



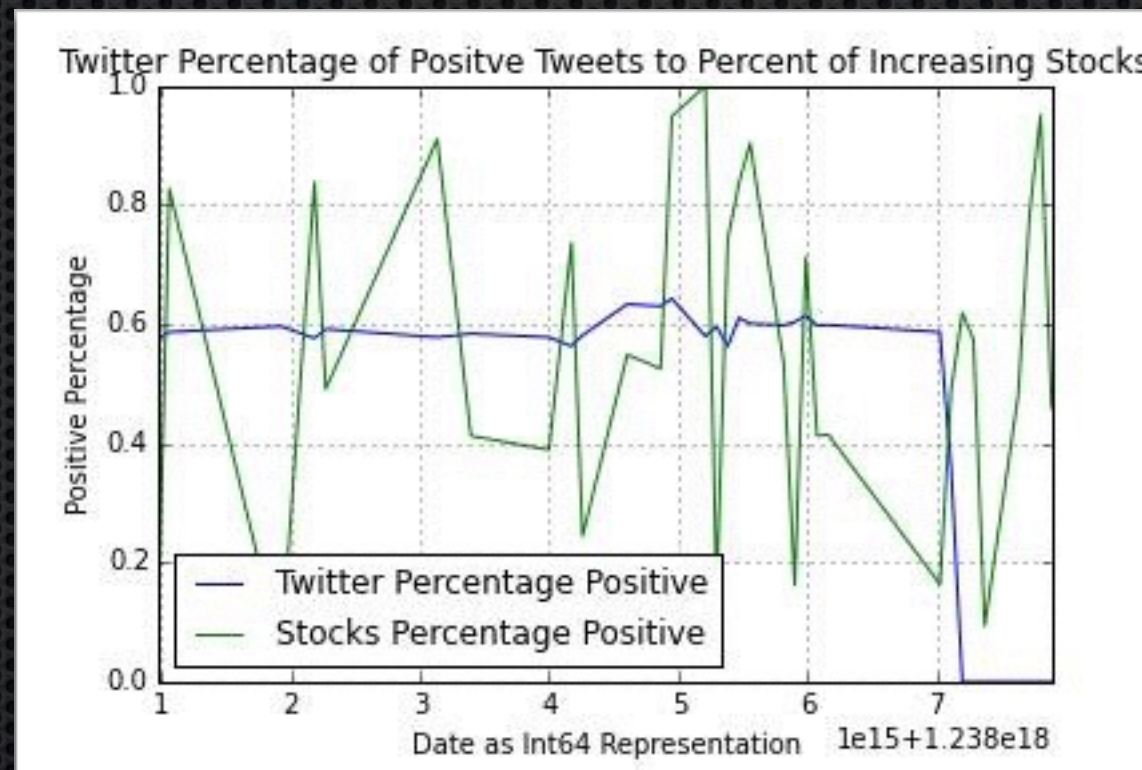
STOCK SENTIMENT

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12/08/2014

GOAL

To find a relationship between Twitter sentiment and stock trends.



DATA

✦ S&P 500 (2009)

Stock	Date	Close
AAPL	2009-04-0	134.01
AAPL	2009-04-0	136.27

✦ Twitter Posts (2009)

