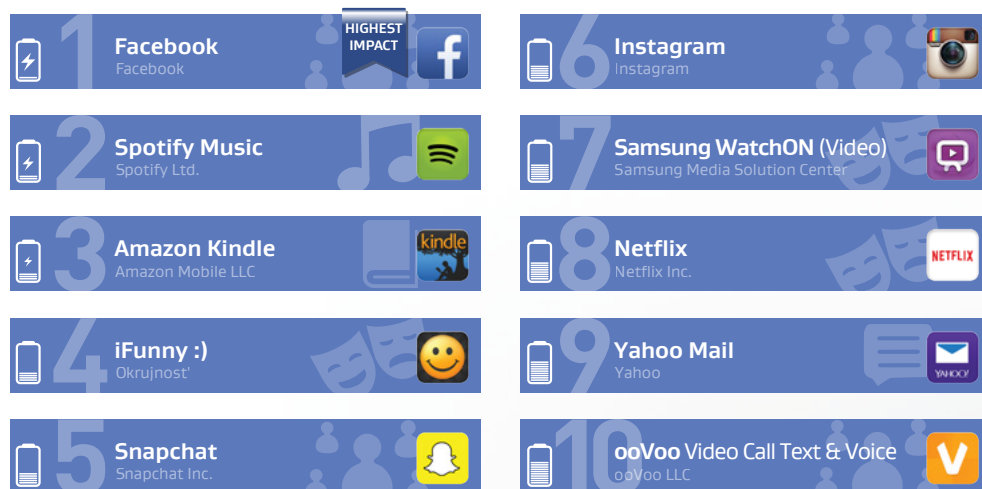
CATEGORY: Social Music & Audio Communication Entertainment Books & Reference

TOP 10 PERFORMANCE DRAINING APPS – GAMES ONLY

1	**Crossy Road** — Yodo1 Games	HIGHEST IMPACT
2	**Candy Crush Saga** — King	
3	**Candy Crush Soda Saga** — King	
4	**My Talking Tom** — Outfit7	
5	**Farm Heroes Saga** — King	
6	**Despicable Me** — Gameloft	
7	**Clash of Clans** — Supercell	
8	**New Words With Friends** — Zynga	
9	**Solitaire** — MobilityWare	
10	**Subway Surfers** — Kiloo	
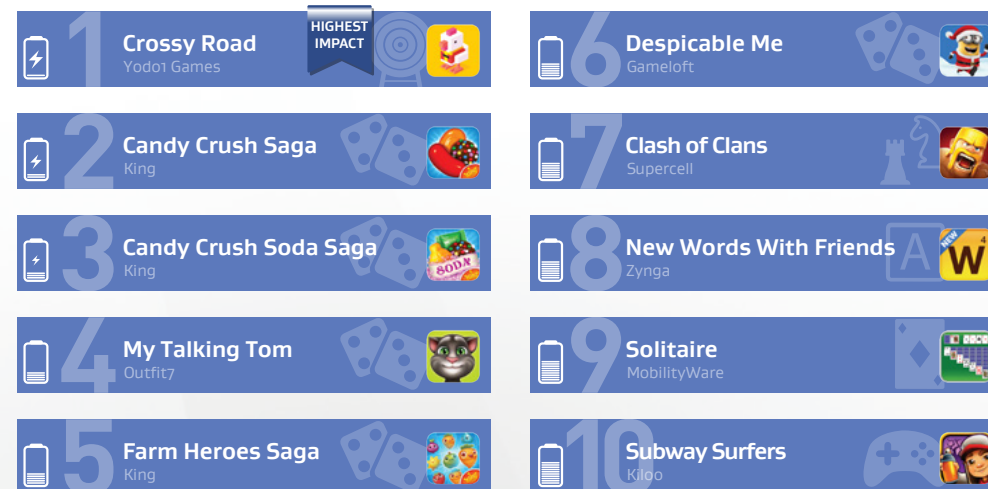
CATEGORY: Arcade Strategy Casual Action Card Word

TOP 10 BATTERY DRAINERS – RUN AT START UP

1	**Beaming Service** for Samsung Mobeam Inc.	HIGHEST IMPACT
2	**SECURITY POLICY UPDATES** SAMSUNG OTA SOFTWARE UPDATE	
3	**Facebook** Facebook	
4	**RetailMeNot Coupons** RetailMeNot Inc.	
5	**Straight Talk My Account** Straight Talk	
6	**Lookout** Security & Antivirus Lookout Mobile Security	
7	**Kik** Kik Interactive	
8	**GO SMS Pro** GO Dev Team	
9	**WhatsApp Messenger** WhatsApp Inc.	
10	**Messenger** Facebook	

