



APRIL 28, 2025

NETWORKED MINDS: OPINION DYNAMICS AND COLLECTIVE INTELLIGENCE IN SOCIAL NETWORKS

WISE CROWDS

Adrian Haret
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WISE CROWDS?

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Let's start interactive.

Let's start interactive. Can you guess
the age of my grandmother (on my
father's side)?

Let's start interactive. Can you guess the age of my grandmother (on my father's side)? Closest three guesses get a reward.

MY GRANDMA'S AGE

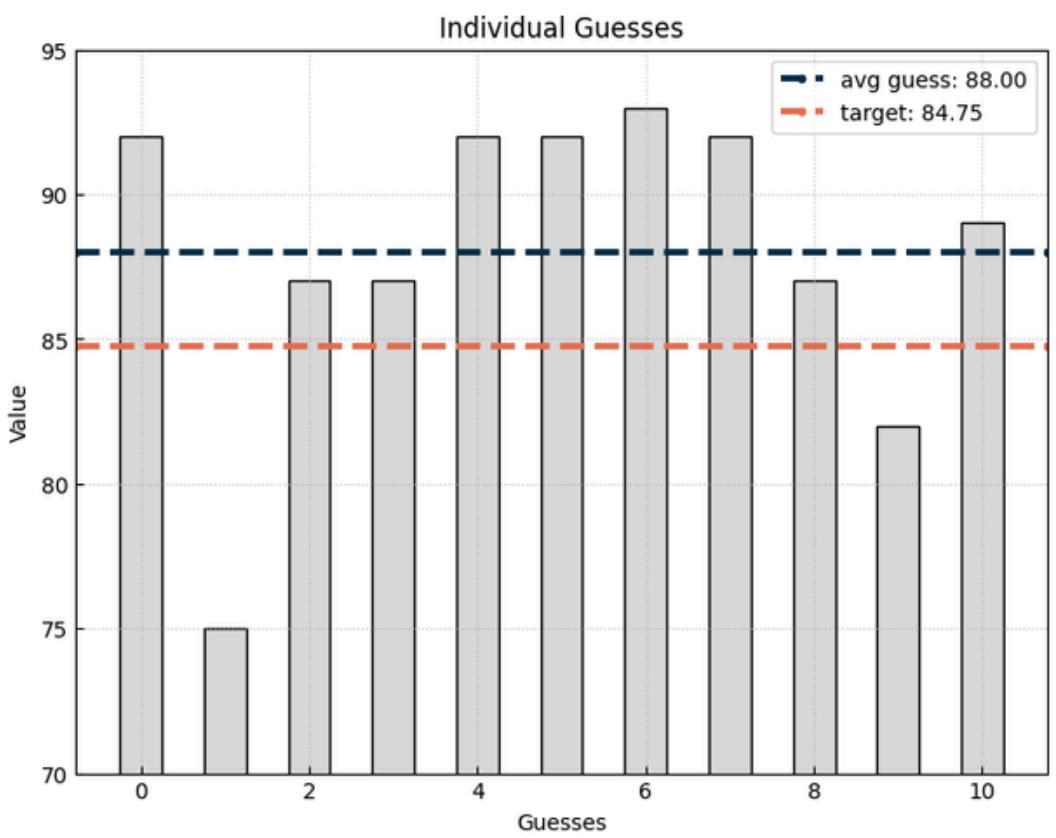
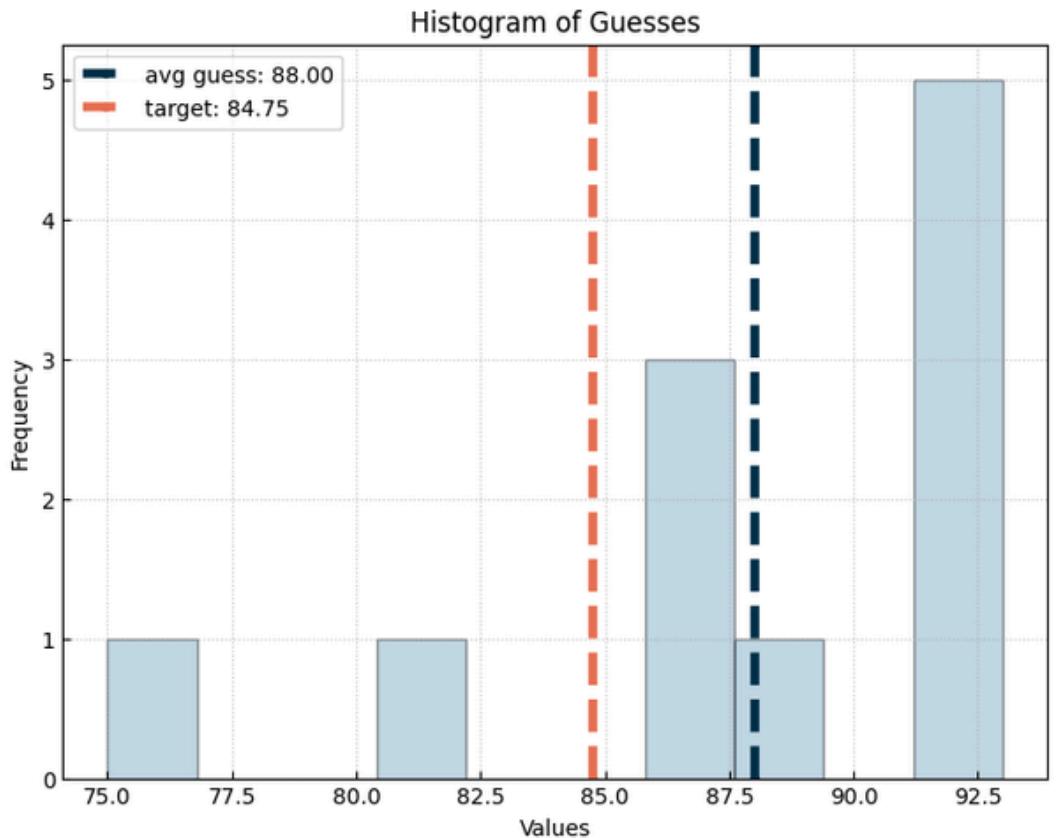
Turns out, my grandma is 84.75 years old.

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There were 11 guesses.

The average guess was 88.



