Visionpaper on responsible AI in education

Responsible AI in Flemish education. A collaborative process from development to use | Vlaanderen.be

Cedefop 2024
Why?
Prompt: robots towering over people, people running away, scared,
“AI 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.

AI systems interact with us and act on our environment, either directly or indirectly. Often, they **appear to operate autonomously**, and can **adapt their behaviour by learning** about the context.”

(Unicef, 2021, p. 16; Holmes et al., 2022)
“AI is a hype”
“AI is not a hype”

Prompt: a dramatic representation of the good and bad use of AI in education.
Prompt: a dramatic representation of the good and bad use of AI in education
A diversitivity of AI-applications

Teach and support learners

Support of educational professionals

Support of the educational organisation
How?

Development of a vision on responsible AI in education
**Phase 1**

Exploration and preparation (March–May 2023)
- Identification of the most important trends and topics
  - Expert group on educational innovation
  - Advisory board
  - Elaboration of cases and workshops

**Phase 2**

Writing and publishing of vision paper (June–December 2023)
- Discussion on the results of phase 1 with advisory board
- Effects, values en options for action
- Confirmation of vision paper by advisory board
Experts in educational innovation and AI

- **Role:**
  - Inventory of trends and topics on AI in Flanders
  - Inventory of trends and topics on educational innovation and renewal

- **Characteristics:**
  - Technical and educational / pedagogical
  - Spread across Flanders and different knowledge institutions
Advisory board

- **Role:**
  - Confirmation of final vision paper from their own expertise + Commitment to actively engage with the vision paper
  - Active engagement and feedback
  - 3 x gathering

- **Characteristics:**
  - Key players in Flemish education
Workshops guidance ethics approach

- Microsoft Reading Progress, MySpeech, Smartschool

- Principles of guidance ethics approach
  1. Guiding ethics instead of judging
  2. Focus on specific technology in a specific setting
  3. Dialogue with stakeholders
  4. Shaping, framing and acting ethically
What?
Basic requirements for responsible AI in education
Basic requirements

1. The learning process of the learner is paramount from a pedagogical-didactical and socio-emotional perspective.

*Everyone involved in the learning process has an important role to play in interaction with one another.*

Adobe. (2024). Adobe Firefly (Firefly Image 2) [text to image] https://firefly.adobe.com
Prompt: a schedule on a classroom door
Basic requirements

2. AI is not an end in itself

*It is a possible means of achieving educational goals and must have added value for education.*
3. AI applications in education are trustworthy

**Trustworthy AI meets 7 key requirements**

1. Human autonomy and oversight
2. Transparency
3. Diversity, non-discrimination and fairness
4. Societal and environmental well-being
5. Privacy and data governance
6. Technical robustness and safety
7. Accountability

[https://op.europa.eu/nl/publication-detail/-/publication/d81a0d54-5348-11ed-92ed-01aa75ed71a1](https://op.europa.eu/nl/publication-detail/-/publication/d81a0d54-5348-11ed-92ed-01aa75ed71a1)
Basic requirements

4. AI applications in education are based on shared values

The use of AI-applications has to be in line with the values you prioritize.
Basic requirements

5. Responsible AI is a continuous process

*Choosing AI is not a one-time exercise. It is an ongoing process of responsible development, procurement, use and evaluation.*
Basic requirements

6. Education has a support network that is AI-ready and AI-resilient

_Schools can rely on their broad school network to be AI-ready and -resilient. Knowledge and resource sharing is crucial._
Basic requirements

7. Professionalisation and responsible AI go hand in hand

*Digital literacy is crucial.*
Basic requirements

1. The learning process of the learner is paramount from a pedagogical-didactical and socio-emotional perspective
2. AI is not an end in itself
3. AI applications in education are trustworthy
4. AI applications in education are based on shared values
5. Responsible AI is a continuous process
6. Education has a support network that is AI-ready and AI-resilient
7. Professionalisation and responsible AI go hand in hand
What?

Guidelines for responsible AI in education
Guidelines for responsible AI

A. See responsible AI as a process and make it part of your education and ICT policies

1. Determine in advance what your objectives are with the AI application
2. Ask yourself in advance whether the objectives can be achieved by other, better means
3. Apply moral values and ethical and legal frameworks
4. Involve stakeholders
5. Work together and take responsibility together
6. Evaluate the AI application at regular intervals.
And now?
Realisation plan

Which actions are needed to make responsible AI in education possible?

Prompt: visualisation of the next steps, style: signposts
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Themes: AI, standard for metadata and ICT school policy

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Themes: AI, XR, ICT-coördination and ICT school policy

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Themes: AI, project EmpowerED