Date	Polarity
2009-04-06	0
2009-04-07	1

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09-06-25,39.00,39.81,38.28,39.78,5727600,9.9
09-06-24,38.24,39.50,38.00,39.24,8736800,9.8
09-06-23,37.48,37.94,36.38,37.81,9307600,9.4
09-06-22,39.21,39.21,37.30,37.30,8435600,9.3
09-06-19,40.24,40.73,39.70,39.91,6207200,9.9
09-06-18,40.87,40.87,39.51,40.16,4914000,10.
09-06-17,40.15,41.14,39.81,40.50,5196400,10.
09-06-16,41.14,41.18,39.87,39.96,7053600,9.9
09-06-15,41.00,41.20,40.14,40.63,5311600,10.
09-06-12,41.56,41.60,40.41,41.60,4568800,10.
09-06-11,40.00,41.75,40.00,41.60,10732000,10
09-06-10,39.99,40.20,39.38,39.97,15254000,9.
09-06-09,39.01,39.96,38.72,39.58,8357600,9.9
09-06-08,38.97,39.35,38.41,38.71,9966400,9.6
09-06-05,39.69,40.00,39.07,39.13,11769200,9.
09-06-04,39.42,40.12,38.81,39.27,12475600,9.
09-06-03,39.04,39.32,38.33,39.28,9511200,9.8
09-06-02,39.68,39.96,39.04,39.26,6464000,9.8
09-06-01,38.36,39.92,38.36,39.78,8040800,9.9
09-05-29,37.54,38.00,36.92,37.95,8586400,9.4
09-05-28,36.58,38.16,36.30,37.77,11794400,9.
09-05-27,37.36,37.72,36.31,36.50,9228000,9.1
09-05-26,36.46,37.98,35.13,37.50,11081200,9.
09-05-22,36.28,37.29,35.10,36.15,36521200,9.
09-05-21,40.17,40.41,39.22,39.65,14368400,9.
09-05-20,41.31,42.05,40.03,40.27,7206000,10.
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DATA WRANGLING

Twitter Data

Polarity	ID	Date	Query	User	Tweet
4	1468145957	Mon Apr 06 23:58:08 PDT 2009	NO_QUERY	breannnnn a	tomorrow should be a great day! im actually going on a date! wow..



