SOCCER Expected GOALS

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01
Overview

Motivation behind Research
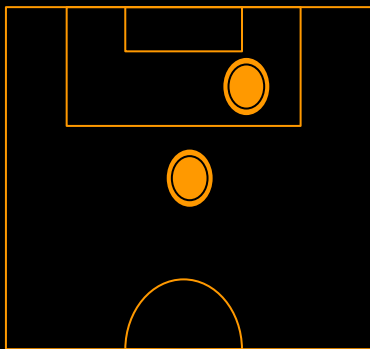
$ 7 Billion

Revenue

4.3 Billion

Audience

The English Premier League is the **most watched** league in the world.
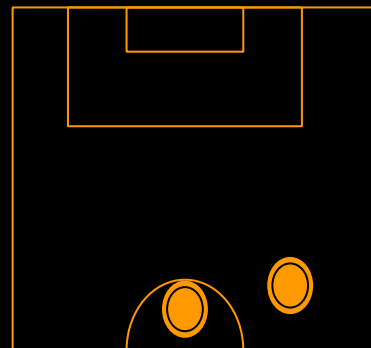
Research Question

Is chance creation or chance conversion more valuable to a team's success in soccer?

What is (xG)?

POSITION ON THE FIELD MATTERS

Chance Creation

What is Chance Conversion?

??%

FINISHING

Goals over Expected:

G - xG

02
Methodology

Data Collection

Expected Goals (xG)	Over/Underformance of Expected Goals (G - xG)	Result
2.7	-0.7	1
3.12	-0.12	1
0.87	0.13	0
2.24	0.76	1

K-Nearest Neighbor

01   **Model**

Used KNN where K = 5

02   **Features**

X = { xG, DiffxG }

03   **Label**

Y = {Binary Result of Game}

Season Long Forecasting

01 **Average by Case**

X1 = Avg Home, X2 = Avg Away

02 **Tie Qualifier**

λ = Avg tie / sqrt(21)

03 **Determine Winner**

Result (W, T, L) based on X1 v X2

Rolling average Forecasting

01 Average by Case

X1 = Avg Home, X2 = Avg Away

02 Tie Qualifier

λ = Avg tie / sqrt(num weeks)

03 Determine Winner

Result (W, T, L) based on X1 v X2

03

Results

Model Output

K	1	2	3	4	5	6	7	8	9	10
%	76%	74%	80%	75%	81%	78%	76%	76%	77%	79%

KNN Decision Boundary K=5
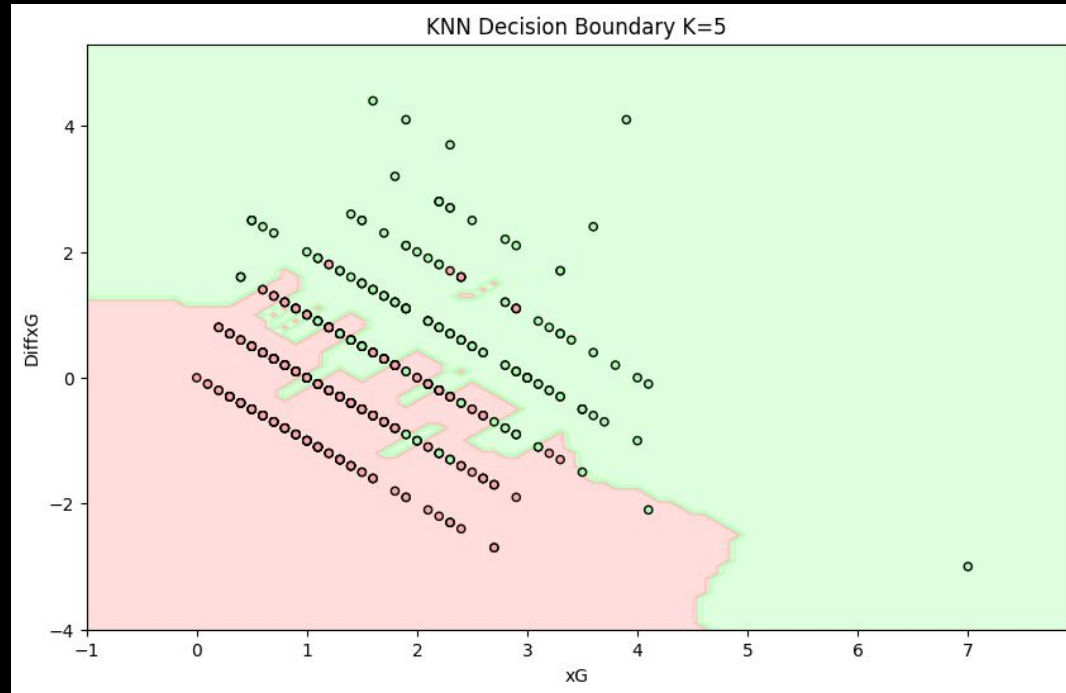
Predictions Output

60.0%

xG Accuracy

35.7%

G-xG Accuracy

58.9%

xG Rolling
Accuracy (r=3)

62.8%

G-xG Rolling
Accuracy (r=3)

04
Takeaways

Conclusion

xG ⪆ G-xG

05

Challenges & Learning

Questions?