CRIM 3600 Research Methods
Megan Denver
"Is It a Plant" Classroom Activity

Important Vocabulary

- Big Data: Volume, variety, velocity and veracity. Collects a large and diverse amount of data quickly and uses algorithms to categorize and re-categorize data.
- Algorithms: A set of procedures to be followed by certain technologies (computers, cell phones, etc). Algorithms typically rely on data and a set of instructions to "read" that data in some way
- Algorithmic Bias: The implicit biases that are reinforced and perpetuated through algorithms creation, the data collection, data analysis, the results, and the impact of these results
- Overfitting: The machine learning model/algorithm originally trained on one dataset does not generalize to other datasets
- Underfitting: The trained model does not capture the underlying trend in the actual data.
- Boolean Logic: Boolean Logic is a form of algebra which is centered around three simple words known as Boolean Operators: "Or," "And," and "Not" (https://www.lotame.com/what-is-boolean-logic/)

Instructions

Part 1: Creating Your Classifier

- Break into groups of 2-3 people
- Discuss the physical characteristics of a plant (what you can see in a photo)
- In the chart on the back of this page, write down 5-10 criteria for the characteristics of a plant in the "Criteria" column
    - *Try to use criteria that can be answered with TRUE or FALSE. Example: "A plant does not have eyes"*
    - *Do not fill out the image columns yet*

Part 2: Use Another Group's Classifier

- Pass your classifier to another group and get their classifier
- Use these classifiers to determine if the subjects in the upcoming photos are plants
- For each of the six images to be shown, go through each criteria and determine if it is "TRUE" or "FALSE" (T or F)

Part 3: In-class Discussion (feel free to get your classifier back and see how your group did)

Is It A Plant?

Criteria IMAGE	1	2	3	4	5	6
Example: Plants do not have eyes	T					

Link to online materials: http://bit.ly/33xzyUr
Questions? Contact us!
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