**Questionnaire**

This dataset contains the results of a survey conducted on **undergraduate students enrolled in the 2nd and 3rd year of study at the Faculty of Cybernetics, Statistics and Economic Informatics**. The survey was conducted online and distributed through social media groups. The aim of the survey was to gather insights into students' perceptions of the role of **artificial intelligence in education**.

**Question 1**: On a scale of 1 to 10, how informed do you think you are about the concept of artificial intelligence? (1-not informed at all, 10-extremely informed)

**Question 2**: What sources do you use to learn about the concept of artificial intelligence?

Internet  
Books/Scientific papers (physical/online format)  
Social media  
Discussions with family/friends  
I don't inform myself about AI

**Question 3**: Express your agreement or disagreement with the following statements: (Strongly Disagree, Partially Disagree, Neutral, Partially Agree, Fully Agree)

1. AI encourages dehumanization
2. Robots will replace people at work
3. AI helps to solve many problems in society (education, agriculture, medicine), managing time and dangerous situations more efficiently
4. AI will rule society

**Question 4**: Express your agreement or disagreement with the following statements: (Strongly Disagree, Partially Disagree, Neutral, Partially Agree, Fully Agree)

1. Machinery using AI is very expensive and resource intensive to build and maintain
2. AI will lead to a global economic crisis
3. AI will help global economic growth
4. AI leads to job losses

**Question 5**: When you think about AI do you feel:  
o Curiosity  
o Fear  
o Indifference  
o Trust

**Question 6**: In which areas do you think AI would have a big impact?  
-Education  
-Medicine  
-Agriculture  
-Constructions  
-Marketing  
-Public administration  
-Art

**Question 7**: On a scale of 1 to 10, how useful do you think AI would be in the educational process? (1- not useful at all, 10-extremely useful)

**Question 8**: What do you think is the main advantage that AI would have in the teaching process?  
o Teachers can be assisted by a virtual assistant for teaching lessons and answering students' questions immediately  
o More efficient management of teachers' time  
o More interactive and engaging lessons for students  
o Other

**Question 9**: What do you think is the main advantage that AI would have in the learning process?  
o Personalized lessons according to students' needs  
o Universal access for all students eager to learn, including those with special needs  
o More interactive and engaging lessons for students  
o Other

**Question 10**: What do you think is the main advantage that AI would have in the evaluation process?  
o Automation of exam grading  
o Fewer errors in grading system  
o Constant feedback from virtual assistants for each student  
o Other

**Question 11**: What do you think is the main disadvantage that AI would have in the educational process?  
o Lack of a relationship between students and teacher  
o Internet addiction  
o Rarer interactions between students and teachers  
o Loss of information caused by possible system failure

**Question 12**: What is your gender?  
o Female  
o Male

**Question 13**: What is your year of study?  
o Year 2  
o Year 3

**Question 14**: What is your major?  
o Economic Cybernetics  
o Statistics and Economic Forecasting  
o Economic Informatics

**Question 15**: Did you pass all your exams?  
o Yes  
o No

**Question 16**: What is your GPA for your last year of study? (Note that grades are from 1 to 10 in Romania)  
o 5.0-5.4  
o 5.5.-5.9  
o 6.0-6.4  
o 6.5-6.9  
o 7.0-7.4  
o 7.5-7.9  
o 8.0-8.4  
o 8.5-8.9  
o 9.0-9.4  
o 9.5-10

**Analyzing Cybernetics Students’ Perceptions of AI in Education**

This project investigates the perceptions, knowledge levels, and emotional responses of second- and third-year Cybernetics students towards Artificial Intelligence (AI) in education. By analyzing survey data, the project identifies key sources of AI knowledge, perceived societal and economic impacts, as well as perceived advantages and disadvantages of AI integration into educational systems. The findings will directly inform educational policymakers, academic institutions, and EdTech developers.

**Problem Statement:**

**What problem will your project solve?**

There is a critical gap in understanding how future digital professionals perceive the growing role of AI in education and society. Misalignment between AI developments and educational needs could limit the effectiveness of AI tools and their acceptance.

**Why is this solution needed?**

Educational institutions and technology developers must align their AI strategies with students' perceptions and concerns to foster adoption, engagement, and ethical use. Without accurate insights, AI applications risk rejection, misuse, or exacerbating social inequalities.

**Who will use this project?**

* **University Administration and Faculty** (to adapt curriculum and support systems)
* **EdTech Companies & AI Solution Developers** (to design more student-centered solutions)
* **Policymakers in Education and Technology** (to draft relevant AI policies)
* **Academic Researchers and Think Tanks** (to extend research on digital transformation)
* **Student Bodies and Career Services** (to guide students’ digital skill development)

**Research Questions:**

1. What is the students’ level of knowledge about AI, and which sources do they most commonly use to learn about it?
2. What are the dominant attitudes toward AI’s societal effects (dehumanization, job replacement, problem solving, AI ruling society)?
3. How do students perceive the economic impacts of AI (cost, economic crisis, economic growth, job loss)?
4. What emotions do students associate with AI (Curiosity, Fear, Indifference, Trust)?
5. Which sectors do students believe AI will impact most significantly?
6. Do students believe AI leads to job loss or global economic growth?
7. What are students’ perceptions of AI usefulness in education?
8. What are the perceived main advantages of AI in teaching, learning, and evaluation?
9. What is the main disadvantage students foresee with AI in education?
10. Is there any correlation between students' perceived AI knowledge and perceived AI usefulness?

