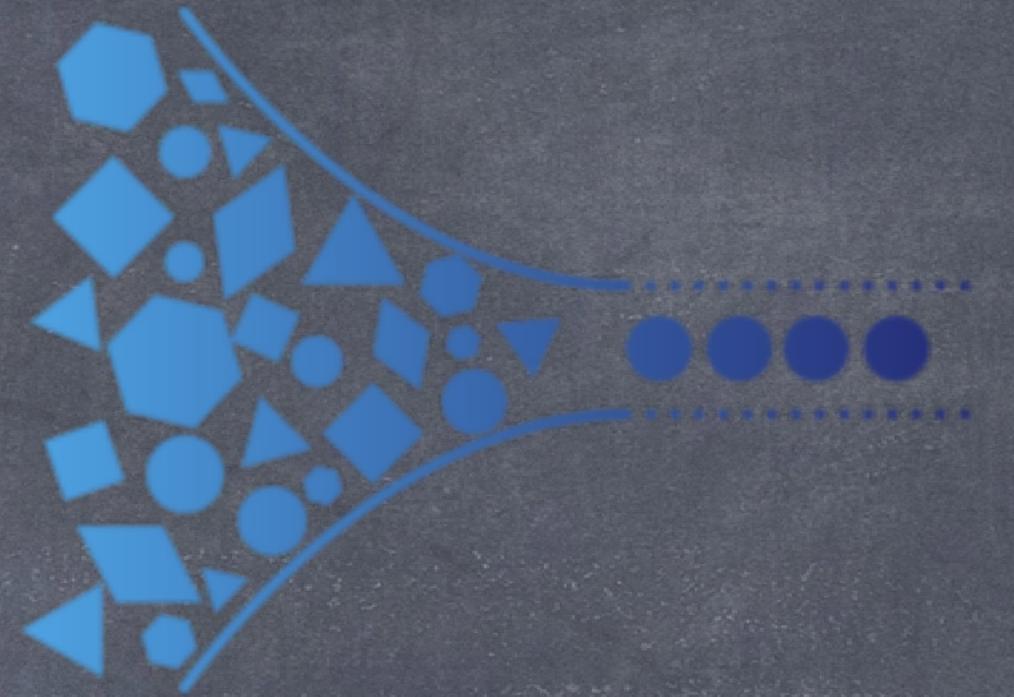


BIG DATA



INTRODUCTION TO INTELLIGENT
COMPUTING



What is Big Data?

Has anyone heard of this phrase?





How does this relate to Big Data?

- Nowadays there are more mobile devices than people alone
 - Each of these devices are collecting lots of pieces of data about their users and the world around them.
 - While this data is very valuable to companies, it grows very fast so it is hard to keep track of it all.



"Imagine a giant toy box, filled to the brim with lego bricks, duplo blocks and your favourite characters. Sounds exciting right? You could build all sorts of things, castles, forts, fire engines and even pirate ships. But with a box as big as you are and thousands of bricks all jumbled up it could be pretty difficult to find the right pieces.

"Big data is a lot like that toy box. A big jumble of numbers and words. This makes it very difficult to read and understand without lots of help."

