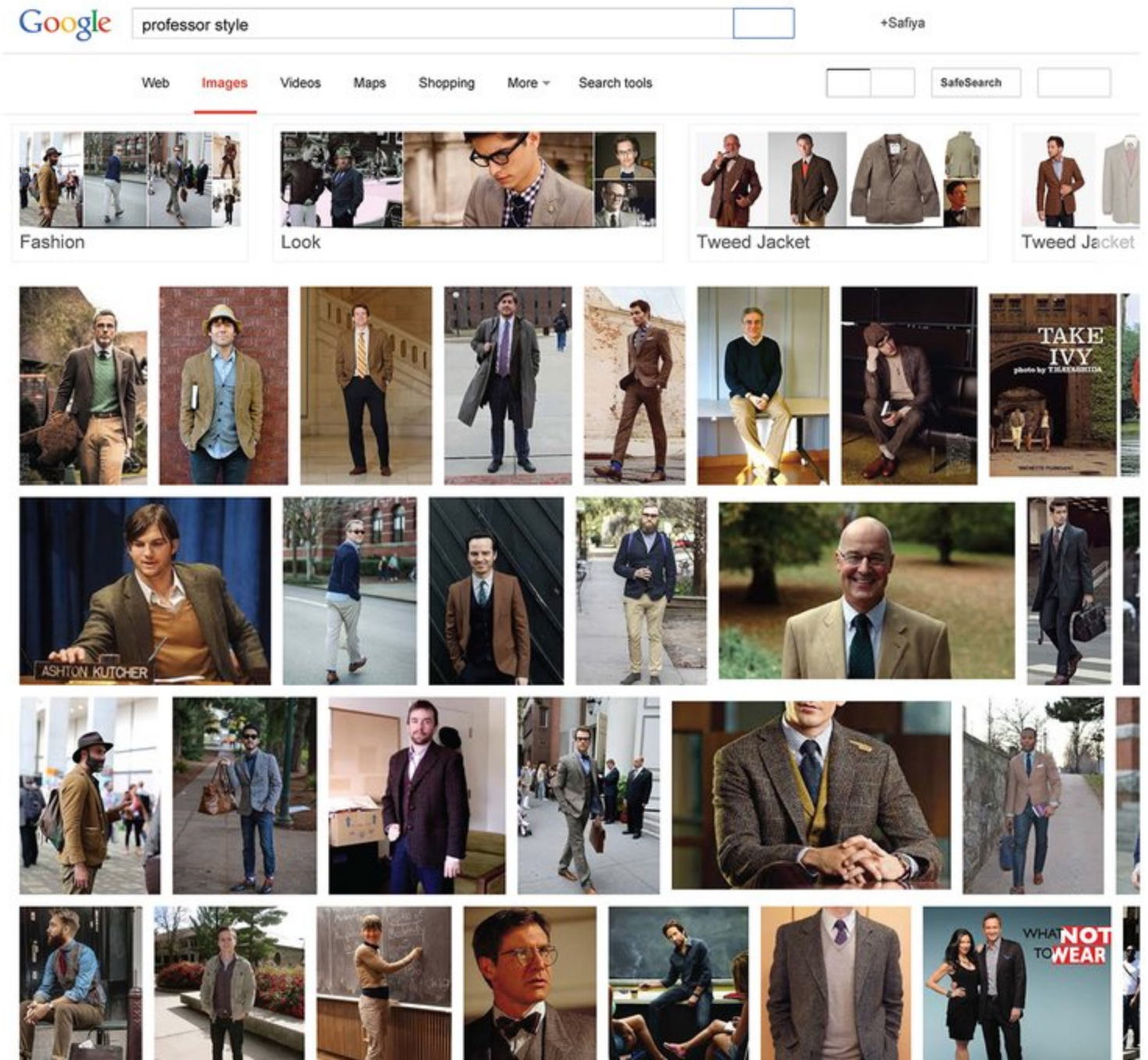
Algorithmic Bias

https://images.google.com/

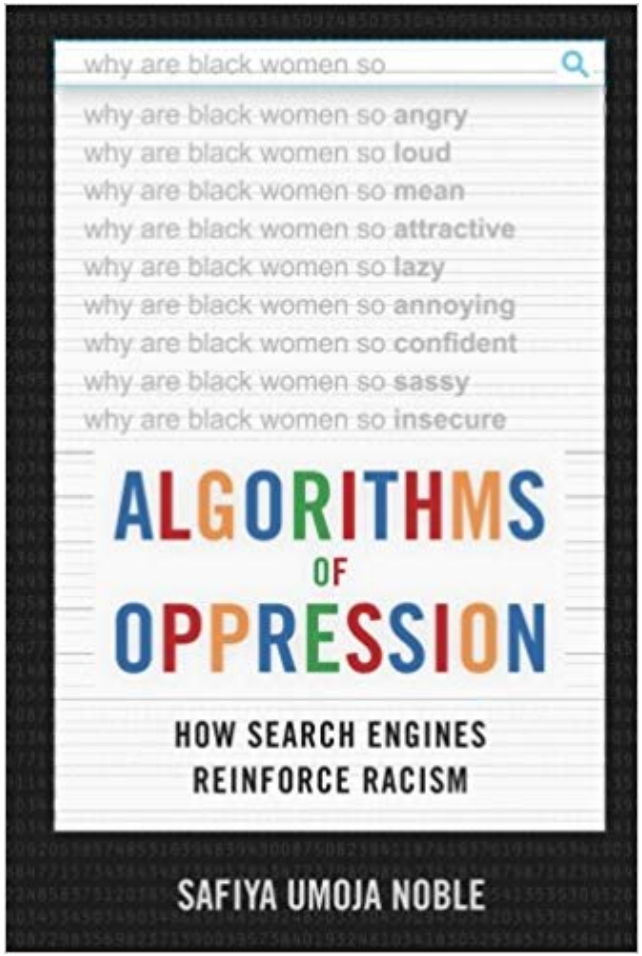


Screenshot 8/6/2018

Think-Pair-Share

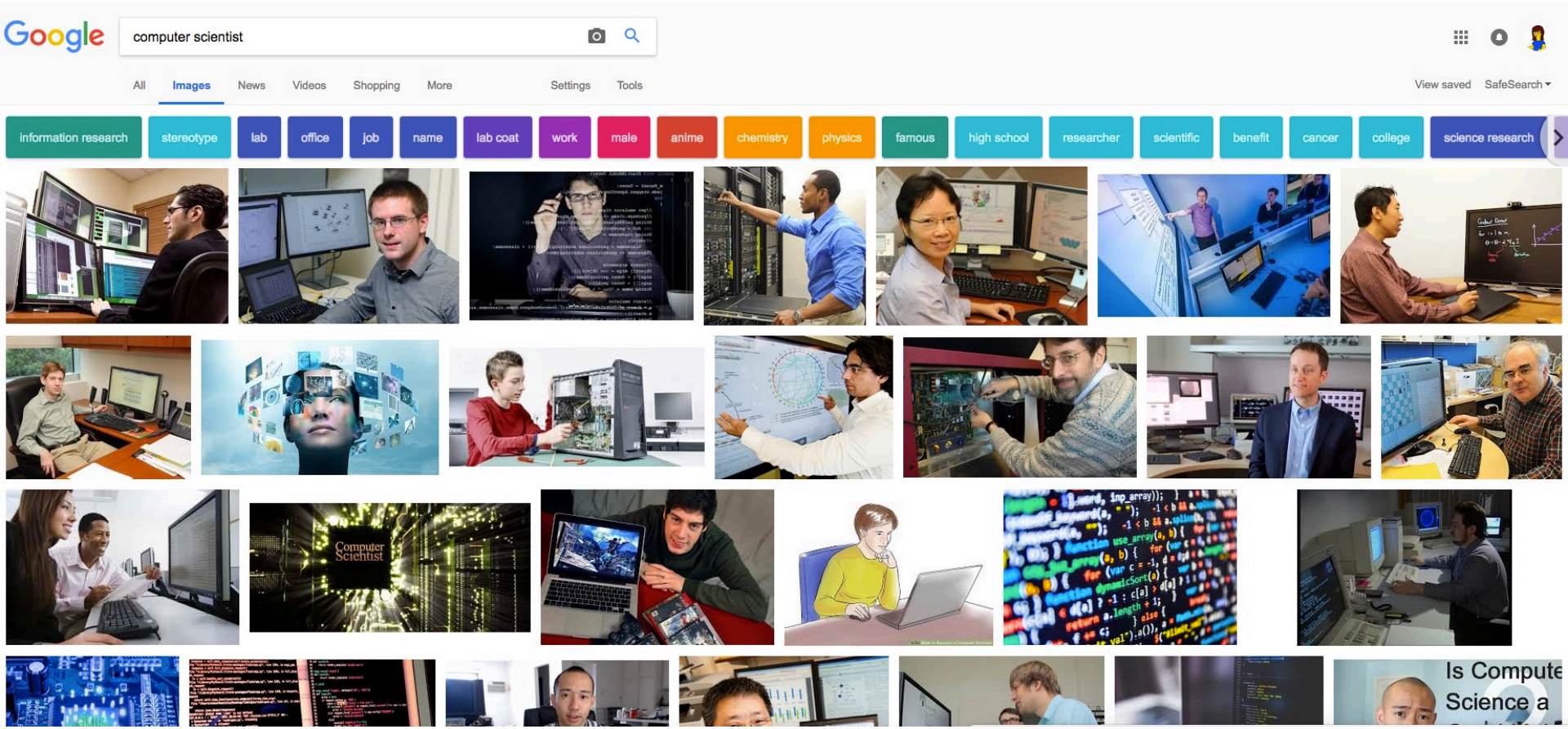
1. What do you see?
2. Who do you see?
3. Who do you expect to see? / Who is missing?
4. How does the information provided by these images influence you?
5. Does this tell us anything about how this population is represented or misrepresented?

Algorithmic Bias



"Search results reflect the values and norms of the search company's commercial partners and advertisers and often reflect our lowest and most demeaning beliefs, because these ideas circulate so freely and so often that they are normalized and extremely profitable."

-- Safiya Umoja Noble



Screenshot
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Imposter Syndrome

"Impostor syndrome strikes all kinds of people, but evidence suggests it's especially prevalent among those who are **underrepresented** in their fields—for example, **women and minorities working in tech**. When you're the only woman or person of color in the room, it can sometimes feel like you're in the *wrong* room. "

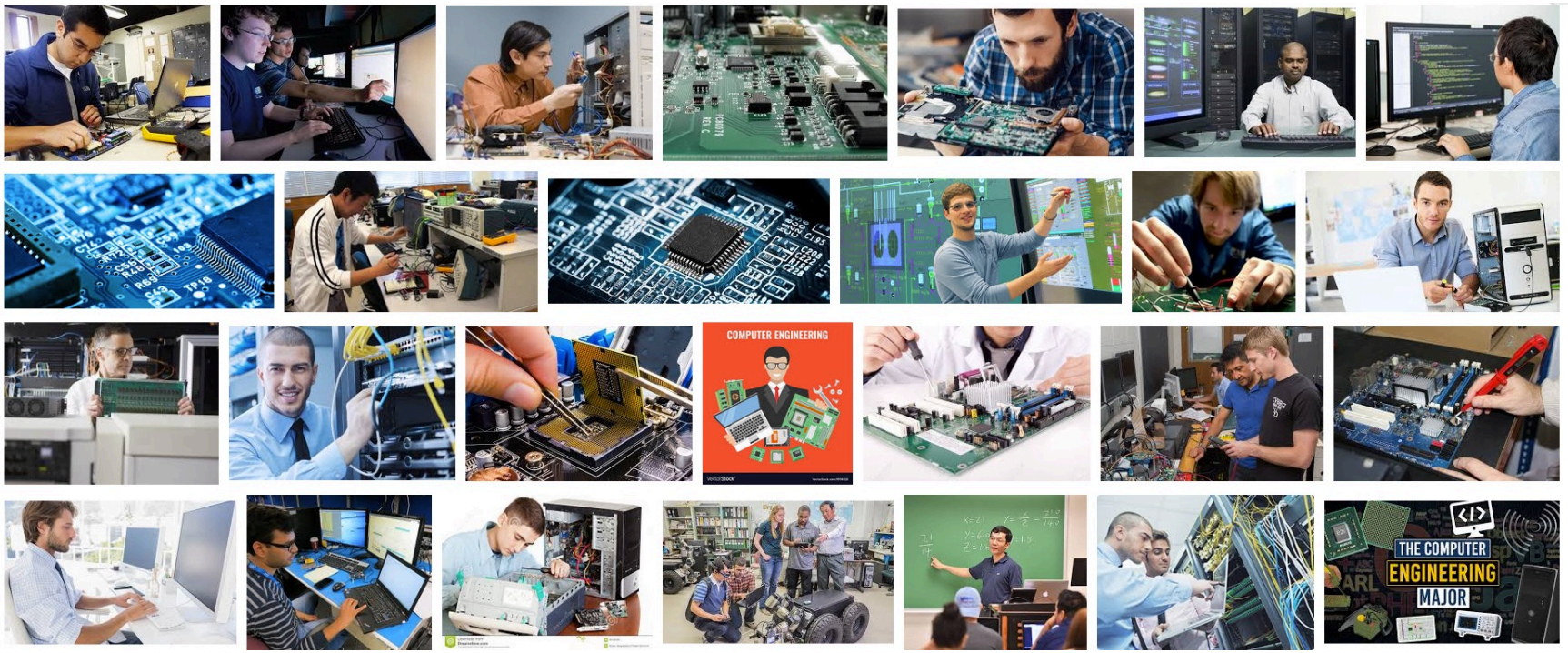
Melinda Gates

https://www.linkedin.com/pulse/how-tackle-impostor-syndrome-new-year-melinda-gates/?trk=mp-reader-card

What do you think?

