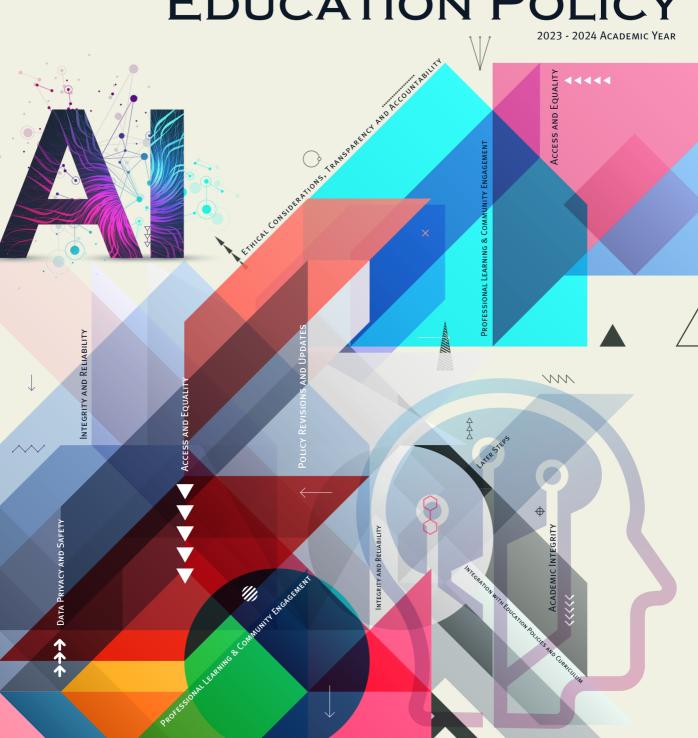


# HISAR SCHOOL ARTIFICIAL INTELLIGENCE EDUCATION POLICY







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#### Introduction

The following themes have been laid out as an outcome of the workshop named "Hisar School Artificial Intelligence Education Policies" held with the participation of expert educators.

- 1. Ethical Considerations, Transparency and Accountability
- 2. Data Privacy and Safety
- 3. Access and Equality
- 4. Academic Integrity
- 5. Integration with Education Policies and Curriculum
- 6. Integrity and Reliability
- 7. Professional Learning & Community Engagement
- 8. Policy Revisions and Updates
- 9. Later Steps

#### Contributors

We would like to express our gratitude to:

Prof. Dr. Cem SAY (Boğaziçi Üniversitesi),

Prof. Dr. Feza ORHAN (Bahçeşehir Üniversitesi),

Dr. Işıl BOY ERGÜL (TeacherX) and

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## 1.Purpose

The purpose of this policy is to set acceptable use rules and guidance to ensure ethical, safe and responsible use of Artificial Intelligence (AI) technologies for the school community. This document is intended to provide a framework so as to raise awareness for **privacy**, **safety** and **ethical conduct**, ensure the deployment of AI technologies in a manner to support **learning and teaching processes** and boost curriculum integration and efficiency in this field.

Integration of AI technologies into learning/teaching processes is aligned with our mission of 'exploring and developing the true potential of students and employees by making meaningful contributions to the world through critical thinking and effective cooperation', as well as our vision of 'as a meticulous and devoted school always open to change and innovation, becoming an exemplary and globally recognized institution that shines out with its contributions to education and societies thanks to its qualified staff, students and alumni'.

Al technologies have the potential to support personalized and differentiated learning. In this respect, Al can support teaching for teachers and staff while making planning and operational processes easier. For students, Al can be beneficial in bringing together complicated ideas, creating personalized content and providing prompt feedback. In addition, it can support research and writing tasks, and provide students with the opportunity to improve their critical thinking, problem-solving and digital literacy skills.

Although Al technologies have a high potential to support learning, ensuring the compliance of use of Al technologies with ethical principles must be a priority. The rules for **acceptable use** as specified in this policy refer to the ethical, responsible and intended use of Al technologies in a manner to support learning.

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## 2.Scope

This policy document is applicable to all the constituents of our school community, including teachers, students, administrative staff and other stakeholders who may utilize AI technologies in the school environment.

The policy specifically covers generative AI technologies. Applications such as ChatGPT, DALL-E, Google Bard and Midjourney could be given as an example, but one should note that the range and scope of apps is expanding each passing day.