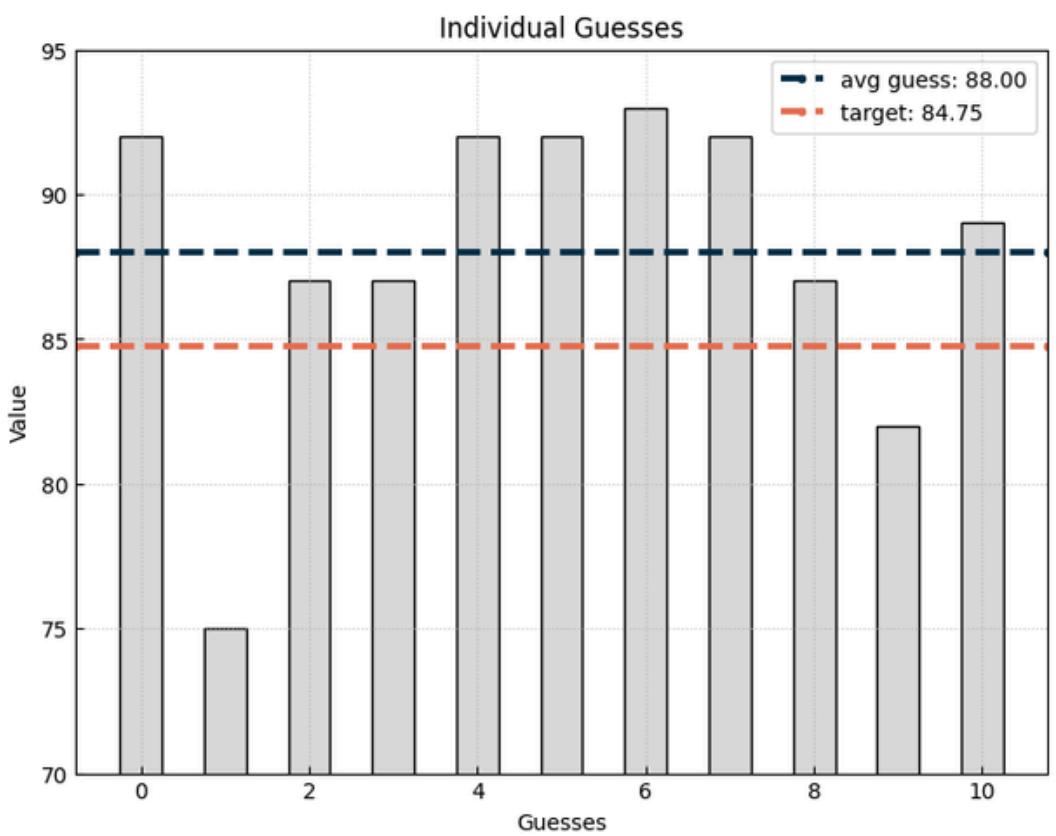
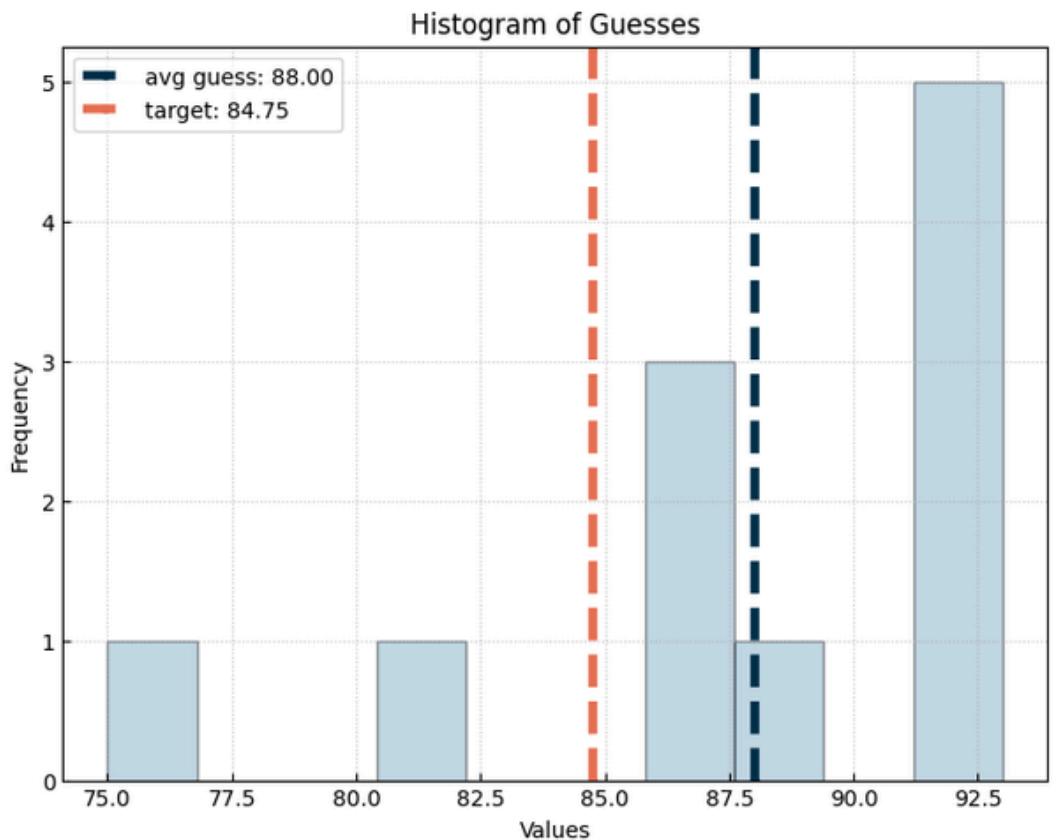
MY GRANDMA'S AGE

Turns out, my grandma is 84.75 years old.

There were 11 guesses.

The average guess was 88.

The three closest guesses were: 87, 87, 87, 82, 89.



Sometimes groups can be smart.



FRANCIS GALTON

If I may be allowed!

I can personally attest to the surprising accuracy of group judgment.

I mean, of course...



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If I may be allowed!

I can personally attest to the surprising accuracy of group judgment.

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the ox! 

COUNTRY MATTERS

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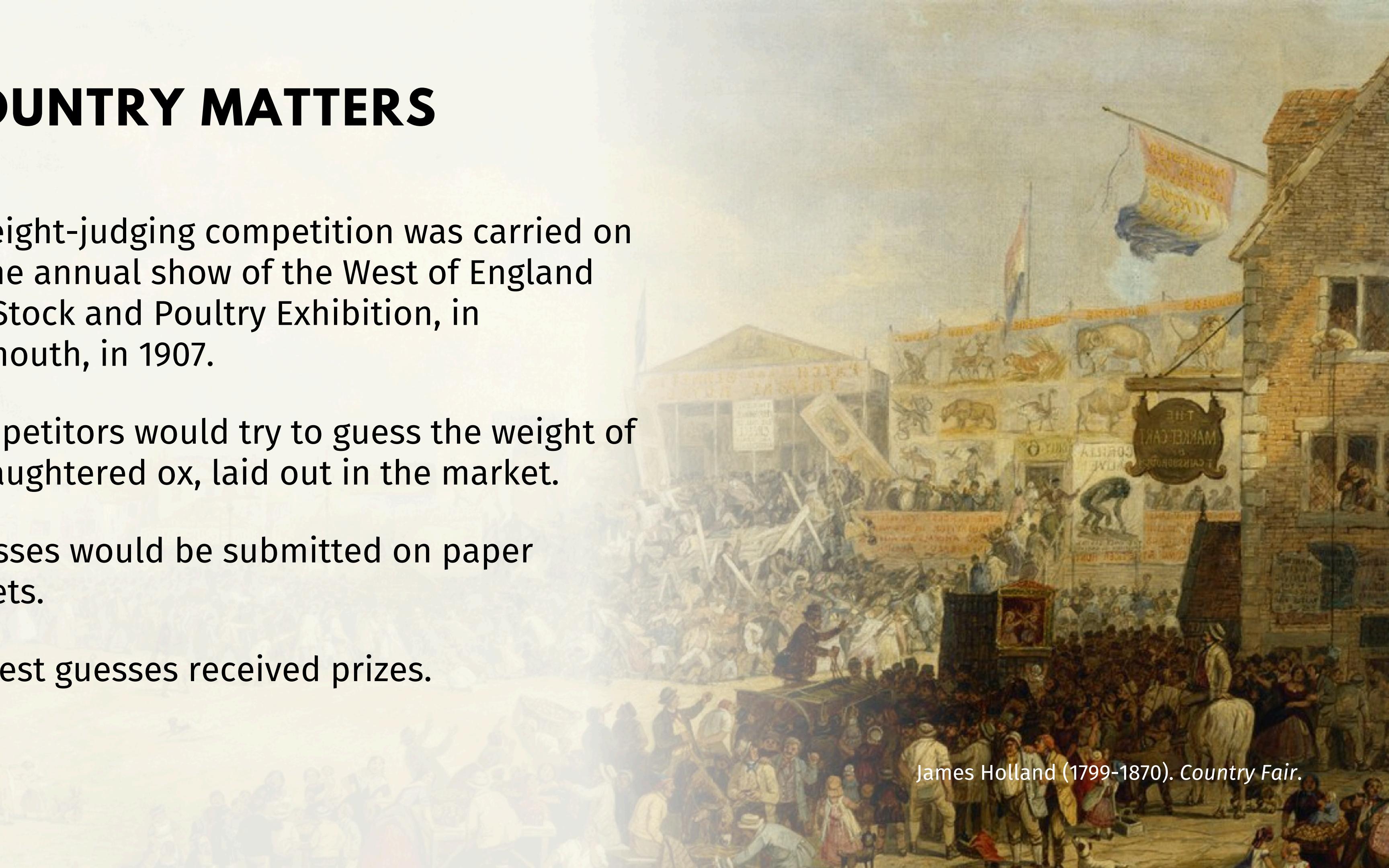
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Closest guesses received prizes.