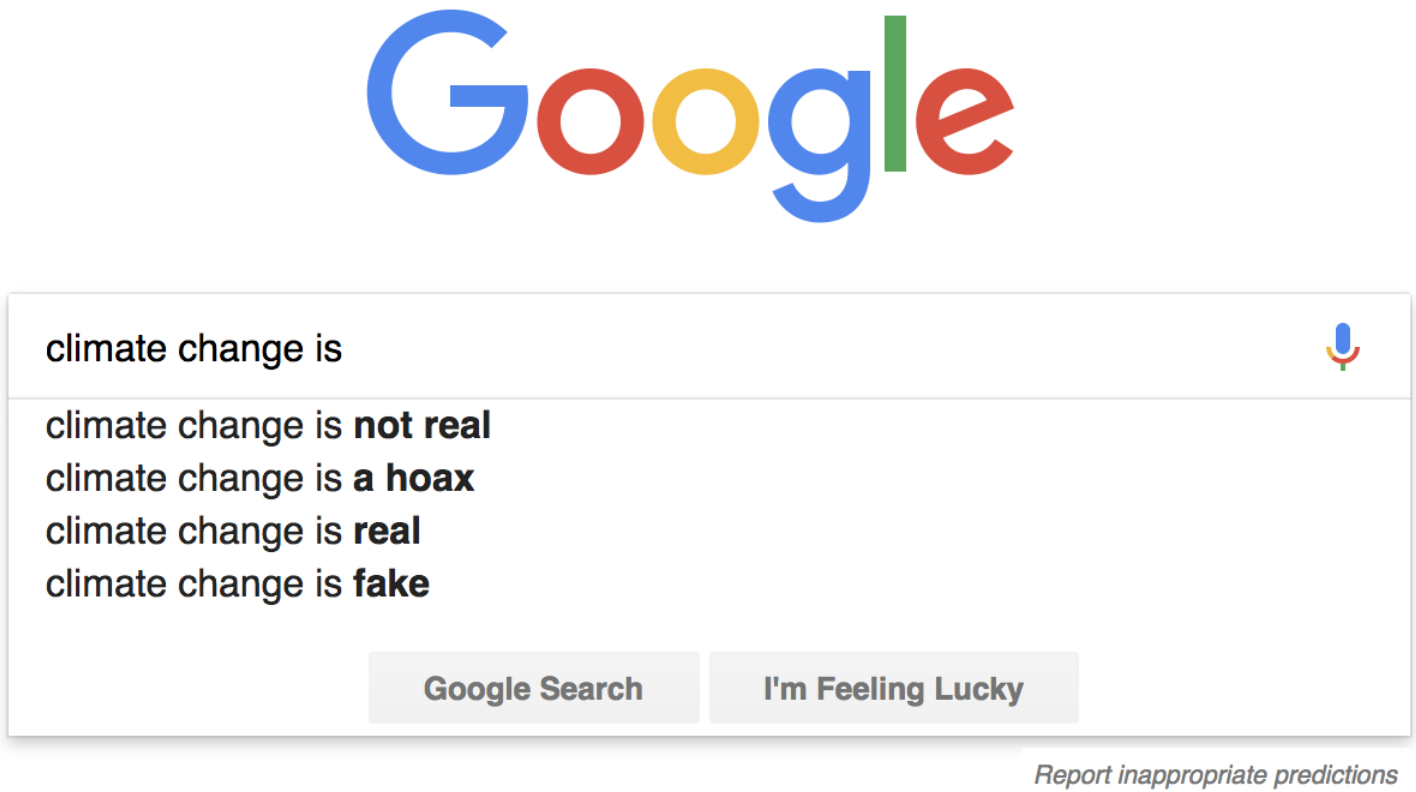
Google image results and **Imposter Syndrome**

Is there a relationship?