## 3. Responsibilities

All constituents of the school community are responsible to guarantee the continuity of an ethical and responsible use of Al technologies in a manner to improve academic and operational processes, and support professional learning and community participation.

**School leaders:** They are responsible for providing the resources, guidance and support for the use of Al technologies by the school community (employees, teachers, students, and parents) in accordance with the purposes specified above and the policies formulated in this field.

**Teachers:** They are responsible for using AI technologies in a manner to support learning and teaching processes; leading students in terms of using AI technologies in their respective field of responsibility; following AI-related resources, materials and training courses; and contributing to the process.

**Administrative staff:** They are responsible for ensuring that AI technologies are used in line with the policy, including data privacy and security policies.

**Students:** They are responsible for using Al technologies in an ethical and responsible manner as specified in this policy.

**Parents/Guardians:** They are responsible for encouraging and supporting their children to use Al technologies ethically, in a manner to improve learning and in compliance with this policy.

### 4. Definitions

#### What is AI?

Al refers to machine-based systems that can, given a set of human-defined objectives, make predictions, recommendations, or decisions that influence real or virtual environments. Al technologies interact with us and act on our environment, either directly or indirectly. Often, they appear to operate autonomously, and can adapt behaviors by learning about the context (UNICEF, 2021)<sup>1</sup>



www.unicef.org/globalinsight/reports/policy-guidance-ai-children

#### What is Artificial Learning?

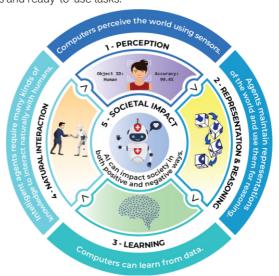
Machine learning is the creation (i.e., 'learning') of a program necessary for the computer to acquire a skill, not by a human, but by the computer itself from a large number of examples of that skill. <sup>2</sup>

#### What is Generative AI?

Generative AI refers to the use of AI to create new content such as texts, images, music, audio, and video on the bases of the data on which the system is being trained on. These tools are supported by basic multitasking AI models capable of summarizations, Q&A, classifications and ready-to-use tasks. <sup>3</sup>

#### How Can Al Be Defined for Educators?

The Computer Science Teachers' Association (CSTA) and the Association for the Advancement of Artificial Intelligence (AAAI) propose to define AI as a cluster of five themes to clarify the issue in the context of educators.



- 1. Perception: Computers can perceive the world using sensors.
- Representation and Reasoning: Computers create models using data structures, and these models use reasoning algorithms that derive new information from what is already known.
- 3. **Learning:** Computers can learn from data. Machine learning is a type of statistical inference that finds patterns in data.
- **4. Natural Interaction:** Artificial intelligence developers aim to build systems that interact naturally with humans.
- **5. Social Impact:** Al may impact society in a positive or negative manner.

<sup>&</sup>lt;sup>2</sup> Al Textbook for High Schools

<sup>3</sup> https://cloud.google.com/use-cases/generative-ai

## 5. Ethical Considerations, Transparency and Accountability

Determining ethical rules for the use of AI technologies in education processes will help educators consider both the positive impacts and risks that AI entails for learning. It is important and necessary to update ethical approaches as research and user experiences grow in number.



- Fundamental human rights and rights of the child are protected while using AI technologies.
- The use of such systems will have a positive impact on the school community (employees, teachers, students, and parents) and prevent harm to them.
- School community is updated on the operating principles of Al technologies and potential impacts of algorithmic biases.
- **4.** Transparency is established as to which data is collected and how such data is used.
- **5.** While Al technologies are being used, the human role and accountability is at the forefront.
- **6.** Control and responsibility for the decisions taken always rest with human beings.
- 7. The school community is aware that AI technologies may pose risks when it comes to generating biased results on the basis of race, gender, religion and other factors, and it acts with this awareness.

## 6. Data Privacy and Safety

Al-enabled education systems collect numerous types of data about students, including their academic performance, learning habits and personal information. The data-based operating structure of Al systems requires the exercise of a significant level of attention and care for data privacy and security.

<sup>4</sup> Bir YZ algoritmanın<sup>,</sup> makine öğrenimi sürecindeki hatalı varsayımlar nedeniyle sistemik olarak önyargılı sonuçlar üretmesi durumunda ortaya çıkan bir olgudur.



