AI for Children

Artificial Intelligence Curriculum for Elementary and Secondary Schools

Card

Ethics in Technology Use and Development

01 AI Ethics Deck

https://kurikulum.aidetem.cz/cards

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These teaching materials were translated using ChatGPT.
Please note possible imperfections in the expressions or wording.

Form for comments

npi National Pedagogical Institute of the Czech Republic

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Teaching Material for the AI Curriculum for Elementary and Secondary Schools
Computer Science at Secondary Schools - Cards

Ethics in Technology Use and Development

How we approach the topic

The technologies we use every day have a major impact on our lives – shaping how we work, learn, communicate, and spend our free time. But these technologies aren't neutral: behind each one are decisions made by developers and the interests of various groups such as investors, marketers, users, regulators, and others. Each of these groups brings different goals and values to the table, which often come into conflict. A typical example is the tension between user privacy and convenience (like using a navigation app), or between classroom focus and instant access to information. The aim of this teaching material is to help students understand how these different perspectives influence the development and use of technology, and to teach them to think critically about how technology affects both individuals and society as a whole.

Concrete example

Recommendation systems on social media are a powerful example of how technology can shape our everyday decisions. These systems choose what content users see based on their past interactions, preferences, or the behavior of other users. Developers of these algorithms focus on making sure users find content that captures their interest and keeps them on the platform as long as possible. The algorithms are designed to predict what will attract attention and maintain engagement. The companies behind these platforms aim to maximize profit, so they support algorithms that increase the time users spend on the site – the longer someone stays, the more likely they are to click on ads, directly boosting the company's revenue.

For users themselves, however, this approach can have a range of consequences. Recommendation systems can be helpful when they offer content that educates, entertains, or supports the user. On the other hand, they can also trap users in a filter bubble where they're only exposed to one type of content, narrowing their worldview and potentially encouraging platform addiction. Often, users may not even realize that their attention is being carefully steered by algorithms adapting to their behavior. This raises important ethical questions: while developers and platform owners pursue business goals, users may face risks such as addiction, disinformation, or loss of privacy. This teaching material helps students see how the interests of different groups are reflected in how technologies function and encourages them to think about how these conflicting goals might be addressed when designing more ethical digital systems.

AI Ethics Deck

Ethics in Technology Use and Development
Ethics in Decision Making

Lesson presentation in PDF

Editable presentation in Canva

Note 1: Gender equality is a key value for AI for Children, but to keep our teaching materials concise, we use masculine grammatical forms.

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Classroom Activity

Mobile Phone Use in Schools

45 min

Activity description

In this activity, students will create what's called an "ethics matrix" – a table used to explore how different stakeholders view the use of mobile phones in school. In the matrix, they will list various groups such as students, parents, teachers, and developers, and next to each group, they'll describe what mobile phones might offer them, as well as any concerns they might have. For example, students may see phones as useful tools for staying in touch with friends, finding information, or entertainment. Teachers, on the other hand, may worry that phones disrupt attention during lessons. Through this activity, students will come to understand that people can hold very different views on the same issue. The goal isn't to judge which group is right or wrong, but to learn to respect these diverse perspectives and include them in more thoughtful and balanced reflections on everyday life.

This activity can be easily adapted to any grade level in elementary or secondary school – the key is to choose a topic that is understandable and thought-provoking for students at a given age.

For younger students in primary schools, we recommend starting with the topic of eating sweets. The stakeholders might be a child, a parent, and a dentist, which helps students grasp in a simple way how different people can have different views on the same issue. For elementary school students, a suitable topic is mobile phone use in school, where students explore perspectives from students, teachers, and parents.

Other possible topics include:
1) Video Games – What impact does gaming have on school performance, health, and social life? (student, parent, teacher).
2) Social Media – What are the consequences for privacy and personal relationships? (user, parent, app developer).
3) Energy Drinks – Should they be available or allowed in school? (student, school staff and leadership, health professional, seller).

You can tailor the choice of topic to match what you're currently addressing in class and follow up the activity by having students create guidelines or rules related to the issue.

Lesson Overview

Recommended Age, Lesson Length
Children aged 8+, 45 minutes.

Building Blocks
Technology ethics.

What Are the Students Learning?
People have different values and interests, which play an important role in how technology is developed and used.

Why Are They Learning This?
To think critically about the impact of technology on individuals and society.

How Do We Know They Have Learned It?
They identify the values and interests of different stakeholders involved in the development and use of technology and use this to create an ethics matrix. They analyze possible conflicts of interest and reflect on how different perspectives can shape how we think about a given issue.

Tools
Teacher: Projector, presentation or slides.
Students: Writing tools, worksheets.

Digital Competence
Facilitating Learners' Digital Competence.

Bloom's Taxonomy
Understanding: Students identify the interests and values of different stakeholders in technology use and development.
Evaluating: They reflect on these interests and values.
Creating: They produce an ethics matrix.

