Sports!

Shomik Jain

2018 NCAA DIVISION I MEN'S BASKETBALL CHAMPIONSHIP BRACKET

NCAA.com

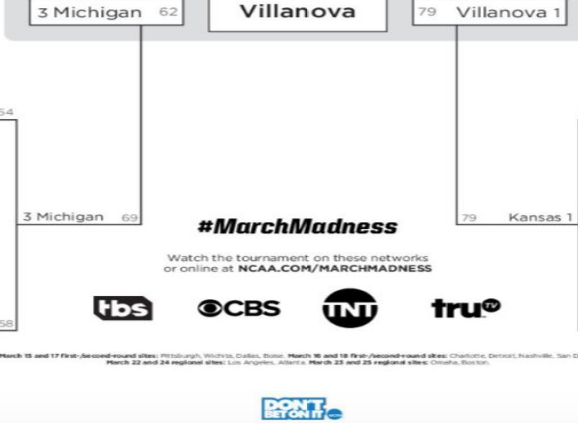| First Round MARCH 15-16 | Second Round MARCH 17-18 | Regional Semifinals MARCH 22-23 | Regional Finals MARCH 24-25 | National Semifinals MARCH 31 | | National Semifinals MARCH 31 | Regional Finals MARCH 24-25 | Regional Semifinals MARCH 22-23 | Second Round MARCH 17-18 | First Round MARCH 15-16 |

FIRST FOUR

| 16 LIU Brooklyn (18-16) 61 | 11 St. Bona. (25-7) 65 | DAYTON MARCH 13-14 | 46 NC Central (19-15) 16 | 56 Arizona St. (20-11) 11 |
| 16 Radford (22-12) 71 | 11 UCLA (21-11) 58 | Watch On truTV | 64 Tex. Southern (15-19) 16 | 60 Syracuse (20-13) 11 |

E ... **E** ... **W** ... **MW**

South Region (left side)

- 1 Virginia (31-2) 54
- 16 UMBC (24-10) 74 — 16 UMBC 43, Charlotte
- 8 Creighton (21-11) 59
- 9 Kansas St. (22-11) 69 — 9 Kansas St. 50
- 9 Kansas St. 61 → 9 Kansas St. 62
- 5 Kentucky (24-10) 78
- 12 Davidson (21-11) 73 — 5 Kentucky 95, Boise
- 4 Arizona (27-7) 68
- 13 Buffalo (26-8) 89 — 13 Buffalo 75
- 5 Kentucky 58
- 6 Miami (Fla.) (22-9) 62
- 11 Loyola Chicago (28-5) 64 — 11 Loyola Chi. 63, Dallas
- 11 Loyola Chi. 69
- 3 Tennessee (25-8) 73
- 14 Wright St. (25-9) 47 — 3 Tennessee 62
- 11 Loyola Chi. 78
- 7 Nevada (27-7) 87
- 10 Texas (19-14) 83 — 7 Nevada 75, Nashville
- 7 Nevada 68
- 2 Cincinnati (30-4) 68
- 15 Georgia St. (24-10) 53 — 2 Cincinnati 73

11 Loyola Chi. 57

SOUTH ATLANTA

West Region (left side)

- 1 Xavier (28-5) 102
- 16 Texas Southern 83 — 1 Xavier 70, Nashville
- 8 Missouri (20-12) 54
- 9 Florida St. (20-11) 67 — 9 Florida St. 75
- 9 Florida St. 75 → 9 Florida St. 54
- 5 Ohio St. (24-8) 81
- 12 S. Dakota St. (28-6) 73 — 5 Ohio St. 84, Boise
- 4 Gonzaga 60
- 4 Gonzaga (30-4) 68
- 13 UNCG (27-7) 64 — 4 Gonzaga 90
- 6 Houston (26-7) 67
- 11 San Diego St. (22-10) 65 — 6 Houston 63, Wichita
- 3 Michigan 99
- 3 Michigan (28-7) 61
- 14 Montana (26-7) 47 — 3 Michigan 64
- 3 Michigan 58
- 7 Texas A&M (20-12) 73
- 10 Providence (21-13) 69 — 7 Texas A&M 86, Charlotte
- 7 Texas A&M 72
- 2 North Carolina (25-10) 84
- 15 Lipscomb (23-9) 66 — 2 North Carolina 65