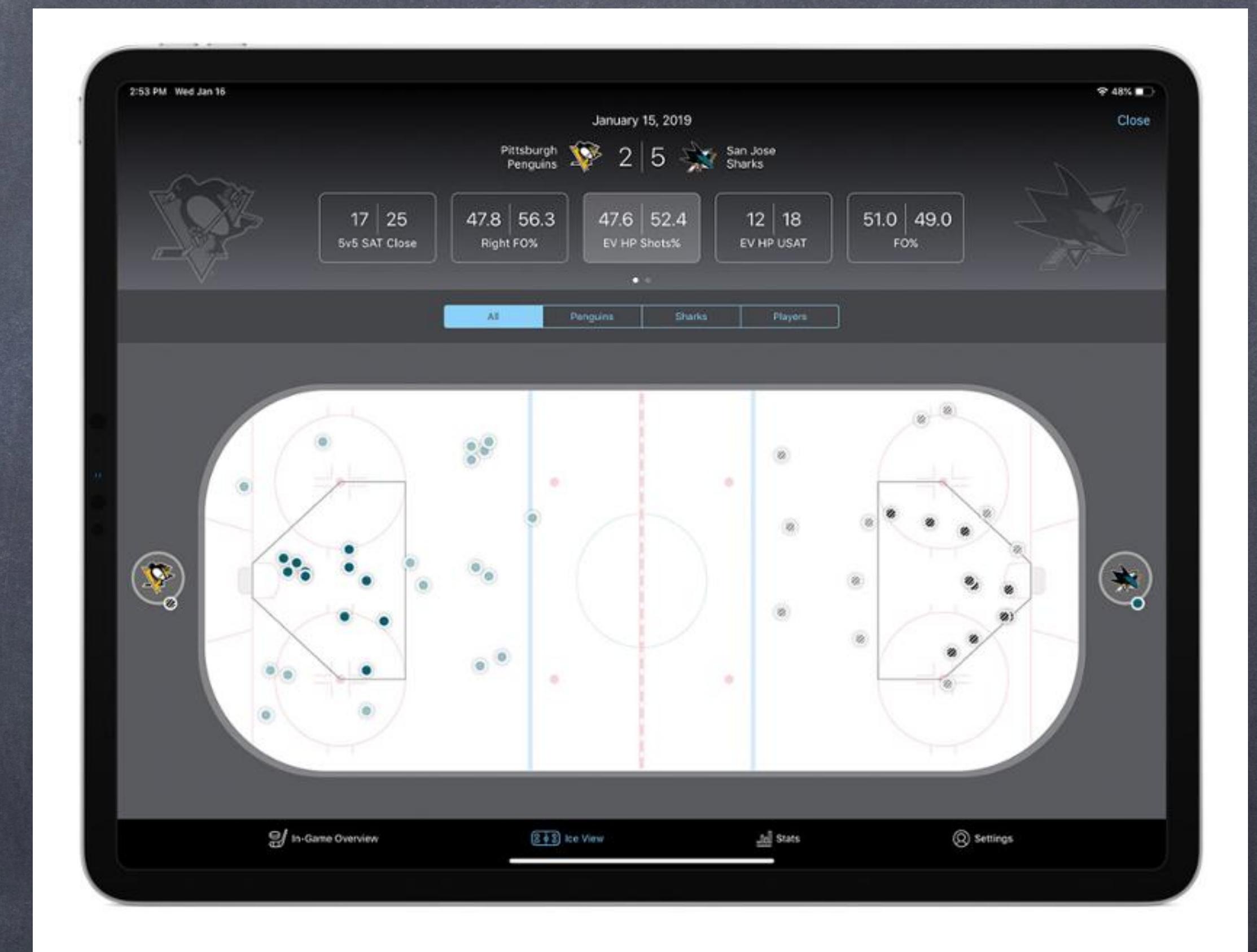
-Andrew Jennings, chief analytics officer at FICO



Real World Example:



