

Case study: data-driven product development and neuroscience at Peak



- Cognitive training platform with a difference: games built by neuroscientists to exercise mental skills such as memory, mental agility, problem solving, language and more

- Collaborate with neuroscience researchers & psychologists at Yale, Cambridge and other universities to build advanced training programs
- Turns your smartphone into a system for brain measurement, brain tracking and brain training
- More than 8 million users since late 2014 launch. Apple's "Best App of 2014" and Google Play's "Best of 2015".



"Snowplow is really powerful when you start to hit that growth curve and going upwards: when you see the signs of accelerating growth and you need to start collecting as much event data as possible"

Thomas in't Veld, Lead Data Scientist

Data driving neuroscience

- Data is at the heart of the science behind Peak
- Every game is personalised to build players' skills as efficiently as possible
- Sophisticated normalisation of scores helps compare your progress to your friends
- Game developers have instant access to game data via Snowplow to make sure the games are of the highest quality
- Scientific analysis of game scores.

"Our games are inspired by neuroscientific research. With our academic partners we are unlocking a new chapter in cognitive research by studying game scores and cognitive learning for millions of users. Snowplow is an integral part of that"

Snowplow @ Peak

- Peak has been using Snowplow since July 2015
- Data is loaded into Amazon Redshift where it is modelled
- The data is socialised throughout the business via dashboards in Mode Analytics. The data team build predictive models on the data using R
- All data loading, storage and modelling is compliant with EU regulations on data security and data privacy.



Data driving product development

- Data analytics plays an integral role in the product development process at Peak
- Every new feature launched by the Peak is tested against a subset of the Peak user base as an A/B test
- Success criteria (and associated metrics) are defined ahead of the feature test
- If successful, the feature is rolled out across the rest of the user base. If not, it is rolled back
- The Peak team pushes new releases every 2 weeks. Typically 10 features are in test at any one time
- Snowplow makes it easy for the Peak to track each new test easily, and then assess the impact of the new feature very flexibly.

"We make no changes to the app without A/B testing it first. Before we launch a feature we define a methodology for defining the success and failure of that feature. Everything happens with data..."

Snowplow's event based approach makes it very easy to create new events, new schemas, on the fly"