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[MARCH 7, 1907]

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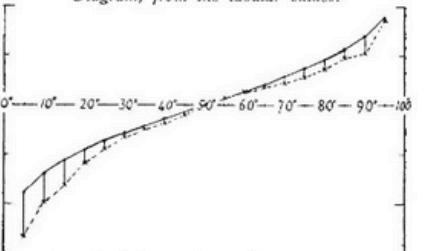
N.O. 1949, VOL. 75]

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		Observed deviates from 1207 lbs.	Normal p.e.=37	Excess of Observed over Normal
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5	1169	- 98	- 70	+ 28
10	1120	- 81	- 57	+ 24
15	1148	- 59	- 46	+ 13
20	1162	- 45	- 37	+ 8
q ₁ 25	1174	- 33	- 29	+ 4
30	1181	- 26	- 21	+ 5
35	1188	- 19	- 14	+ 5
40	1207	0	0	0
45	1214	+ 7	+ 7	0
m 50	1219	+ 12	+ 14	- 2
55	1225	+ 18	+ 21	- 3
60	1230	+ 23	+ 29	- 6
65	1236	+ 29	+ 37	- 8
70	1243	+ 36	+ 46	- 10
q ₃ 75	1243	+ 47	+ 57	- 10
80	1254	+ 52	+ 70	- 18
85	1267	+ 86	+ 90	- 4
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*q₁, q₃, the first and third quartiles, stand at 25° and 75° respectively.
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The dressed weight proved to be 1198 lbs.*

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Diagram, from the tabular values.



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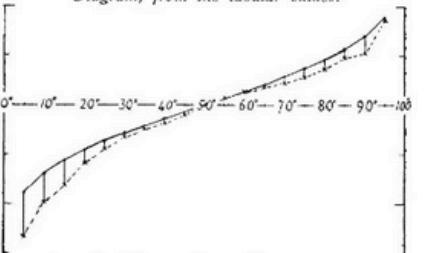
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q_1 25	1174	- 33	- 29	+ 4
30	1181	+ 26	- 21	+ 5
35	1188	+ 19	+ 14	+ 5
40	1197	+ 10	- 7	+ 3
45	1207	0	0	0
m 50	1214	+ 7	+ 7	0
55	1219	+ 12	+ 14	- 2
60	1225	+ 18	+ 21	- 3
65	1230	+ 23	+ 29	- 6
70	1236	+ 29	+ 37	- 8
q_3 75	1243	+ 36	+ 46	- 10
80	1243	+ 47	+ 57	- 10
85	1254	+ 52	+ 70	- 18
90	1267	+ 86	+ 90	- 4
95	1293			

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		450	NATURE			[MARCH 7, 1907]
			Distribution of the estimates of the dressed weight of a particular living ox, made by 787 different persons.			
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65	1230	+23	+29	-6		
70	1236	+29	+37	-8		
q ₂ 75	1243	+36	+46	-10		
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85	1254	+52	+70	-18		
90	1267	+86	+90	-4		
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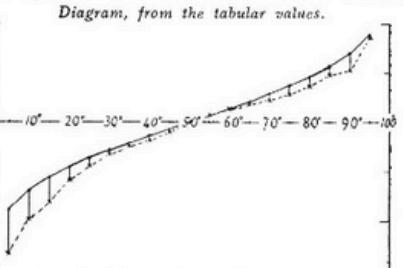
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By *middlemost* I mean what you might call today the median.

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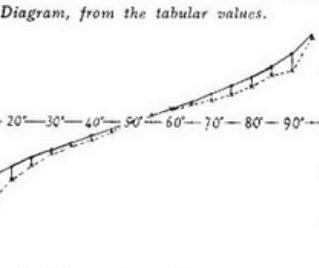
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COUNTRY MATTERS



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20	1162	- 45	- 37	+ 8		
q ₁ 25	1174	- 33	- 29	+ 4		
30	1181	- 26	- 21	+ 5		
35	1188	- 19	- 14	+ 3		
40	1197	- 10	- 7	+ 3		
45	1207	0	0	0		
m 50	1214	+ 7	+ 7	0		
55	1219	+ 12	+ 14	- 2		
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65	1230	+ 23	+ 29	- 6		
70	1236	+ 29	+ 37	- 8		
q ₂ 75	1243	+ 36	+ 46	- 10		
80	1243	+ 47	+ 57	- 10		
85	1254	+ 52	+ 70	- 18		
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q₁, q₂, the first and third quartiles, stand at 25° and 75° respectively.
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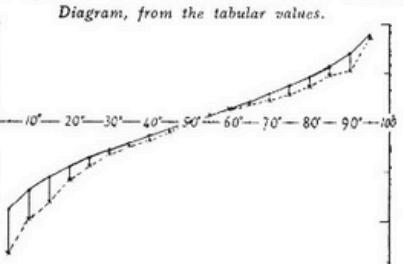
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A weight-judging competition was carried on at the annual show of the West of England Fat Stock and Poultry Exhibition recently held at Plymouth. A fat ox having been selected, competitors bought stamped and numbered cards, for 6d. each, on which to inscribe their respective names, addresses, and estimates of what the ox would weigh after it had been slaughtered and "dressed." Those who guessed most successfully received prizes. About 800 tickets were issued, which were kindly lent me for examination after they had fulfilled their immediate purpose. These afforded excellent material. The judgments were unbiased by passion and uninfluenced by oratory and the like. The sixpenny fee deterred practical joking, and the hope of a prize and the joy of competition prompted each competitor to do his best. The competitors included butchers and farmers, some of whom were highly expert in judging the weight of cattle; others were probably guided by such information as they might pick up, and by their own fancies. The average competitor was probably as well fitted for making a just estimate of the dressed weight of the ox, as an average voter is of judging the merits of most political issues on which he votes, and the variety among the voters to judge justly was probably much the same in either case.

After weeding thirteen cards out of the collection, as being defective or illegible, there remained 787 for discussion. I arrayed them in order of the magnitudes of the estimates, and converted the *cwt.*, *quarters*, and *lbs.* in which they were made, into lbs., under which form they will be treated.

NO. 1949, VOL. 75]



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This result is, I think, more creditable to the trustworthiness of a democratic judgment than might have been expected.

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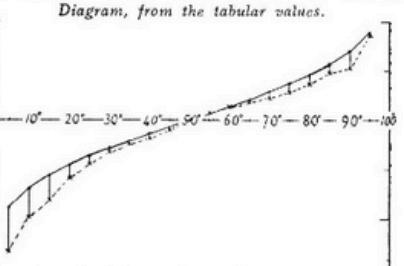
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Here's some examples.

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The market got it right!

