

上海交通大学

关于在教育教学中使用AI的规范

SJTU Guidance on Development and Governance of AI in Education and Teaching

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# SJTU Guidance on Development and Governance of AI in Education and Teaching

## (Trial Version)

In order to implement the "AI+ Education and Teaching Action Plan" (2024-2026) of Shanghai Jiao Tong University, systematically advance the research, deployment, and application of artificial intelligence (AI) in the field of higher education, enhance the awareness and behavioral self-discipline of all stakeholders regarding AI norms, improve the reform governance system and mechanism of "AI + HI (Artificial Intelligence + Human Intelligence)", coordinate the development and safety of AI in the field of higher education and teaching, and create a new educational and teaching ecosystem featuring the four-way interaction of "teachers-students-machines-environment" with AI and HI, these guidance are hereby formulated.

#### **Chapter I General provisions**

Article 1 The guidance aim to integrate the standard requirements of higher education into the whole life cycle of "AI+ education and teaching" reform, covering various processes such as scenario analysis, design and development, application deployment, evaluation and feedback, adjustment and maintenance, management optimization, etc. By innovating evaluation systems and standards, these guidances promote efficiency, credibility, fairness, and inclusiveness in all processes, effectively preventing risks such as technical incompetence, educational differentiation, algorithmic discrimination, privacy breaches, data insecurity, and cyber threats.

**Article 2** These guidances apply to all stakeholders in the "AI + Education and Teaching" reform at SJTU, namely "teachers," "students," "machines" (AI technology systems), and the "environment" (educational and teaching ecological environment), including teaching management and assistant staff, inter-university cooperators, and social resource providers.

**Article 3** While complying with domestic AI laws and guidances, Shanghai Jiao Tong University encourages active exploration of the use of AI in the field of higher education and teaching, promotes technology empowerment in various scenarios, promotes technology empowerment and risk prevention in various scenarios, constructs knowledge production models

production models and new educational systems that meet the needs of the new era, and empowers students to enhance their comprehensive literacy.

Article 4 The term "Artificial Intelligence (AI)" in the guidances refers to the simulation, extension, or expansion of human intelligence through methods such as environmental perception, knowledge acquisition, deduction, and reasoning, including but not limited to various technical routes such as discriminative, generative, data-driven, and knowledge graph-driven AI. The term "Human Intelligence (HI)" refers to the unique ability to understand, apply, and create knowledge. These guidances strive to promote the combination of "AI + HI" to achieve the goal of benign human-machine collaboration.

**Article 5** All parties involved in "AI+ Education and teaching" at Shanghai Jiao Tong University shall follow the following basic principles:

- (1) **Human-Centered and Learning-Focused Technology**: Centering on the educational philosophy of "making every student better," develop and apply AI technologies that benefit students' intellectual growth and teachers' instructional and educational efforts. Regularly assess the use situations of tools by teachers' and students', to ensure that technology application assists teaching goals and avoids complete substitution or single-faceted reliance on teaching tasks.
- (2) **Legal, Compliant, Reliable, and Trustworthy Technology:** AI services or products developed and applied in educational and teaching reforms should comply with the legal and regulatory requirements, ensuring fairness, clear responsibility, transparency, and traceability. AI applications should establish responsible entities and accountability processes.
- (3) **Respect for Diversity and Promotion of Open Collaboration:** Respect the diversity of disciplines and knowledge in higher education, promote knowledge integration and innovation, explore autonomous and spontaneous personalized learning modes based on disciplinary characteristics, and pay attention to minority groups or interdisciplinary students to ensure widespread accessibility to shared educational resources.
- (4) Encourage Experimental Reform and Tolerate Exploratory Innovation: Fully leverage the initiative and enthusiasm of teachers and students, encourage extensive AI

experiments in all aspects and fields of education and teaching, explore optimization schemes for "AI + HI" in different scenarios, iteratively improve with tolerance for errors, and do not disrupt the existing teaching order while adhering to academic norms, teaching bottom lines, and ethical boundaries.

