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#### Sports Betting in the NBA

#### **Overview**

Sports betting in the NBA is a popular and growing industry. Fans and enthusiasts of the sport can place bets on various outcomes, such as the winner of a game, the score at halftime or at the end of the game, the total number of points scored by a single player, and many other options. With the proliferation of online sports betting platforms, it has become easier than ever for individuals to place bets and participate in the excitement of NBA games. To that end, modern player-tracking technology and team analytics has made access to accurate and up-to-date information an important factor in successful sports betting. This includes statistical data about players, teams, and past performance, as well as information about injuries, trades, and other news that may impact the outcome of a game. Designers of sports betting software have recognized the importance of organizing this information in a way that is easily accessible and actionable for users. This has led to the development of sophisticated tools and interfaces that enable users to track odds, compare statistics, and make informed decisions about their bets.

## What is being organized?

The NBA is a complex system with many variables that can impact a game's outcome, such as player injuries, team morale, and game location. To effectively bet on NBA games,

Joshi 1

individuals need to track and compare odds, statistics, and other data to identify profitable opportunities. In the world of sports betting, the ability to leverage intuitive interfaces and algorithms or software programs that use machine learning and artificial intelligence to analyze data and generate predictions is essential for making informed decisions.

# Why is it being organized?

The primary interaction in sports betting is between the user and the data. To optimize this interaction, designers must prioritize which information to display and how to present it. For example, should the software focus on individual player statistics, or team statistics? The answer depends on the individual's betting strategy, which the designer should understand and accommodate in the software's design. Additionally, designers must consider the tradeoff between displaying too much information and overwhelming the user, or displaying too little information and not providing enough context for the user to make informed decisions. These challenges can be characterized through a taxonomy of betters:

- Novice bettors: These are users who are new to sports betting and may not have a deep understanding of the game or the betting process. For these users, the software should provide clear and concise information, with a focus on educating them about the basics of sports betting. The software should also provide suggestions and guidance on which bets to place, based on simple strategies like betting on the favorite or betting on the underdog.
- 2. Casual bettors: These are users who enjoy sports betting as a hobby and may place bets occasionally. For these users, the software should provide a user-friendly interface that allows them to quickly find the information they need to make informed decisions. The

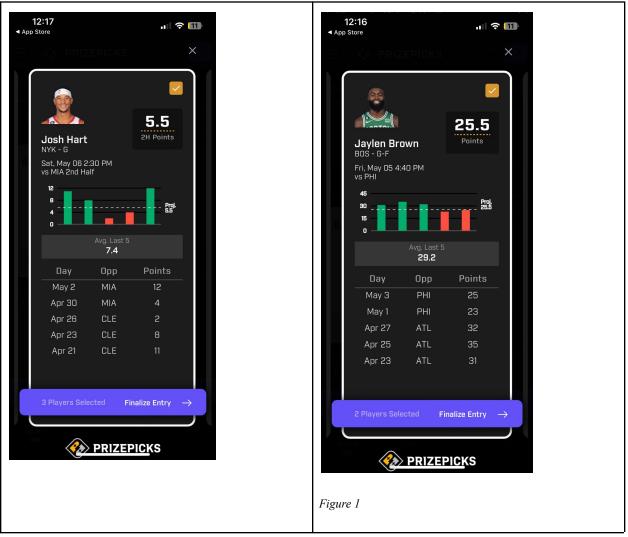
software should also provide a variety of betting options and allow users to customize their betting experience based on their preferences.

- 3. Professional bettors: These are users who bet on sports as a full-time job and have a deep understanding of the game and the betting process. For these users, the software should provide advanced statistical analysis and the ability to customize the software to their specific betting strategies. The software should also provide real-time data and alerts to help these users identify profitable betting opportunities.
- 4. High-stakes bettors: These are users who place large bets and may have a higher tolerance for risk. For these users, the software should provide up-to-date information on odds and allow them to quickly place bets with high betting limits.

Designers of modern sports betting platforms prioritize the needs of different types of bettors and are forced to consider how different features of the software may impact each group. By doing so, designers can create sports betting software that provides a personalized and effective betting experience for all types of users.

## How is it organized?

The organizing principles for sports betting software center around providing users with actionable insights. To do so, designers prioritize organizing information by relevance and granularity. Relevant information should be displayed prominently, while less important information are accessible but not intrusive (Figure 1). As such, granularity is tailored to the user's betting strategy. For example, in the images below, the user's strategy is to focus on individual player statistics; thus, the software displays individual player statistics with the option to drill down to specific game data.



The software's organizing is being done by designers who are experts in data management and user experience design. Designers work in collaboration with developers who build the software and data analysts who provide insights into trends and patterns in the data.

To enable the desired interactions, designers consider the software's user interface. Visualizations can be used to simplify complex data and highlight important trends. For example, designers could display a player's shooting percentage over the last 10 games as a line graph, allowing users to quickly identify trends in the player's performance. Additionally, filters and search functionality can help users quickly find the information they need, reducing cognitive load and making the software more user-friendly.

