ANNOUNCEMENTS

Next Tuesday (11/4) will be a review of the concepts covered in the last couple of weeks. Happy Halloween for those perusing the class website on 10/31!

ALGORITHMIC LIVING

The idea and the processing of algorithms have become a feature of cultural life; we must understand ourselves to be objects of algorithmic attention.

2 EXAMPLES

ONLINE DATING WEBSITE PROFILES

Users fill out a profile and algorithms present it to others using keywords/textual commodities

Drawback! A negative attitude toward the keywords will still be a “match”

Algorithms couldn't read the context

MY PROFILE
I dislike Harry Potter and camping.

MATCH!

LOOKING FOR
People who like Harry Potter

OCCUPY WALL STREET & TWITTER

Participants thought they were being censored by Twitter because it never became a “trending” topic

How could Kim Kardashian and Justin Bieber be more important?

Twitter didn't intend censorship but could not provide evidence to the contrary

All rankings are done via algorithms, which are constantly running

No one person has a complete understanding of Twitter's algorithms for trending topics

Marked an important point in history

Social media presence was just as important as traditional media

e.g. front page of New York Times

Twitter had become an important “measure” of how the movement was doing

Now it was necessary for algorithms to be “fair and honest”
ALGORITHMS

Algorithms are ever-changing, vast, and different at any moment in time

Evolution: School Theory to National to Cultural Significance

We are all objects of algorithmic attention

There needs to be more emphasis on becoming algorithm-literate

EXAMPLE OF CULTURAL LITERACY

Showing a PC user interface on TV

Requires an understanding of a computer UI to understand what's happening

Being "culturally literate"

e.g. hearing two clicks of a mouse and understanding that an action was taken

WHAT ALGORITHMS DO

Matching/recommendations (e.g. Twitter, Netflix)
Selection (e.g. Facebook News Feed)
Statistics from user data (e.g. GPA)
Image processing (e.g. facial recognition)
Predictions (e.g. weather, crime)
Personality tests
GPS/routing
Searches (e.g. Google)

WHY ARE ALGORITHMS VALUABLE?

They help provide an efficient, accurate, and unbiased method of evaluating data

<table>
<thead>
<tr>
<th>ALGORITHMS</th>
<th>HUMANS</th>
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<tbody>
<tr>
<td>impersonal</td>
<td>personal</td>
</tr>
<tr>
<td>objective</td>
<td>subjective</td>
</tr>
<tr>
<td>literal</td>
<td>patterning</td>
</tr>
<tr>
<td>&quot;black box&quot;</td>
<td>transparent</td>
</tr>
<tr>
<td>ability to handle large scope</td>
<td>limited scope</td>
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<tr>
<td>predictable</td>
<td>unpredictable</td>
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<tr>
<td>absence of bias</td>
<td>tendency toward bias</td>
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<tr>
<td>accuracy</td>
<td>can make mistakes</td>
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<tr>
<td>speed</td>
<td>physical limitations</td>
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GROUP WORK Still, there may be bias/inaccuracy within algorithms. List at least five.

Censorship/selectivity of data
Integrity
Variation
User error
Hardware limitations
Language/architecture
GROUP 14 PRESENTATION :: CREDIT SCORING

Note: Please reference the slides from Group 14 for a more accurate/complete picture of their presentation.

FICO: FAIR ISAAC AND COMPANY
Most widely used credit score
Range of 300 - 850
Predicts an estimate on future level of risk
Some employers check the scores of their employees
Based off of credit history (can have 3 different scores at once)
A good or “low risk” score is higher than 650

HISTORY OF CREDIT SCORING
In the 1950s, credit scoring was done through scorecards
Designed by asking questions printed on tables separated into difference categories
Used as an “unbiased” method, as any person could be reduced to a number
 e.g. someone could be judged without considering ethnic/racial backgrounds

<table>
<thead>
<tr>
<th>MEASURED</th>
<th>NOT MEASURED</th>
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<td></td>
<td>gender</td>
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<td></td>
<td>job title</td>
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IMPORTANCE OF CREDIT SCORES
“Pretty Good” vs best rating can mean a $40,000 difference in mortgages
A lower score means more interest paid
A single missed payment can lower the score by 100 points
Creates a form of trust between the user and lenders

HARD CHECK When companies look at your credit score (hurts your score with each check)
SOFT CHECK A credit check done through a website (will not hurt your score)
Society requires good credit scores to provide reliable finances
Drawback! Not all people have access to means of fostering good credit

TYPES OF CREDIT
Installment
Revolving
Must utilize both to have “good credit”

FICO DOMINANCE OVER OTHER ALGORITHMS
Replaces racial bias with a single number
Drawback! Single company has too much power (potential monopoly)
Operates on data sets that might not be clean/pure
3 different scores due to each score having different data on the user