CATEGORY: 📖 Communication 📄 Productivity 🔧 Tools 🛒 Shopping 👥 Social

TOP 10 BATTERY DRAINERS – RUN BY USER

1	**Samsung WatchON** (Video) Samsung Media Solution Center	HIGHEST IMPACT
2	**Walmart** Walmart	
3	**Amazon Kindle** Amazon Mobile LLC	
4	**Super-Bright LED Flashlight** Surpax Technology Inc.	
5	**Snapchat** Snapchat Inc.	
6	**LINE:** Free Calls & Messages LINE Corporation	
7	**Spotify Music** Spotify Ltd.	
8	**Netflix** Netflix Inc.	
9	**Clean Master** (Speed Booster) Cheetah Mobile	
10	**Amazon Shopping** Amazon Mobile LLC	
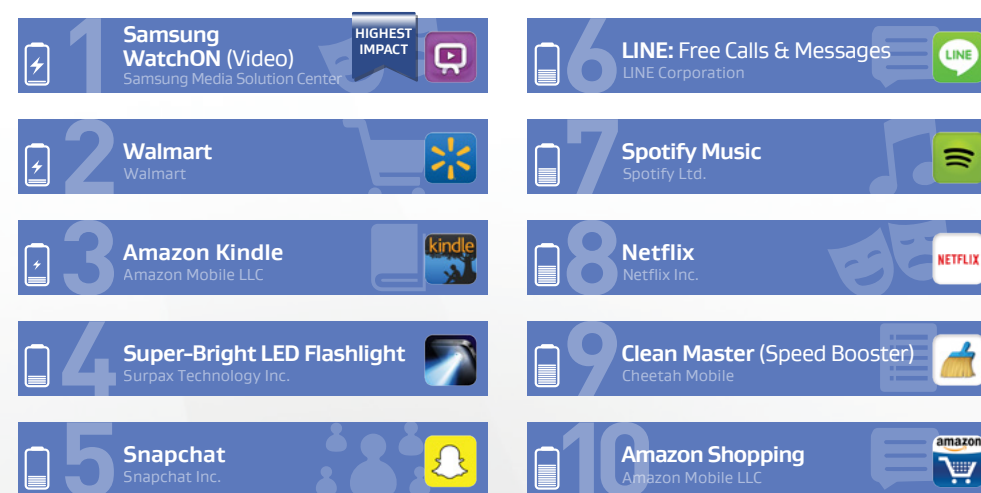
CATEGORY: 📖 Communication 📄 Productivity 🛒 Shopping 👥 Social 🎭 Entertainment 📚 Books & Reference 🎵 Music & Audio

Appendix

USA

TOP 10 BATTERY DRAINERS – GAMES ONLY

1 Candy Crush Soda Saga
King — HIGHEST IMPACT

2 Candy Crush Saga
King

3 Clash of Clans
Supercell

4 Crossy Road
Yodo1 Games

5 Solitaire
MobilityWare

6 New Words With Friends
Zynga

7 Farm Heroes Saga
King

8 Don't Tap The White Tile
Cheetah Game Studio

9 My Talking Tom
Outfit7

10 Hill Climb Racing
Fingersoft

CATEGORY: Strategy Casual Action Racing Card Word Arcade

TOP 10 STORAGE EATERS — EXCLUDING GAMES

1 Facebook
Facebook — HIGHEST IMPACT

2 Tango Messenger Video & Calls
Tango

3 Spotify Music
Spotify Ltd.

4 Chrome Browser - Google
Google Inc.

5 Instagram
Instagram

6 Vine
Vine Labs Inc.

7 Amazon Kindle
Amazon Mobile LLC

8 SoundCloud - Music & Audio
SoundCloud

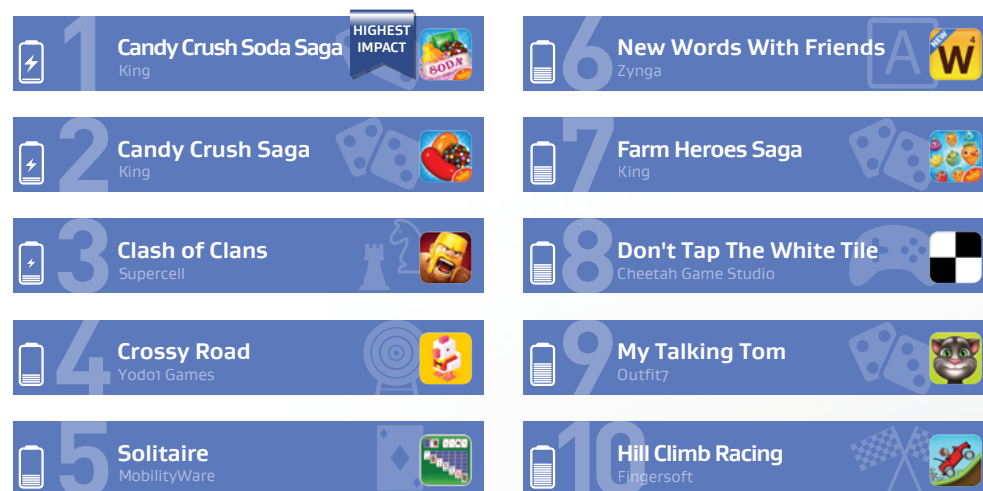**9** Firefox Browser for Android
Mozilla