- 1. Hisar School uses personal data only on the Al technologies internally developed.
- 2. As for the use of external applications, terms and conditions of such use are established in a user agreement.
- **3.** The Executive Committee and the functions it has appointed are authorized for data sharing processes.
- **4.** Personal Data Protection Committee examines whether the Al technologies used are aligned with data privacy policies.
- 5. Hisar School's technical infrastructure is equipped with systems that provide advanced cybersecurity measures to secure the privacy and security of such data. It is essential to keep these systems updated as per the requirements and guarantee their continuity.

## 7. Access and Equality

Intended for use to support learning and teaching processes, Al-based systems should be designed and implemented with an inclusive and fair approach to prevent any form of discrimination and prejudice. Utmost care and sensitivity must be in place when it comes to algorithmic (cognitive) prejudices, while the principles of equality, access and inclusion must be observed.

- 1. Al technologies are used in an inclusive, fair, accessible and equitable manner for all individuals, communities and groups.
- 2. All technologies are used for the purposes of analyzing innumerable amounts of data to identify trends and deciding on strategies to be developed accordingly.
- **3.** Al technologies are used to help contribute to the preparation of personalized learning programs by identifying learners' varying learning styles.
- **4.** When used in measurement and assessment processes, Al technologies help assess students' knowledge, skills and performance in a fair and impartial manner.
- **5.** Al technologies (online systems) are also deployed to ensure users' access to education independent of time and place.



## 8. Academic Integrity

#### 1. Al and Education

Although Hisar School agrees that Al has the potential to support and improve personalized and differentiated learning, it also believes that ensuring the alignment of the use of such technologies with ethical matters is a priority.

"Rules for acceptable use" refer to the ethical, responsible and intended use of Al systems in a manner to support learning.

#### 2. Academic Integrity and Al

One should note that content accessed via AI may not always be accurate and reliable. It is critical to remember that Generative AI tools occasionally provide users with inaccurate information, create false, seemingly professional citations and contradictory remarks, use materials protected under copyrights without proper reference, and may include biased concepts in the results.

- 1. Hisar School observes the "rules for acceptable use" when it comes to the use of Al systems. This ap proach refers to the ethical, responsible and intended use of Al technologies in a manner to support learn ing, and it takes learners' own endeavors as a basis while they create their authentic works.
- 2. Information accessed via AI (persons, dates, facts, and context) may not always be accurate and reliable; scientific citations and references may be inaccurate. For this reason, accuracy of the information reached via AI technologies must always be verified.
- **3.** It is the student's responsibility to assess the validity and practicality of any AI output presented (assignments, projects, presentations, reports etc.)
- **4.** If its validity and accuracy is verified, a student should make a reference to such information in alignment with "MLA" standards.
- 5. They should contact their respective teachers for questions on what is and is not allowed for a class or assignment.
- **6.** Any deviations from the instructions listed above will be considered a violation of **Hisar School's Academic Integrity Policy**.
- Rules for acceptable use regarding Al will be updated and communicated at the start of every academic year.

## 9. Integration with Education Policies and Curriculum

The Competency Framework for Teachers that **UNESCO** has announced to publish with updates in the coming days is intended to help teachers understand the fundamentals of Al, integrate Al with their education processes and evaluate its potential risks and benefits. According to the framework, there are four main areas of competence:



In its report "Ethical Guidelines on the Use of Artificial Intelligence (Ai) and Data in Teaching and Learning for Educators", the European Union underscores how important it is for educators to be aware of basic mechanisms and limitations of Al systems – rather than trying to understand the whole process about Al – and to consider how they could be used to support learning and teaching in a secure and ethical manner. The report also indicates the following targets for which Al technologies can be used. 4



Al technologies are used for direct educational purposes for learners.

**a.** Smart Education Systems: The learner follows a step-bystep sequence of tasks and gets individualized instruction and/ or feedback without requiring

**b.** Dialogue-based Education Systems: The learner follows a step-by-step sequence of tasks through interaction and conversation.

intervention from a teacher

C. Language Learning Applications: Al-based language learning apps support learning by providing realtime automatic feedback on pronunciation, understanding and fluency Al technologies are used to support students' learning process.

