

# A.I. Literature Review with Text Mining

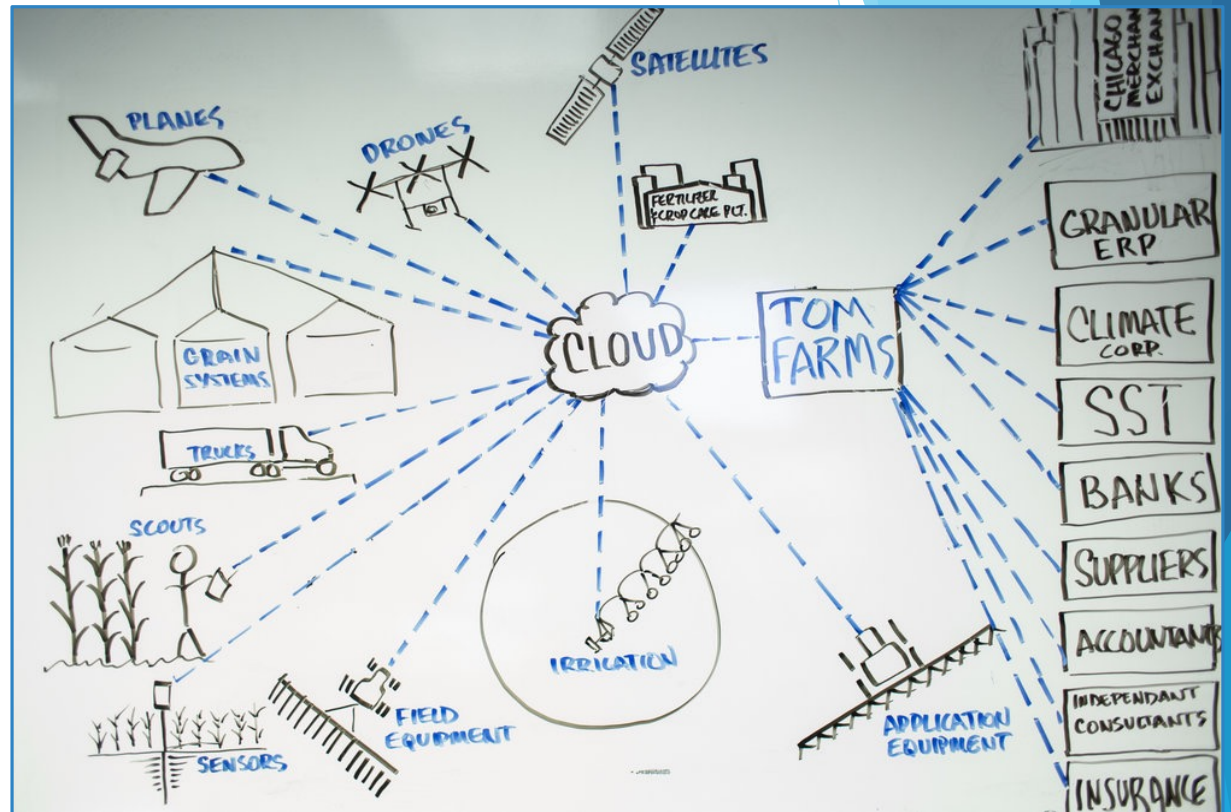
BIA 6304 Text Mining, Fall 2019

Sara Lienau

“The digital evolution of agriculture is already a fact of life on farms across the US.”

