

Lydia Yu
912328745
Vungle Case Prep

1. Vungle makes money by matching user device requests for ads with video ads created by various advertisers. When a user watches an ad, clicks on it, and installs the app, Vungle receives a portion of the revenue generated from the install. The higher the conversion rate, the more money Vungle makes, and its app-promotion campaigns aim to increase this rate and thereby increase effective revenue per 1000 impressions.
2. One challenge that Vungle faces is that the conversion rate for app installs is historically very low – this means that they may not have too much data on features pertaining to actual installs, and that finding strategies to increase effective revenue may be quite difficult and/or not obvious. Another challenge is that because all of Vungle's revenue is dependent on conversion rate, making changes to their ad targeting comes with a good amount of risk – an unsuccessful campaign can significantly reduce their revenue. Finally, it is difficult for the Vungle data science team to know how long to test their experiments for – if they run it for too short a time, they may miss results that show that one method is better than the other and therefore miss out on long-term increased revenue. If they run it for too long, however, they may end up wasting their time and miss out on potentially higher revenue that could have been made by switching to a different method sooner.
3. I would recommend algorithm A because, based on the data, both A and B have the same average eRPM of \$3, but A has slightly lower standard deviation at 0.22 than B does at 0.34. Having a lower standard deviation may be better for Vungle because it indicates that the revenues for this strategy were more consistently close to \$3, while B's higher standard deviation suggests that its revenues varied more widely (so in the future we may be less certain about what its revenue would be). However, I am not very confident in this recommendation because there was only one month of data to look at and the results of A and B were so similar that I would prefer to do more testing to see if any trends emerge.