**a.** Exploratory Learning Environments: Learners are offered multiple representations that help them identify their own routes to achieve their learning goals.

**b.** Process Assessment: Automatic feedback is provided regularly on students' work.

C. Collaborative Learning: Al technologies provide input and suggestions on how a group works together by monitoring interaction among the members of a given group. Al technologies are used to help teachers to provide more effective teaching activities.

**a.** Result Assessment: Al technologies are used to automatically evaluate

to automatically evaluate and score students' written assignments. **b. Student Follow Up:** Some

**D. Student Follow Up:** Some keywords in students' posts trigger automatic feedback. As a result of the analysis of such posts, information is obtained about a student and this way, students who need support are identified.

**C.** Teaching Assistants: Al chatbots provide answers to commonly asked questions by students with simple instructions and directions.

d. Pedagogical Recommendations: Al technologies can recommend specific learning activities or resources based on each student's preferences, progress and needs. Al technologies are used to improve general education plans and how they are managed.

**a.** Data Mining:

Schools gather student data which are analyzed and used to plan how available resources can be best allocated for tasks like creating class groupings, timetabling, and identifying individual needs of students.

**b.** Guidance Services: Al based guidance services provide education recommendations to users for their future educational path (based on their past information).

<sup>4</sup> Ethical guidelines on the use of artificial intelligence (Ai) and data in teaching and learning for educators

**UNESCO's** ChatGPT And Artificial Intelligence In Higher Education Quick Start Guide provides the following table to offer teachers some options to guide them on integration of AI technologies with education settings.

**ChatGPT:** ChatGPT is an acronym for Chat Generative Pre-trained Transformer, which is a big chatbot based on a language model launched by OpenAI on November 30, 2022. <sup>5</sup>



#### **Applications of ChatGPT in Education**

Role	Description	Example of Application
Possibility Engine	Al generates alternative ways of expressing an idea.	Students write queries in ChatGPT and use the regenerate response function to examine alternative responses.
Socratic Opponent	Al acts as an opponent to evolve and debate.	Students enter prompts into ChatGPT following the structure of a conversation or debate.  Teachers can ask students to use ChatGPT to prepare for debates.
Collaboration Coach	Al helps groups to research and solve problems together.	Working in groups, students use ChatGPT to find information to complete tasks and assignments.
Guide on the Side	Al acts as a guide to navigate physical and conceptual spaces.	Teachers use ChatGPT to generate content for classes/ courses (e.g., debate questions) and advice on how to support students in learning specific concepts.
Personal Tutor	Al tutors each student and gives immediate feedback on progress.	ChatGPT provides personalized feedback to students based on information provided by students or teachers (e.g., test scores).

<sup>5</sup> https://en.wikipedia.org/wiki/ChatGPT

Designer	Al assists throughout the design process	Teachers ask ChatGPT for ideas about designing or updating a curriculum (e.g., rubrics) and/or focus on specific goals (e.g., how to make the curriculum more accessible).
Exploratorium	Al provides tools to play with, explore and interpret data	Teachers provide basic information to students who write different queries in ChatGPT to find out more. ChatGPT can be used to support language learning.
Study Buddy	Al helps the student reflect on learning material	Students explain their current level of understanding to ChatGPT and ask for ways to help them study the material. ChatGPT could also be used to help students prepare for other tasks.
Motivator	Al offers games and challenges to extend learning	Teachers or students ask ChatGPT for ideas about how to extend students' learning after providing a summary of the current level of knowledge (e.g., quizzes, exercises).
Dynamic Assessor	Al provides educators with a profile of each student's current knowledge.	Students interact with ChatGPT in a tutorial-type dialogue and then ask ChatGPT to produce a summary of their current state of knowledge to share with their teacher/for assessment.