**Research Questions**

**General Awareness and Perception**

1. **How informed do students feel about artificial intelligence?**
   * **Variables to analyze:**
     + **Q1:** How informed students feel (1-10 scale)
     + **Demographics:** Major, Year of Study, Gender
   * **Visualizations:**
     + Bar chart for average perceived AI knowledge by major, gender, and year of study.
     + Boxplot to show distribution of AI knowledge by demographics.
2. **What are the most common sources students use to learn about AI?**
   * **Variables to analyze:**
     + **Q2:** Multiple response question (Internet, Books/Papers, Social Media, Discussions, Not Informed)
   * **Visualizations:**
     + Stacked bar chart to show the percentage of students using each source.
     + Heatmap or matrix chart to compare the use of sources by major, year of study, and gender.
3. **What are students' emotional responses when thinking about AI?**
   * **Variables to analyze:**
     + **Q5:** Emotional responses (Curiosity, Fear, Indifference, Trust)
   * **Visualizations:**
     + Pie chart or bar chart for the distribution of emotional responses.
     + Compare emotional responses across different demographics (major, gender).

**Perceptions on AI’s Role in Society**

1. **Do students believe AI helps or harms society?**
   * **Variables to analyze:**
     + **Q3:** Agreement levels on statements like AI encourages dehumanization, job replacement, etc.
     + **Q4:** Views on AI’s impact on economic factors like crises, growth, and job loss.
     + **Demographics:** Major, Gender, GPA
   * **Visualizations:**
     + Grouped bar charts to compare agreement levels across demographics.
     + Correlation matrix to show how perceptions of AI’s role relate to other factors like GPA or gender.
2. **Do students believe AI leads to job loss or global economic growth?**
   * **Variables to analyze:**
     + **Q4:** Focus on items 2 (economic crisis), 3 (economic growth), and 4 (job loss).
     + **Demographics:** Major, Year of Study, GPA
   * **Visualizations:**
     + Side-by-side bar charts for economic impact views (growth vs. job loss).
     + Stacked bar charts showing how perceptions differ by major, GPA, and year.

**AI in Education**

1. **How useful do students believe AI is in education?**
   * **Variables to analyze:**
     + **Q7:** Usefulness of AI in education (1-10 scale)
     + **Demographics:** Major, Year of Study
   * **Visualizations:**
     + Scatter plot for AI usefulness vs. GPA, colored by major and year of study.
     + Bar chart comparing the perceived usefulness across majors.
2. **What are the top perceived benefits of AI in teaching, learning, and evaluation?**
   * **Variables to analyze:**
     + **Q8:** AI's role in teaching
     + **Q9:** AI's role in learning
     + **Q10:** AI's role in evaluation
     + **Demographics:** Major, Year of Study, Gender
   * **Visualizations:**
     + Stacked bar charts showing the most common benefits perceived by students in each category.
     + Heatmaps for comparing responses across different student groups (major, gender, year).
3. **What do students see as the biggest risks or drawbacks of using AI in education?**
   * **Variables to analyze:**
     + **Q11:** Perceived risks (Lack of relationships, internet addiction, rare interactions, system failure)
   * **Visualizations:**
     + Bar chart or pie chart for distribution of perceived risks.
     + Compare how students in different years or majors view AI risks.

**Academic and Demographic Trends**

1. **Is there a relationship between GPA and students' openness to AI in education?**
   * **Variables to analyze:**
     + **Q16:** GPA range (5.0-10)
     + **Q7, Q8, Q9, Q10:** Perceptions of AI's usefulness and benefits
   * **Visualizations:**
     + Scatter plot of GPA vs. AI usefulness (Q7) and AI benefits (Q8-Q10).
     + Box plot comparing AI perceptions across GPA ranges.
2. **Do students who passed all their exams have different perceptions about AI's usefulness compared to those who didn’t?**

* **Variables to analyze:**
  + **Q15:** Exam results (Yes/No)
  + **Q7, Q8, Q9, Q10:** Perceptions of AI’s usefulness and benefits
* **Visualizations:**
  + Side-by-side bar charts to compare perceptions of AI among students who passed exams vs. those who did not.
  + Pie chart showing the distribution of exam pass rates for different AI views.

1. **Are there major or gender-based differences in perceptions about AI's societal role and impact?**

* **Variables to analyze:**
  + **Q3, Q4, Q5:** Societal impact views (AI dehumanization, job replacement, etc.)
  + **Q12:** Gender
  + **Q14:** Major
* **Visualizations:**
  + Grouped bar charts comparing societal views by gender and major.
  + Heatmaps to show correlations between AI societal views and demographics.

**Additional Questions to Consider:**

1. **How does students' awareness of AI change with their year of study?**
   * **Variables:** **Q1** (AI knowledge) and **Q13** (Year of Study).
   * **Visualizations:** Line chart or stacked bar chart comparing AI knowledge across years.
2. **Is there a correlation between students' emotional response to AI and their perception of its role in education?**
   * **Variables:** **Q5** (emotional response) and **Q7-Q10** (AI benefits).
   * **Visualizations:** Correlation matrix or scatter plot showing the relationship between emotions and AI benefits.