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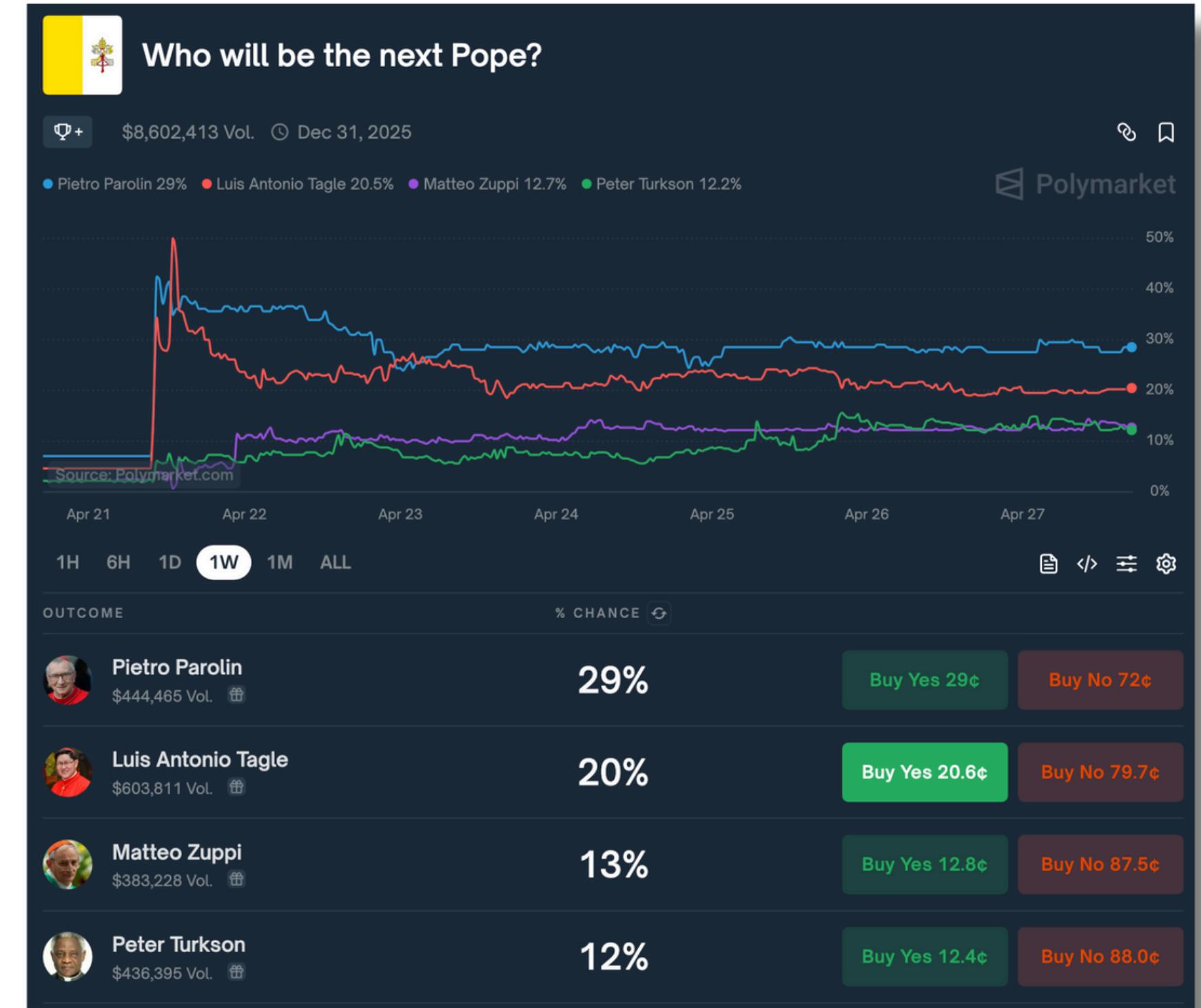
This is trying to understand the past. But we can also use the wisdom of crowds to predict the future.

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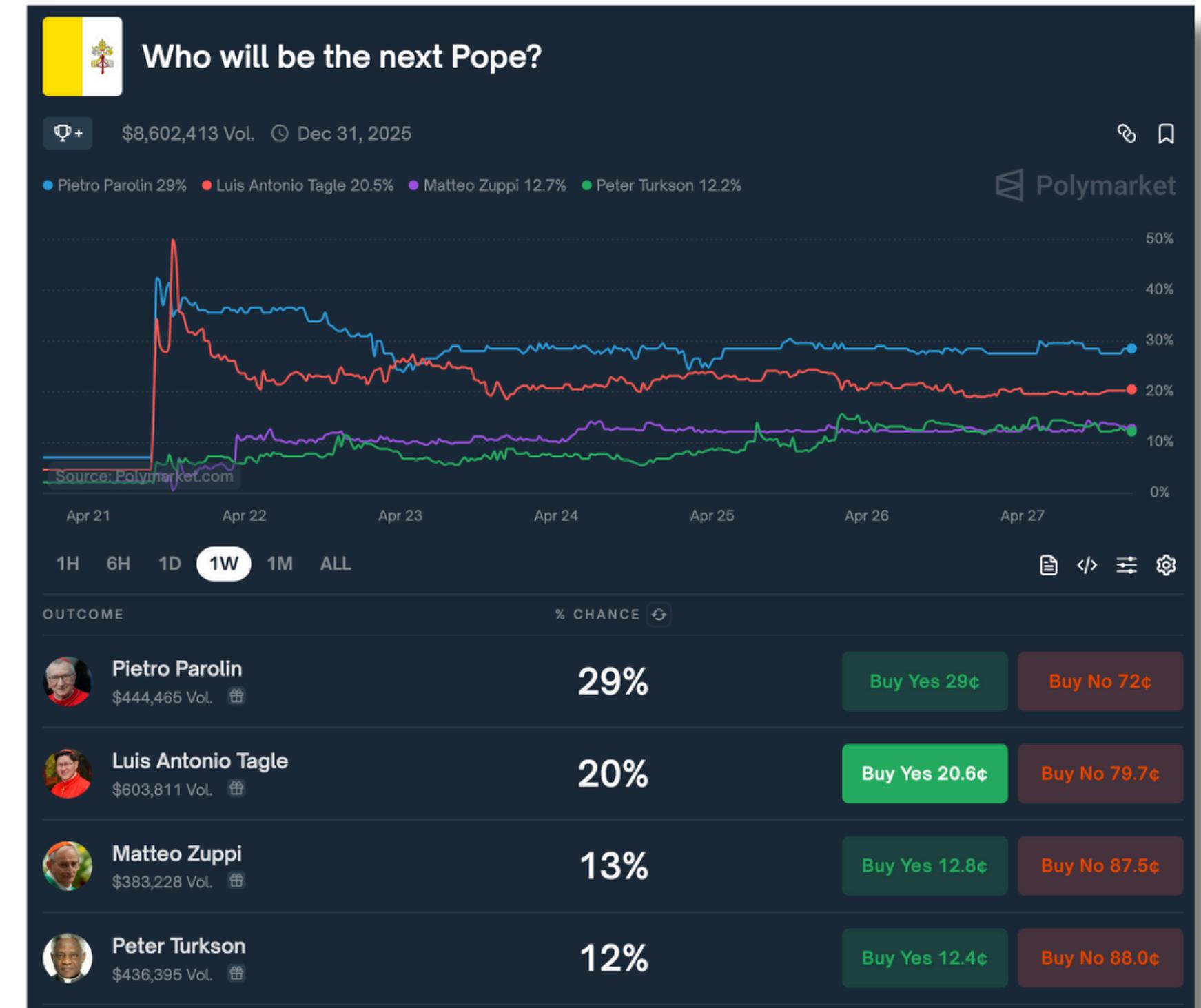


