

DOTA2 - predicting the match outcome

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DOTA 2



- Popular free MOBA (multiplayer online battle arena)
 - Highly competitive
 - 5vs5 teams chosen from 113 available heroes
- Trying to predict the match outcome from hero selections

Why did I choose this?

- My hypothesis is that hero selections affect match outcomes
 - Some heroes are played more than others in high level games
 - Hero synergy
 - Counter-picks
- Data gathering is quite easy → gather previous matches
- Outcome is interesting
- The winning prizes are high in pro level tournaments
- Fun and challenging topic

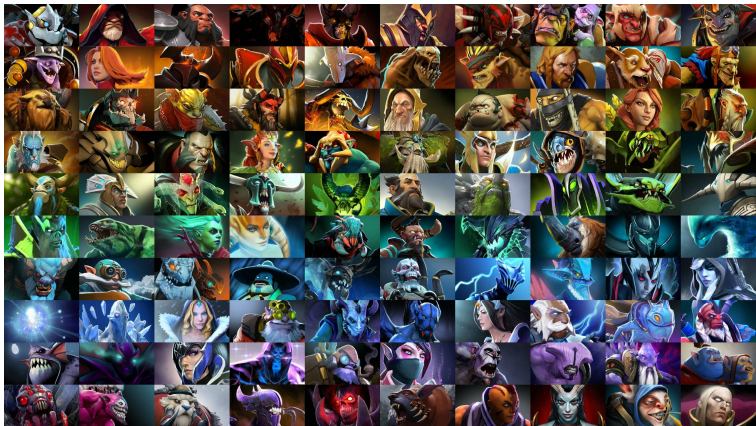


Figure: Situation in 2014 was 100 heroes. Now there are 113.

Research?

- Found 5 different papers describing this topic
- Generalization to almost any game where outcome is win/lose and there are players against each others → e.g. football?

Data?

- Gathered from Valves' (the creator of the game) open API
 - Now I have about 1000 high level ranked matches
- Combined with player data from opensource APIs
- Data needs filtering and preprocessing before using machine learning techniques