

Assignment #1: Data Exploration and Static Visualization Design

Data Analysis and Approach: The data is provided for 10 matches. I wanted to find which player would be fun to watch for me. I like aggressive play, so I wanted to order the players according to their playing style from the provided data. In tennis there are mainly four playing styles, The Aggressive Baseline, The serve and volleyer, The Counterpuncher and the All Court Player. Although it would be hard to determine the specific type of a player as it is not the same in all the games and there is not enough data for that kind of analysis I tried to determine rough idea about the playing style.

Choice of Variables: For determining the playing style I have chosen only three variables, winners, errors and total. I have tried to order the players in between The aggressive baseliner and The counterpuncher. The aggressive baseliner would be really enjoyable because as the name suggests the player plays aggressively. The player likes to be in control of the play. The player aggressively goes for more winners. Because of the aggressive nature of the play the player attacks the short balls and they will take the chance at making few unforced errors in order to hit more winners. So an aggressive baseliner will have higher number of winners with higher number of errors and their total will also be relatively high. The play of an counter puncher is quite opposite to the aggressive baseliner, A counterpuncher, also known as the pusher, is a consistent defender. They almost never take a chance and are highly unlikely to hit winners because they will rarely take a chance. As a result they will have least winners and least errors. So I have chosen winners, errors and total. I have ordered players according to that.

Data Pre-Processing: For my approach I have assembled the data of all the players by averaging the three variables from all the games played by the individual player regardless of the player winning or losing the game.

Visual Elements: I have chosen horizontal bars representing winner, total and error on same bar. I have represented total and winner with shades of green as they favor wining the game and error with red as it works opposite. The origin is between total and error to show opposite sides. I have ordered the players in descending order from type of aggressive baseliner play to counterpuncher play. This is not perfectly accurate but gives idea about the playing type of player, at least in that 10 final games. I have added legend to represent the color with variable name to show what color represent what variable. I have added sticker of man playing tennis as this visualization is based on the tennis game. I have added 5 emojis representing the play I would like (Aggressive Baseline) to play which I would least like (Counter Puncher) on vertical axis. The size of the heading (Aggressive Baseline) is large as compared to Counterpuncher and the size of emojis also decrease as we go down which represents the likeliness of aggressive baseliner to counterpuncher.

Conclusion: According to my visualization Roger Federer, Novak Djokovic, Rafael Nadal have similar aggressiveness in play which is also true in general. Novak Djokovic and Rafael Nadal are generally perceived as aggressive player where Roger Federer is considered as All Court player which is also an aggressive play.