10 iFunny :)
Okrujnost'
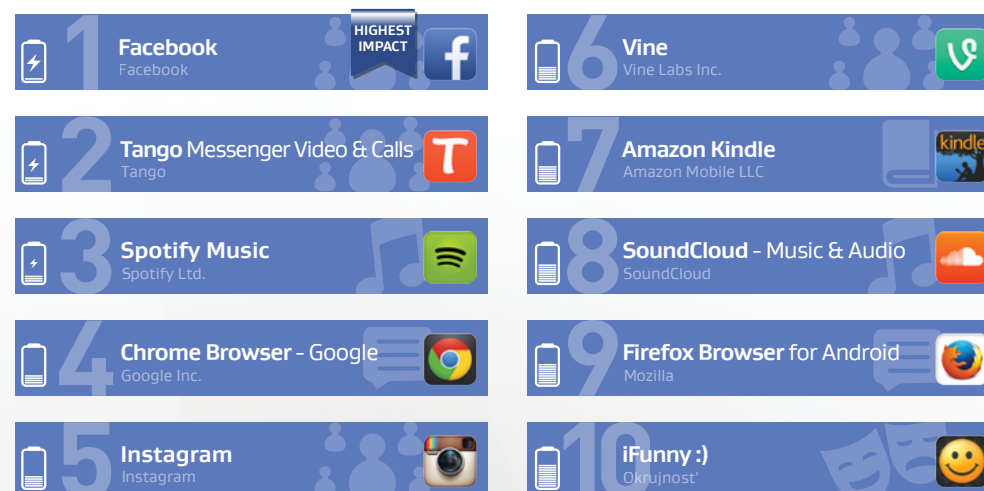
CATEGORY: Communication Social Entertainment Books & Reference Music & Audio

E Appendix
USA

TOP 10 STORAGE EATERS – GAMES ONLY

1	Despicable Me — Gameloft	HIGHEST IMPACT
2	My Talking Tom — Outfit7
3	Subway Surfers — Kiloo
4	Crossy Road — Yodo1 Games
5	Temple Run 2 — Imangi Studios

6	Farm Heroes Saga — King
7	Candy Crush Saga — King
8	Candy Crush Soda Saga — King
9	New Words With Friends — King
10	Clash of Clans — Supercell
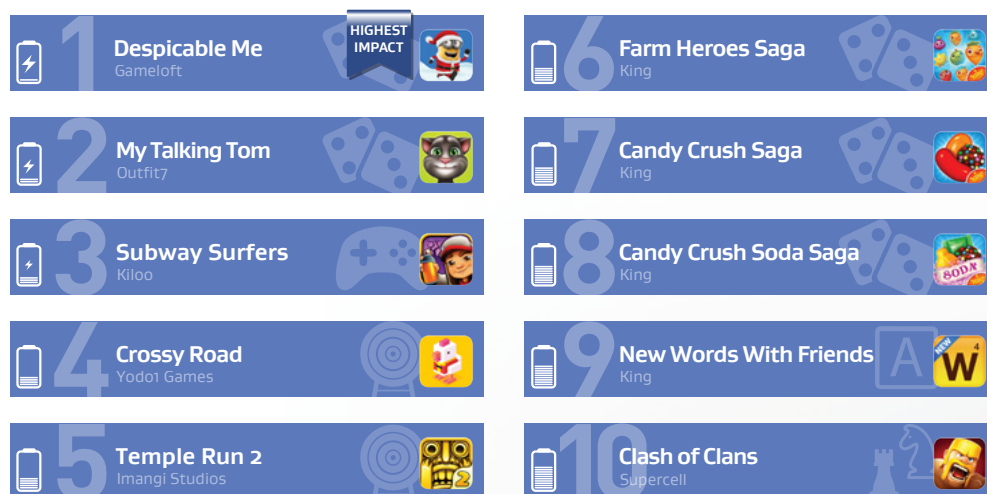
CATEGORY: Strategy Casual Action Arcade Word

TOP 10 DATA TRAFFIC HOGS – EXCLUDING GAMES

1	Tumblr — Tumblr Inc.	HIGHEST IMPACT
2	Facebook — Facebook
3	Snapchat — Snapchat Inc.
4	Netflix — Netflix Inc.
5	iFunny :) — Okrujnost'

6	Instagram — Instagram
7	Spotify Music — Spotify Ltd.
8	Beaming Service for Samsung — Mobeam Inc.
9	The Weather Channel — The Weather Channel
10	Yahoo Mail Free Email App — Yahoo
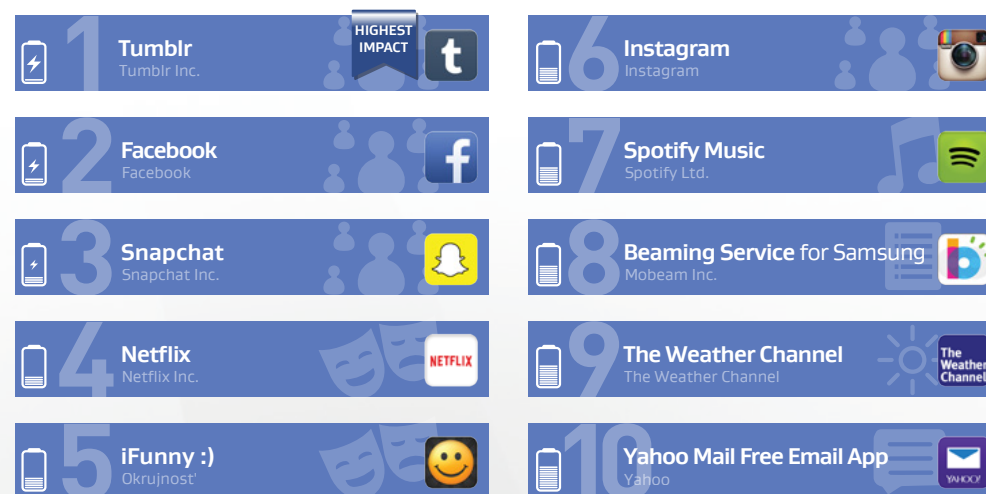
CATEGORY: Communication Productivity Music & Audio Social Entertainment Weather

