Sociotechnical Challenge Modelling - Facilitation Guide

> This guide is for facilitators employing the Sociotechnical Challenge Modelling method. It provides background information on how to run the workshop and points to consider during planning.

Materials

Example

1. Sociotechnical challenge cards
2. Countermeasure worksheet
3. Severity x Likelihood template
4. Monitor for screen sharing

Activity 1: Challenge Prioritization

Duration: 90 minutes

Task

- As a group, discuss each of the 11 sociotechnical challenges of machine learning.
- The objective is to prioritize each challenge based on the likelihood of it arising and its potential impact.
- After the activity, identify three high-priority challenges to discuss in the second part of the workshop.

Preparation

- Create a Severity x Likelihood scale.
- Distribute decks of sociotechnical challenge cards to the group.
- Choose one card for the group to begin with.

Instructions for Participants:

- Go through each challenge one by one.
- Spend two minutes individually reviewing the first card.
- Each card has a challenge title, description, example, and a few questions to prompt your thinking.

Facilitation Questions

> **Causes**:
>
> 1. What could cause this challenge to arise?
> 2. How likely is this challenge to arise?
>
> **Consequences**:
>
> 1. If this challenge occurs, what consequences will it have?
> 2. How severe would those consequences be?

Tips

- Please review the prioritized challenges and raise any disagreements before moving on.

Activity 2: Countermeasure Planning

Duration: 60 minutes

Task

- Split into three groups; each group selects one of the prioritized sociotechnical challenges to discuss.
- There will be two steps to this activity: brainstorming and planning.
- For the brainstorming, you will come up with eight distinct countermeasure ideas in eight minutes.
- For the planning, you will define a set of 3 to 5 countermeasures using your ideas and a set of predefined countermeasures.
- After 12 minutes, regroup, and each group will share their discussions.
- After this activity, you'll have an action plan for addressing the top 3 sociotechnical challenges in your project.

Preparation

- Split into three groups and assign a challenge to each group.
- Hand out countermeasure worksheets.

Group Discussion Questions

After each group presents their countermeasures, discuss:

1. How suitable are the proposed countermeasures?
2. What other countermeasures may be suitable for addressing this challenge?
3. Who is responsible for implementing this countermeasure?

Wrap-Up

Wrap-Up Questions

1. Could someone please summarize what we learned while discussing the 11 sociotechnical challenges?
2. Could someone walk us through our discussion on the countermeasures?
3. What is one key learning that you will take away from this session?

Next Steps

1. Draft a summary of the workshop output.
2. Confirm if participants would like a presentation of the workshop findings.
3. Sign up for feedback interviews.