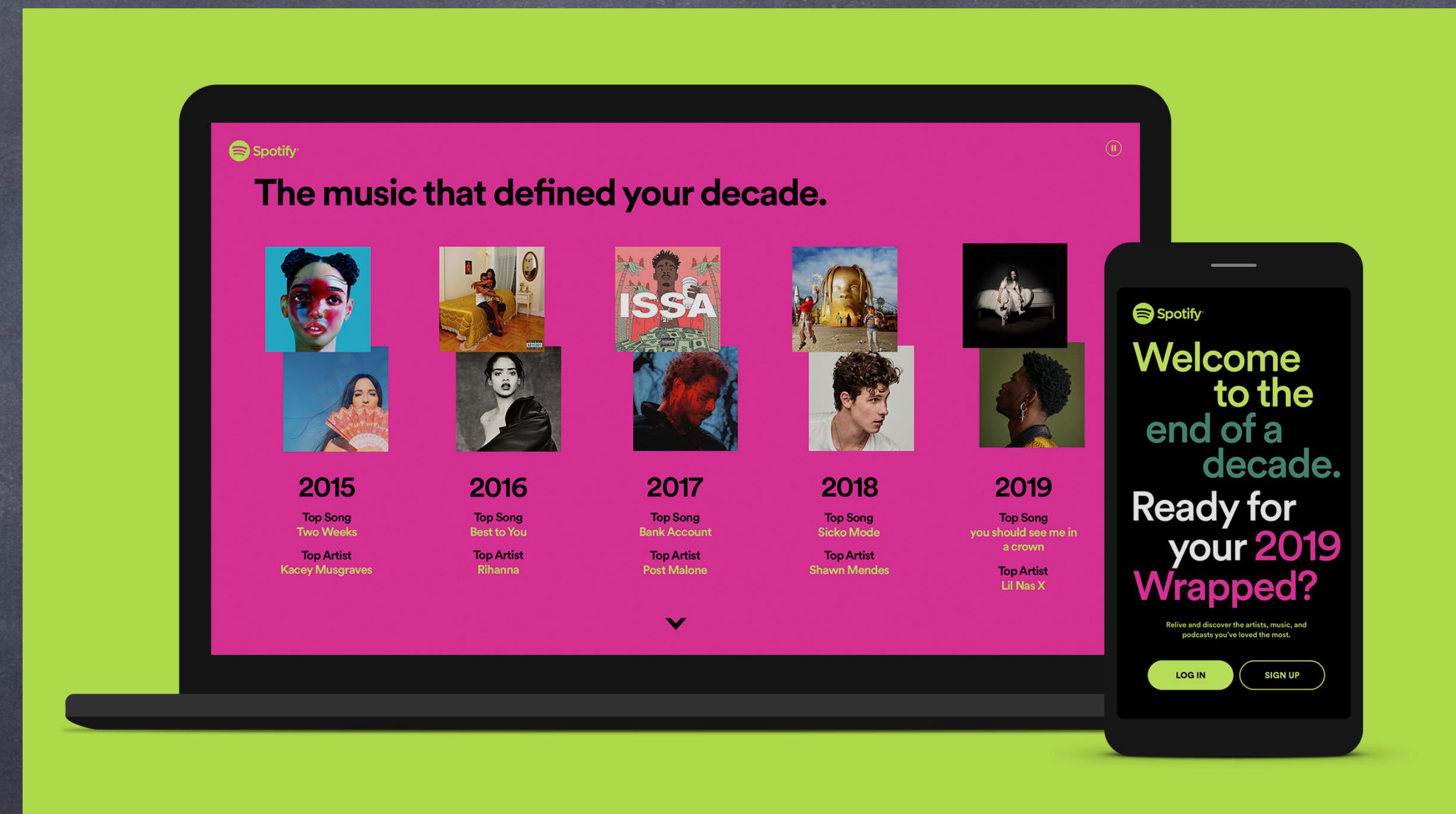
- The National Hockey League partnered with **SAP**.
- They created an iPad app which helps coaches get live updates about their player's performance.
- A variety of sensors collect data from around the rink, and the app analyzes it. Computers try to understand what all the data means, then display important stats on the screen.



