The Zombie Uprising

A look at the undead App Store in 2016
Executive summary

App Zombies are on the rise with increasing rates on the iOS App Store. We’ve taken a look specifically for the cause, suggesting that it’s not just a question of quality, and mass, but really about the lack of curation and opportunity on the App Store. You can take a look at our findings in the full report, but if you just want the key takeaways, we’ve collected them below:

1. **App Zombies have now taken over 90 percent of the App Store.**
   
   App lists have fluctuated in size over time, but the Zombie Rate has always risen, suggesting that top apps have a bigger reach over lists, even if there’s more room for newer or less popular titles.

2. **The shortage of placements could be the reason for the rise of App Zombies.**
The rise of App Zombies

On the surface, the App Store has never been more popular, with billions of downloads and transactions being made every month. In fact, there are now more than two million apps available to download on iOS devices alone. However, that doesn’t necessarily mean users are able to find apps with ease – in fact, discovery has never been harder among the competition. With record amounts of apps going undiscovered, we at adjust have analyzed the effect of this curious phenomenon, coining the mass of hidden apps “Zombies”.

While they’re far from being as harmful as their fictional namesakes, depending on your view they’re either a nuisance, a lost opportunity, or an indication of toughening competition. In our report we’ll take you through the causes and effects of the Zombie menace, and clue you in to their numbers both globally, and in specific markets.

What are Zombie apps?

In 2012, adjust created the term “App Zombies” to describe an application that doesn’t attract enough attention to rank on iOS App Store top lists. To be thought of as living, an app must appear in any position on one of the tens of thousands of lists (in any location) for two days within three, across a one month period. While most apps probably receive a few downloads on release, or potentially none at all, ever, a Zombie App could still get some attention, but just in a saturated market. For instance, a messaging app in Singapore could have thousands of downloads, but not even reach the bottom of the list.

Essentially, Zombie Apps can’t be found organically – you’d need to search for the name in order to discover it.
App stats: What’s changed in the App Store?

1. Between January 1, 2014 and January 1, 2016 the App Store grew 83 percent, from 890,000 apps to 1.63 million.

2. June 1, 2016 was a new milestone, with over 2 million apps available worldwide, a 26 percent increase within six months.

3. The global App Zombie Rate increased from 72 percent in January 2014 to more than 87 percent in December, and reached 90 percent of all apps in May 2016.

4. The total volume of apps available through Apple’s App Store reached two million in June 2016. The first million was reached at the end of 2014, and it has only taken a year and a half to double the number.
Methodology

All data in this report was sourced from adjust’s apptrace database on July 10, 2016. The database is used by adjust’s free online tool apptrace.com to provide the mobile industry with valuable insights into app performance in the Apple App Store, as well as the Google Play Store. It includes app rankings, categories, ratings, versions and reviews. The data on Apple’s App Store is aggregated from Apple’s Enterprise Partner Feed (EPF). Our data covers all apps that were ever available in the App Store and all Google Play apps that ranked in the past year and a half, which includes 2,050,439 total iOS apps as of July 1, 2016.

Analyzing the App Store competition: How do Zombies influence the numbers?

We’re beginning to look at Zombies as a reflection of the competition within the App Store. As can be seen from our earlier reports, the story hasn’t changed – Zombies have proliferated in almost every market, and continue to grow in number. And because of this, we want to know, is this because of the nature of fixed placements (and how they have shrunk), or the mere fact that top apps dominate? Are smaller publishers doomed to Zombification on release? Or is there a way to cut the number, by increasing or diversifying placements?
What have we found in four years of Zombie research?

In 2012, our findings were fairly simple: “[as] the App Store becomes a more competitive environment...the army of Zombies keeps growing.” This single sentence captured an unchanging facet of Zombie Apps – they multiply over time.

In 2014, we found the percentage of Zombie Apps had increased by 10 percent from the year before, standing at 79.6 percent of apps by June of the year. With four out of five of apps hidden from view, we already noted the importance of finding new ways to promote and display them, so as to lower the rate of Zombies plaguing the store.

