

DATA

UNK



AN INVESTIGATION INTO
DATA-DRIVEN DECISION MAKING
IN BASKETBALL

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1

TABLE OF CONTENTS

- 01 The Purpose of Data Dunk
- 02 What is Data Driven Decision-Making (DDDM)?
- 03 Why Teams Use Data
- 04 The Outcomes of DDDM in Basketball
- 05 My Outlook on Data in Sports
- 06 The Bigger Picture
- 07 Concluding Remarks
- 08 Works Cited



THE PURPOSE OF DATA DUNK

This zine looks to explore the implementation of data-driven decision making (DDDM) and its dynamic effects on the sport of basketball.

The implications of this injection of data in professional sports not only calls to the business and financial side but also the social and cultural ties to sport.

We can look through a neo-liberal framework which informs us how data implementations in sport may promote a more “enterprise society”. This implies the capitalistic values through which data implementations are justified, and in turn “look to regulate and discipline the subjectivity and productivity of bodies [1].

The potential homogenization of basketball is a factor to consider. Data encourages very strict and exacting strategies, offering little to no wiggle room for players to be creative or play how they want. This is the non-aesthetic side of sports.

Furthermore, data can’t always see the entire picture. As much as sports are analytical, there is context and subjectivity to each player.

What does this say about one of the world’s most popular sports? What are the broader implications of the datafication of sports? Flip through and find out!



WHAT IS DATA-DRIVEN DECISION MAKING?

Data-driven decision making (DDDM) involves the collection and interpretation of various key data points in order to make strategical and analytically informed decisions [2].

The implementation of DDDM in basketball revolves around the process of making better decisions for an organization’s success. Whether these decisions be how an organization approaches growing their business, how a team selects the players for their squad, or even where players should shoot the ball for the best chance of scoring [2].

Daryl Morey (shown below) is one of the pioneers of implementing data into the decision making of his team, the Houston Rockets. [3]

As the general manager of relatively average NBA side, Morey used his data analytics background from MIT to make more informed decisions about his team. Boosting the Rockets to becoming one of the most feared organizations in the league.





WHY TEAMS USE DATA

The sports industry at large is a global gargantuan related to economical and cultural growth [4]. Being so consequential to the global society, the decision-makers of sports must be willing to get whatever upper hand they can take.

Analytics embody the neo-liberal and capitalistic values that look to use data to compensate for the human error in decision making [1].

Sports management look to bolster their organization with effective interpretation of data. And as far as any entertainment industry is concerned, the “goal of producing compelling content that accomplishes financial success remains universal” [5].

Making better decisions through the use of data is now a large factor for success and success is a marker of capital gain amongst sport organizations. This snowballs into further success and continuous positive financial outcomes.

In short, better decision making, leads to more success, yielding positive economic outcomes, which repeats and repeats.

It all boils down to “the discovery, interpretation, and communication of meaningful patterns in data toward effective decision-making” [5].



THE OUTCOMES OF DDDM IN BASKETBALL

With this emphasis on perfect decision making in sports, what are its implications in basketball and more specifically, the NBA?

1. Shorter Shooters

Trending research shows that players are becoming shorter and lighter, adhering to this new style of basketball called small-ball [6]. This affects the way organizations select the players they want for their team [7]. Smaller, more technical players are valued. This limits the amount of bigger, more physically dominant players, making them a dying breed.

2. Drafting Decisions

Teams that use data to inform both their player drafting/ selection processes and marketing affairs benefit from the growth of their organization’s increased following. In other words, data helps teams grow their fanbase, resulting in more financial gain.

3. Creativity Constraints

Since data encourages a more strict way of playing, the game becomes more rigid. Small-ball becomes a lot more prevalent [6]. This holds implications to the way the game is consumed - do people like this new, constrained style of playing?



SHORTER SHOOTERS

The Golden State Warriors are a large benefactor of data implementations. In large part, due to their use of data, they have revolutionized the league with a “small ball” style of playing. They learned that they could unconventionally utilize smaller players, passing, three-point shooting and teamwork, to win [6]. With their success, the Warriors have turned players like Stephen Curry (below) into household names. The Warriors are the shortest team to ever win a championship...

Other teams in the league recognized that they can do the same exact thing. Find smaller, more technical players, stick to a similar system and achieve the ultimate goal: win.



Source: Front Office Sports
(<https://frontofficesports.com/steph-curry-under-armor-lifetime-deal/>)

We can see that due to data implementation, teams like the Warriors (claiming 4 NBA titles since 2015) have been significantly more successful than teams that don't use data to inform their decisions. Stephen Curry is the poster boy of 3-point shooting, small-ball, and success regardless of height. He has revolutionized the game, proving that smaller players in the correct system can thrive.