Screenshot
8/6/2018

Autocomplete

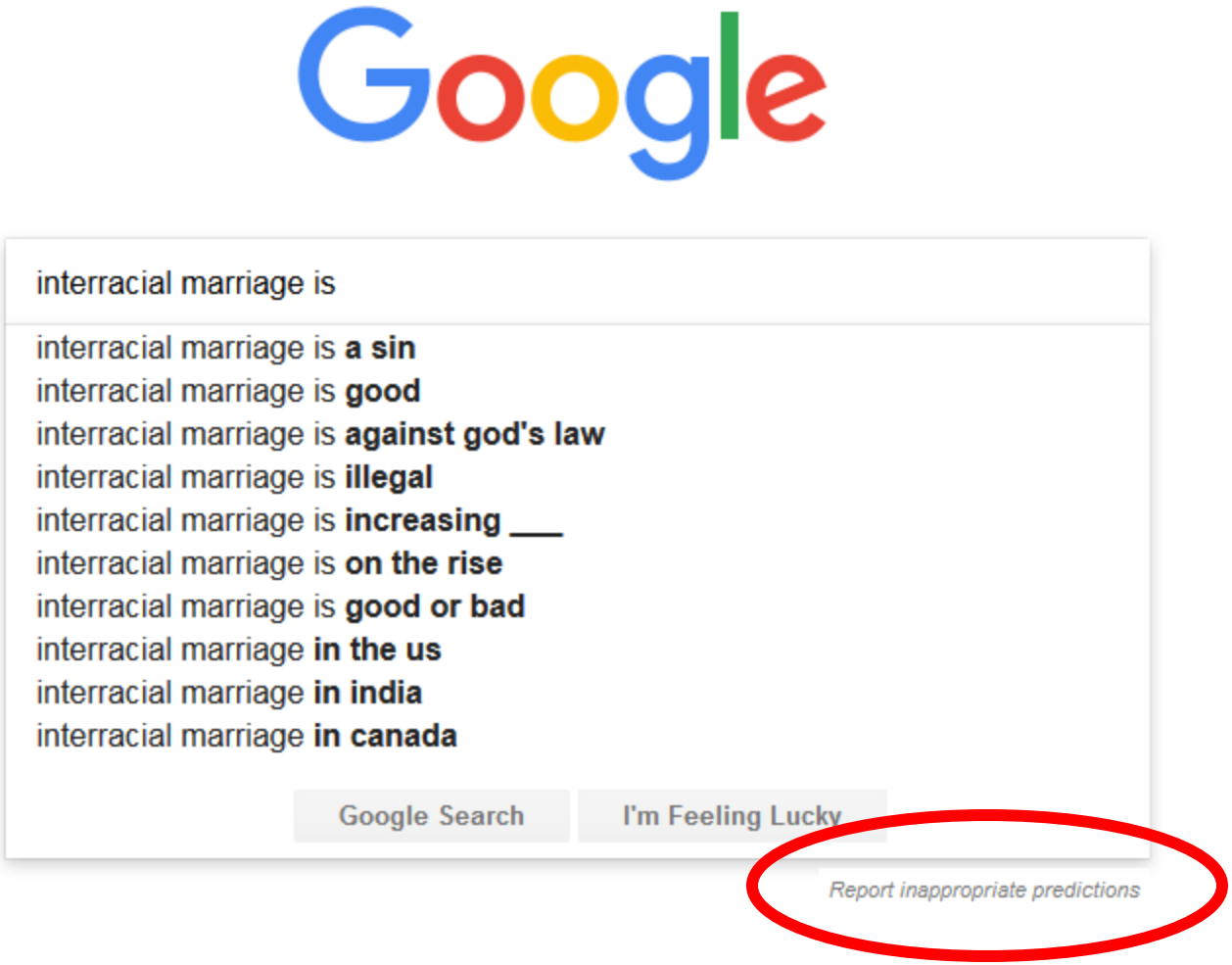


Screenshot
8/6/2018

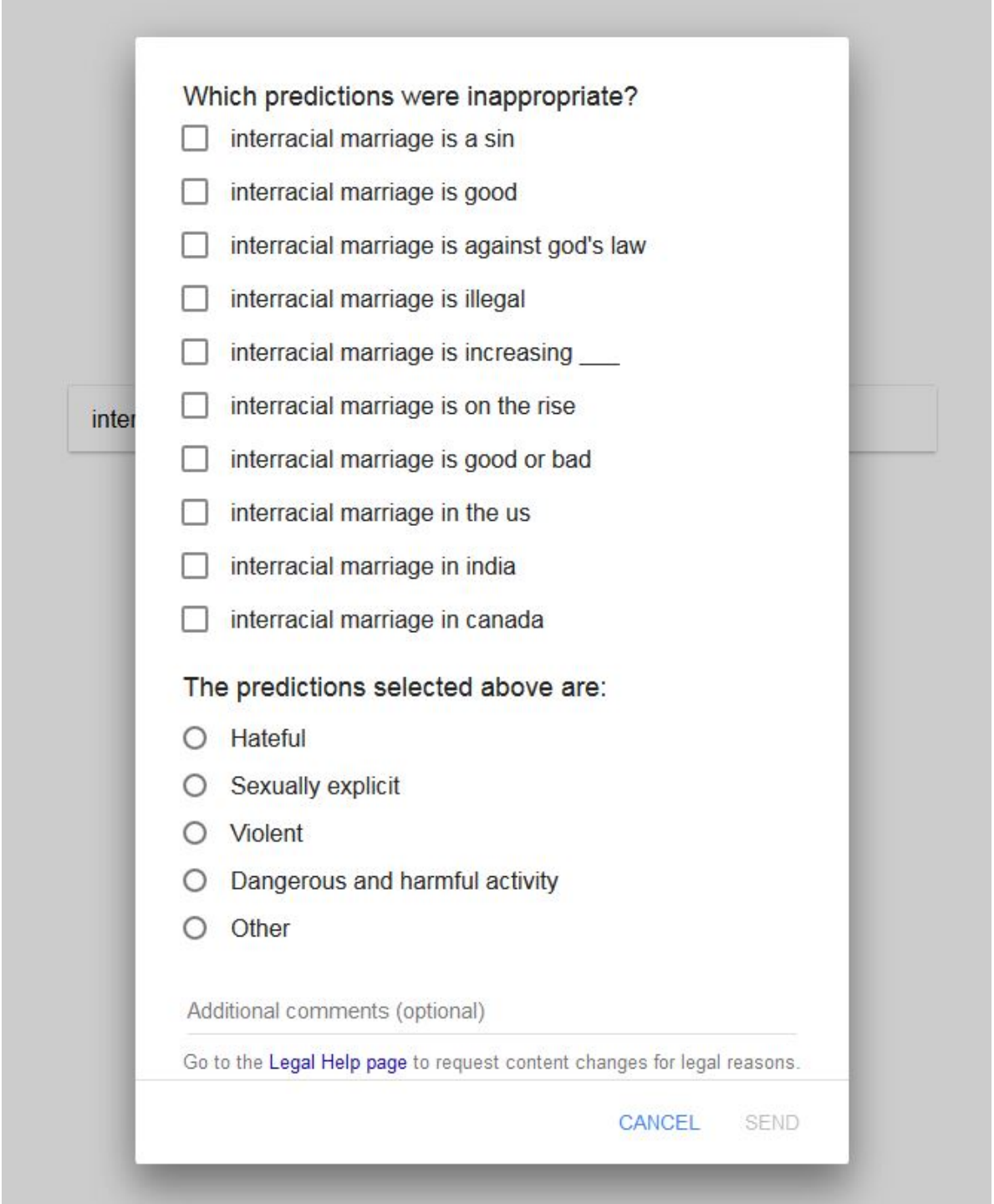
Pass out the worksheet

Take Action!