USA

TOP DATA TRAFFIC HOGS – GAMES ONLY

1 Crossy Road — Yodo1 Games — HIGHEST IMPACT	**5** Farm Heroes Saga — King	
2 Solitaire — MobilityWare	**6** Clash of Clans — Supercell	
3 New Words With Friends — Zynga	**7** Candy Crush Soda Saga — King	
4 Candy Crush Saga — King	**8** Don't Tap The White Tile — Cheetah Game Studio	
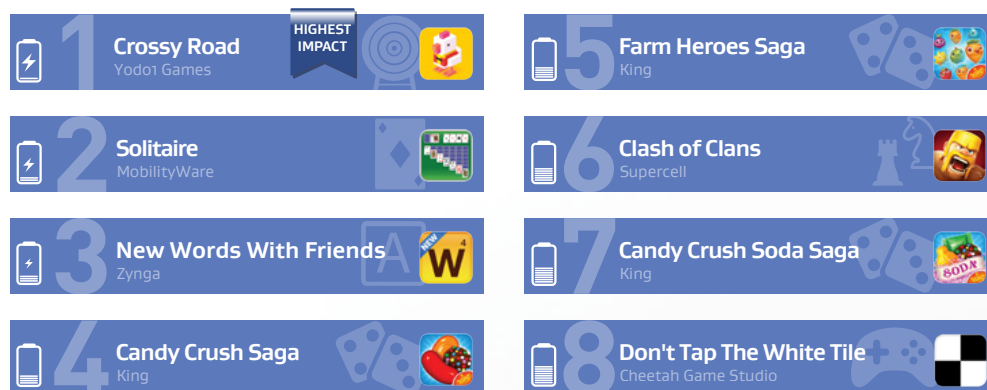
CATEGORY: Strategy   Casual   Action   Card   A Word   Arcade

E Appendix
UNITED KINGDOM

TOP 10 PERFORMANCE DRAINING APPS – EXCLUDING GAMES

#	App	Publisher
1	**Facebook**	Facebook — HIGHEST IMPACT
2	**Spotify Music**	Spotify Ltd.
3	**Amazon Kindle**	Amazon Mobile LLC
4	**Instagram**	Instagram
5	**Daily Mail Online**	Daily Mail Online
6	**Twitter**	Twitter Inc.
7	**Snapchat**	Snapchat Inc.
8	**Yahoo Mail** Free Email App	Yahoo
9	**SoundCloud** – Music & Audio	SoundCloud
10	**Clean Master** (Speed Booster)	Cheetah Mobile

CATEGORY: Social Music & Audio Newspaper & Magazines Communication Tools Books & Reference
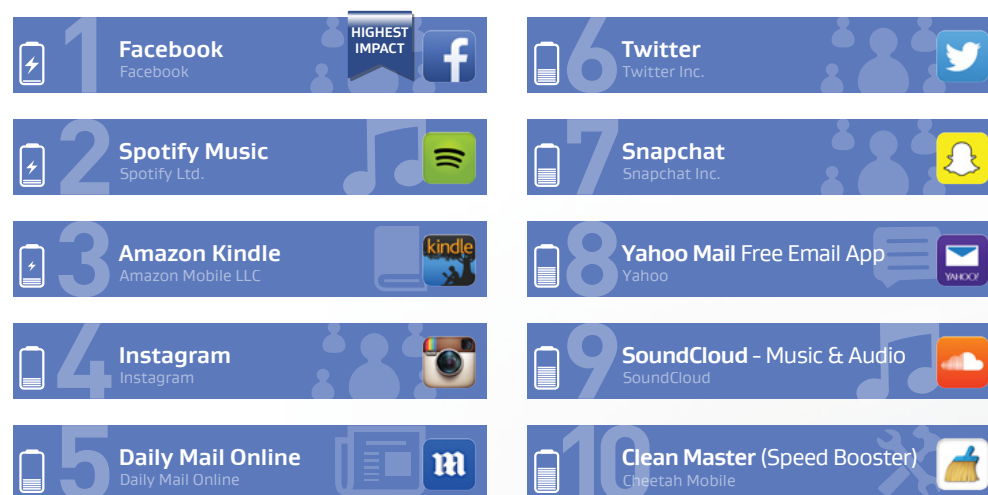
TOP PERFORMANCE DRAINING APPS – GAMES ONLY

