Author's Commentary and Instructor Notes

Role-play Instructions

1. Each student is assigned a role a week before the discussion.

2. Students assigned to the role of Nina serve as the moderator and lead the conversation based on the script below.

3. The script provided below is there to guide the discussion, but you should leave room for the conversation to flow naturally and allow everyone to contribute.

Role-play script (for Nina)

1. What role are you playing in the role-play group discussion? Please state the name, title, and describe the role in your own words (couple of sentences).
[to be answered by each group members individually and in a sequence]

2. From the perspective of your role, what do you consider to be the best approach to decide on a loan application – what factors should be considered and how should these factors be weighed (what should get more importance)?
[to be answered by each group members individually and in a sequence]

3. What decision should Nina take on Yilmaz's loan: should it be approved or declined? What additional information would you recommend Nina try to obtain in order to make the decision, keeping in mind that there is not much time left to acquire that information?
[to be answered by each group members individually and in a sequence]

4. What is your overall group recommendation to Nina?
[open discussion, anyone can chime in]

One way to ensure students are prepared for the discussion is to assign a few questions from the script as a pre-discussion assignment (short answers). Similarly, to ensure students reflect on the discussion, they can be assigned the last question from the script as a post-discussion exercise. They can also be asked specifically about concepts or concerns considered in making a loan.

Reflective Exercise

[This can be individual or group]
- What solution was reached following the discussion?
- What criteria were considered to reach this solution?
- Was the solution agreed to by all or did one person have more influence? Why?
- Do you personally agree with the solution reached? Why/Why not?
- Did playing a role help you/change in perspective (before/after the discussion)?

Dataset for Additional Analysis

https://www.kaggle.com/datasets/uciml/german-credit

Lee, M. S. A., & Floridi, L. (2021). Algorithmic fairness in mortgage lending: from absolute conditions to relational trade-offs. Minds and Machines, 31(1), 165-191. (Link to data used: https://www.consumerfinance.gov/data-research/hmda/historic-data/)

Frameworks

Klein, A. (2020). Reducing bias in AI based financial services, Brookings Institution. https://www.brookings.edu/articles/reducing-bias-in-ai-based-financial-services/

World Bank's Credit Scoring Approaches Guidance: https://thedocs.worldbank.org/en/doc/935891585869698451-0130022020/original/CREDITSCORINGAPPROACHESGUIDELINESFINALWEB.pdf

Background Resources

•   Susan Etlinger - What do we do with all this big data? TED Talk http://www.ted.com/talks/susan_etlinger_what_do_we_do_with_all_this_big_data

•   Cathy O'Neil: The Era of Blind Faith in Big Data Must End TED Talk https://www.ted.com/talks/cathy_o_neil_the_era_of_blind_faith_in_big_data_must_end?language=en

•   Shivani Siroya – A smart loan for people with no credit history (yet) TED Talk https://www.ted.com/talks/shivani_siroya_a_smart_loan_for_people_with_no_credit_history_yet?language=en

•   Michael Volpe, "Experts say artificial intelligence contributes to discrimination in lending" July 10, 2019, In The News https://sylviagarcia.house.gov/media/in-the-news/experts-say-artificial-intelligence-contributes-discrimination-lending

•   New York Times, Is an Algorithm Less Racist than a loan officer? https://www.nytimes.com/2020/09/18/business/digital-mortgages.html

•   Townson, S. "AI can make bank loans more fair", HBR (2020) https://hbr.org/2020/11/ai-can-make-bank-loans-more-fair

•   Berg et al., NBER Working Paper, "The rise of FinTechs: Credit scoring using digital footprints" https://www.nber.org/papers/w24551

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