Five Big Ideas
5-A-I Ethical AI (Diversity of Interests and Disparate Impacts).
5-A-II Ethical AI (Ethical Design Criteria).
5-A-III Ethical AI (Practicing Ethical Design).
5-C-I AI & the Economy (Impacts of AI on Sectors of Society).

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Engage

10 min

Think & argue

Sticky Note Method
Students write their responses on sticky notes (individually or in pairs), and then work together to group the notes based on similarity.

Think of and write down a specific situation or problem where people had different opinions.
For example, young people, their parents, and teachers often have very different views on drinking energy drinks. Students should try to come up with a real-life situation from their own experience and write it on a sticky note. If one topic strongly resonates with the whole class, we recommend using it as the basis for the ethics matrix. Students can also work on different topics in small groups.

Imagine a situation where a teacher doesn't treat every student exactly the same, but adjusts their approach to match students' abilities, interests, and needs. What do you think about that?
Possible answer: If a teacher adapts their approach to each student's abilities and needs, it can be helpful, because everyone learns differently. At the same time, it's important for the teacher to remain fair and impartial.

Think of a specific mobile game that is free to play but includes ads. How are the developers' interests different from yours?
Possible answer: To develop games, developers need money. They usually earn it by selling the game or showing ads. So their main goal is to make a profit. My goal is to enjoy a fun game for free, but I often find the ads annoying or distracting.

Understand

20 min

Activity 1

Worksheet 1

In this activity, students create a table to help them think through different perspectives on mobile phone use in school. Begin by defining the context: Is it about phone use during lessons, breaks, or another situation? Or choose a different topic.

Divide students into small groups and ask them to consider how each stakeholder might see the issue. In the first phase, they share opinions, discuss, and ask each other questions to explore the different interests and concerns of students, teachers, parents, or others.

Presentation slide 02 or 03

Give each group a worksheet or ask students to create their own table—on paper or in an app. The left column lists the stakeholder, the right shows their stance on the issue.

Example of an ethics matrix for elementary and secondary school students

Stakeholder	**Describe different stakeholders' views on mobile phone use in schools.**
Students	A mobile phone is useful for quickly looking up information, communicating with friends, and using learning apps. At the same time, it can be tempting to use it for entertainment – even during lessons.
Teachers, school staff	A phone can be an effective tool for research and interactive learning if its use in class is well managed. On the other hand, teachers may worry that phones distract students from their lessons.
Parents	The phone makes it easier to stay in touch with the child and helps ensure their safety. However, a parent may be concerned that the phone disrupts attention and could negatively impact academic performance.
App/Technology developers	Developers may see technology as a benefit and a support tool in schools. At the same time, they aim for the financial success of their app, which is sometimes designed to encourage frequent or prolonged use.

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Example of an ethics matrix for elementary school students:

People	Describe the perspectives of different people on eating sweets.
Children	Sweets are really tasty and I like them a lot. Chocolate, candy, or cookies feel like a small reward and make me happy.
Parents	Sweets are fine once in a while, but you shouldn't have them too often. They can harm your teeth and health, so I'd rather support you in eating healthy.
Dentists	Sweets can cause tooth decay if eaten too often. If you eat something sweet, remember to brush your teeth well to keep them strong and healthy!

Present & discuss

Student groups present their ethics matrices and discuss them together.
Explain to students that the goal is not to judge the interests or opinions of the different stakeholders, but to try to understand and respect them – and to include them in a more thoughtful reflection on our everyday reality.

Encourage students to see that it's valuable to look at a problem from different angles. Often, the viewpoint that seems most controversial or least aligned with the others reveals the core complication of the issue. For example, when discussing mobile phone use in school, the most debated point may be using phones for entertainment during class. Understanding and addressing this specific complication can help reduce the broader conflict around the topic.

Reflect

15 min

Describe & evaluate

You can choose from the following reflective questions:
How have your own views on the topic changed after considering the perspectives of other stakeholders?
Which stakeholder's perspective was the hardest for you to understand? Why?
If you were in the role of a different stakeholder, how would you want others to view your opinion?
How can different interests influence the decisions we make?

Four Corners

Four Corners
Students answer a question by choosing from set options, each linked to a room corner. They join the corner that matches their view, discuss in small groups, then each group summarizes and presents their arguments to the class.

You can use the following question for the Four Corners activity:

1. Who do you think holds the greatest responsibility for the ethical development of technology?
Corner A: Developers and tech companies.
Corner B: Users and society.
Corner C: Regulators and governments.
Corner D: No one – technology is just a tool; it depends on how we use it.

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2. What do you think is the biggest risk related to the use of technology?
Corner A: Loss of privacy.
Corner B: Technology addiction.
Corner C: Spread of disinformation.
Corner D: Social inequality (lack of access for some groups).

3. What should be the main priority when developing new technologies?
Corner A: Protecting user privacy.
Corner B: Ensuring equal access for everyone.
Corner C: Supporting education and future-ready skills.
Corner D: Boosting the economy and creating new jobs.

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