3 Michigan 69

WEST LOS ANGELES

Final Four (center)

2018 FINAL FOUR SAN ANTONIO

FINAL FOUR SAN ANTONIO MARCH 31 AND APRIL 2

NATIONAL CHAMPIONSHIP APRIL 2

| 3 Michigan 62 | **Villanova** | 79 Villanova 1 |

95 Villanova 1 ... 79 Kansas 1

#MarchMadness

Watch the tournament on these networks or online at NCAA.COM/MARCHMADNESS

tbs · CBS · TNT · truTV

East Region (right side)

- 87 Villanova (30-4) 1
- 61 Radford 16 — 81 Villanova 1, Pittsburgh
- 90 Villanova 1
- 83 Virginia Tech (21-11) 8
- 86 Alabama (19-15) 9 — 58 Alabama 9
- 71 Villanova 1
- 85 West Virginia (24-10) 5
- 68 Murray St. (26-5) 12 — 94 West Virginia 5, San Diego
- 78 W. Virginia 5
- 75 Wichita St. (25-7) 4
- 81 Marshall (24-10) 13 — 71 Marshall 13
- 77 Florida (20-12) 6
- 62 St. Bonaventure 11 — 66 Florida 6, Dallas
- 78 Texas Tech 3
- 70 Texas Tech (24-9) 3
- 60 S.F. Austin (28-6) 14 — 69 Texas Tech 3
- 59 Texas Tech 3
- 62 Arkansas (23-11) 7
- 79 Butler (20-13) 10 — 73 Butler 10, Detroit
- 65 Purdue 2
- 74 Purdue (28-6) 2
- 48 CSU Fullerton (20-11) 15 — 76 Purdue 2

EAST BOSTON

Midwest Region (right side)

- 76 Kansas (27-7) 1
- 60 Penn (24-8) 16 — 83 Kansas 1, Wichita
- 80 Kansas 1
- 94 Seton Hall (21-11) 8
- 83 NC St. (21-11) 9 — 79 Seton Hall 8
- 85 Kansas 1
- 79 Clemson (23-9) 5
- 68 New Mexico St. (28-5) 12 — 84 Clemson 5, San Diego
- 76 Clemson 5
- 62 Auburn (25-7) 4
- 58 Charleston (26-7) 13 — 53 Auburn 4
- 52 TCU (21-11) 6
- 57 Syracuse 11 — 55 Syracuse 11, Detroit
- 65 Syracuse 11
- 82 Michigan St. (29-4) 3
- 78 Bucknell (25-9) 14 — 53 Michigan St. 3
- 81 Duke 2
- 83 Rhode Island (25-7) 7
- 78 Oklahoma (18-13) 10 — 62 Rhode Island 7, Pittsburgh
- 69 Duke 2
- 89 Duke (26-7) 2
- 67 Iona (20-13) 15 — 87 Duke 2

MIDWEST OMAHA

DON'T BET ON IT
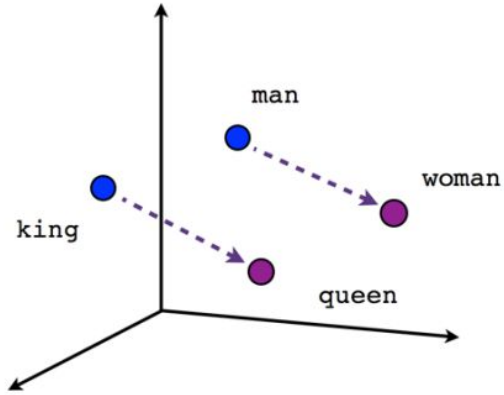The NCAA opposes all forms of sports wagering

March 15 and 17 first-/second-round sites: Pittsburgh, Wichita, Dallas, Boise. March 16 and 18 first-/second-round sites: Charlotte, Detroit, Nashville, San Diego. March 22 and 24 regional sites: Los Angeles, Atlanta. March 23 and 25 regional sites: Omaha, Boston.
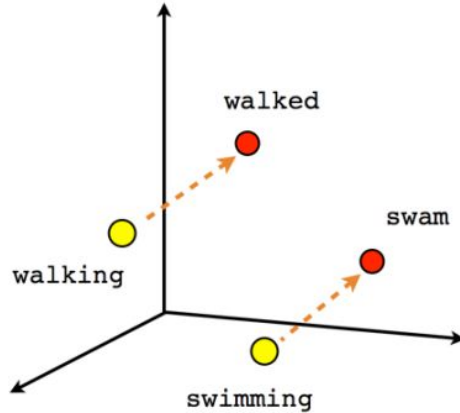
What is the relationship between...

