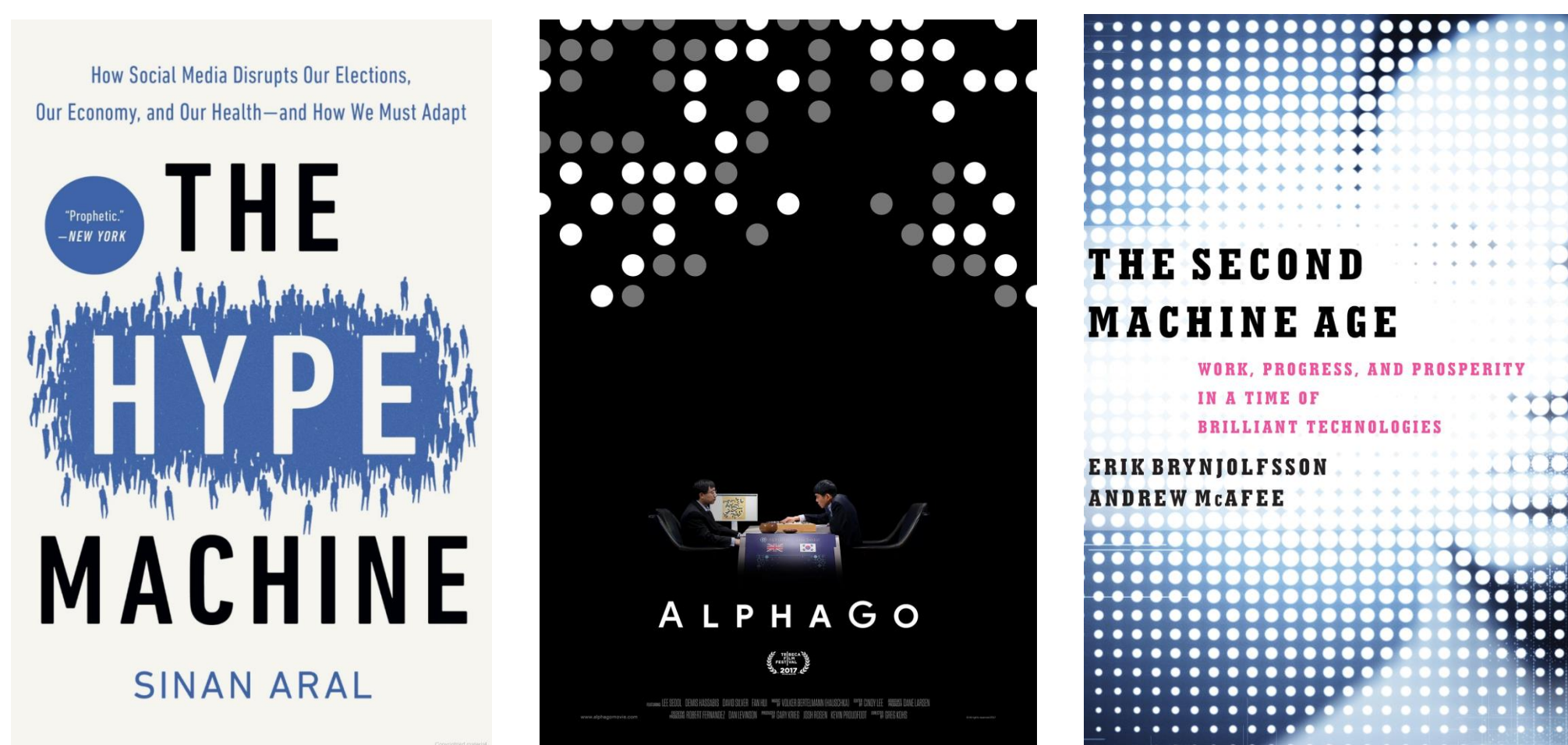


Data for Social Good (IE1171)

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Course Description

- Module 1: Essence of Data (machine learning applied to real-world datasets, e.g., medical diagnosis, loan approval, movie recommendation, etc.)
- Module 2: AI in the Fabrics of Society (ethics, algorithmic bias, data privacy, misinformation, media, law, economics)
- Module 3: Algorithms in the Wild (data for good case studies and semester project)



The class will be supplemented with documentaries and reading assignments from influential thinkers at the intersection of data and society.

Context and Background

- Data science and AI can be used to leverage both beneficial and harmful societal outcomes.



Applying machine learning methods to **real-world datasets**, students engage in **open-ended discussions** to develop **informed opinions** about their **societal implications**.