(5) Enhance Ethical Literacy and Encourage Agile Governance: Popularize knowledge on AI ethical governance through educational and teaching activities, agilely respond to potential risks, gradually improve governance norms, establish emergency response plans for different application scenarios, and construct a rapid response mechanism for teachers and students.

**Article 6** According to the differences in application risks, these guidances classify AI applications in the field of higher education and teaching into four types: Prohibited Use, Limited Use, Encouraged Use, and Open Use, thereby promoting a multi-level reform of "AI + Education and Teaching."

- 1. Prohibited Use: Refers to scenarios or links with high risks or that teachers and students have unanimously opposed to upon thorough discussion. Scenarios prohibited from use should be clearly listed in the "AI Application Prohibition List" of SJTU, updated timely through the internal platform, and publicly disclosed to ensure that teachers and students are informed and comply accordingly.
- 2. **Limited Use**: Refers to scenarios or links with certain risks that require restricted use under specific conditions based on risk assessments as well as teacher-student discussions. Limited use should be dynamically assessed based on the following reference indicators:
  - Privacy impact: Potential threat to the protection of personal information of teachers and students;
  - Impact on learning effectiveness: Possible negative impact on teaching objectives and learning outcomes;
  - Safety compliance: Whether it complies with relevant laws, guidances, and norms of the university.

Specific constraints should be set for limited-use scenarios, and reassessments should be conducted regularly.

- 3. **Encouraged Use**: Refers to scenarios or links with low risks or that teachers and students have reached a high consensus through discussion to promote application. AI tools or technologies encouraged for use need to pass the evaluation process of SJTU to ensure they meet educational and teaching goals, ethical norms, and technical reliability requirements.
- 4. **Open Use**: Refers to scenarios or cases with near-zero risks or that teachers and students have unanimously agreed on through discussion for wide use. AI technologies for open use should guarantee fairness, widely benefit teachers and students, and be promoted through the platforms of SJTU.

Furthermore, for scenarios or processes where disagreements persist between teachers and students after thorough discussion, an arbitration or review process can be introduced. The arbitration will be made based on technical evaluations, risk analyses, and educational objectives by the AI Education and Teaching Reform Governance Committee. Then, the committee will finalize the use list.

Article 7 The requirements for the standardized use of AI applications in the field of higher education and teaching cover different processes of before, during and after, including commitment, filing, impact assessment, risk recording and management, transparency and explainability, stakeholder consultation and other mechanisms and measures. For different types of AI applications, each scenario in the field of higher education and teaching should develop and improve the corresponding standard use requirements.

#### **Chapter II Guidances on Teachers**

Article 8 Teachers should actively explore the possibilities of AI empowering education and clarify the principles of AI-assisted teaching. Based on the principles of "Prohibited Use," "Limited Use," "Encouraged Use," and "Open Use," teachers should reasonably use AI technologies in scenarios such as teaching material preparation, personalized teaching, learning progress tracking and assessment, and teacher-student interaction to effectively improve teaching quality.

**Article 9** Teachers are the primary responsible persons for AI + teaching design. Teachers should reasonably, compliantly, and effectively use AI technology products or services while complying with relevant rules and guidances on education and teaching, and provide AI test and validation reports and filings if necessary, including platform selection, scope and method of use, and set specific norms for scenario application, risk reminders, and emergency response plans. SJTU may pursue the relevant responsibilities to those who use unregistered or risky AI tools.

Article 10 Teachers should fully pay attention to students' autonomy and sense of achievement in AI-assisted scenarios. Through teaching feedback mechanisms and learning effectiveness assessments, teachers should help students balance autonomous learning and AI support, pay attention to students' differentiated needs, and avoid negative effects caused by technical thresholds or uneven resource distribution.

Article 11 Teachers should effectively govern value anomie phenomena based on various educational and teaching scenarios. During the educational and teaching process, teachers should fully discuss with students and other entities, formulate detailed requirements for students' use of AI tools through teaching syllabus, classroom rules, scoring standards, etc., and publicly explain the scope of AI tool use and templates for citing AI-generated information.