1. Report inappropriate predictions
2. Turn off autocomplete



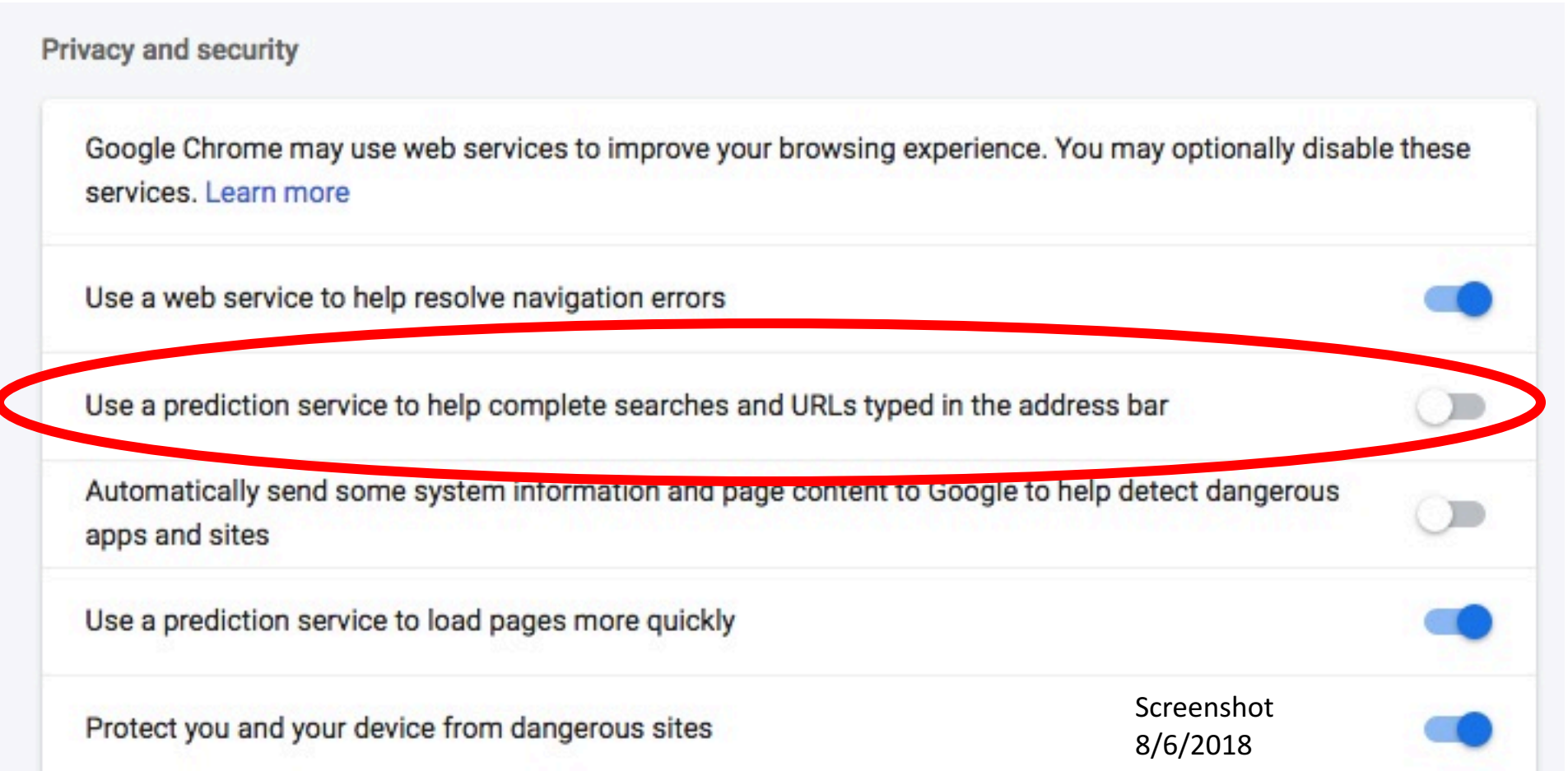
Screenshot
8/6/2018



Screenshot
8/6/2018

Disable Search Prediction In Desktop Chrome

1. Click Settings > Show Advanced Settings
2. Privacy and security

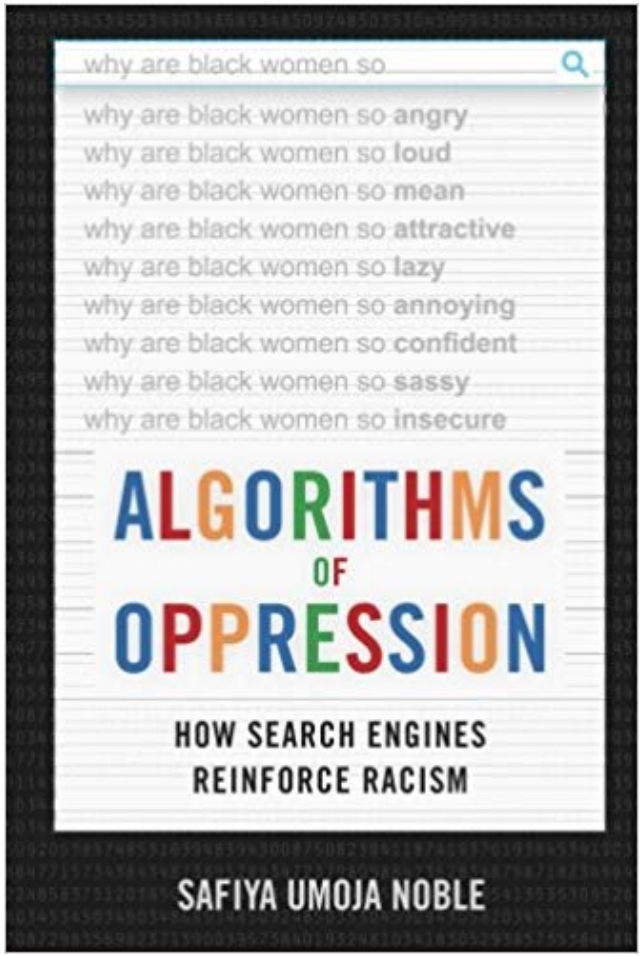


Screenshot 8/6/2018

Suggested Readings

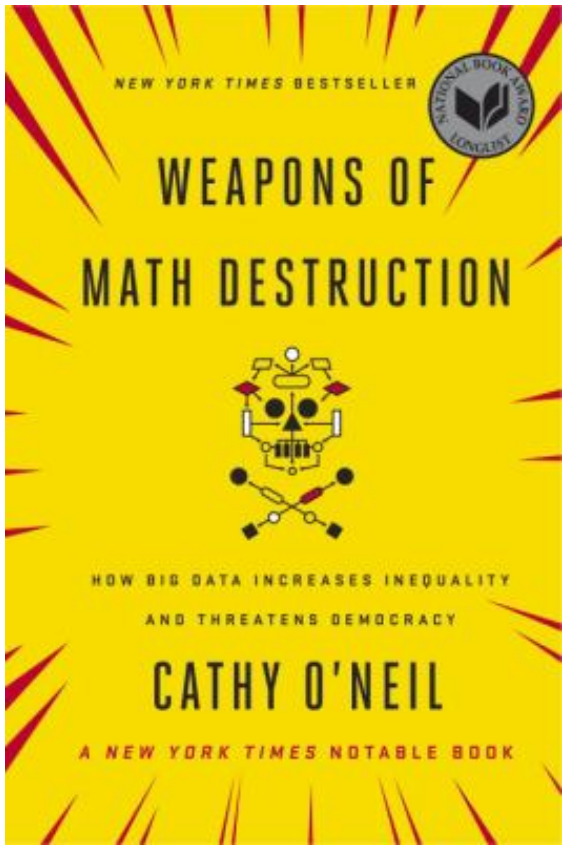
Need a research topic for fall semester?

Hint, hint…



eBook
http://linus.lmu.edu/record=b3484194~S2