Real World Example:



- Spotify is a Music Streaming Platform which has around 50 million unique songs available
- Collects user's listening data to make smart music suggestions and introduce users to similar artists
- Creates a "Spotify Wrapped" in December for each user which summarizes their year's listening history and stats



Real World Example:

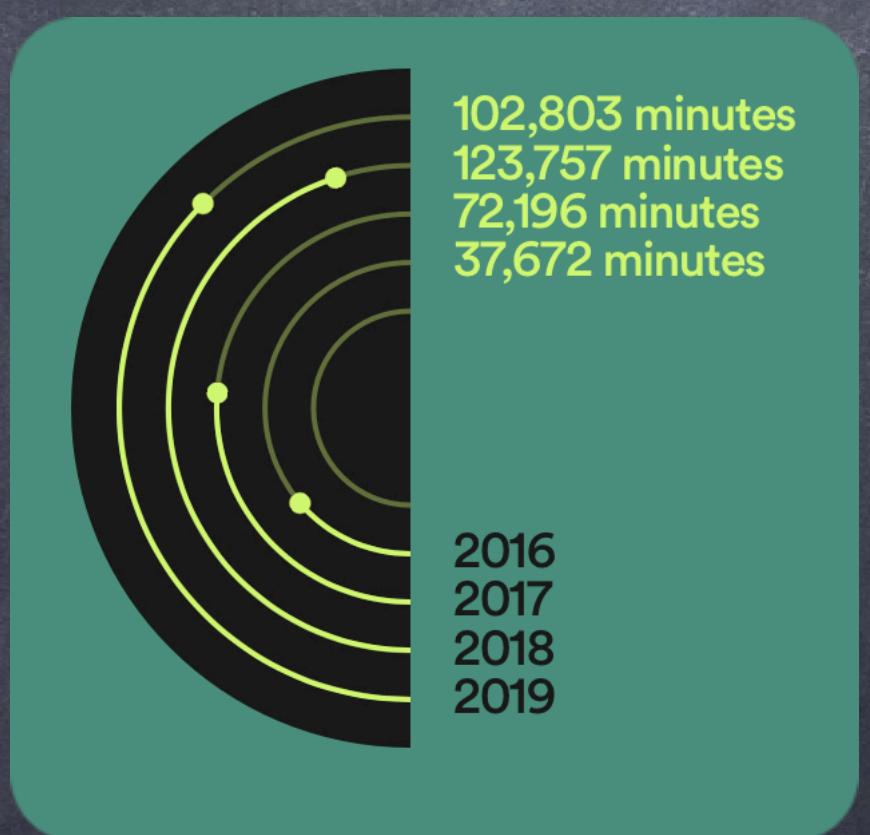


Some companies allow you to view your data, so I collected my Spotify data. Here are some highlights:

from: "endTime" : "2019-07-21 07:42", to: "endTime" : "2020-05-19 19:43"

```
example: {  
    "endTime" : "2019-07-24 05:31",  
    "artistName" : "K.A.A.N.",  
    "trackName" : "Phoenix",  
    "msPlayed" : 180000  
},
```

~220,000 lines:



Interactive Example

How hard is searching through a lot of data?



