APPENDIX

Sociological Survey of Social Science faculty at Higher Education Institutions in Armenia on the Role of Artificial Intelligence Technologies in Higher Education: Questionnaire and Responses

The research group conducted a sociological survey during August-September 2023. The survey (administered via email and paper version) was sent to 892 university educators at various universities across Armenia. We received answers from 184 respondents. The response rate was 20.6%.

The complete survey, as well as their response distributions, may be found below.

Question 1: Please indicate your age.

- 24-35, 25%
- 36-45, 43.5%
- 46-55, 17.4 %
- 56-65, 12%
- 66+, 2.1%

Question 2: Please indicate your gender.

- Male, 39.1%
- Female, 60.9%

Question 3: Please indicate your main affiliation.

- Armenian State University of Economics - 15.8%
- Yerevan State University - 15.2%
- Khachatur Abovyan Armenian State Pedagogical University - 13.6%
- Brusov State University - 10.9%
- Russian-Armenian University - 9.2%
- Armenian National Agrarian University - 8.1%
- French University in Armenia - 7.1%

- Vanadzor State University - 6.5%
- Public Administration Academy of the Republic of Armenia - 4.9%
- State Academy of Fine Arts of Armenia - 4.9%
- M. Heratsi Yerevan State Medical University - 3.8%

Question 4: Please indicate your profession.

- Political Science, 16.7%
- Economics, 21.4%
- Law, 19%
- Sociology, 9.5%
- History, 14.3%
- Psychology, 11.9%
- Linguistics, 7.1%

Question 5: Please indicate your academic degree.

- Doctor of Sciences, 12%
- Candidate of Sciences, 68.5%
- Master's Degree, 19.5%

Question 6: What do you think AI is?

- Technologies that imitate human thought functions, 81.5%
- Intelligent machines or programs, 4.3%
- Ordinary programs or mechanisms that have nothing to do with intelligence, 5.4%
- Superintelligence that surpasses human intelligence, 6.5%
- Others, 2.3%

Question 7: Do you think AI-based technologies could displace humans in major areas of the labor market in the next 25 years?

- Yes, 46.7%
- Yes, but not in Armenia, 20.7%
- No, 22.8%

- I find it difficult to answer, 9.8%

Question 8: In your opinion, in which field is the greatest progress in the application of AI technologies?

- Medicine, 9.8%
- Service sector, 38%
- Industry, 15.2%
- Education, 7.6%
- Security and military sphere, 18.5%
- Others, 11%

Question 9: Do AI jeopardize the future of human civilization?

- Yes, 50%
- No, 22.8%
- I find it difficult to answer, 27.2%

Question 10: Do you use AI in the courses you teach?

- Yes, 58.7%
- No, 41.3%

Question 11: What part of the learning process do you perform with the help of AI?

- Zero, 40.2%
- Small, 57.6%
- Significant, 2.2%
- Most part, 0%

Question 12: How are AI technologies applied in the courses you teach?

- Checking assignments and assessing knowledge, 23.9%
- Creation of educational applications, 6.5%
- Organizing distance courses and exams, 21.7%
- AI technologies are not used in the courses I teach, 42.4%

- Others, 5.4

Question 13: Does the presence of AI affect the formation and development of universal and personal qualities?

- Yes, 71.7%
- No, 13%
- It's hard for me to answer, 15.24%

Question 14: How does AI affect human development?

- Definitely has a positive effect, 4.3%
- Is more likely to have a positive effect, 39.1%
- Is more likely to have a negative effect, 2.24%
- Definitely has a negative effect, 29.3%
- Difficult to answer, 25%

Question 15: Are you concerned that AI technologies will replace humans in performing many tasks within your profession or field in the future?

- I’m definitely concerned, 17.4%
- I’m more concerned, 29.3%
- I’d rather not worry, 38%
- I’m definitely not concerned, 12%
- It’s hard for me to answer, 3.3%

Question 16: Do you believe that AI-based technologies will assume most of the professors' functions in universities over the next 25 years?

- Yes, 23.9%
- Yes, but not in Armenia, 21.7%
- No, 32.6%
- Difficult to answer, 21.7%

Question 17: If you had the opportunity to work less with the help of AI while maintaining the same level of income, would you use this opportunity?

- Would prefer to use, 65.2%
- I would prefer not to use it, 26.1%
- I find it difficult to answer, 8.7%

Question 18: Please, choose one of the following views:

- AI in education should provide options for decisions, and the decision should be taken by a person, 93.5%
- AI in education should make decisions without human participation, 4,3%
- I find it difficult to answer, 2.2%

Question 19: Do you believe that AI technologies enhance students' independent thinking and research skills in education?

- Definitely promotes, 9.8%
- Partially promote, 58.7%
- Definitely does not help, 22.8%
- Difficult to answer, 8.7%

Question 20: Do you think the use of AI technologies contributes to a more comprehensive and intelligible presentation of educational material?

- Definitely promotes, 17.4%
- Partially promote, 64.1%
- Definitely does not help, 6.5%
- Difficult to answer, 12%

Question 21: Do you think that the use of AI technologies contributes to a more objective assessment of students?

- Definitely promotes, 15.2%
- Partially promotes, 56.5%
- Definitely does not help, 8.7%
- Difficult to answer, 19.6%

Question 22: Do you think that AI technologies facilitate the learning process?

- Definitely promotes, 28.3%
- Partially promotes, 63%
- Definitely does not help, 2.2%
- Difficult to answer, 6.5%

Question 23: Do you believe that the opportunities offered by AI contribute to the advancement of the education system?

- Definitely promotes, 26.1%
- Partially promotes, 62%
- Definitely does not help, 4.3%
- Difficult to answer, 7.6%

Question 24: Do AI opportunities contribute to fostering dialogue between students and teachers?

- Definitely promotes, 6.5%
- Partially promotes, 47.8%
- Definitely does not help, 29.4%
- Difficult to answer, 16.3%

Question 25: Should the use of AI technologies be expanded in higher education in Armenia?

- Yes, 54.4%
- No, 22.3%
- Difficult to answer, 23.4%

Question 26: Can AI technologies bring about change?

- Yes, 45.7 %
- No, 31.5%
- Difficult to answer, 22.8%

Question 27: Other comments and observations