Print Book
Main Stacks ZA4230 .N63 2018
(Library 3rd floor)



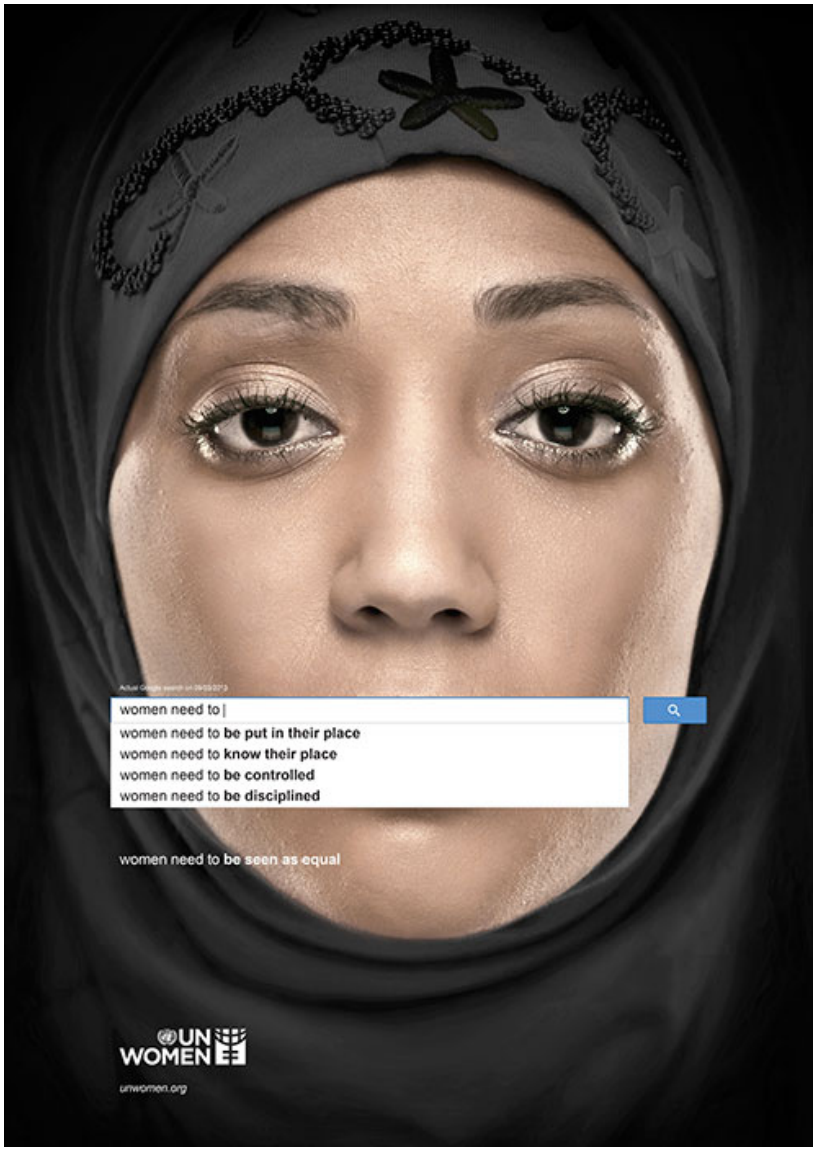
Print Book

Main Stacks QA76.9.B45 O64 2016

(Library 3rd floor)

UN Women ad series reveals widespread sexism

http://www.unwomen.org/en/news/stories/2013/10/women-should-ads



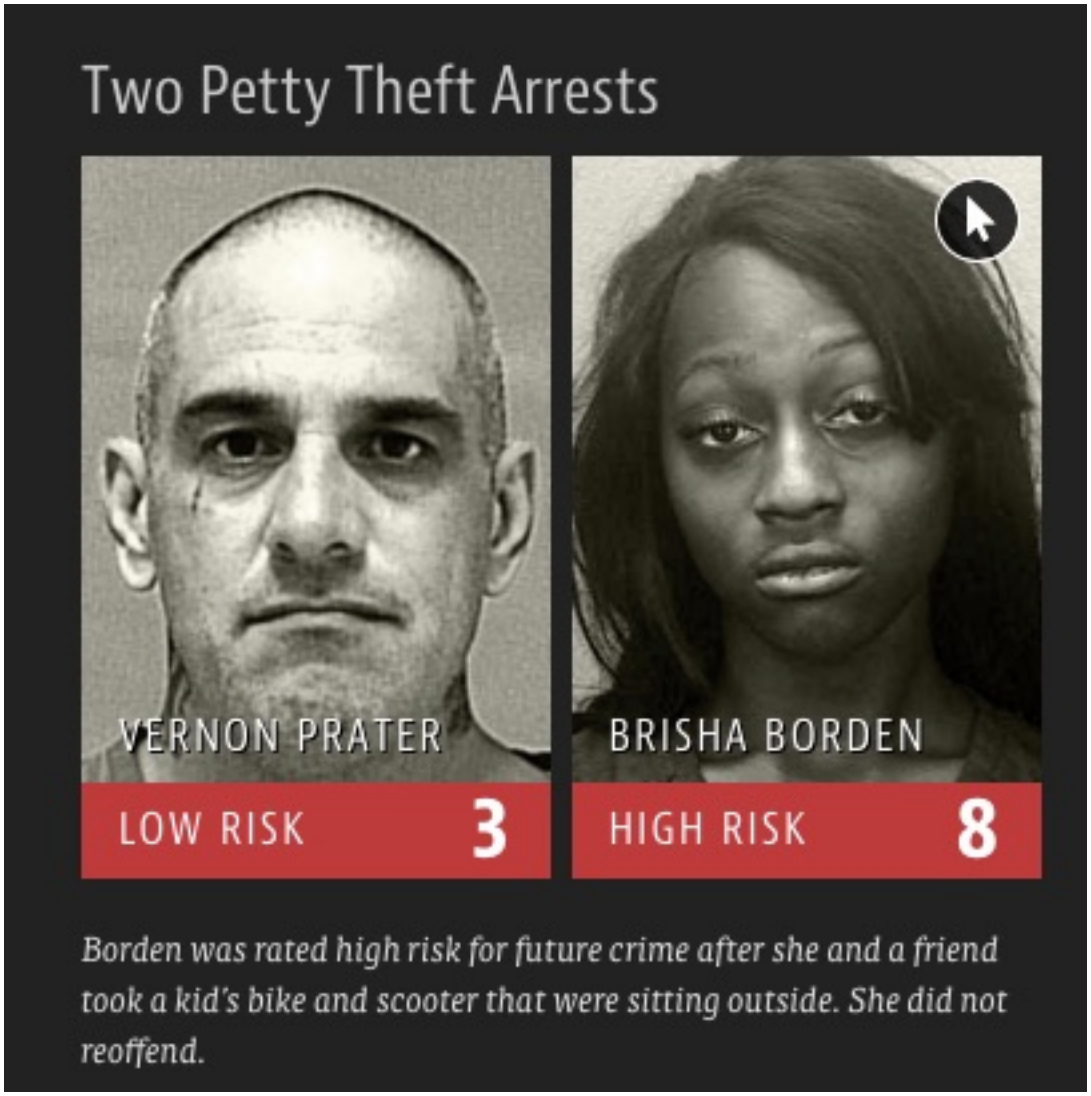
Based on Google searches dated 9 March, 2013 the ads expose negative sentiments ranging from stereotyping as well as outright denial of women's rights.

