Vision, Challenges, Roles and Research Issues of AI in Education

- **Key Idea:** AI in education (AIED) faces cross-disciplinary challenges but offers frameworks for precision interventions.

- **Roles of AI in Learning:**
    - Intelligent Tutor (guides learners).
    - Intelligent Tutee (learner teaches AI).
    - Learning Partner/Tool (supports higher-order thinking).
    - Policy-Making Advisor (guides systemic decisions).

- **Research Challenges:** Personalization, evaluation of AI effectiveness, redefining theories, big data analytics, ethics, human-AI collaboration.

- **Connection to Study:** Provides methodological parallels: just as AIED aligns AI to learning outcomes, my study aligns sentiment AI to *business performance outcomes*. Precision interventions in clinics resemble "personalized education" — e.g., customizing clinic improvements based on feedback analysis.