

# Whistleblowing & Algorithms

Bioengineering 100  
Fall 2016

**“No good deed goes unpunished”**  
– Oscar Wilde

Agree or Disagree?

“

I told them that's  
not only unethical  
but illegal”

*Bill Bado, fired Wells Fargo employee,  
seen here with his daughters*



# Wells Fargo

- Millions of fake accounts made without customers' knowledge by employees
- Paid \$185 million in penalties
- "...fired 5,300 employees over the last few years related to shady behavior"  
(~260,000 total employees in 2015)

"Each team member, no matter where you are in the organization, is encouraged to raise their hands," Stumpf told lawmakers. He mentioned the anonymous ethics line, adding, "We want to hear from them."



Wells Fargo CEO

Former Wells Fargo employee



# Retaliation

"They ruined my life," Bill Bado, a former Wells Fargo banker in Pennsylvania, told CNNMoney.

Bado not only refused orders to open phony bank and credit accounts. The New Jersey man called an ethics hotline and sent an email to human resources in September 2013, flagging unethical sales activities he was being instructed to do.

Eight days after that email, a copy of which CNNMoney obtained, Bado was terminated. The stated reason? Tardiness.

Under what circumstances would you circumvent a direct supervisor and report unethical behavior to higher management?

# When \*might\* you blow the whistle?

- **Need:** There is clear and important harm.
- **Proximity:** First hand knowledge.
- **Capability:** There's a reasonable chance of success in stopping the harmful activity.
- **Last resort:** All other options have been explored or attempted.

# When \*should\* you blow the whistle?

# BART Case Study

# Questions

- Did the three engineers meet the whistleblowing criteria?
- How effective is an anonymous memo?
- At what point should an engineer give up?  
In this case, several levels of management had been notified.

# REVIEWING THE RISING PRICE OF EPIPENS

Full House Committee on Oversight and Government Reform

FULL HOUSE COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

HEARING DATE: SEPTEMBER 21, 2016 2:00 PM | 2154 RAYBURN HOB

Excerpt from Mylan CEO Heather Bresch testimony:

In the complicated world of pharmaceutical pricing there is something known as the Wholesale Acquisition Cost or WAC. The WAC for a 2 unit pack of EpiPen Auto-Injectors is \$608. After rebates and various fees, Mylan actually receives \$274. Then you must subtract our cost of goods which is \$69. This leaves a balance of \$205. After subtracting all EpiPen Auto-Injector related costs our profit is \$100, or approximately \$50 per pen.

How are you feeling about the  
debates?

# Evaluating Evidence

Part 1 of ?? in a series

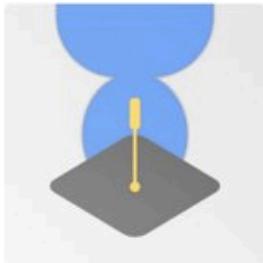
When I need to do research on a scientific/engineering topic, the first website I go to is...

# The most cited scientist on Google Scholar isn't a person



Any guesses on ‘who’??

# Funny? Or a problem?



et al.

Follow ▾

The academic superstar everybody wants to be co-author with. See my home page for more info.

bibliometrics, scientometrics, citation analysis

No verified email - Homepage

Title	1-20	Cited by	Year
Protein measurement with the Folin phenol reagent		195669	1951
OH Lowry, NJ Rosebrough, AL Farr, RJ Randall J biol Chem 193 (1), 265-275			
Molecular cloning		176258	1989
J Sambrook, EF Fritsch, T Maniatis Cold spring harbor laboratory press 2, 14-9.23			
Psychometric theory		85858	1967
JC Nunnally, IH Bernstein, JMF Berge McGraw-Hill			
DNA sequencing with chain-terminating inhibitors		66015	1977
F Sanger, S Nicklen, AR Coulson Proceedings of the National Academy of Sciences 74 (12), 5463-5467			

Google Scholar

Citation indices	All	Since 2011
Citations	2416015	782240
h-index	333	275
i10-index	333	333



Co-authors [View all...](#)

Paul Erdős

A. Author

# Google Scholar: Pros and Cons

Mark Dingemanse postulates the three best-worst things about Google Scholar are:

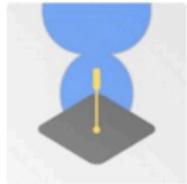
- Inclusive
- Citation analysis is automated
- Profiles are self edited

# Funny? Or a problem?

Scholar



Export ▾



A. Author

## Title of article

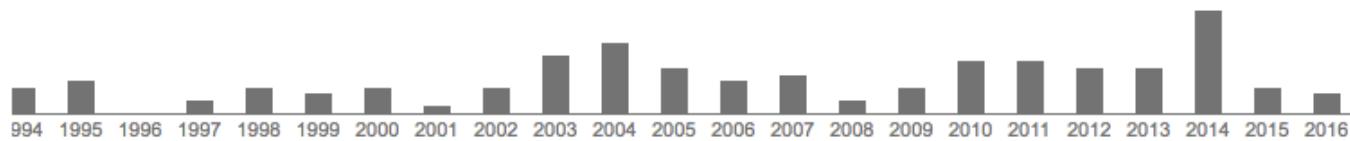
[\[PDF\] from jproteolysis.com](#)

Authors Albert A Author, BB Author

Publication date 2015

Journal Title of Journal, volume number

Total citations Cited by 160



Scholar articles

## Title of article

AA Author, BB Author - Title of Journal, volume number, 2015

Cited by 160 - Related articles - All 27 versions

Dates and citation counts are estimated and are determined automatically by a computer program.