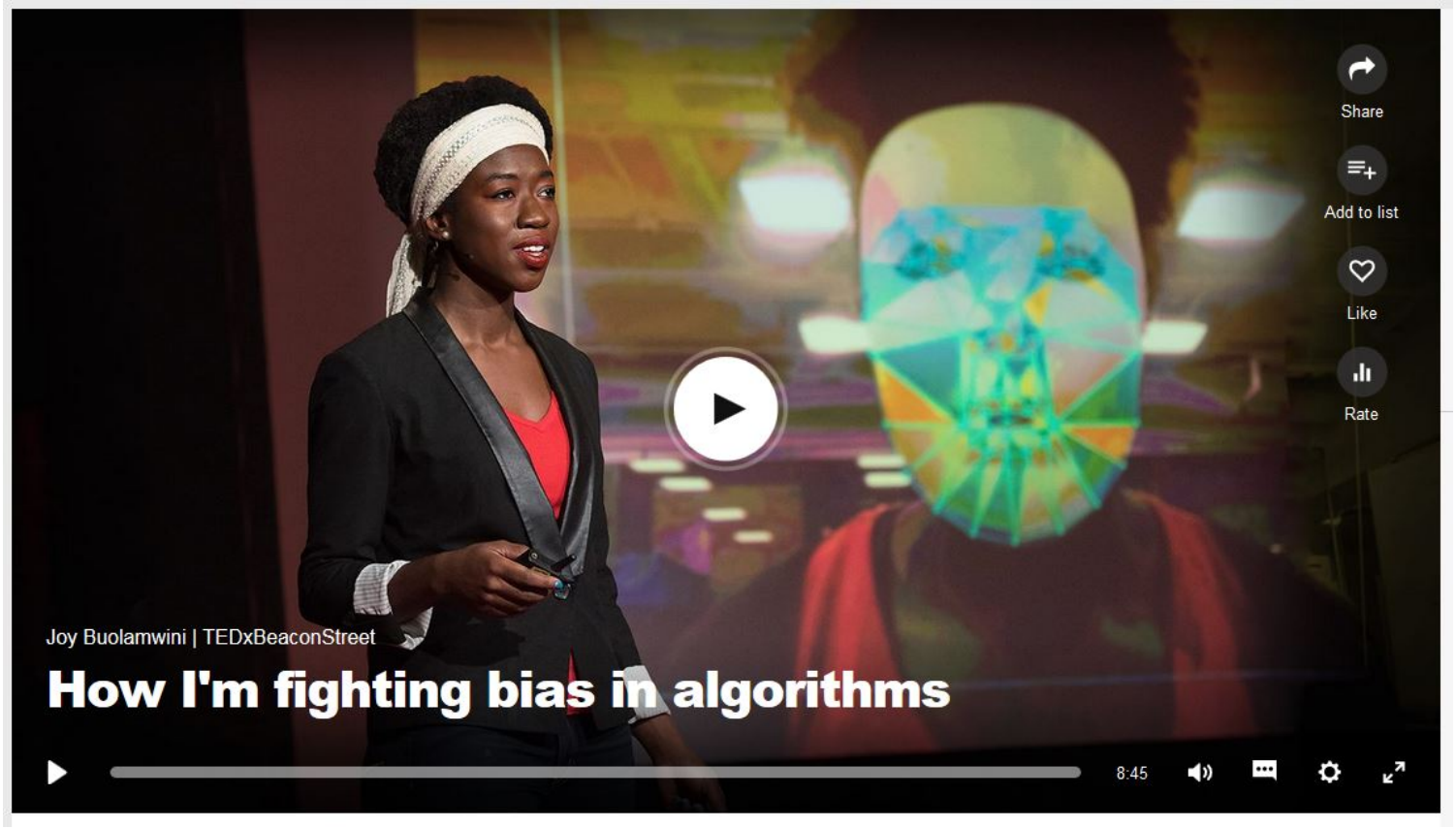
Machine Bias

There's software used across the country to predict future criminals. And it's biased against blacks.

by Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ***ProPublica*** May 23, 2016.

https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing





MIT grad student Joy Buolamwini was working with facial analysis software when she noticed a problem: the software didn't detect her face -- because the people who coded the algorithm hadn't taught it to identify a broad range of skin tones and facial structures….

https://www.ted.com/talks/joy_buolamwini_how_i_m_fighting_bias_in_algorithms

MACHINE BIAS

Facebook Lets Advertisers Exclude Users by Race

Facebook's system allows advertisers to exclude black, Hispanic, and other "ethnic affinities" from seeing ads.

