
Exercise 4: Create Visualization Using MindMap Tools

Exercise overview

In this collaborative activity, you will create visual maps comparing multiple AI governance frameworks. The goal is to explore and present core principles, similarities, and overlaps between selected frameworks to foster a deeper understanding of responsible AI practices.

Use case: Mapping AI governance frameworks for risk alignment

Background

Organizations often face challenges in aligning with multiple AI frameworks (e.g., NIST AI RMF, EU AI Act, ISO 42001). This exercise supports teams in synthesizing and visualizing commonalities, differences, and responsibilities using MindMap tools to aid cross-functional understanding and compliance planning.

In this exercise, you will:

- Use MindMap tools to:
 - Visualize core principles and structures
 - Identify similarities and differences
 - Highlight overlapping risk categories and responsibilities
 - Present findings to the class

Estimated completion time

30 minutes

Task 1: Group setup

Objective: Form collaborative groups

1. Divide into small groups (3-5 members - Zoom breakout rooms)
2. Groups will choose or be assigned 2-3 different AI frameworks to compare from the following pre-approved frameworks:
 - NIST AI RMF: <https://www.nist.gov/itl/ai-risk-management-framework>
 - EU AI Act: <https://artificialintelligenceact.eu/> (Summary is useful)
 - ISO/IEC 42001: <https://www.iso.org/standard/81228.html> (Note: Paid for document)
 - OECD AI Principles: <https://oecd.ai/en/ai-principles>
 - <https://Infotech.com>

Participants may use any free or lab-approved tool. Options include:

- Miro (Free Plan)
- XMind (Free Desktop Version - Installed in the lab)
- MindMeister (Limited Free Tier)
- Draw.io / diagrams.net (Recommended for labs with no licensed software)

Note

Xmind has been installed in the provided lab environment. Groups can either elect one member to update the Mind Map, sharing their screen via Zoom, or members can all update their own Mind Maps to the group decisions.

Task 2: Framework breakdown

Objective: Analyze assigned frameworks

3. Research the purpose, scope, and structure of each assigned framework.
4. Extract principles, risk categories, controls, and governance roles.
5. Note unique vs. common features in each framework.

Task 3: MindMap visualization

Objective: Create visual mapping of the frameworks

Using a MindMap tool:

1. Create a central node for each framework.
2. Add branches for key elements: principles, stakeholders, risk controls.
3. Highlight overlapping nodes and differences in obligations or approaches.
4. Use icons, colors, or labels to differentiate responsibilities (e.g., developers vs. auditors).

Task 4: Presentation and reflection

Objective: Share insights with other groups

Each group presents their MindMap (5-7 minutes). During the presentation, groups should:

1. Highlight key similarities across frameworks.
2. Discuss unique features of each framework.
3. Point out any conflicts, gaps, or overlapping governance areas.
4. Reflect on how these overlaps or contradictions might affect real-world implementation.

Final output: Group summary map

Sample output:

Team: Group B

Frameworks compared: NIST AI RMF, EU AI Act, ISO 42001

Key observations:

- All three emphasize risk management and transparency
- EU AI Act is more compliance-oriented, while NIST focuses on voluntary risk guidance
- ISO 42001 bridges operational and management layers
- Common governance roles: data stewards, risk owners, auditors
- Overlapping risk domains: bias, explainability, robustness
- Visual Map tool used: Miro

Recommendation:

- Combine core elements into a unified internal AI governance policy using insights from visual mapping.

Exercise review

5. What is the purpose of using MindMap tools in this exercise?
 - A. Run simulations
 - B. Create hierarchical visuals of AI risk frameworks
 - C. Measure model performance
 - D. Code AI governance rules
6. Which of the following is not a common feature among NIST, ISO 42001, and EU AI Act?
 - A. Emphasis on risk management
 - B. Defined roles and responsibilities
 - C. Black-box model deployment
 - D. Transparency requirements

STOP

You have successfully completed this exercise.