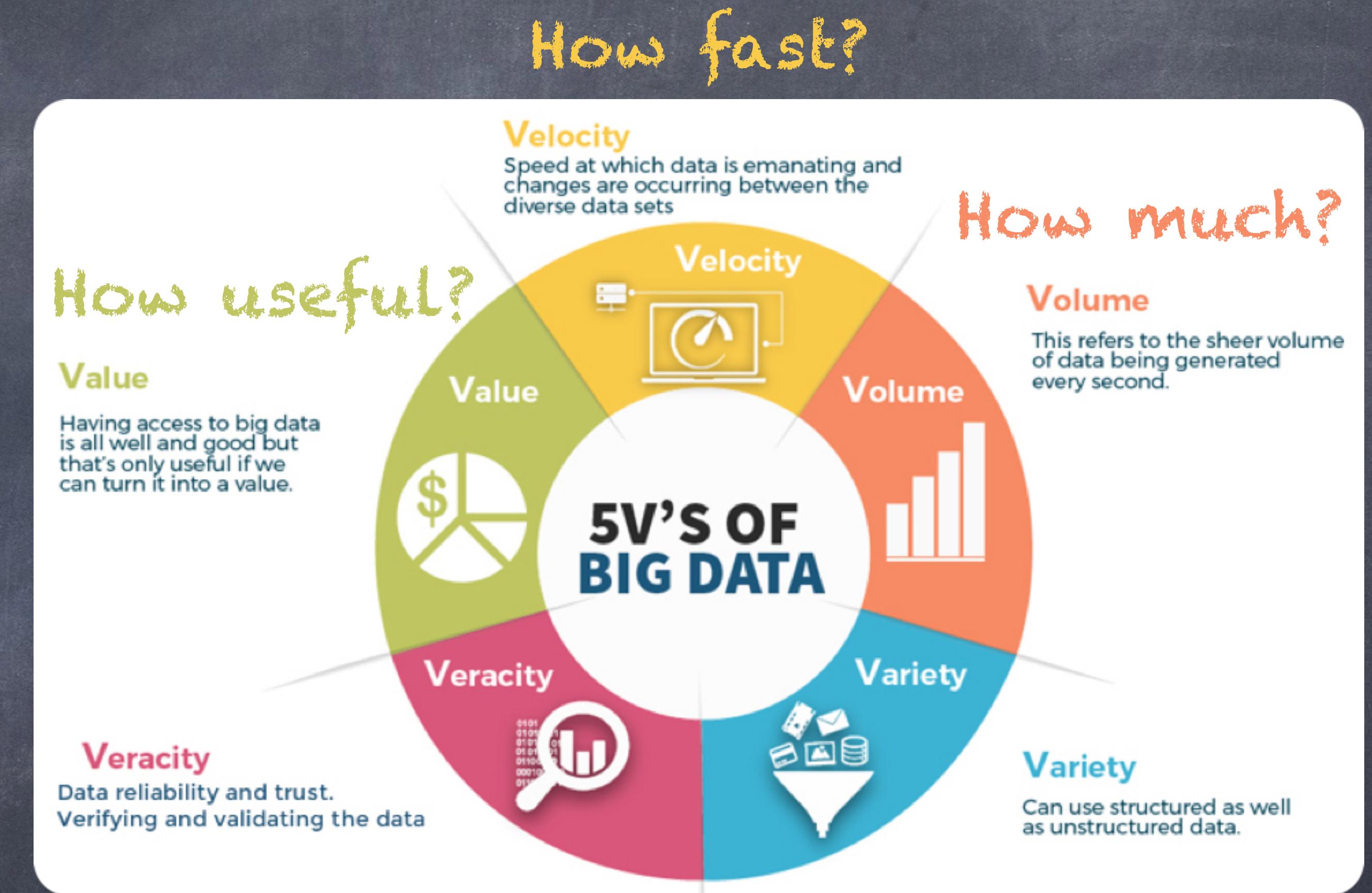
Interactive Example

How do we sort through data?