by **Julia Angwin** and **Terry Parris Jr.**, Oct. 28, 2016, 1 p.m. EDT

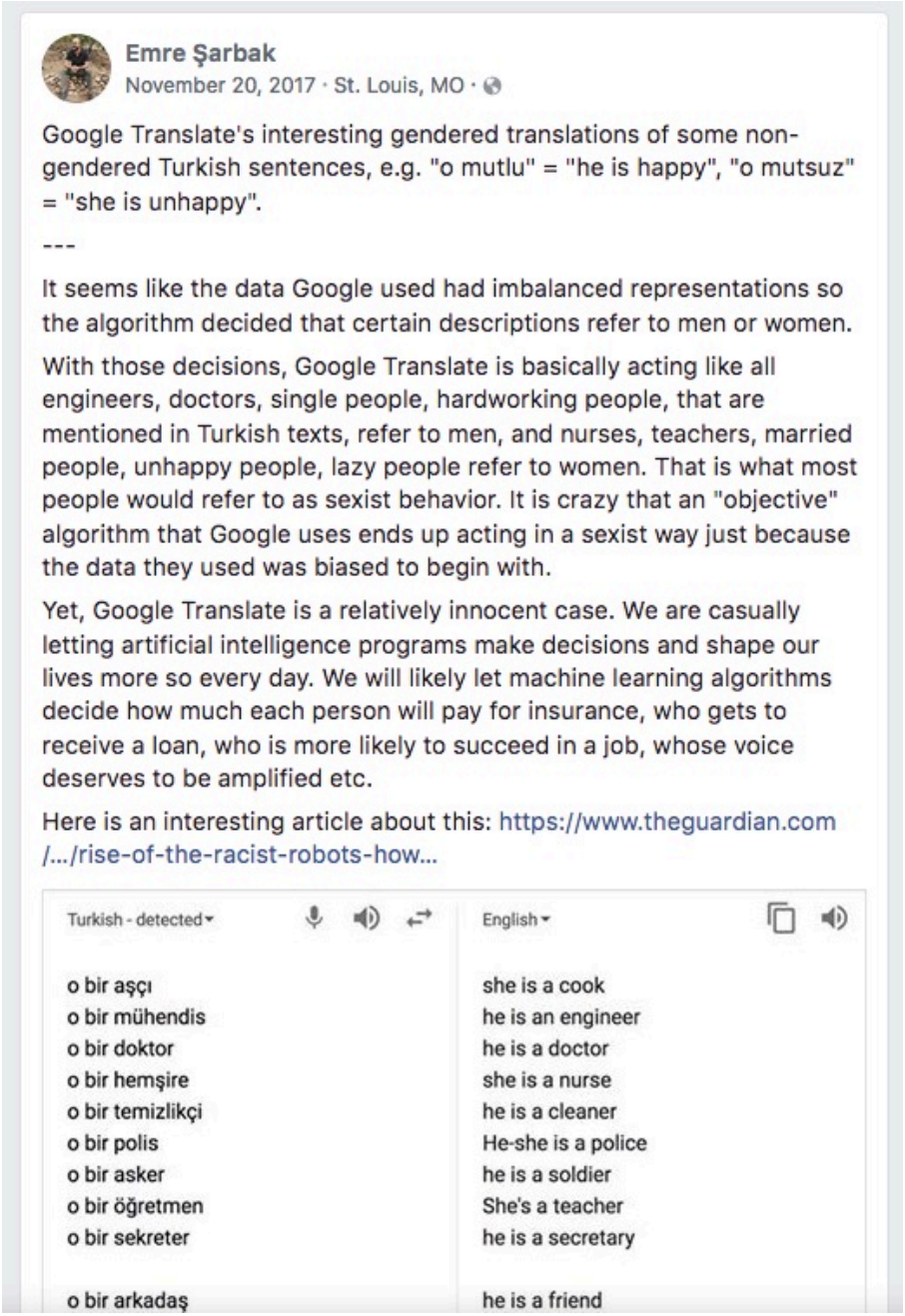
https://www.propublica.org/article/facebook-lets-advertisers-exclude-users-by-race

Google Translate might have a gender problem

https://mashable.com/2017/11/30/google-translate-sexism/#SlGiykU_Psqh

Rise of the racist robots – how AI is learning all our worst impulses

https://www.theguardian.com/inequality/2017/aug/08/rise-of-the-racist-robots-how-ai-is-learning-all-our-worst-impulses



Emre Şarbak
November 20, 2017 · St. Louis, MO ·

Google Translate's interesting gendered translations of some non-gendered Turkish sentences, e.g. "o mutlu" = "he is happy", "o mutsuz" = "she is unhappy".

It seems like the data Google used had imbalanced representations so the algorithm decided that certain descriptions refer to men or women.

With those decisions, Google Translate is basically acting like all engineers, doctors, single people, hardworking people, that are mentioned in Turkish texts, refer to men, and nurses, teachers, married people, unhappy people, lazy people refer to women. That is what most people would refer to as sexist behavior. It is crazy that an "objective" algorithm that Google uses ends up acting in a sexist way just because the data they used was biased to begin with.

Yet, Google Translate is a relatively innocent case. We are casually letting artificial intelligence programs make decisions and shape our lives more so every day. We will likely let machine learning algorithms decide how much each person will pay for insurance, who gets to receive a loan, who is more likely to succeed in a job, whose voice deserves to be amplified etc.

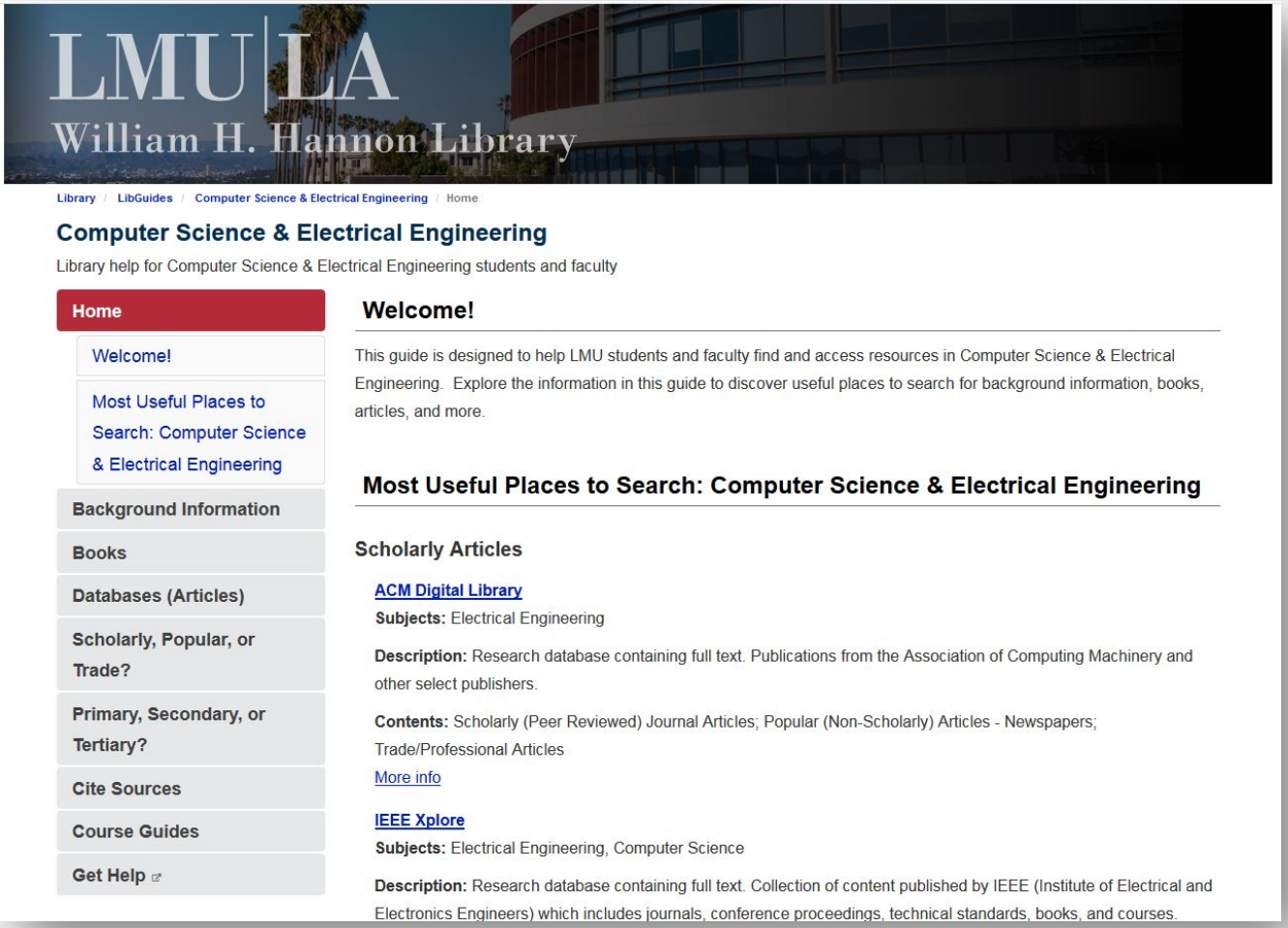
Here is an interesting article about this: https://www.theguardian.com/.../rise-of-the-racist-robots-how...