#	App	Publisher
1	**Crossy Road**	Yodo1 Games — HIGHEST IMPACT
2	**Despicable Me**	Gameloft
3	**Candy Crush Saga**	King
4	**Farm Heroes Saga**	King
5	**Candy Crush Soda Saga**	King
6	**Subway Surfers**	Kiloo
7	**Clash of Clans**	Supercell
8	**Temple Run 2**	Imangi Studios
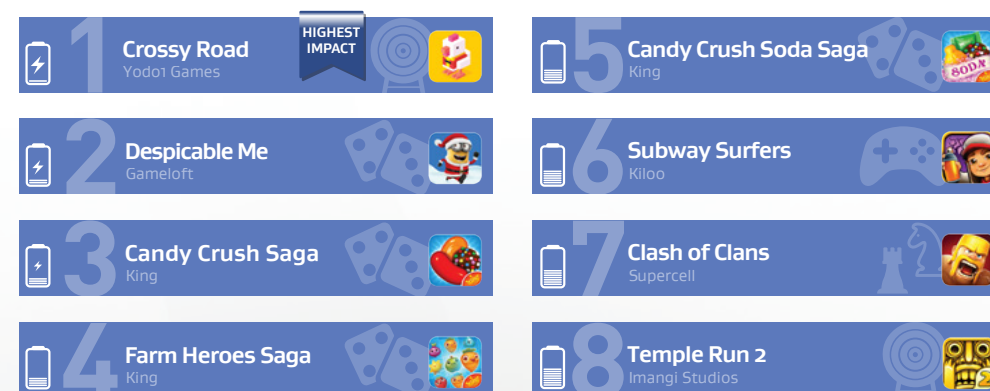
CATEGORY: Strategy Casual Action Arcade

E Appendix
UNITED KINGDOM

TOP 10 BATTERY DRAINERS – RUN AT START UP

1 SECURITY POLICY UPDATES
SAMSUNG OTA SOFTWARE UPDATE — HIGHEST IMPACT

2 Facebook
Facebook

3 Lookout Security & Antivirus
Lookout Mobile Security

4 Kik
Kik Interactive

5 Messenger
Facebook

6 WhatsApp Messenger
WhatsApp Inc.

7 Groupon – Daily Deals Coupons
Groupon Inc.

8 Yahoo Mail Free Email App
Yahoo

9 Adobe AIR
Adobe

10 Instagram
Instagram

CATEGORY: Social | Communication | Tools | Productivity

TOP 10 BATTERY DRAINERS – RUN BY USER

1 Snapchat
Snapchat Inc. — HIGHEST IMPACT

2 Amazon Kindle
Amazon Mobile LLC

3 Super-Bright LED Flashlight
Surpax Technology Inc.

4 BBC News
Media Applications Technologies for the BBC

5 BBC Media Player
Media Applications Technologies for the BBC

6 Spotify Music
Spotify Ltd.

7 Clean Master (Speed Booster)
Cheetah Mobile

8 Twitter
Twitter Inc.

9 Barclays Mobile Banking
Barclays Bank PLC
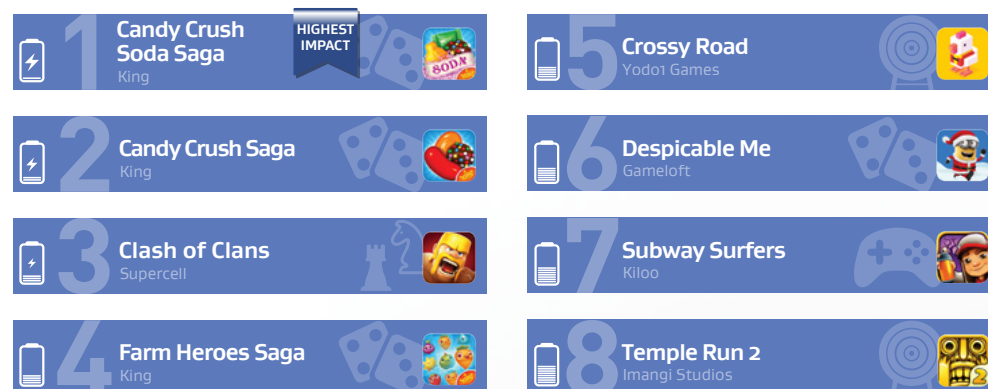
10 Netflix
Netflix Inc.

CATEGORY: Social | Tools | Productivity | Entertainment | Finance | Newspaper & Magazines | Books & Reference | Music & Audio