[Help](#)[Privacy](#)[Terms](#)[Provide feedback](#)[My Citations](#)

# Algorithms can be discriminatory.

Agree or Disagree?

# Google search for 'CEO'



% women in top 100 Google image search for CEO: 11%  
% of US CEOs who are women: 27%

[Google image search results (April 2015), US Bureau of Labor Statistics (2012)]  
[Munson, Kay and Matuszek, University of Washington study]

Ads related to latanya sweeney ①

### Latanya Sweeney Truth

[www.instantcheckmate.com/](http://www.instantcheckmate.com/)

Looking for Latanya Sweeney? Check Latanya Sweeney's Arrests.

Ads by Google

### Latanya Sweeney, Arrested?

1) Enter Name and State. 2) Access Full Background Checks Instantly.

[www.instantcheckmate.com/](http://www.instantcheckmate.com/)

### Latanya Sweeney

Public Records Found For: Latanya Sweeney. View Now.

[www.publicrecords.com/](http://www.publicrecords.com/)

### La Tanya

Search for La Tanya Look Up Fast Results now!

[www.ask.com/La+Tanya](http://www.ask.com/La+Tanya)

(c)

LATANYA SWEENEY  
1420 Centre Ave  
Pittsburgh, PA 15219  
DOB: Oct 27, 1969 (32 years old)

**Criminal History**  
This section contains possible conviction, arrest, and criminal records for the subject of this report. While our database does contain hundreds of millions of arrest records, different counties have different rules regarding what information they will and will not release.

We share with you as much information as we possibly can, but a clean slate here should not be interpreted as a guarantee that Latanya Sweeney has never been arrested; it simply means that we were not able to locate any matching arrest records in the data that is available to us.

**Possible Matching Arrest Records**

Name	County and State	Offenses	View Details
No matching arrest records were found.			

(d)

“On Reuters.com, a host of Google AdSense ads, a black-identifying name was 25% more likely to get an ad suggestive of an arrest record,  $p < 0.001$ ; this is less than a 0.1% probability that these data can be explained by chance.”

Ads related to Jill Schneider ①

### Jill Schneider Art

[www.posters2prints.com/](http://www.posters2prints.com/)

Custom Frame Prints and Canvas. Shop Now, SAVE Big + Free Shipping!

### We Found Jill Schneider

[www.intelius.com/](http://www.intelius.com/)

Current Phone, Address, Age & More. Instant & Accurate Jill Schneider  
10,256 people +1'd this page

Reverse Lookup - Reverse Cell Phone Directory - Date Check - Property Records

### Located: Jill Schneider

[www.instantcheckmate.com/](http://www.instantcheckmate.com/)

Information found on Jill Schneider Jill Schneider found in database.

(c)

JILL SCHNEIDER  
1107 70th St  
Kansas City, MO 64118  
DOB: Mar 31, 1969 (43 years old)

**Criminal History**  
This section contains possible conviction, arrest, and criminal records for the subject of this report. While our database does contain hundreds of millions of arrest records, different counties have different rules regarding what information they will and will not release.

We share with you as much information as we possibly can, but a clean slate here should not be interpreted as a guarantee that Jill Schneider has never been arrested; it simply means that we were not able to locate any matching arrest records in the data that is available to us.

**Possible Matching Arrest Records**

Name	County and State	Offenses	View Details
1 Jill E Schneider	WI Admin Office of Courts(CM) disposition	Criminal/traffic	<a href="#">View Details</a>
2 Jill E Schneider	WI Admin Office of Courts(CM)	Criminal/traffic	<a href="#">View Details</a>
3 Jill E Schneider	WI Admin Office of Courts(CM) disposition	Criminal/traffic	<a href="#">View Details</a>
4 Jill E Schneider	WI Admin Office of Courts(CM)	Criminal/traffic	<a href="#">View Details</a>

(d)

# Algorithms can be discriminatory.

Agree or Disagree?

Does Google have responsibility  
in this case?

Why or why not?



Thanks to Joshua Chen  
for the link!

<https://vimeo.com/183028766/5bbc20e243?gclid=CInQ8IPXoM8CFdInfgodbeMOag&gclsrc=ds>



02:34

HD

Do you eat at Chipotle?

Next week: Animal Testing &  
guest lecture by Charlotte Smith  
on Water