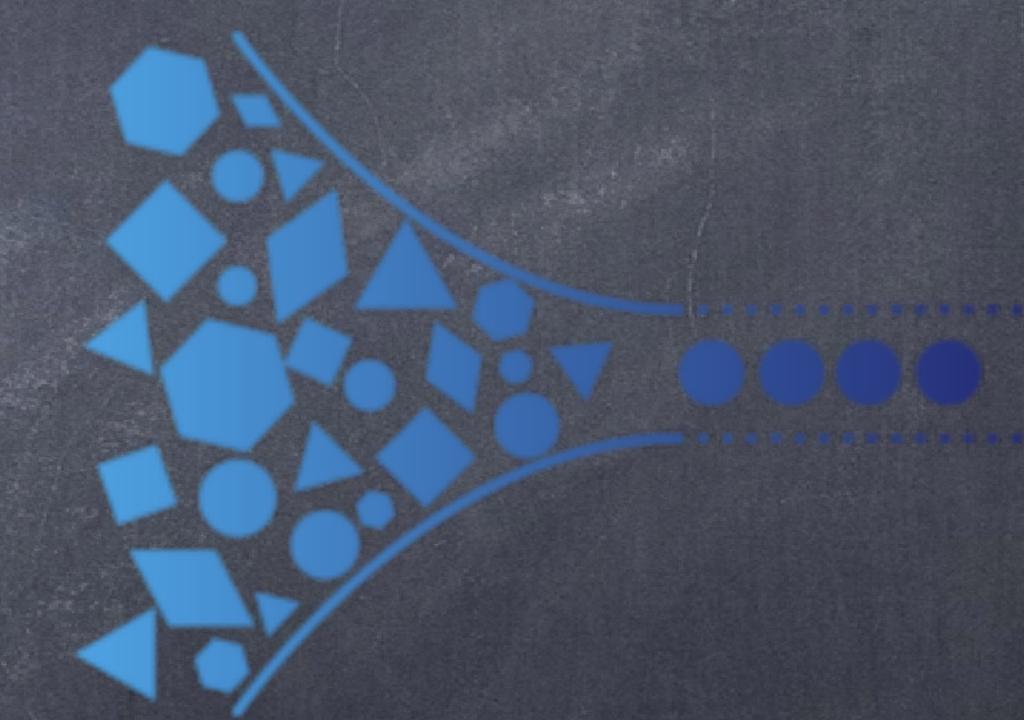
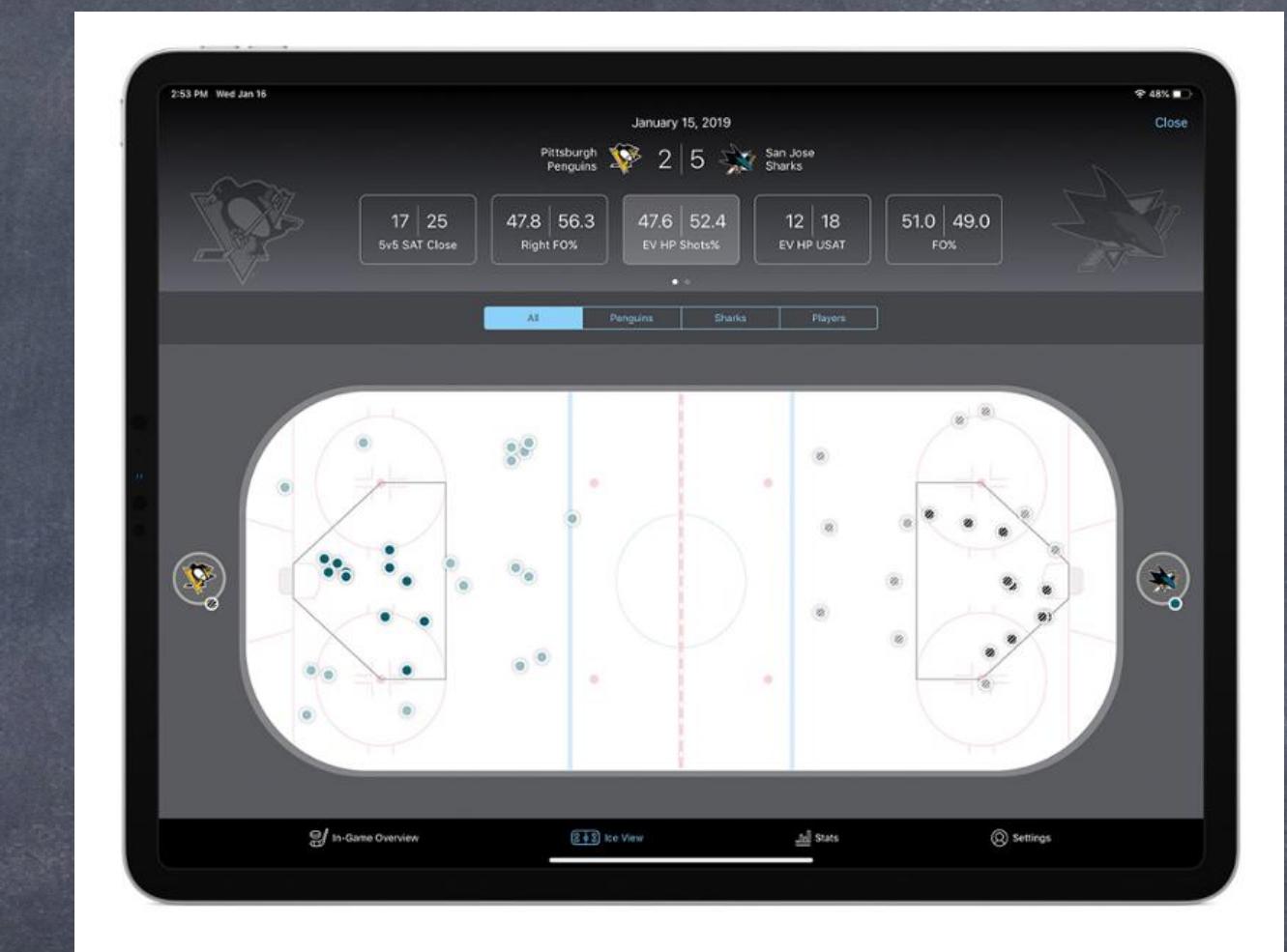
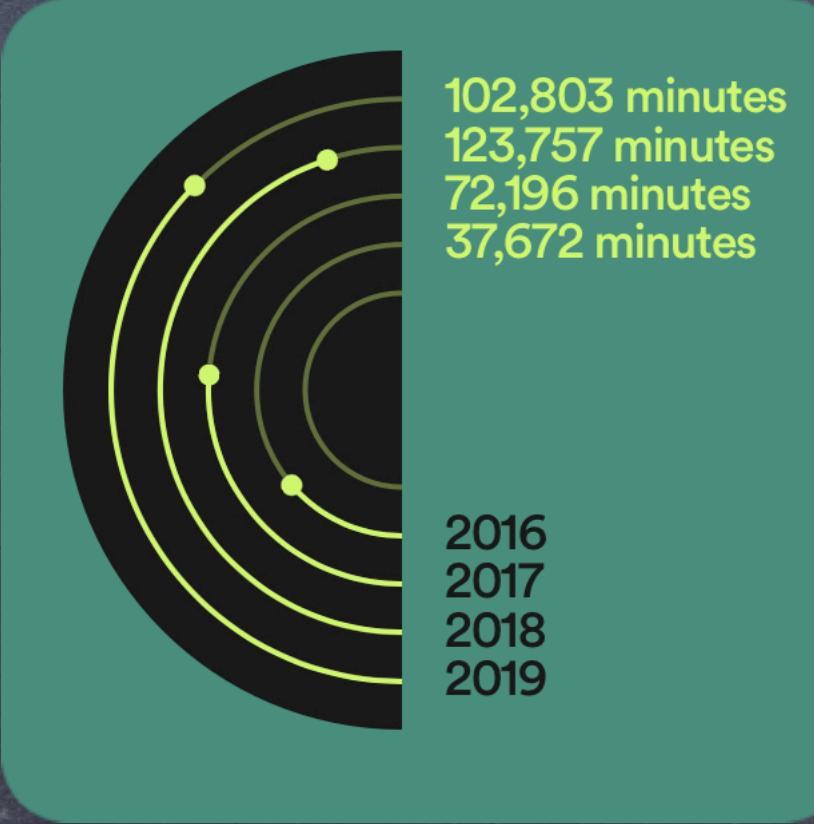


5 V's of Big Data

Tools professionals use to understand big data



BIG DATA



FEEDBACK?