#### **Chapter III Guidances on Students**

**Article 12** Students should reasonably choose AI tools based on teaching requirements and guidance, understand the specific scenarios of "Prohibited Use," "Limited Use," "Encouraged Use," and "Open Use" of AI, and establish a new normal for benign human-machine collaboration.

Article 13 Students should understand and comply with the AI use guidances for each course, and follow teaching plans, laws and guidances such as intellectual property, and academic integrity requirements in classroom learning, homework feedback, and other study processes. The university will hold the relevant individuals accountable.

Article 14 Students should actively enhance their AI literacy by utilizing the AI courses and learning resources provided by the university. Through collaborative networks such as "AI

Learning Mutual Help Groups," they should identify the strengths and weaknesses of AI compared to human intelligence and develop a rational understanding of AI's limitations.

**Article 15** Students should actively participate in AI innovation reforms in the field of higher education, autonomously engage in AI academic discussions and public welfare activities, explore multidisciplinary "AI+" paradigms, and actively contribute ideas for AI innovation applications at SJTU.

Article 16 Students should adhere to the value orientation of using AI as an auxiliary learning tool, forming an adaptive learning mode, and consciously annotating and citing necessary information about AI tools. In the process of knowledge acquisition and innovative creation in human-AI collaboration, students should cultivate their autonomy and reflective abilities, promoting the development of human intelligence through AI.

#### **Chapter IV Guidances on AI Products and Services**

**Article 17** The development process of AI technology products and services shall not be used for actions that violate academic integrity, steal information, or infringe upon privacy. Their development scenarios must comply with the "Prohibited Use" and "Limited Use" list guidances for AI.

**Article 18** Developers of AI technology products and services should provide algorithm transparency assessment reports, explaining the core algorithm logic, data sources, and model training methods to ensure their interpretability.

Article 19 AI technology products or services should follow the principle of traceability, implementing tracing and identification requirements for information sets generated with the assistance of AI. When AI products or services involve the university's related public data, their use must be approved or registered with the university.

### Chapter V Guidances on Stakeholders

Article 20 The university establishes an AI Education and Teaching Reform Governance Committee, which covers representatives from various fields including "teachers, students, machines, and environment". The different responsibilities among all parties in technical assessment, ethical review, and integration of teacher and student feedback will be clarified to ensure efficient operations of the governance committee. Governance groups should be established in schools or institutes of SJTU to explore innovative cases, summarize governance experiences, and formulate regulatory requirements for specific scenarios. Regarding controversial issues arising from AI applications, it is encouraged to organize "teacher-student-machine-environment" discussions to promote collective consensus through mutual comments.

**Article 21** All the management departments of SJTU should continuously improve the reform governance framework for "AI + Education and Teaching," perfecting the risk assessment and hierarchical and categorical management system for AI technology systems and applications in higher education scenarios. All the education and teaching units should be encouraged to conduct social experiments on AI in higher education and to explore benchmark cases of AI's multi-purpose and multi-scenario applications.

**Article 22** Technology enterprises and other market entities are encouraged to actively participate in the "AI + Education and Teaching" reform by providing AI technology products and services that meet governance regulatory requirements. They should explore multiple governance routes, agilely respond to teacher and student feedback, and form a new ecosystem of cooperation, trust, and transparency.

Article 23 Researchers, developers, designers, manufacturers, and deployers of AI technology products or services should strengthen their sense of responsibility and fully recognize and comprehensively analyze the ethical governance and security risks associated with AI applications in higher education. They should establish necessary safeguard mechanisms based on hierarchical classification and incentive compatibility principles, providing relief for losses incurred accordingly.

**Article 24** Third-party social forces are important participants in the "AI + Education and Teaching" ecosystem. Technical communities, social organizations, and consulting institutions

should be encouraged to participate in AI application reform in higher education in various forms, provide multiple perspectives, form social supervision, and to jointly promote reliability and trustworthiness.

#### **Chapter VI Supplementary Provisions**

**Article 25** The guidances are issued by Shanghai Jiao Tong University, which is responsible for interpreting and guiding their implementation. Meanwhile, the guidances will be revised in a timely manner according to the development of AI technology and the progress of the "AI + Education and Teaching" reform.



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