E Appendix
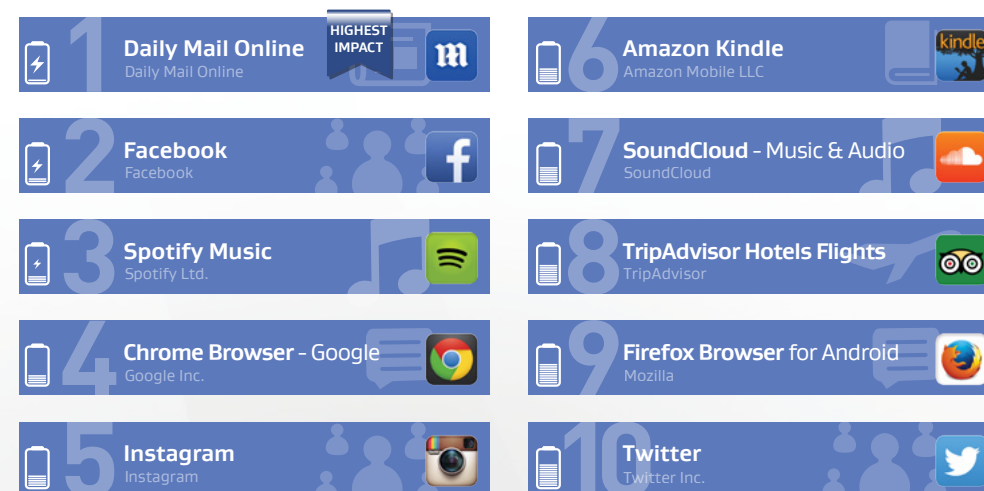## UNITED KINGDOM

TOP BATTERY DRAINERS – GAMES ONLY

1	Candy Crush Soda Saga	HIGHEST IMPACT
	King	

2	Candy Crush Saga
	King

3	Clash of Clans
	Supercell

4	Farm Heroes Saga
	King

5	Crossy Road
	Yodo1 Games

6	Despicable Me
	Gameloft

7	Subway Surfers
	Kiloo

8	Temple Run 2
	Imangi Studios

CATEGORY: Strategy Casual Action Arcade

TOP 10 STORAGE EATERS – EXCLUDING GAMES

1	Daily Mail Online	HIGHEST IMPACT
	Daily Mail Online	

2	Facebook
	Facebook

3	Spotify Music
	Spotify Ltd.

4	Chrome Browser – Google
	Google Inc.

5	Instagram
	Instagram

6	Amazon Kindle
	Amazon Mobile LLC

7	SoundCloud – Music & Audio
	SoundCloud

8	TripAdvisor Hotels Flights
	TripAdvisor

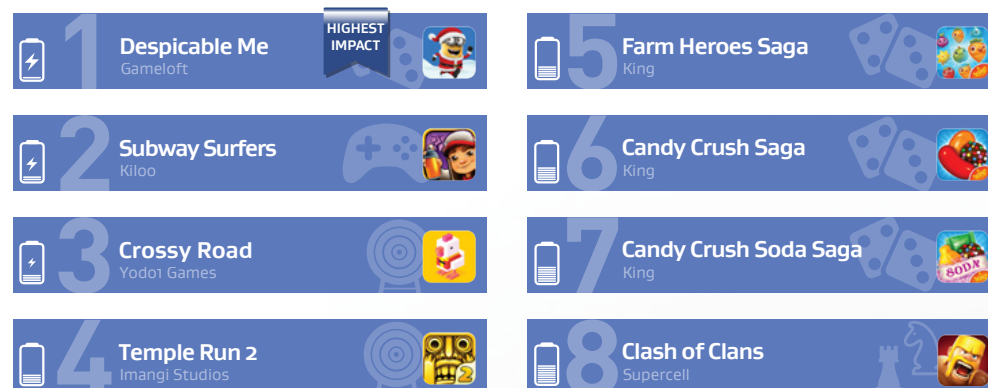| 9	Firefox Browser for Android
	Mozilla

10	Twitter
	Twitter Inc.

CATEGORY: Social Music & Audio Newspaper & Magazines Communication Travel & Local Books & Reference

E Appendix
UNITED KINGDOM

TOP STORAGE EATERS – GAMES ONLY

1 Despicable Me
Gameloft — HIGHEST IMPACT

2 Subway Surfers
Kiloo

3 Crossy Road
Yodo1 Games

4 Temple Run 2
Imangi Studios

5 Farm Heroes Saga
King

6 Candy Crush Saga
King

7 Candy Crush Soda Saga
King

8 Clash of Clans
Supercell

CATEGORY: Strategy   Casual   Action   Arcade

TOP 10 DATA TRAFFIC HOGS – EXCLUDING GAMES

1 Daily Mail Online
Daily Mail Online — HIGHEST IMPACT

2 BBC Media Player
Media Applications Technologies for the BBC

3 Facebook
Facebook

4 Snapchat
Snapchat Inc.

5 BBC News
Media Applications Technologies for the BBC

6 Instagram
Instagram

7 Netflix
Netflix Inc.

8 Spotify Music
Spotify Ltd.

9 Groupon – Daily Deals Coupons
Groupon Inc.

10 Yahoo Mail Free Email App
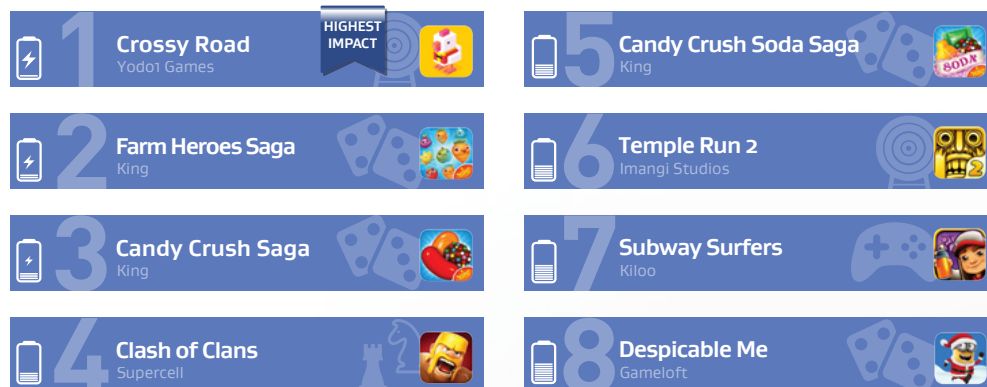Yahoo

CATEGORY: Social   Music & Audio   Newspaper & Magazines   Communication   Entertainment   Shopping