*How High Tech is Transforming  
One of the the Oldest Jobs: Farming*

New York Times, Sep 6, 2019



*“When the past is all you know;  
it is hard to see the future.”*

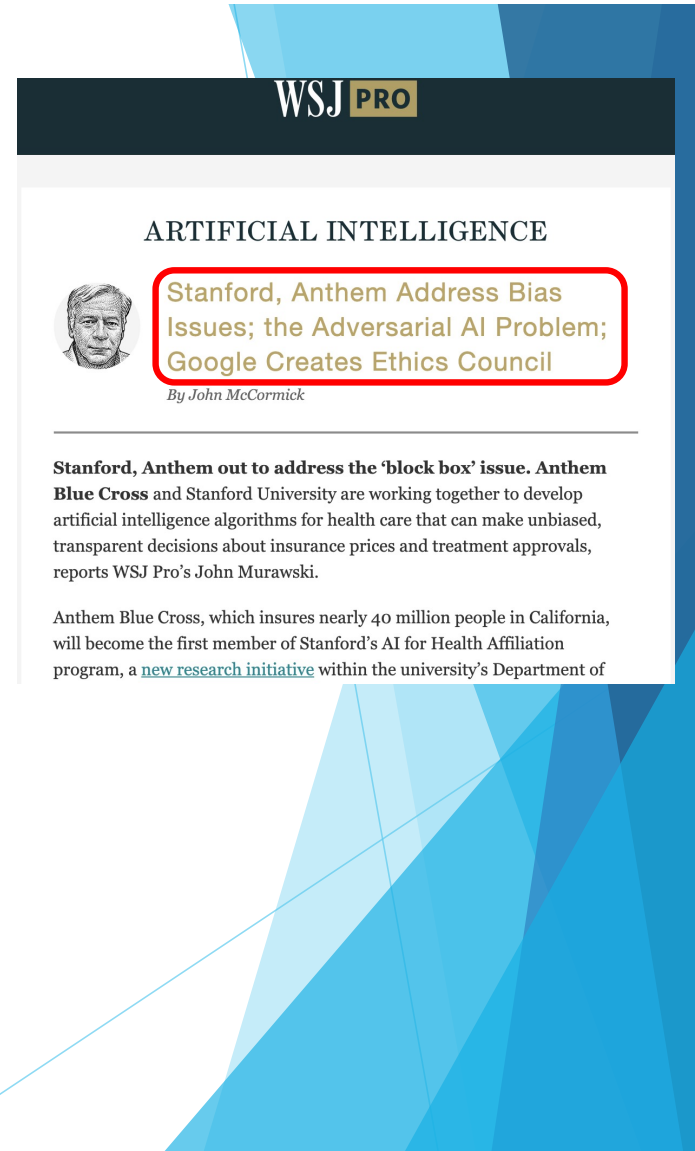
Tim O'Reilly, Founder & CEO O'Reilly Media

- ▶ Goal: Learn more about the Present - current applications of AI
- ▶ Literature Review Proof-of-Concept
  - ▶ Is the WSJ Pro AI Newsletter a good source of information?
  - ▶ Are “text mining” techniques helpful to get our arms around this material?

#### Quotable


“When I see it applied to something that without AI, it is just too complex, we never would have seen [how that system works](#), that I feel like, ‘Wow, that is a very good thing.’”

— Microsoft co-founder Bill Gates



WSJ PRO

## ARTIFICIAL INTELLIGENCE

 **Stanford, Anthem Address Bias Issues; the Adversarial AI Problem; Google Creates Ethics Council**  
*By John McCormick*

**Stanford, Anthem out to address the ‘block box’ issue. Anthem Blue Cross** and Stanford University are working together to develop artificial intelligence algorithms for health care that can make unbiased, transparent decisions about insurance prices and treatment approvals, reports WSJ Pro’s John Murawski.

Anthem Blue Cross, which insures nearly 40 million people in California, will become the first member of Stanford’s AI for Health Affiliation program, a [new research initiative](#) within the university’s Department of

Business

Google

Bias

Human

AI

Tool

Machine-Learning

Change

Automation

China

Robot

Facial-Recognition

Data

Microsoft

Algorithm

Ethics

IBM

U.S

Startup

Amazon

HealthTech

Investment

Driverless

- Google (14)
- Startup ... (11)
- Amazon
- IBM
- Microsoft
- Softbank

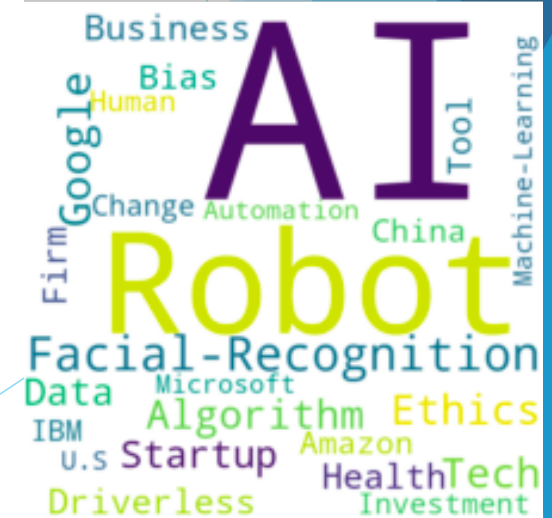
- China
- U.S.

- Tech (13)
- Health (care)
- Firms ... (Security, Law, PE, Financial)
- Company (Trucking, Car, Senior-Housing)
- Investment