- Whether a Team Wins or Loses
- Average Sentiment of Tweets About the Team
  - Sentiment: computational measure of whether a tweet is positive, negative, or neutral
- Basketball Power Index (BPI) Score
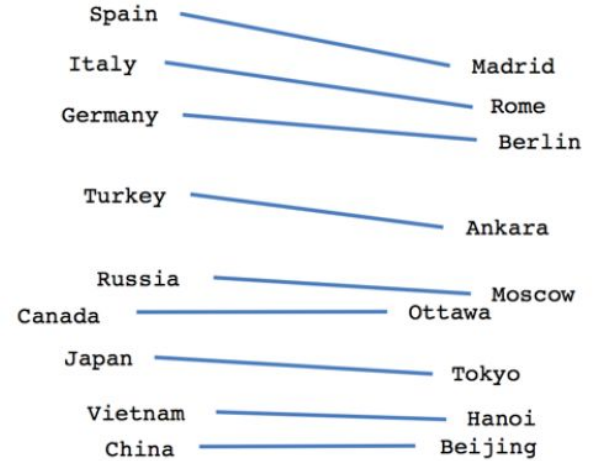 - ESPN's game prediction measure
  - Simulates the game 10,000 times

Sentiment Analysis: RNN & Word Embeddings

Male-Female   Verb tense   Country-Capital

Data

game_id	round	team	seed	win	win_margin	bpi	win_bpi	num_tweets	avg_pos_conf	win_pos_conf
1	1	Virginia	1	0	-20	98.5	1	488	0.63386	0
1	1	UMBC	16	1	20	1.5	0	97	0.68306	1
2	1	Georgia St	15	0	-15	5.5	0	52	0.56677	0
2	1	Cincinnati	2	1	15	94.5	1	395	0.59270	1
3	1	Wright St	14	0	-26	8.5	0	91	0.61571	0
3	1	Tennessee	3	1	26	91.5	1	778	0.61864	1
4	1	Arizona	4	0	-21	79.9	1	609	0.63861	0
4	1	Buffalo	13	1	21	20.1	0	197	0.72137	1
5	1	Davidson	12	0	-5	38.8	0	489	0.62061	0
5	1	Kentucky	5	1	5	61.2	1	686	0.66027	1
6	1	Miami	6	0	-2	57.3	1	180	0.50855	0
6	1	Loyola Chicago	11	1	2	42.7	0	2563	0.63720	1
7	1	Texas	10	0	-4	47.6	0	1125	0.56403	0
7	1	Nevada	7	1	4	52.4	1	1817	0.61897	1
8	1	Creighton	8	0	-10	35.2	0	261	0.65344	0
8	1	Kansas St	9	1	10	35.2	1	30	0.74587	1

Nonparametric Statistics

- Nonparametric Statistics
  - fairly general assumptions about probability distributions
- Matched Pairs Experiment
  - n pairs of random and independent observations in form (Xi, Yi)
- Sign Test
  - Is the distribution of the Xi's the same as the Yi's?
  - Test Statistic: $\sum 1(Xi > Yi)$ = count # of times Xi > Yi

Results

1. Winning Team BPI > Losing Team BPI

    ○ BPI is a reliable predictor of whether a team is likely to win/lose

2. Winning Team Sentiment ≈ Losing Team Sentiment

    ○ Sentiment: not accurate for whether a team is likely to win/lose

3. Winning Sentiment > Losing Sentiment (when BPI Fails)

    ○ Examine games where BPI failed to accurately predict winner

    ○ "Upset" => higher positive sentiment for winning team

Bottom Line...

- Social Media & Sentiment
  - meaningful insights, trends/potential signals in unstructured data
- Applications Beyond Sports
  - Politics, Business (Market Trends), …

Candidate sentiment over time