Date	Percent positive
2009-04-06	57.5595%

Stock Data

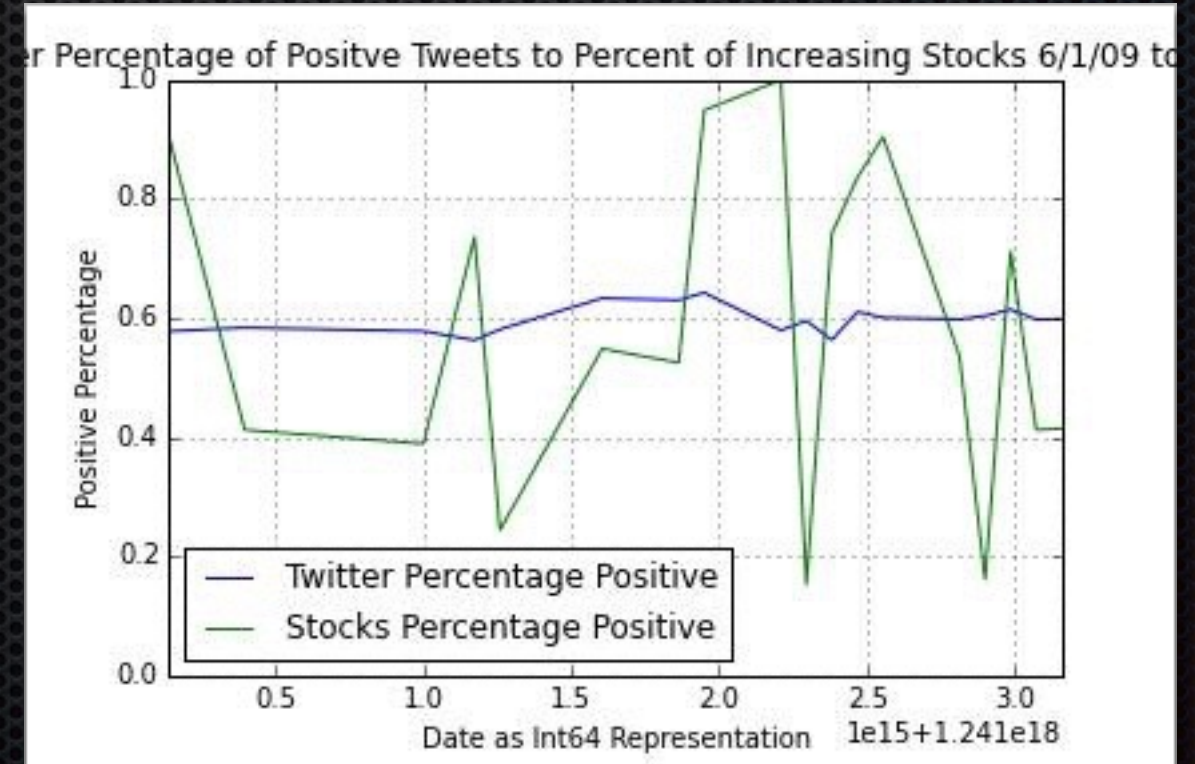
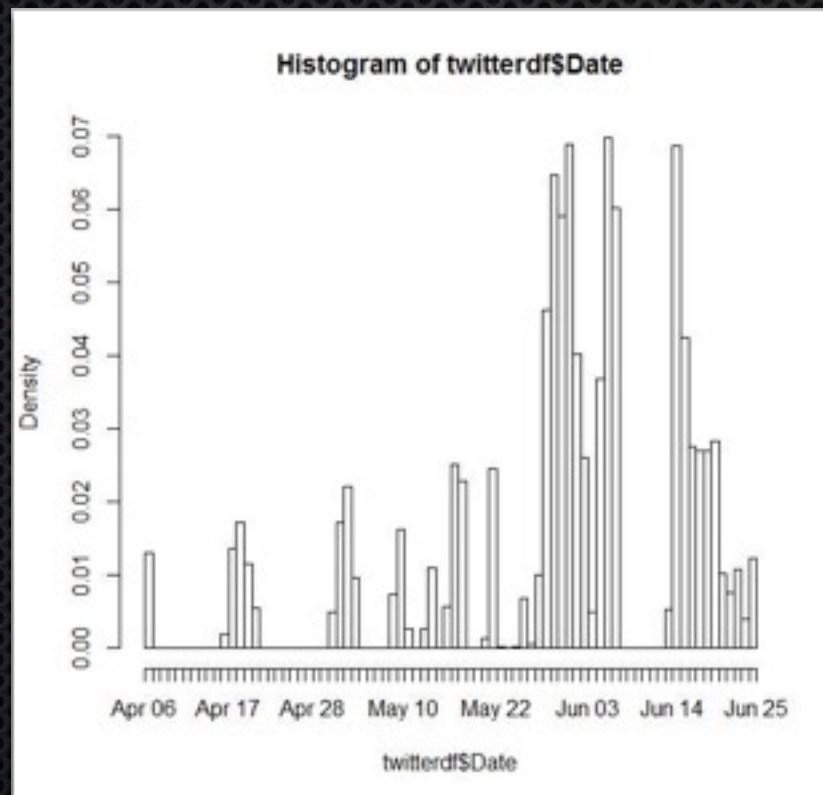
Date	Stoc	Open	High	Low	Close	Volume
20090624	A	19.13	19.30	18.91	19.01	3475