Throughout roughly the last decade, the average height of NBA players has decreased. Going from 6'6.99 in 2007, the year before Daryl Morey and his data approach entered the league, to 6'6.33" in 2021 [8]. These changes imply the way the game is played has certainly evolved: From less physically dominant players to more skill and technical ones, higher frequency of the “small ball” style of playing, less expression of physicality and more emphasis on output over aesthetic.

THE NON-AESTHETICS

stemming from neoliberal capitalist values, and the implementation of DDDM, rises the non-aesthetics of sports.

As the involvement of data grows in sports, there is a narrative that, at the same time it objectively makes sports better, it detracts from some of the more subjective qualities. “While analytics may, in fact, represent a more highly evolved and superior means of dictating strategy, any argument that they make sports more captivating to watch in and of themselves is a more precarious notion” [1].

Gregg Popovich, widely renowned as one of the best head coaches of all time in the NBA says: “There’s no basketball anymore, there’s no beauty in it... The first thing you see is 3 (pointers). If you made 3s and the other team didn’t, you win [9].

This insistence on perfect decision making has dug its claws into basketball. And, while organizations yearn to apply data and its advantages to their team, the sport as a whole takes an unappealing hit to its aesthetic and conception.



“I HATE IT” [9]

Gregg Popovich on the emphasis of the 3pt shot in the modern game.

DRAFTING DECISIONS

DDDM can also be a potentially advantageous tool for the drafting/ player selection process of NBA Teams. However, it can also hold certain complications.



For instance, the Toronto Raptors implemented a command center, ferociously called “The War Room”, built by IBM [10]. This center was able to extrapolate and interpret large amounts of data to inform management on different scouting reports, trade scenarios and player selection. With this, the Raptors learned what they needed to win. They drafted Pascal Siakam the following year who in the next two seasons, helped them win their first ever NBA Championship.

As we can see, data driven decisions have their pros and cons related to player selection process of a team. Data in this example is limited in its ability to predict the human behavior that is crucial to the success of teams and their systems. An overreliance on data can bring about poor outcomes. It’s good to be mindful when using data in this context.

Yet, DDDM has fallen short in the past. Relating back to Daryl Morey’s data driven Rockets, their player selection data failed to predict a new player’s impact can have on the team’s chemistry. Dwight Howard, one of the best big men in the league at the time, was acquired by the Rockets. On paper, they would tear up the league with this acquisition. However, the data couldn’t account for Howard’s poor behaviour, resulting in a fairly unsuccessful end to his time in Houston.

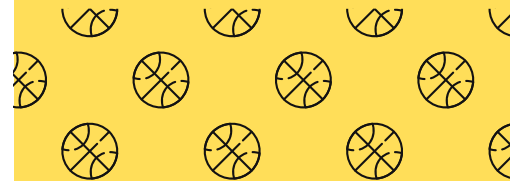
CREATIVITY CONSTRAINTS

A heavily criticized subject of this new way of play, James Harden, has objectively had great success, yet many downfalls with this small ball style of play.

Harden is known for his tight dribbling, foul provoking and three-point game, with a unique playing style that stems from taking the most high percentage shots for more points. The shift towards small ball and the emphasis towards smaller, more technical players has had drastic involvement in the homogenization of the way the game is played.

Furthermore, this persistence on small-ball and perimeter play takes the emphasis away from other styles of playing. With less priority on players who may be more creative, dynamic and physically dominant, audiences now have to become accustomed to this systematic style of play, with the large insistence on output over aesthetic.

“THERE ARE QUESTIONS WHETHER THIS SHIFT IS RUINING PROFESSIONAL BASKETBALL” [11]



MY OUTLOOK ON DATA IN SPORTS

These instances of data in the NBA look to highlight the decision making processes of teams, and also hints at the capitalistic motivations behind such decisions. Data runs deep in the sport of basketball. Teams now more than ever adopt DDDM in order to make “better” decisions with the objective of success for financial gain. However, many things in the name of success, or financial gain, are sacrificed from the sport.

Not that shorter and lighter players are necessarily a bad thing, but the game is subjectively not the spectacle it once was. The superhuman athletes that once held reign in the league are now the exception. The game is moving closer and closer to being played one way... and that’s boring.

People want to see creativity athleticism, and personality. Not this systematic style of playing, with every footstep and dribble of the ball calculated to a tee. Yet, the teams that can most successful harness the power of data are reaping the rewards.

Revolutionizing the league by quite literally changing the way the game has been played for decades lies in the hands of a data informed decision makers. Their decisions have led to a number of good and bad things, from success, to the static conformity of play in the league.

CONT'D: MY OUTLOOK ON DATA IN SPORT

How to interpret the way data effects basketball is up to the individual. Would you prefer a more fixed, one-dimensional sport if that means your team exhibits success? Or would you like to see your team with a unique identity; playing how they want play and not how they need to play.

Professional basketball organizations are businesses at the end of the day. Compromising a unique style of play is most likely nothing to them if that means they can bring a championship home, many fans would say the same. What do you say?