Appendix
UNITED KINGDOM

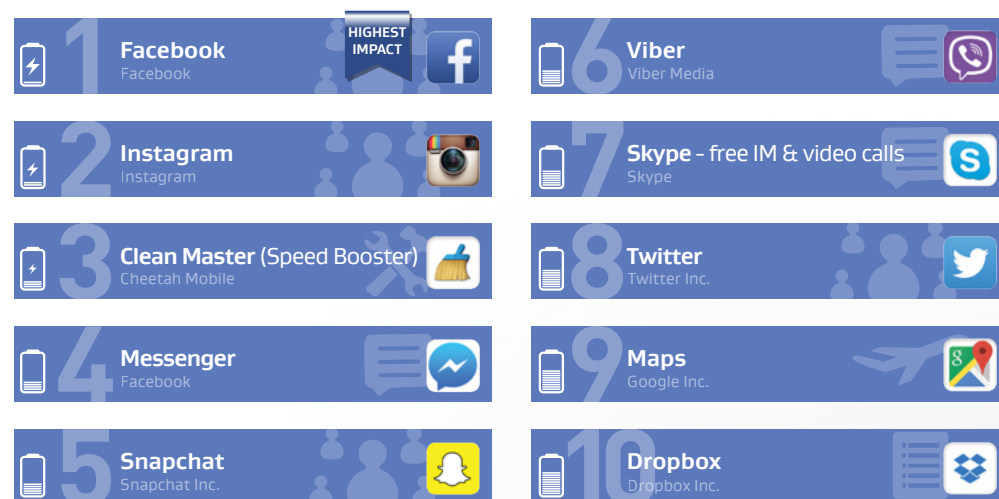**TOP DATA TRAFFIC HOGS – GAMES ONLY**

1 Crossy Road — Yodo1 Games — *HIGHEST IMPACT*	**5** Candy Crush Soda Saga — King
2 Farm Heroes Saga — King	**6** Temple Run 2 — Imangi Studios
3 Candy Crush Saga — King	**7** Subway Surfers — Kiloo
4 Clash of Clans — Supercell	**8** Despicable Me — Gameloft

CATEGORY: Strategy Casual Action Arcade

E Appendix
AUSTRALIA

TOP 10 PERFORMANCE DRAINING APPS – EXCLUDING GAMES

1. **Facebook** — Facebook — HIGHEST IMPACT
2. **Instagram** — Instagram
3. **Clean Master** (Speed Booster) — Cheetah Mobile
4. **Messenger** — Facebook
5. **Snapchat** — Snapchat Inc.
6. **Viber** — Viber Media
7. **Skype** - free IM & video calls — Skype
8. **Twitter** — Twitter Inc.
9. **Maps** — Google Inc.
10. **Dropbox** — Dropbox Inc.

CATEGORY: Social   Communication   Productivity   Tools   Travel & Local

TOP 10 BATTERY DRAINERS – RUN AT START UP

1. **SECURITY POLICY UPDATES** — SAMSUNG OTA SOFTWARE UPDATE — HIGHEST IMPACT
2. **Beaming Service** for Samsung — Mobeam Inc.
3. **Facebook** — Facebook
4. **Messenger** — Facebook
5. **WhatsApp Messenger** — WhatsApp Inc.
6. **Instagram** — Instagram
7. **Samsung Push Service** — Samsung Electronics Ltd.
8. **Viber** — Viber Media
9. **Maps** — Google Inc.
10. **Samsung WatchON** (On TV) — Peel Technologies
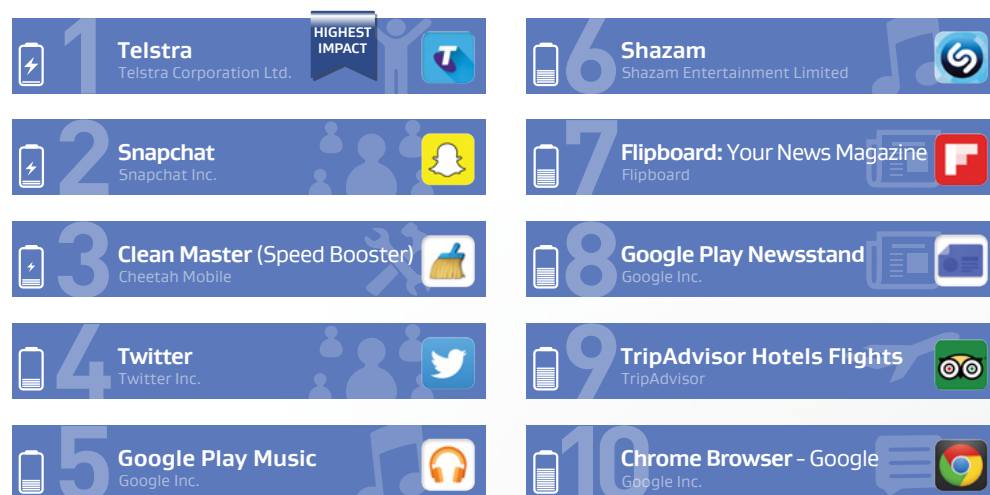
CATEGORY: Social   Communication   Productivity   Travel & Local   Entertainment

E Appendix
AUSTRALIA

TOP 10 BATTERY DRAINERS – RUN BY USER

1. **Telstra** — Telstra Corporation Ltd. **HIGHEST IMPACT**
2. **Snapchat** — Snapchat Inc.
3. **Clean Master** (Speed Booster) — Cheetah Mobile
4. **Twitter** — Twitter Inc.
5. **Google Play Music** — Google Inc.
6. **Shazam** — Shazam Entertainment Limited
7. **Flipboard:** Your News Magazine — Flipboard
8. **Google Play Newsstand** — Google Inc.
9. **TripAdvisor Hotels Flights** — TripAdvisor
10. **Chrome Browser** - Google — Google Inc.