Finally, designers prioritize integrating data from multiple sources. Data can come from a variety of sources, such as NBA team websites, online sportsbooks, and social media. By integrating data from multiple sources, designers can provide users with a comprehensive view of the game, reducing the likelihood of missing important information that could impact their betting decisions.

#### When is it organized?

Sports betting information in the NBA is being organized continuously, as new data is generated for each game and updated statistics become available. Designers of sports betting software are responsible for organizing this information in a way that is relevant, easily accessible, and actionable for users.

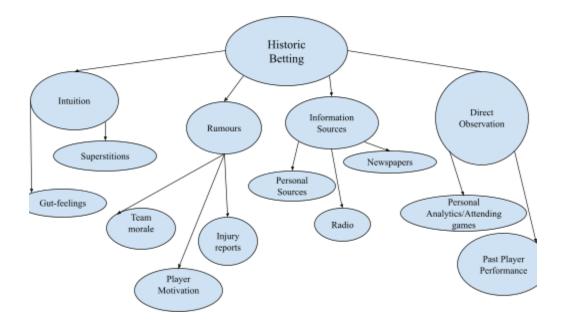
#### Where is it organized?

The software is organized in a digital environment, usually in a dedicated platform or app that users can access on their computers or mobile devices. The organization of information happens through various interfaces, such as tables, charts, graphs, and other visualizations. The software may also include search functionality and filters to help users quickly find relevant information.

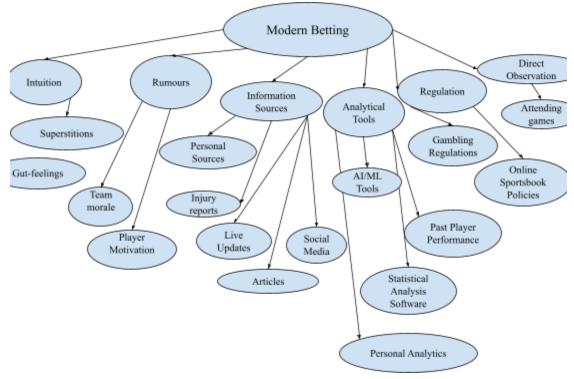
In terms of physical location, the organization of sports betting information in the NBA can happen anywhere. Designers, developers, and data analysts can work remotely from various locations and collaborate online. The software is accessible to users worldwide and can be used from any location with an internet connection.

# Artifacts

# Historic Betting Inputs



Modern Betting Inputs



When we directly compare the differences between the historical and modern betting processes, it's very clear that the field has developed into a full-fledged industry over the past 100 years. The stark contrast between the inputs that go into both decision-making processes results in a wildly different organizational system. The weight that different people in the taxonomy assign to each factor can vary depending on their goals, skill levels, and preferences. For bettors with access to modern decision-making inputs:

- Novice bettors may rely heavily on historical data and current season data, as these factors are easy to understand and provide a basis for comparison between teams. They may not have a deep understanding of game-specific data or betting market data.
- 2. Casual bettors may place more weight on game-specific data, as they may be more interested in the excitement of the game itself rather than the long-term trends of the teams. They may also pay attention to betting market data to get a sense of which team is the favorite among the general public.
- 3. Professional bettors may place a lot of weight on betting market data, as they are looking for value in the odds and want to take advantage of inefficiencies in the market. They may also use advanced statistical analysis to identify patterns and trends that are not readily apparent to novice or casual bettors.
- 4. High-stakes bettors may be less concerned with the specifics of the data and more focused on the overall picture. They may use a combination of different factors to make a decision, including gut instinct and personal experience.

In contrast, historical bettors had access to fewer decision-making inputs. Instead, they

Joshi 8

would have relied more on anecdotal evidence and personal observation and may have placed more weight on game-specific factors that had a more significant impact on the outcome of the match. However, the principles of effective sports betting, such as identifying value and managing risk, would still have been essential even in the absence of modern data and technology.

## Conclusion

Comparing the modern sports betting system to methods hundreds of years ago highlights the significant impact that technology and data have had on the industry. While sports bettors in the past may have relied more on personal observation and anecdotal evidence, modern sports betting is characterized by the abundance of data and the sophisticated technology that enables its analysis. While this case study focuses on the specifics of sports betting in relation to the NBA, modern data and technology are being used in many different sports and provide an example of how automation is transforming many aspects of human life. With the introduction of machines that can understand games at a deeper level, it isn't outlandish to expect automation to soon seep into other parts of sports. Beyond sports, the development of sophisticated tools and interfaces to organize complex information is gaining popularity. Looking toward the future, it's exciting to imagine many of the same techniques used in sports betting being leveraged to organize large amounts of data in an informative, comprehensive manner.

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