Yet even in 2015, the rate had increased to 83 percent by December. “More users...only mean more clients for top apps, not for all apps.”

Essentially, the story remains the same: App Zombies have always been growing, but now it’s time to think about why.
Fixed placements: How many App Store positions exist?
In order to understand why so many Zombies exist, we should compare them to the apps that rank already, and rank well. App Store placements have seen a lot of variation over the years: at its highest above 9 million, to its lowest of 6.5 million. That’s a lot of real estate, and yet throughout Zombie Rates have always been above 55 percent, even in times of increased opportunity.

We have also seen that while the number of placements increase, there isn’t a decrease in the numbers of Zombies. Between September 2013 and June 2014, the App Store added around 2,000,000 new placements, and continued to add more – at its peak the number was 9,327,736 list places in total. Over this time, the rate still saw a slow but upward increase in Zombies, even though there was much more opportunity to rank.

When the App Store lowered placements in July global rates jumped by about 7 percent over the next few months. We can’t precisely know why – logically it could be assumed that the Zombie Rate would lower when there were more slots, but what likely happened was that the same popular apps were being picked, and filling up the new slots in different locations from sheer grossing number of downloads.
So if there are fixed placements, how many ranks does an app take up?

Store lists can get a little complicated. It’s not as simple as saying that one app only takes one rank, in one list. As mentioned, crossovers can occur – from top lists to categories, to the same app in different countries, and even across categories too. As such, multiple lists feature some of the best performing apps for extended periods of time, rather than being a true reflection of a single category. This has the effect of potentially creating more Zombies, as while there are a fixed amount of ranks, there is an ever increasing number of apps available in the App Store.

With this context we can try to answer this question, by calculating a simple metric: the average number of ranks per ranking app. By dividing the number of ranking apps by the number of slots available on the marketplace, we’ve created a dataset and chart which provides the average number of slots taken by a non-Zombie.
Average slots taken by a non-Zombie

It’s easy to note the symmetry between the two charts. When App Store placements rose, so did the number of non-Zombified app positions. The same apps ranked in more places – at its highest the placements could total 49, on average! Once the App Store had reduced in size so too did dominance, as popular apps sat around 33 or so placements on the store. Significantly, in recent times the two charts have moved out of step, with averages of popular apps claiming more dominance, with an extra five placements on average for top apps versus the previous low period.
What conclusions come out from all of this?

The main issue around the current rates of Zombification is the prevalence of top app makers and publishers dominating lists. From a purely top ten standpoint, Facebook owns four of the five most popular apps on smartphones accounting for 62 percent of all downloads on both stores in May, which shows how much list real estate a single brand can hold. Further down the lists, the problem is much more widespread than a single publisher, especially in far flung marketplaces.

Discovery is not being made any easier. With the sheer number of apps being released per month, it’s difficult to even appear on more than one consecutive day.

What this could suggest is a new way to curate apps. Whether “New and Recommended” lists could be implemented, or an introduction of a recommendation algorithm based on user history, there are means to save apps from zombification.

With the sheer number of apps, and the dubious quality of some calling the rest into question, it’s a hard sell to get more people to try apps without a significant amount of word of mouth, and advertising spend too. By creating more ways to showcase the best Zombie Apps, the App Store could boost user exploration.

Whatever it takes, the Zombie Rate has reached a new peak, and there’s no hint of this changing without a refresh on the way we curate the App Store.
These are the world Zombie Rates (per locale), with figures from our most recent dataset (May 2016). At the tip of the top is English. The English App Store, with 90.9 percent of apps in a Zombie state, is the first store to reach 9/10ths of all apps. The lowest rate? French markets, with 85.24 percent.
English market

LIVING APPS – 160,116

TOTAL APPS – 1,760,283

90.9% ZOMBIES

With the highest amount of apps per market, it’s no surprise that English markets have the highest rate of Zombies. However, what is surprising is just how many Zombies there are – over 90 percent, the first of its kind to have reached 9/10ths of all applications.

