CS210: Social Media and Society

CS210 Fall 2017
Lecture 12
When a machine learning algorithm learns specifics of training data that do not generalize to untrained data, we call this...

a) Overfitting  
b) Paradox of the false positive  
c) P-hacking  
d) Proxy discrimination
When a machine learning algorithm can be biased using surrogate features that identify race, gender, or income, what do we call this?

a) Overfitting
b) Paradox of the false positive
c) P-hacking
d) Proxy discrimination
We discussed a machine learning algorithm that was trained to distinguish between wolves and dogs. It was fooled by snow in the background. What is this an example of?

a) Overfitting
b) Paradox of the false positive
c) P-hacking
d) Proxy discrimination
Administrative stuff

• W11 posted (last writing assignment!)
• R11 posted next week (last peer review!)
• Presentations begin Monday
  – Make sure you go to the right room
• Final exam: Monday 12/18 at 7pm in 2079 Natural History Building
• Conflict: 8am in 1103 SC (email me first)
• Practice exam will be posted next week
CHALLENGES OF SOCIAL MEDIA
Artificial Friendship

1. Our interactions in social networks are voluntarily
2. Social network identity is consciously, deliberately constructed
3. “True” friendship involves involuntary social queues to reveal our “real” personality
4. Online friendships are more shallow and artificial
Artificial Friendship

Do you think this is a problem?

A. Yes
B. Maybe
C. No
Social Polarization

1. People tend to be attracted to others with similar opinions.
2. Being exposed to similar opinions increases our prejudices.
3. We are likely to see online communities fracturing into polarized extremes.
Social Polarization

Do you think this is a problem?

A. Yes
B. Maybe
C. No
Anonymity and Deception

• Possible to create identities to confuse or manipulate others (“sock puppets”)
• Enables harassment or criminal activity
• Also enables whistleblowing and exploration of multiple identities
Fragmentation of Identity

• Our identity is spread across the internet
• How do we manage this?
• Is this fragmenting our sense of self?
• Are these multiple expressions of our true self?
• Does this contribute to deception or allow greater honesty?
Fragmentation of Identity

Do you think this is a problem?

A. Yes
B. Maybe
C. No
INTERNET AND DEMOCRACY
Benefits to Democracy

• Openness – ideas can be communicated freely and easily
• Empowerment – “gives voice to diverse social, economic, and cultural groups” - Nissenbaum
• Choice – more freedom to select voices we hear and communities we join
• Access to information – more data available at lower cost
Harms to Democracy

- Openness can be used to censor content
- Choice facilitates political fragmentation through “personalization” filters
  - “Your” internet is different than “mine”
  - autopropaganda – only see what you agree with
- Astroturfing – making a sponsored message appear to be “grassroots”
- Disinformation spreads easily
Filtering Undermines Democracy

PREMISE 1: Internet filtering reinforces ideas people already hold
PREMISE 2: Screening out information eliminates people’s exposure to new ideas
PREMISE 3: Decreased exposure to different points of view produces greater polarization
PREMISE 4: Increased polarization encourages extremism instead of compromise
PREMISE 5: Compromise is needed to resolve differences
PREMISE 6: Compromise is required in a democracy

CONCLUSION: Internet filtering undermines democracy
Filtering Undermines Democracy

Do you agree with Sunstein?

A. Yes
B. Maybe
C. No
Other Effects on Democracy

- Direct interaction with policy makers
- Easier to document abuses of power
- Precise targeted polling and campaigning
- Independent voices and media
- Blurs the line between journalists and public
- Can be used to organize campaigns, protests
- Decline of local newspapers and journalism
There is a new, radically different mode of information and attention flow: the chaotic world of the digitally networked public sphere...

The wide extent of digital connectivity might blind us to the power of this transformation. It should not.

- Zeynep Tufekci
[Social media during the 2016 election was] a howitzer firing flaming diapers into our souls.

- Chuck Wendig