Project Outputs

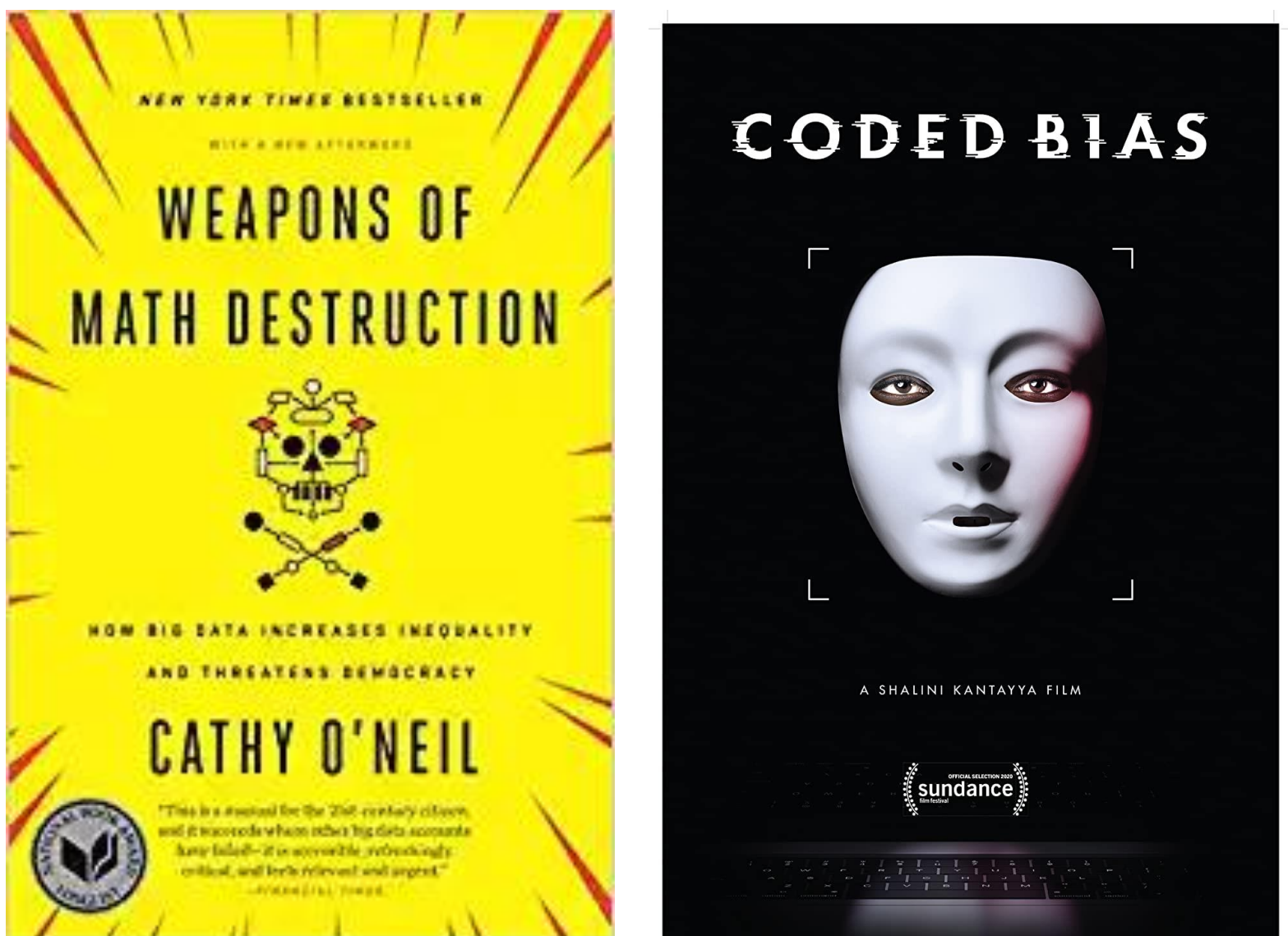
- New engineering elective offered in fall 2022 (IE1171)
- An online repository with course materials, including machine learning tutorials and articles for in-class discussions:
<https://github.com/aminrahimian/data-for-good>

Impact

- Students will learn real-world applications of data science with an appreciation for its social implications
- More socially aware graduates with the ability to develop informed opinions about the use of data in society

DEI Values

- Emphasis on algorithmic fairness and ensuring equity in machine learning
- Recruitment of URM from Swanson Diversity Organizations such as NSBE, SWE, SHPE, and SASE
- Use of CATME to divide students into diverse, balanced groups for the semester project



References