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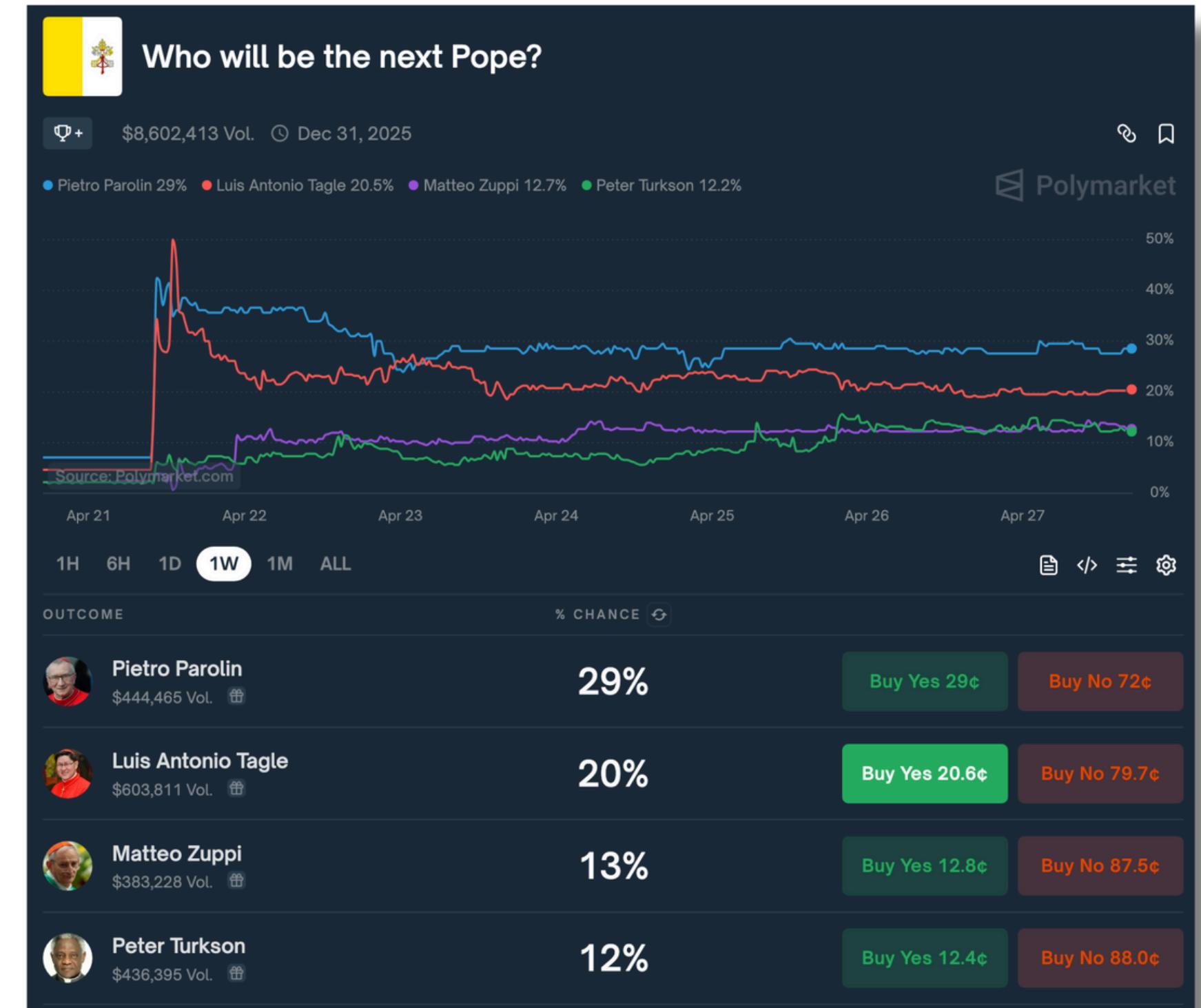
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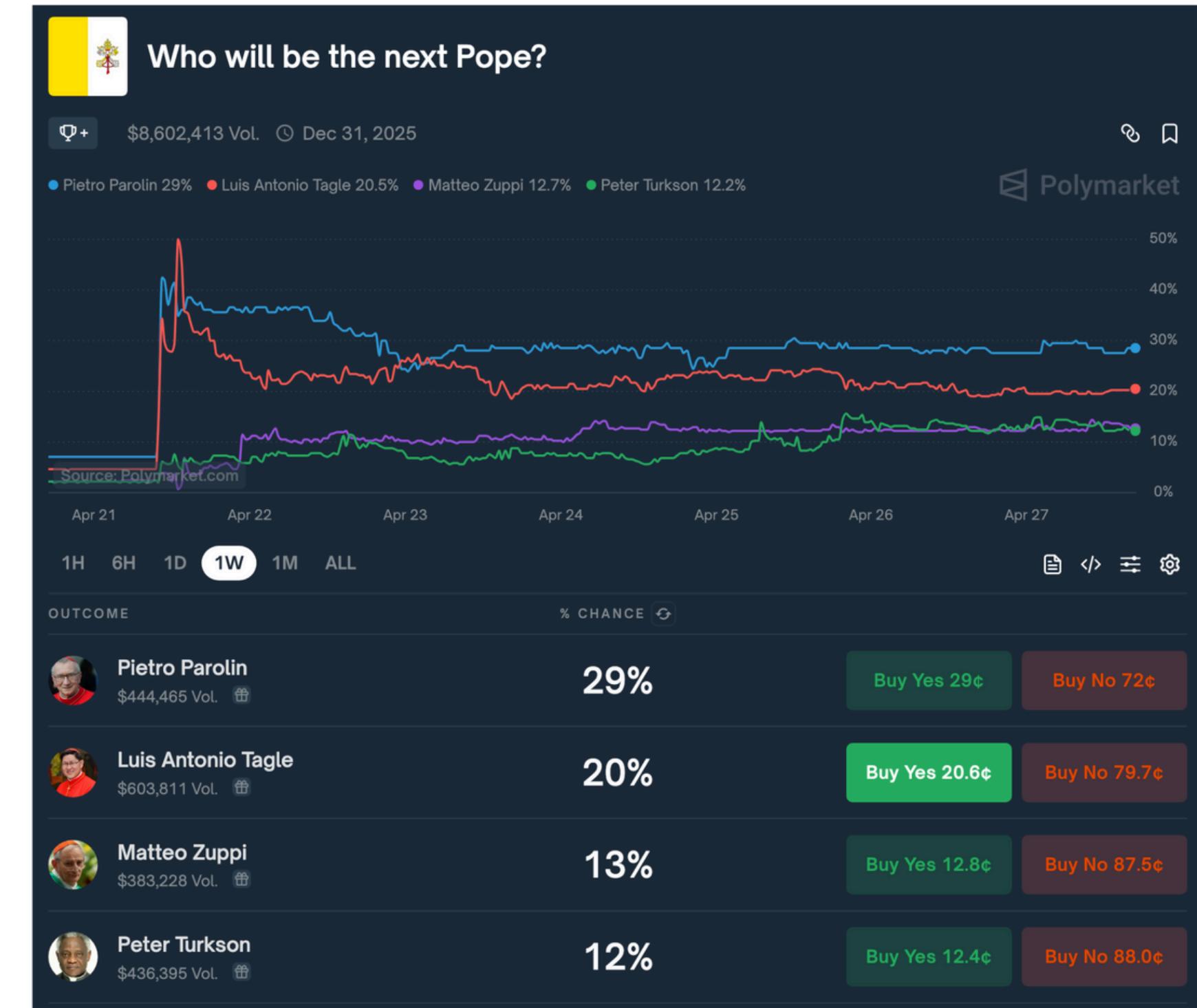
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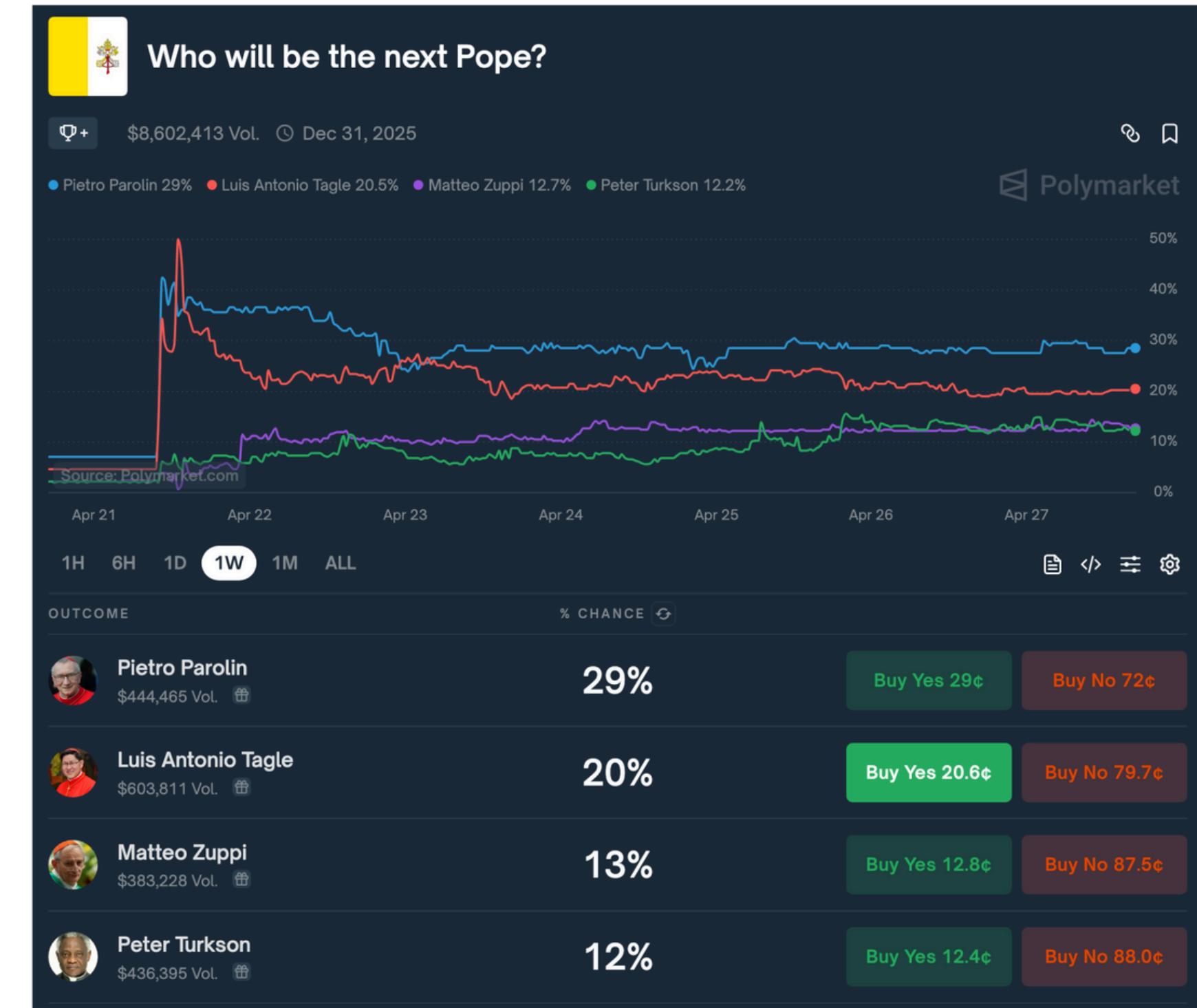
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And they seem to be pretty good!