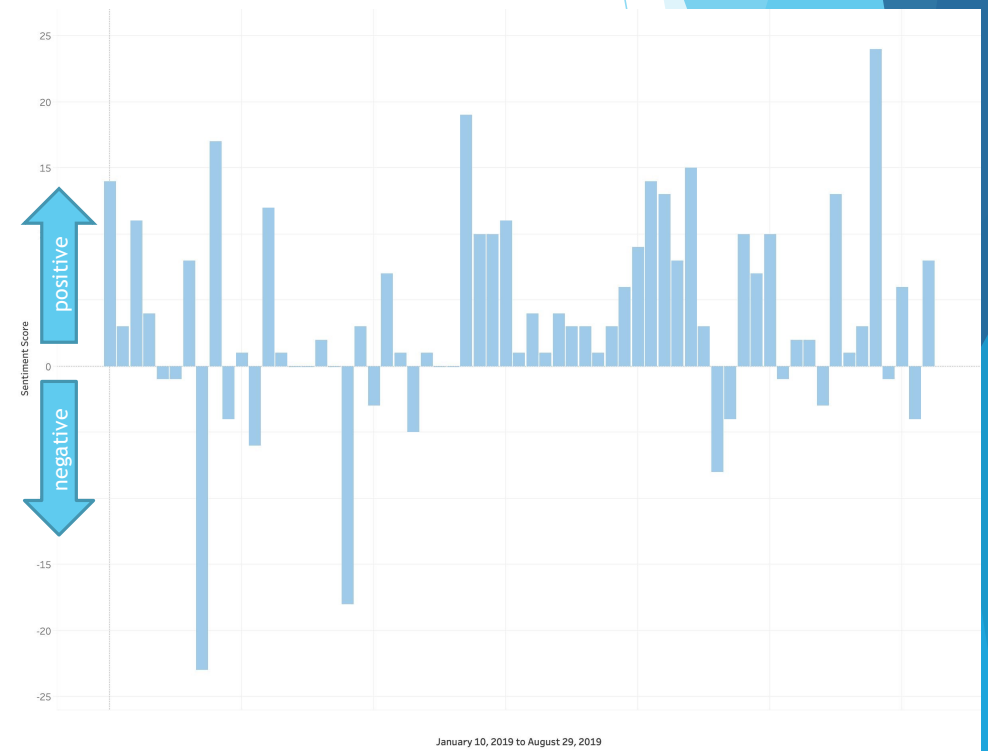
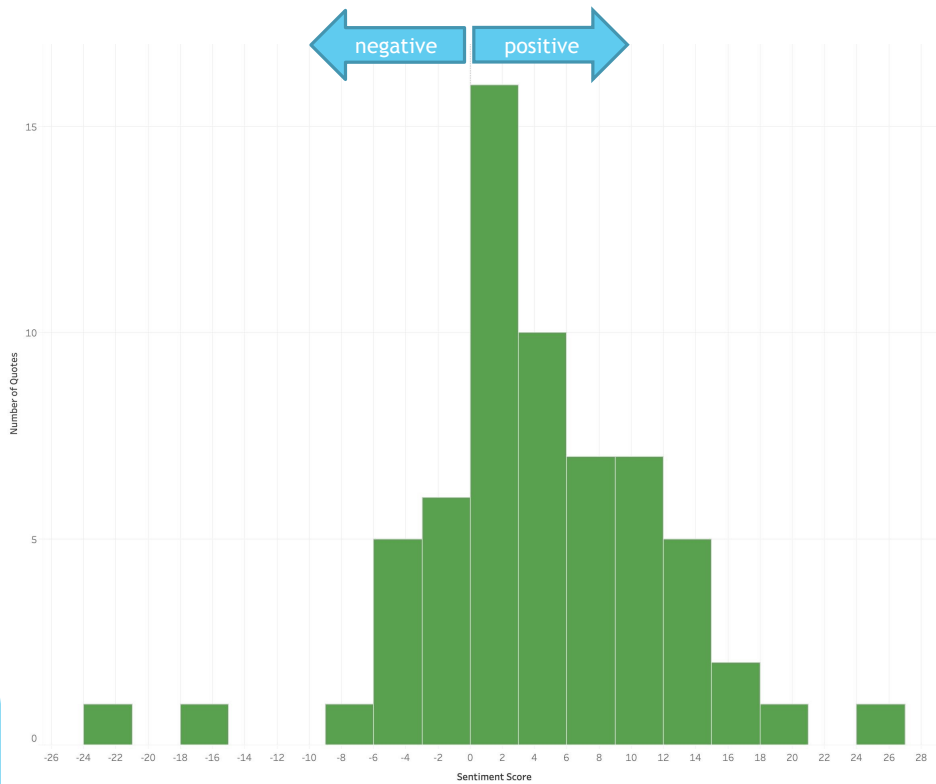
- A.I. (172)
- Robot (25)
- Facial Recognition (17)
- Algorithm (12)
- Data (11)
- Driverless
- Tool
- Machine Learning
- Automation

- Business (13)
- Job
- Change

- Ethics (13)
- Bias
- Human
- Jobs



# Sentiment Scores => Leaning or Bias



# Sentiment of Quotes

If we can achieve true  
consciousness in machines ...  
then we can teach them to care.

*(Highly Positive)*

These platforms have been  
weaponized, and these aren't  
hypothetical threats.

*(Negative / Neutral ??)*

# Takeaways & Next Steps

- ▶ WSJ Pro AI Newsletter content on target, the tone is a mixed but somewhat positive leaning
- ▶ Work with legal to understand WSJ subscriber agreement & then determine data source.
- ▶ Continue Research & Text Mining
- ▶ Report back results or stumbling blocks
  - ▶ Identify 3 uses of AI relevant to our business & experience with text mining