

**GENERATIVE  
ARTIFICIAL  
INTELLIGENCE  
(GAI)**



*EXPERIMENT AND EXPERIENCE, BUT STAY ALERT*

## GENERATIVE ARTIFICIAL INTELLIGENCE (GAI) EXPERIMENT AND EXPERIENCE, BUT STAY ALERT

This document is intended for all Fontys employees who are involved with Generative AI. The purpose of this document is to provide an update on challenges, guidelines and advice for education.

### What is Generative AI and how does it work?

Generative AI is a form of artificial intelligence that uses algorithms to create new content such as text, images, videos, music or a combination of these. It generates output in response to a question or prompt using Generative models such as Large Language Models (LLMs) using large data sets as a source. These models use your input to create output, so make sure not to submit any personal data or other confidential information.

Generative AI has a nearly endless range of applications, including predicting answers to questions, creative writing, translation, error detection in translations, summarization and code generation. Some well-known examples of Generative AI are ChatGPT, Google Bard, DALL-E and Midjourney. Generative AI is a tool, and it requires people to continually assess and refine its output. This demands knowledge and skills.

### What are the challenges for education?

1. Exploration and knowledge: Views on the use of Generative AI vary. For some it offers opportunities, while others see it as a threat. It can be both, which emphasises the need to learn how to use it responsibly. The Fontys Digitalisation Strategy 2021-2025 v1.0 states the following with regards to AI: "The rise of Data Analytics and AI-related technologies provides opportunities to gain relevant insights and making links in the field of education, research and management and accountability."
2. Various aspects of accuracy and ethics in the information:
  - **Bias in output:** Results produced by Generative AI models can be biased, depending on the data they are trained with.
  - **Hallucinations (fabrications) in output:** When Generative AI produces information which is not based on factual data, this may lead to incorrect information or misleading results, especially where accuracy and "truth" are essential.
  - **Copyright:** Although there is a lot of uncertainty surrounding copyright, it seems importing copyrighted works is not permitted. We advise you to handle this with care.

3. Academic Integrity: This refers to the ethical code of honesty in academia, where original work and personal effort are valued and should be the starting point. The rise of Generative AI tools increases the risk of students relying on pre-generated answers or essays rather than working independently. This can produce to a distorted view of their actual knowledge and skills, and ultimately amount to academic fraud.
4. Ensuring educational quality: How can we ensure that assessments still measure whether students have the necessary knowledge, skills and attitude?
5. Detection issues: Current AI detection tools are unreliable in identifying texts generated by Generative AI. They often give false positives, which severely limits their effectiveness. As of 5 September 2023, AI detection in the Fontys plagiarism tool has been turned off.

### Fontys guidelines

1. Generative AI may be used within Fontys.
2. Only submit material that is free of copyright and does not contain any personal data.
3. Clearly indicate which GAI tools you used, if any.

### Considerations and advice regarding Generative AI

#### Exploration

Experiment with Generative AI to explore its capabilities and limitations. Ask yourself critical questions about the learning outcomes your students work towards, and consider what knowledge, skills and attitude they still need to acquire, even with the availability of AI.

#### Learning and performance in balance

Encourage critical thinking and problem-solving skills. As a lecturer, engage in dialogue with students about their learning process. Value the process of learning and incorporate this into your assessments, allowing students to demonstrate their achievement of the intended learning outcomes.

#### Implications for the profession

What are the consequences of Generative AI for the profession you are training for? Is it necessary to adjust the training profile/curriculum?

#### Human customisation

Remember that the quality of the input determines the value of the output. You are yourself responsible for the quality of the prompt and/or questions, so you are also responsible for the output. Also make sure to verify the output, including any citations that Generative AI produces.

#### Reflect on assessment

Reflect on current testing methods. Can these tests be taken by Generative AI? If so, adjust the tests so that they either have to be taken on location or modify them such a way that the use of Generative AI does not undermine their value and outcome.

#### Ethics and media literacy

Teach students the importance of proper source citation, how to recognise deepfakes and how to deal with misinformation.

#### Evaluation of changes

Evaluate the changes that have been made in assessment and education. Learn from the experiences and each other, and make the necessary improvements (for example in the learning outcomes) to ensure that the changes contribute to improving the educational process.

#### Professionalisation

Provide ongoing education and training to lecturers and other stakeholders to help them stay updated in the rapidly evolving world of Generative AI.

### More information

- Join [Fontys Netwerk Didactiek en Blended Leren - kanaal GAI](#) to share best practices and learn together.
- [Fontys AI Knowledge Center](#)
- [SURF community AI in Education](#)

### Any questions?

Please contact [gai@fontys.nl](mailto:gai@fontys.nl)

The information in this document is a snapshot – given the rapid developments in GAI, it may be outdated tomorrow.