Berg, J. E., Nelson, F. D., & Rietz, T. A. (2008). Prediction market accuracy in the long run. *International Journal of Forecasting*, 24(2), 285–300.



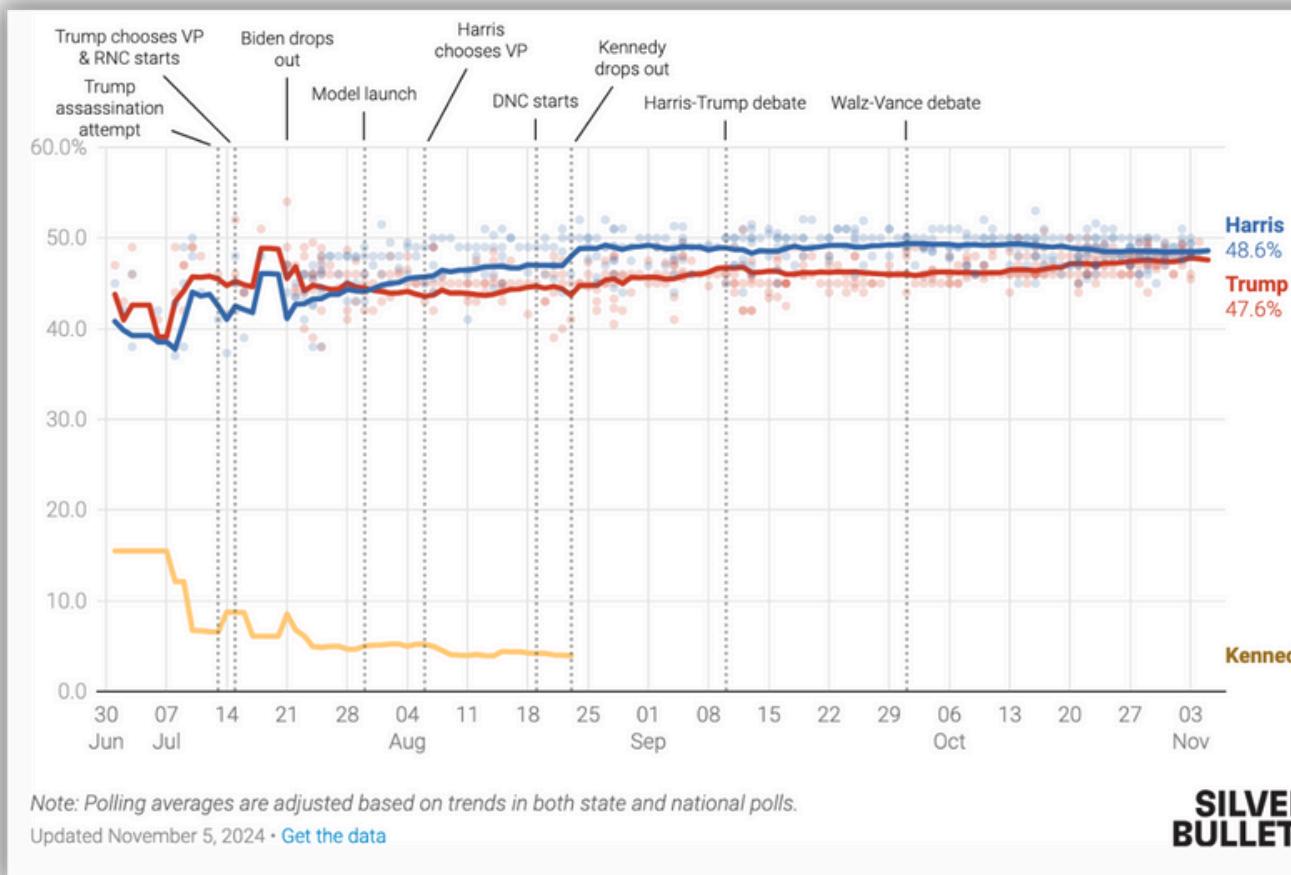
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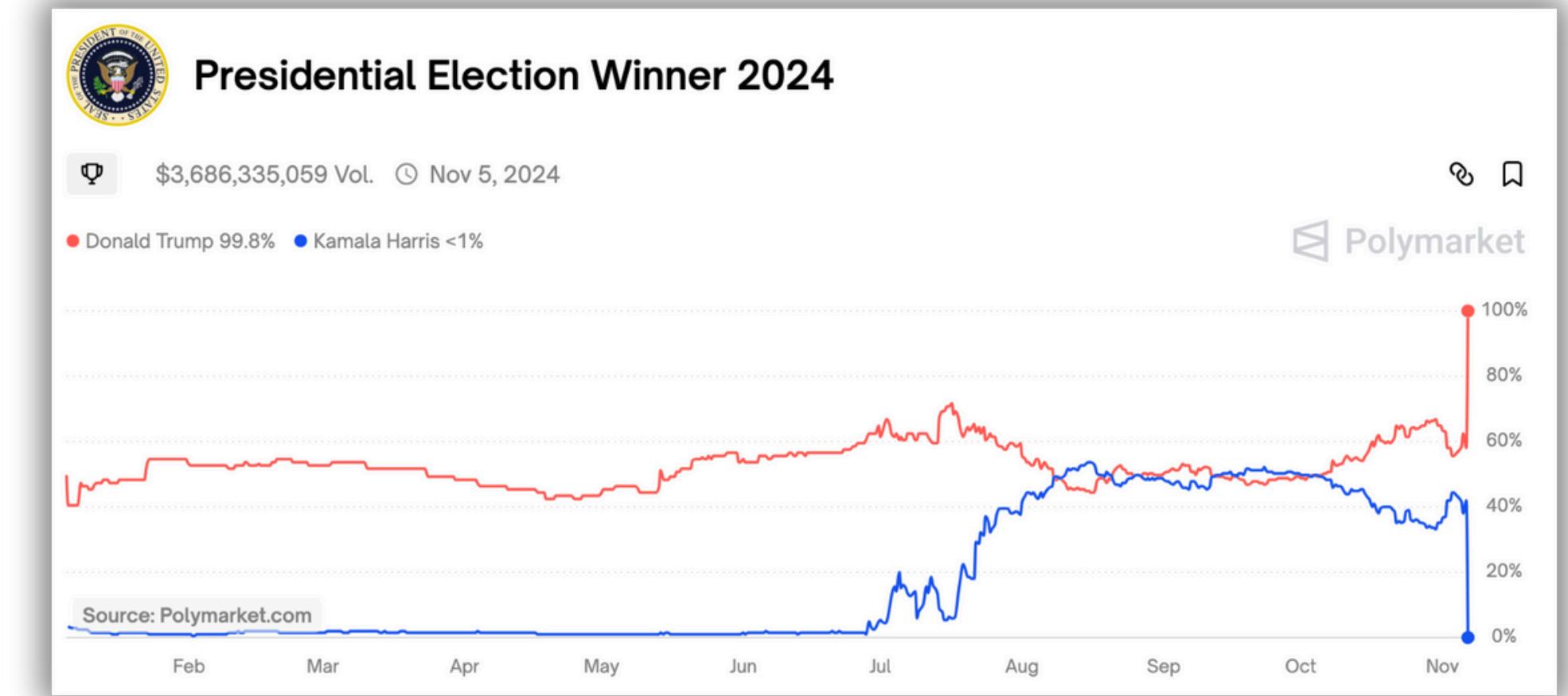
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NATE SILVER VS POLYMARKET

