Project Proposal

Title: Designing and Implementing a Psychology-Inspired Project
Special Theme: AI and Psychology
Topic: Trust in Human–AI Interaction

1. Rationale for Choosing the Topic

Artificial Intelligence (AI) is increasingly integrated into everyday life. People rely on AI for problem-solving, advice, and information. How much individuals trust AI is crucial because trust determines whether people act on AI recommendations responsibly.

Trust in AI can emerge because AI is perceived as:

- **Non-judgmental** – AI does not criticize or gossip.

- **Always available** – AI tools are accessible at any time.

- **Solution-oriented** – AI provides quick, structured responses.

However, blind trust in AI can be risky. AI systems may be biased, incomplete, or misleading. Over-reliance without questioning AI outputs can affect decision-making and reduce the value of human-to-human trust.

This research focuses solely on **trust in AI**, aiming to explore how individuals perceive AI's intentions, reliability, and integrity, and to identify the factors that influence trust in AI systems.

2. Research Question, Hypothesis, and Objectives

Research Question:

- How do individuals perceive and trust AI technology in their daily lives?

Hypothesis:

- Participants' trust in AI will vary depending on perceived reliability, integrity, security, and harmful potential. Greater perceived reliability and integrity will correlate with

higher trust, while suspicion and perceived harmfulness will correlate with lower trust.

Objectives:

1. To measure the general level of trust participants have in AI.

2. To examine how perceptions of AI's reliability, integrity, and security influence trust.

3. To identify concerns or suspicions participants may have about AI.

4. To contribute to awareness on responsible interaction with AI systems.

3. Research Design and Methodology

Design:

- Quantitative, survey-based research.

Participants:

- Sample size: 50-80 university students (ages 20–25).

- Sampling method: Convenience sampling within the university.

Data Collection Tool:

- Structured questionnaire with 5-point Likert-scale items (1 = Strongly Disagree, 5 = Strongly Agree).

- Questions cover perceptions of AI's deception, harmfulness, security, integrity, reliability, and overall trust.

Ethical Considerations:

- Informed consent will be obtained.

- Participation is voluntary and anonymous.

- No personal or sensitive data will be collected.

- Participants can withdraw at any time without penalty.

4. Psychological Concepts Studied

1. **Trust** – confidence in AI as a source of information, advice, or decisions.

2. **Suspicion and Caution** – evaluating potential risks or harmful outcomes.

3. **Perceived Reliability and Integrity** – assessing AI's dependability and ethical behavior.

4. **Human–AI Interaction** – psychological aspects of interacting with AI in everyday life.

5. Survey Instrument

Demographics

1. Age: _____

2. Gender: Male / Female / Prefer not to say

3. Field of Study: _____

Familiarity with AI Technology

- Not familiar at all / Slightly familiar / Moderately familiar / Very familiar / Extremely familiar

Perceptions and Trust in AI (5-point Likert scale: 1 = Strongly Disagree, 5 = Strongly Agree)

1. The AI is deceptive.

2. The AI behaves in an underhanded manner.

3. I am suspicious of the AI's intent, action, or outputs.

4. I am wary of the AI.

5. The AI's actions will have a harmful or injurious outcome.

6. I am confident in AI.

7. The AI provides security.

8. The AI has integrity.

9. The AI is dependable.

10. The AI is reliable.

11. I can trust the AI.

6. Expected Outcomes

- Identification of **general trust levels** in AI among university students.

- Insights into which perceptions (e.g., reliability, integrity, harmfulness) are most strongly associated with trust.

- Understanding of **suspicion or concern factors** that reduce trust in AI.

- Recommendations for fostering **responsible and informed trust** in AI technologies.