Turkish - detected	English
o bir aşçı	she is a cook
o bir mühendis	he is an engineer
o bir doktor	he is a doctor
o bir hemşire	she is a nurse
o bir temizlikçi	he is a cleaner
o bir polis	He-she is a police
o bir asker	he is a soldier
o bir öğretmen	She's a teacher
o bir sekreter	he is a secretary
o bir arkadaş	he is a friend

Library Resources

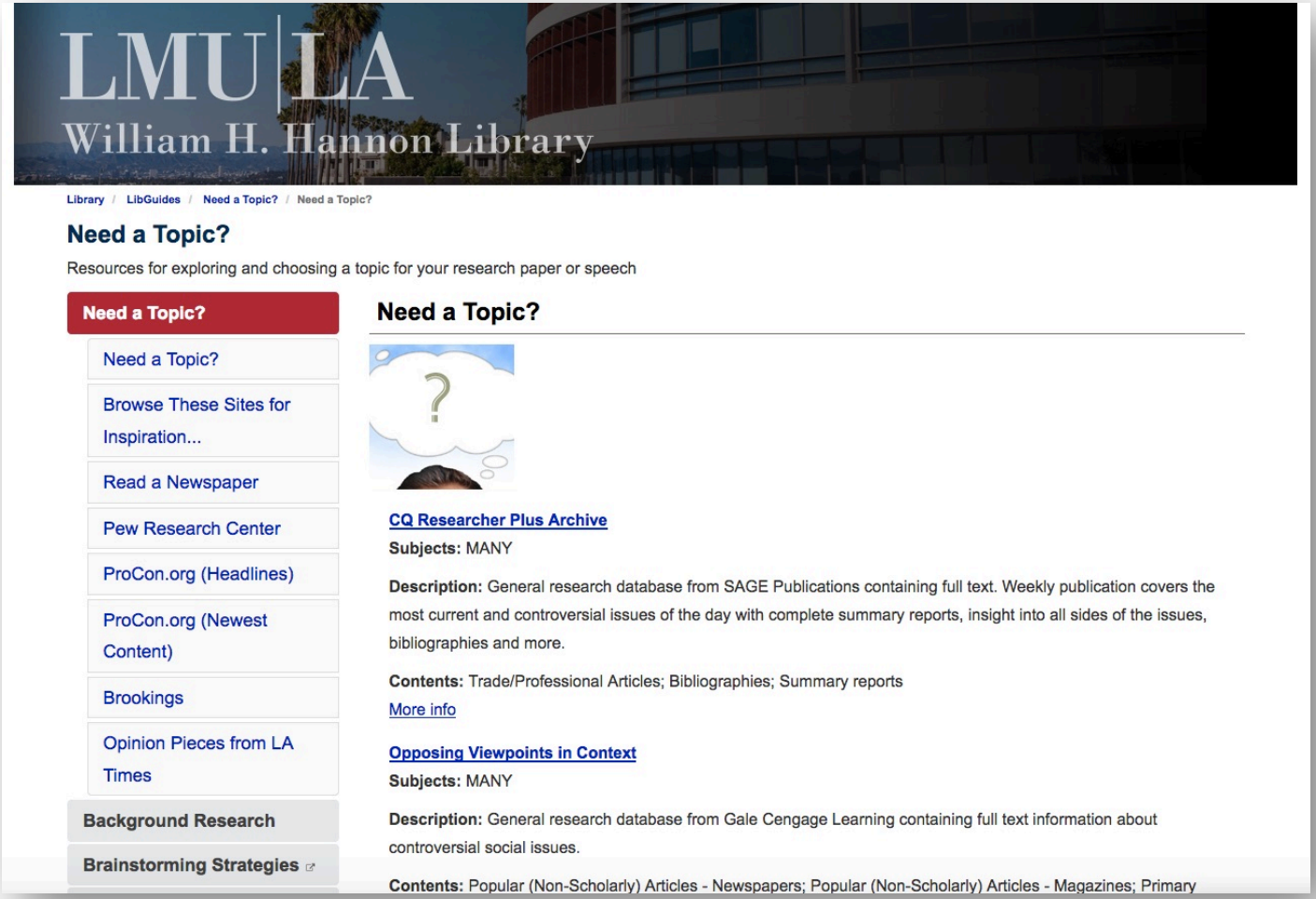
Computer Science LibGuide

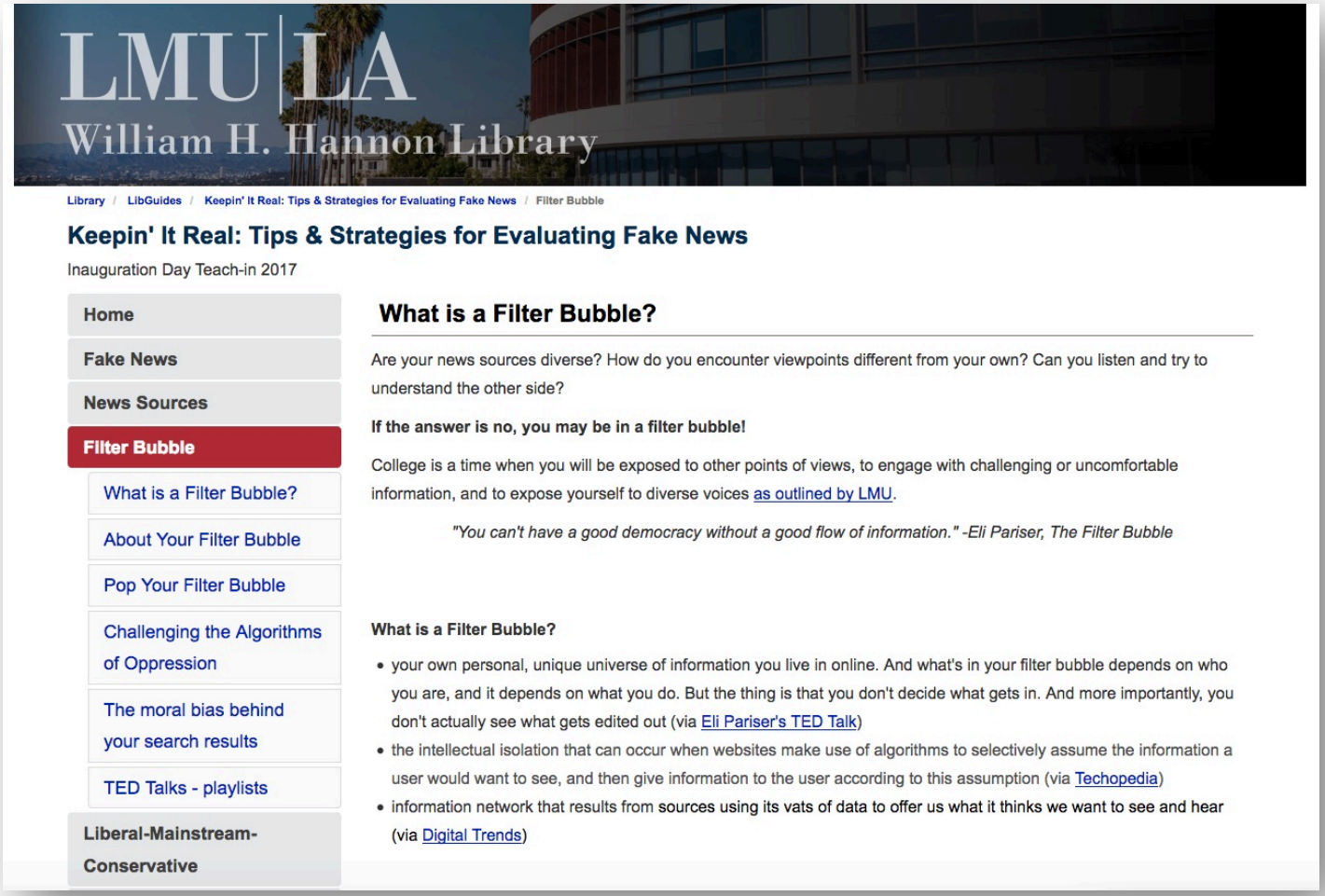
http://libguides.lmu.edu/cs_ee



Need a Topic?

http://libguides.lmu.edu/needatopic



Filter Bubble

http://libguides.lmu.edu/fakenews/FilterBubble