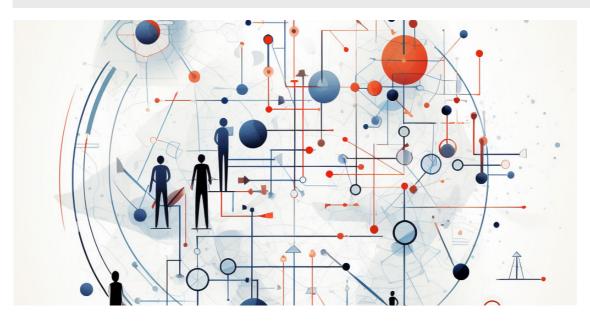
At Hisar School, the following principles have been adopted in light of current research and reports:

- 1. Integration of AI technologies with education processes and the curriculum refers to the ethical and responsible use of AI technologies in a manner to support teaching and learning.
- 2. Hisar School encourages the entire school community to find out how AI technologies work, including these systems' limitations and biases.
- **3.** Al technologies used in educational environments have positive impacts on learning.
- **4.** Al technologies are used in alignment with learning principles and understanding by design (UbD) strategies.
- 5. Al technologies are utilized to support and develop critical thinking.
- **6.** The basic prerequisite for using AI technologies as a resource to support learning is the ability to comprehend, analyze, question and evaluate what is read.
- 7. The school uses various channels to enhance its knowledge, skills and experiences related with Al.
  - **a.** Curriculum updating efforts are also undertaken in order to align it with Al technologies.
  - **b.** Seminars, workshops and exchange sessions are organized as part of Al technologies.
  - c. Al technologies are also included in Fablab student projects.

## 10. Integrity and Reliability

One should note that content accessed via Al may not always be accurate and reliable. It is critical to remember that Generative Al tools occasionally provide users with inaccurate information, create false, seemingly professional citations and contradictory remarks, use materials protected under copyrights without proper reference, and may include biased concepts in the results.

- 1. Al technologies gather data from the databases available online; the fact that it learns possible cognitive biases contained within such data poses the problem of cognitive bias. For this reason, results provided by Al must be analyzed critically and cross-checked with other sources of information.
- 2. Al technologies do not offer a full transparency as to how they run internally, which makes it difficult to tell how they draw a certain conclusion. That is the reason human factor always rules over Al, especially when critical decisions are to be made.
- **3.** All technologies are constantly developing, which means that the accuracy of any given model today will not guarantee its accuracy for the future, and this requires continuous updates and audits.
- **4.** While using Al technologies, Hisar School observes copy rights with the awareness of liabilities arising from intellectual property.



# 11. Professional Learning & Community Engagement

For a learning school community, it is necessary to consider developments around AI technologies and there is a clear need to improve know-how and skills of the school community.



# 12. Policy Revisions and Updates

The policy is revised at certain intervals; and updated in line with data collected from feedback, focus groups and surveys as well as with developments in the field. Updates are also made as and when needed throughout the process.

- 1. Feedback forms are implemented every term (twice a year) in order to assess the policy.
- 2. The policy is updated at the start of every academic year.
- Updates are recommended as necessary and published upon the approval of the Executive Committee in cases where sudden developments in the field or other urgent issues that require such updates arise.

## 13. Later Steps

US Education Department's Educational Technology Office released a report titled "Al and the Future of Teaching and Learning: Insights and Recommendations" which provides key recommendations to leaders of education in the context of Al technology policies:

- 1. Emphasize humans (teacher/student) in the loop.
- 2. Align Al models to a shared vision for education.
- 3. Use designs that incorporate modern learning principles.
- 4. Prioritize strengthening trust.
- 5. Inform and involve educators.
- 6. Centralize R&D efforts to address AI technologies in the context of education.

In line with these recommendations, Hisar School defined its future action upon the publication of this policy document as follows:

- 1. Releasing Hisar School's Al Education Policy in two languages and communicating the Policy to the school community through various channels.
- 2. In alignment with the open source approach specified in Hisar School's Al Education Policy, sharing the Policy in a format accessible by all educators on the school's website.
- **3.** Conducting surveys to define user profile, usage purposes and needs related with Al technologies focused on students, teachers and staff separately.
- **4.** Conducting focus groups and group work to define user profile, usage purposes and needs related with AI technologies focused on students, teachers and staff separately.
- **5.** In line with the needs identified, initiating professional learning efforts for the integration of Al with the curriculum.
- **6.** Identifying the steps to be taken to address governance, administrative and operational requirements for the use of AI technologies.
- 7. Conducting policy review and evaluation efforts at the end of the academic year.
- 8. Publishing the updated Al Education Policy at the start of the academic year 2024-2025.

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