CATEGORY: Social | Communication | Travel & Local | Music & Audio | Newspaper & Magazines | Tools | Lifestyle

TOP 10 STORAGE EATERS

1. **Facebook** — Facebook **HIGHEST IMPACT**
2. **Instagram** — Instagram
3. **Chrome Browser** - Google — Google Inc.
4. **Skype** – free IM & video calls — Skype
5. **GROUP PLAY** — Samsung Electronics Co. Ltd. MSC
6. **Clean Master** (Speed Booster) — Cheetah Mobile
7. **Viber** — Viber Media S.r.l.
8. **Dropbox** — Dropbox Inc.
9. **TripAdvisor Hotels Flights** — TripAdvisor
10. **Samsung Link** — Samsung Electronics Co. Ltd. MSC
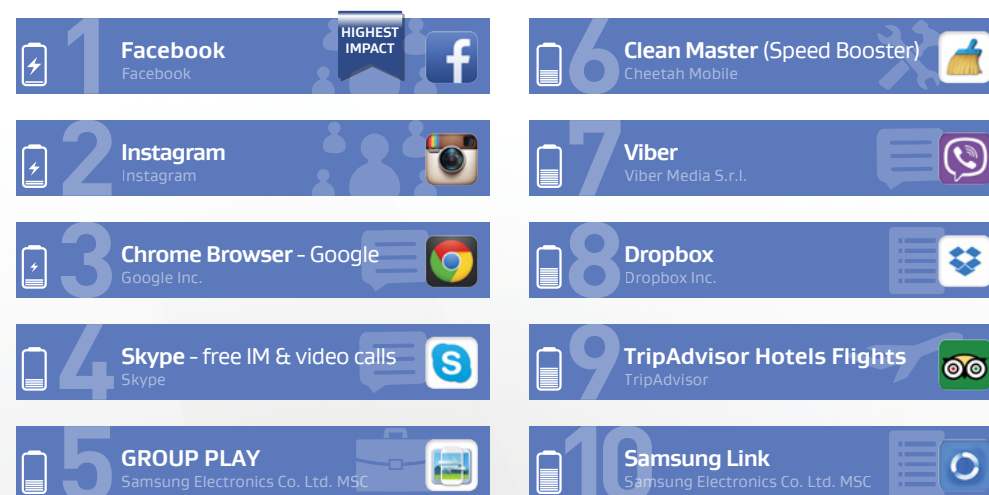
CATEGORY: Social | Communication | Travel & Local | Tools | Productivity | Business

TOP 10 DATA TRAFFIC HOGS

1	**Facebook** Facebook	HIGHEST IMPACT
2	**Snapchat** Snapchat Inc.	
3	**Instagram** Instagram	
4	**Beaming Service** for Samsung Mobeam Inc.	
5	**Messenger** Facebook	

6	**Clean Master** (Speed Booster) Cheetah Mobile
7	**SECURITY POLICY UPDATES** SAMSUNG OTA SOFTWARE UPDATE
8	**Telstra** Telstra Corporation Ltd
9	**Twitter** Twitter Inc.
10	**CommBank** Commonwealth Bank of Australia
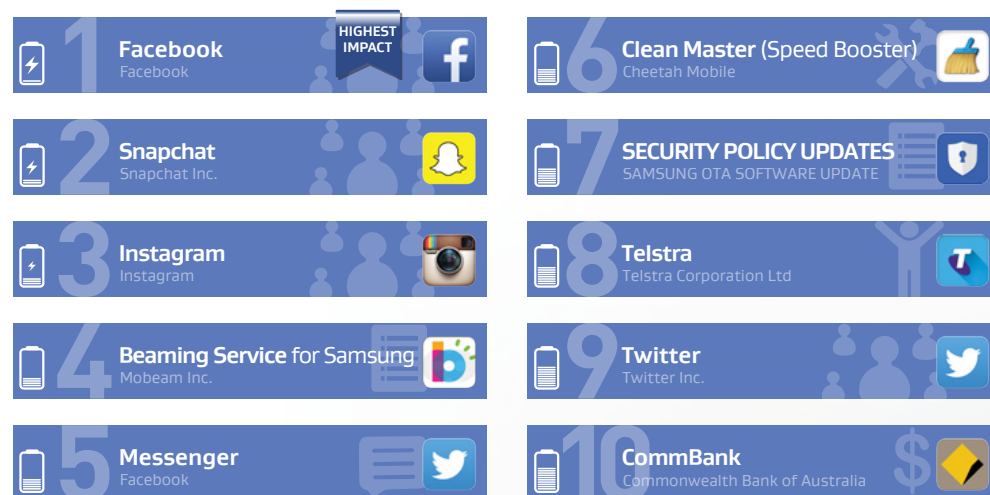
CATEGORY: Social   Communication   Tools   Productivity $ Finance   Lifestyle