German market

LIVING APPS – 42,693

TOTAL APPS – 321,653

86.73% ZOMBIES

The third largest marketplace also has the third highest amount of Zombies of the group.

Portuguese market

LIVING APPS – 26,076

TOTAL APPS – 189,581

86.25% ZOMBIES

In the smaller markets, Zombie Rates tend to be lower, but Portuguese rates are relatively bigger among other marketplaces with only 26,076 living apps.
Japanese market

LIVING APPS – 34,246
TOTAL APPS – 245,284

Japan’s app marketplace is of middling size, and middling Zombie Rate, sitting right in the centre at 86 percent.

Russian market

LIVING APPS – 27,817
TOTAL APPS – 190,690

Though the Russian market has always had a lower presence of Zombies, it’s still just less than five percent away from the top rate of Zombie Apps.

French market

LIVING APPS – 38,411
TOTAL APPS – 260,250

Relatively speaking, the French marketplace has an exceedingly healthy Zombie Rate from its larger market size.
South Korean market

LIVING APPS – 23,137

TOTAL APPS – 158,929

85.44% ZOMBIES

The South Korean marketplace is the second smallest, and at 85.44 percent has the third lowest rate of Zombies. This has historically been the case for some time, as the location has always sat around the fourth or third lowest Zombie Rate of all. However, the margins are much smaller in 2016 than in 2013, with a 0.03 percent difference between South Korea and Russia.

Historically, the French and South Korean marketplaces have had practically identical Zombie Rates – in only six months out of 41 do the two markets differ by more than a percent. On average, the difference has been 0.3 percent.

South Korean Zombie Rate vs. the World
In May 2013, the Zombie Rate for the Chinese market had just tipped to 54 percent, the third highest rate in the market. Now, it’s only a month or two away from being at 90 percent, and has broken away from the rest of the markets with the second highest Zombie Rate in the world. There’s been no faster rate of increase, with the rate increasing significantly just after September 2014.

Chinese Zombie Rate vs. the World
Indonesian market

Out of all of the markets we’ve looked at, the Indonesian marketplace is perhaps the most interesting when it comes to Zombies. While it is a smaller market, with around 8,000 apps worldwide localized into Indonesian (that rank), the Zombie Rate for apps published in Indonesian remains comparatively high. Proportionally more Indonesian-language apps are Zombies than in, for example, Japan, which has a lower absolute number of smartphone users, but also a significantly higher number of apps (245,284).

Indonesian smartphone penetration is growing rapidly, up by almost a quarter: from 83 million units in 2015 to 109 million in 2016*. This makes Indonesia the fourth largest locale in terms of smartphone units worldwide, and while this is reflected with a high Zombie count, it wasn’t always this way. At one time Indonesia had the lowest Zombie Rate of all, as the only market to sit below 40 percent. Over the years the rate has increased quicker than any other, and now sits as the fourth largest Zombie marketplace.

This can be put down to two reasons:

1. Indonesian is one of the world’s most widely–spoken languages, but many of its speakers are also fluent in English. As a result, Indonesian users do not express a strong preference for apps localized into Indonesian – making it an easier market to enter for global top performers.

2. The top 10 apps in Indonesia are all social media and communication apps, which can be attributed to many lists. Other apps in their multitudes are pushed down by the main players in messaging, and social.

* Emarketer, Top 5 Countries, Ranked by Smartphones in Use, 2015-2020 (millions), from June 3, 2016
Indonesian Zombie Rate vs. the World
Zombie Rates of the World

The global Zombie Rate may seem high, but this is because this rate is calculated by a weighted average (by apps, not by market rate). By May, the English marketplace contained 1,760,283 apps, whereas its closest rival, the Chinese market, was much smaller, with 365,694 apps in total. Because the English market had many more applications, it brought up the average to its current height of 90.67 percent (as of May 2016.)