Date	Percent Positive
2009-06-24	74.3328%

VISUALIZATIONS

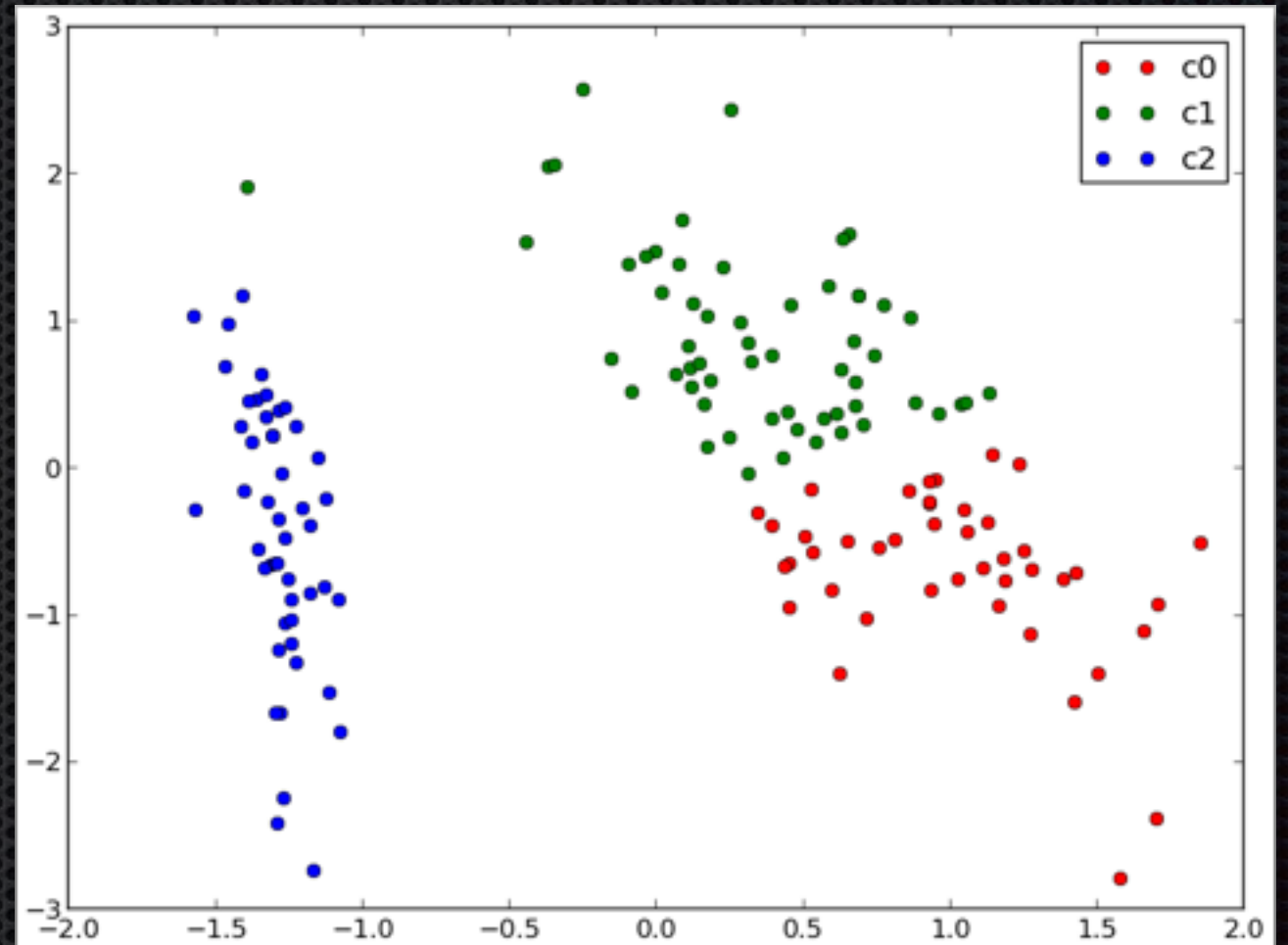
	Date	PositiveStocks	TotalStocks	StocksPercentPositive	Positives	Total	Percentage	DateInt64
0	2009-04-06	45	470	0.095745	1934	3360	0.575595	1238976000000000000
1	2009-04-07	389	470	0.827660	10162	17311	0.587026	1239062400000000000
2	2009-04-17	21	470	0.044681	1840	3084	0.596628	1239926400000000000
3	2009-04-20	394	470	0.838298	10643	18460	0.576544	1240185600000000000
4	2009-04-21	231	470	0.491489	5083	8587	0.591941	1240272000000000000



Clustering Algorithm

Find groups of stocks
that trend together.

Unable to produce
acceptable results.



CONCLUSION

- ✦ Seems to be a correlation
- ✦ Definite opportunity to explore further
- ✦ Twitter has only grown bigger since 2009, so more recent data may show a stronger correlation

QUESTIONS