DDDM is skillfully dribbling its way into not only other sports, but other forms of entertainment and recreation. The creative and unexpected factor of sports is what makes it fun. Adding a predictive element to sports might allow people not enjoy this new rigid system. With more and more teams implementing DDDM, players might not be as willing to take risks, and instead conform to the strict game plan devised pre-match. Enjoying sports is a large part of global culture. Sports teams can be apart of people’s identities. if people don’t enjoy these implementations of data in basketball, it could have negative implications towards the culture of the sport. The datafication of sport bodes to the datafication of life. With more and more systems adopting data driven approaches, what are its implications to the everyday systems which we interact with?

THE BIGGER PICTURE

The cultural impact of data driven decision-making in not only basketball, but many other sports, serves as an example of the broader implications of data informed decisions in all walks of life.

The datafication and quantification of our personal lives, our health, fitness, consumption and more, is becoming normalized [12].

As we can see, data in sports has the ability to sway opinions about the aesthetic of sports. It can tarnish the intrinsic beauty of the things we enjoy. Things like sports that are so culturally and economically influential.

A critical perspective of the datafication of the things we so greatly enjoy in life can help us better identify how these things have changed, and potentially help us mitigate said changes.

With neoliberal capitalism tightening its grip on the sports industry, we can understand that this is the nucleus of the datafication, quantification, and homogenization different walks of life

Who knows, in 30 years there might be NBA teams made of robots, never missing a shot. Until then, I strive to see more innovation on the court versus from a computer.



CONCLUDING REMARKS

This zine looks to explore the relationship of data driven decision-making with professional sports.

We find that data has many interesting applications which often benefit the organization utilizing it. Yet, DDDM and its implications don't just effect the organization and team, it has other wide-reaching ramifications surrounding the culture of sport.

This zine covers the drastic changes DDDM can create, such as the decrease in average height of the average NBA player, the systematic player selection process, or the standardized style of play in basketball.

The impact of these changes is affects the culture of sport as a whole. Do audiences like these changes? Since DDDM might offer more success to their organization, would fans prefer this analytical approach, or do they want to maintain integrity of the traditional style of basketball?

These are all questions basketball fans might contend with in this new age of sport.



WORKS CITED

- Hillman, C. (2023). Sports have changed, you can bet on it: The rise of the non-aesthetic in sports. *Explorations in Media Ecology*, 22(2), 205–222. https://doi.org/10.1386/eme_00161_1
- Eppel, Y., Kaspi, M., & Painsky, A. (2023). Decision making for basketball clutch shots: A data driven approach. *Journal of Sports Analytics*, 9(3), 245–259. <https://doi.org/10.3233/JSA-220682>
- Abbas, N. M. (2019, August 21). *Nba data analytics: Changing the game*. Medium. <https://towardsdatascience.com/nba-data-analytics-changing-the-game-a9ad59d1f116>
- Smart, B. (2007). Not playing around: Global capitalism, modern sport and consumer culture. *Global Networks*, 7(2), 113–134. <https://doi.org/10.1111/j.1471-0374.2007.00160.x>
- Behrens, R., Foutz, N. Z., Franklin, M., Funk, J., Gutierrez-Navratil, F., Hofmann, J., & Leibfried, U. (2021). Leveraging analytics to produce compelling and profitable film content. *Journal of Cultural Economics*, 45(2), 171–211. <https://doi.org/10.1007/s10824-019-09372-1>
- Brady, B. (2017, November 1). *Maybe we should call it skinny-ball: Weight vs. height in the NBA*. The Harvard Sports Analysis Collective. <https://harvardsportsanalysis.org/2017/11/maybe-we-should-call-it-skinnyball-weight-vs-height-in-the-nba/>
- Tamayo, Y. (2022). The new basketball body: An analysis of corporeity in modern NBA basketball. *Semiotica*, 2022(248), 279–297. <https://doi.org/10.1515/sem-2022-0073>
- Curcic, D. (2024). *70 years of height evolution in the NBA [4,504 players analyzed]*. RunRepeat. <https://runrepeat.com/height-evolution-in-the-nba>
- Post Staff Report. (2018, November 29). *Gregg Popovich hates the way the NBA game is played now*. New York Post. <https://nypost.com/2018/11/29/gregg-popovich-hates-the-way-the-nba-game-is-played-now/>
- Nibletto, P. D. (2016, February 23). *Toronto raptors recruit IBM to build 'digital war room'*. IT Business. <https://www.itbusiness.ca/news/toronto-raptors-recruit-ibm-to-build-digital-war-room/65828>
- Dator, J. (2021, March 10). *The NBA is at a breaking point with three-point shooting*. SBNation. <https://www.sbnation.com/nba/2021/3/10/22323023/nba-three-point-shooting-breaking-point>
- Mascheroni, G. (2020). Datafied childhoods: Contextualising datafication in everyday life. *Current Sociology*, 68(6), 798–813. <https://doi.org/10.1177/0011392118807534>
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