FiveThirtyEight simulations



Polymarket



Silver, N., & McKown-Dawson, E. (2024, November 5). FINAL Silver Bulletin 2024 presidential election forecast. Silver Bulletin.

Presidential Election Winner 2024. (n.d.). Polymarket. Retrieved April 27, 2025.

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Trump won a clear victory. One trader on Polymarket made a \$85 million profit.

De Mott, F. (2024, November 7). [The Polymarket “whale” actually made \\$85 million, far more than originally thought.](#)
Markets Insider.

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Well if we have a large, inclusive deliberating body of citizens... there is hope!

Landemore, H. (2020). *Open Democracy: Reinventing Popular Rule for the Twenty-First Century*. Princeton University Press.

So where does it all start?

IT ALL STARTS WITH CONDORCET



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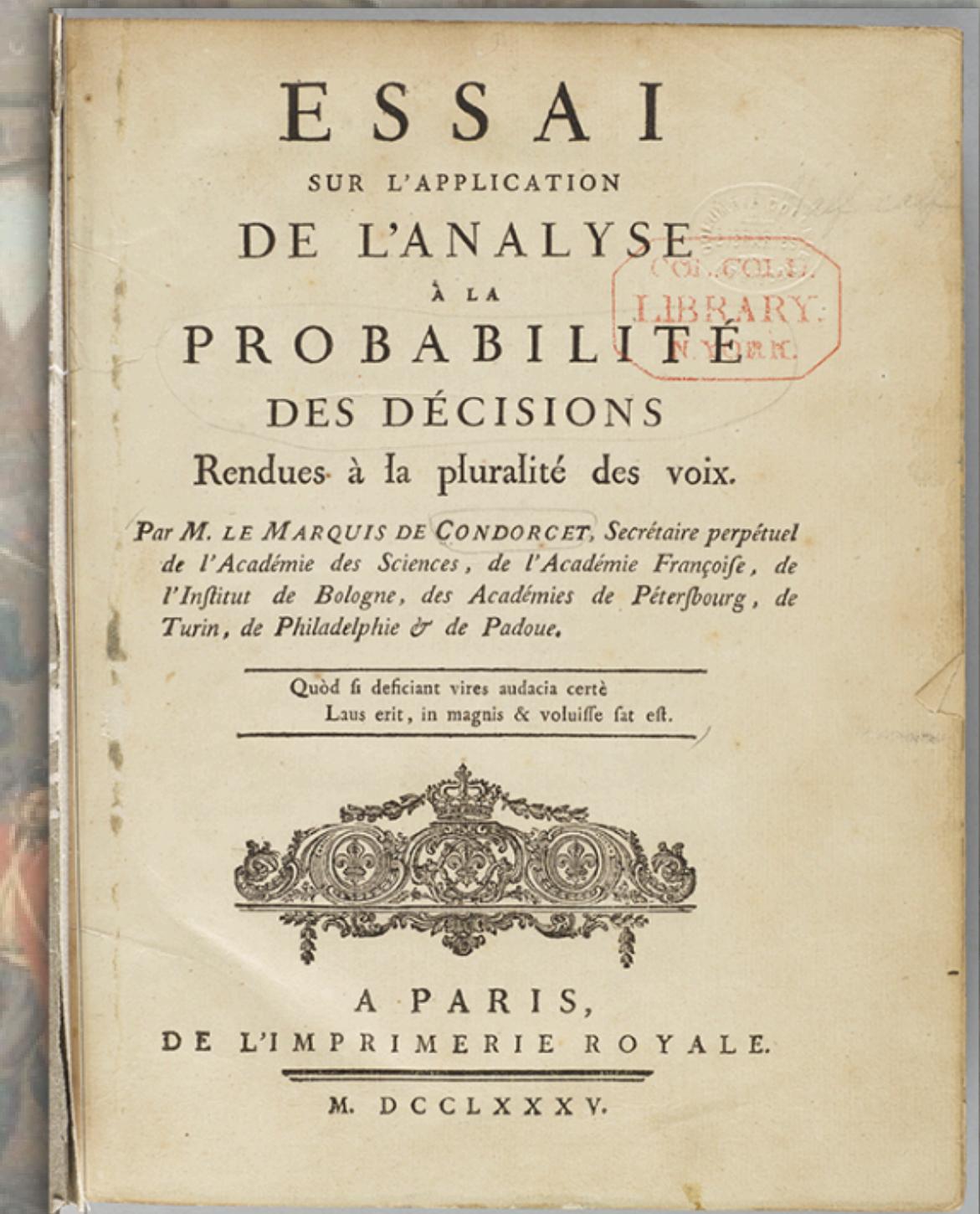
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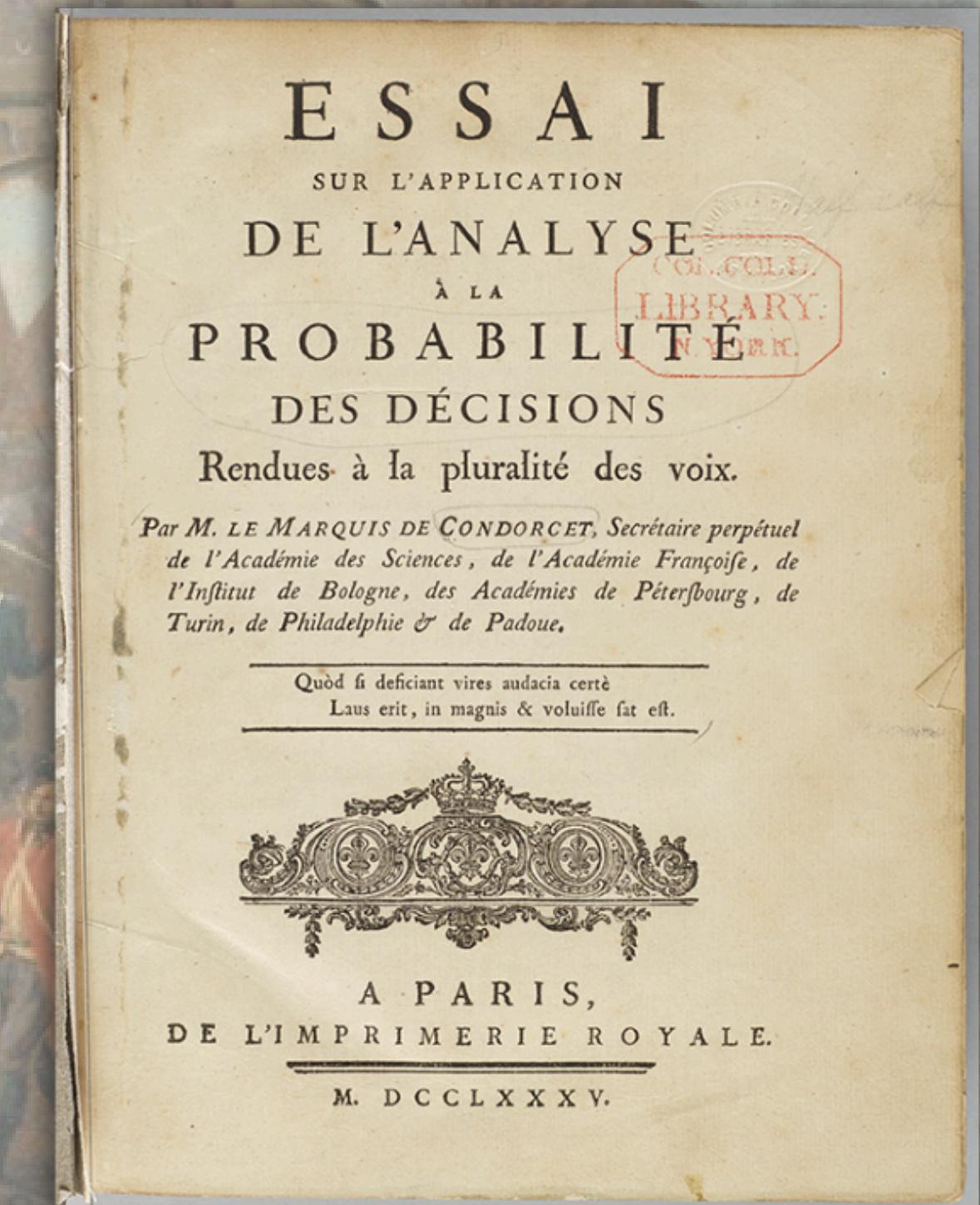


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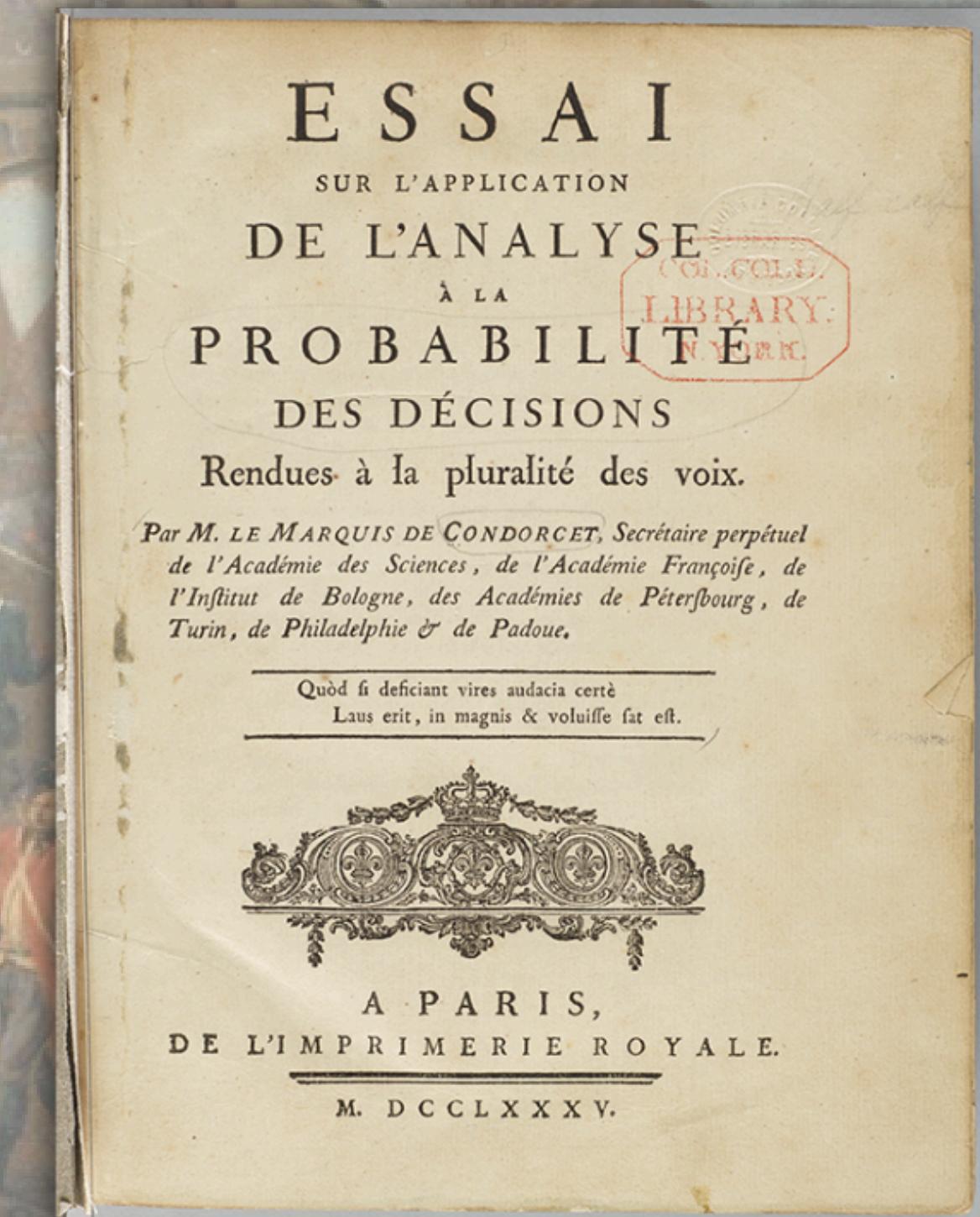
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