

UG policy on AI in teaching

Version: 1 December 2023

Introduction

This policy concerns the use of Artificial Intelligence (AI), and more specifically Generative AI (GenAI), in teaching. GenAI refers to AI models that are able to generate new and unique content, such as text, images, sound or other forms of output. Examples of AI tools with GenAI functionalities include ChatGPT, Google Bard, and DALL-E. Extensive general information about types of AI tools, tips on how to use them, and their possible impact on teaching can be found on <u>RUG EDU Support - AI tools in education</u>.

Many tools with general AI functionality are already in use in teaching, such as the MS Word spelling check and translate tool. GenAI tools are rapidly becoming more accessible and more complex in their applications. The main difference with other AI tools is that GenAI tools can not only adapt input but also create new output (although this difference is not always clear-cut). This offers students and lecturers great opportunities for working faster and in different ways. However, it also poses questions. How can we assess writing skills if students write their essays at home with the help of tools? How can we continue to ensure in this context that students learn to work in an academic way and that, when they graduate, they possess academic core principles and core skills with regard to the reliability/validity of information, transparency about the creation process, and critical reflection on research conducted? In addition, there are concerns about transparency, biases in output, and the impact of tools on privacy and the environment.

Vision

The UG aims to train its students within the context of their degree programmes to become competent and responsible users of AI tools, in accordance with academic ways of working, attitudes, and core principles. To this end, the UG uses a set of ten basic rules (Section 1) and introduces action lines (Section 2) to provide information to students and lecturers and support them in learning to use AI tools. Section 3 of this policy will define responsibilities. Degree programmes will have to review their teaching, assessment, and learning outcomes and decide to what extent they are affected by AI tools. There is no one-size-fits-all approach for this, as the impact varies per degree programme and per discipline. Faculties can therefore supplement the UG policy with their own rules and activities to suit their own context. This will enable us to explore the promising potential of AI tools together within joint frameworks.

Table of contents

The basic rules and action lines have been drawn up using input and feedback from experts and stakeholders (including OWB, UCO, ESI, TAG, and JTS) and in accordance with the guidelines in use at other higher education institutions. More extensive substantiations and examples of faculty guidelines and templates (such as the extensive elaboration of the Faculty of Arts), as well as the UG's definition of cheating, can be found in the Appendices.

Introduction	1
Section 1: Ten UG basic rules for the use of AI in teaching	2
Section 2: Strategy and development policy	4
Section 3: Division of responsibilities with regard to AI in teaching	6
Appendices	7
Appendix 1. Substantiation: context and considerations for each theme	7
Appendix 2. Examples of training courses, guidelines, templates, communication	10
Appendix 3. (Inter)national guidelines and supporting documents	.13
Appendix 4. UG definition of cheating	.13

Section 1: Ten UG basic rules for the use of AI in teaching

The UG has introduced this set of ten basic rules to integrate responsible and competent use of AI, and more specifically the use of Generative AI (GenAI), in teaching. GenAI refers to AI models that are able to generate new and unique content, such as text, images, sound or other forms of output. The UG wants the use of AI to tie in with academic ways of working and core principles. <u>Please note:</u> additional rules may apply at the level of individual faculties, degree programmes, and course units because the impact of AI tools can vary strongly for each discipline.

- 1. AI tools may be used as *aids to support general functionalities* (study tool/assistant/input for own work). General functionalities include, for example, brainstorming, gaining inspiration, summarizing general information, fine-tuning own work (language correction, language assistant), translation, and independent study/sparring partner (generating mock exam questions and answers). <u>Please note</u>: AI tools are not reliable academic sources and their output must always be processed critically in accordance with academic ways of working. Students are always responsible for their own submitted work.
- 2. When GenAI functionalities are used (to create new content or replace own work), this should always be mentioned/referred to. The most important difference with the functionalities listed under rule 1 is that GenAI serves to partly replace or outsource one's own working and learning process. If a student uses GenAI in any way other than those described under rule 1, they should explicitly mention this. This also enables the lecturer to give more targeted feedback about acquiring academic ways of working and learning to use tools in a responsible way. Any such use must be mentioned/referred to in a recognizable way, for example under methods/sources/references. The following should at least be stated:
 - 2.1. name and version of the tool
 - 2.2. for what purpose and how it was used

<u>Please note</u>: individual degree programmes and course units may set further requirements to the form and content of references, for example a more detailed explanation of the use, examples of prompts entered, reflection on reliability and bias, and verification of information.

3. Any additional rules with regard to the use of GenAI functionalities in addition to the above-mentioned rules 1 and 2 must be communicated before the start of the course unit in question. When in doubt, ask the lecturer. Using tools for functionalities other than those listed under rule 1 may be permitted, partly permitted, or not permitted. This may vary per degree programme and per course unit, because it depends on the learning outcomes. Students will be notified about this in good time (before the start of the course unit in question), in any case via the syllabus/Brightspace.

4. Using AI tools is regarded as cheating if:

- 4.1. the work submitted cannot sufficiently be considered to be the student's own work, so that their knowledge, understanding, and skills as described in the learning outcomes cannot be assessed and evaluated. Outsourcing work to a tool (or to someone else) to such an extent is not permitted because it affects the heart of academic ways of working. Students must always be able to take responsibility for verifying and analysing information, and for their own academic substantiation. Lecturers teach students to understand this link.
- Or
- 4.2. the student has not correctly mentioned/referred to the use. Submitting a literal copy of GenAI output (or any other output) as own work is never permitted.

The definitions of cheating/plagiarism as set out in the Teaching and Examination Regulations of the relevant degree programme apply. The Board of Examiners of the degree programme must determine for each individual case whether it constitutes a case of cheating.

- 5. Use the positive functionalities of AI tools, but do so consciously and critically. AI tools offer lots of great opportunities. However, using tools also involves risks with regard to the reliability of output (factual errors, biases, non-existing references) and the processing of data (infringement of copyrights and privacy, security, and storage of personal, company, and research data). You should therefore not enter sensitive information or data. Follow the GDPR. Users are personally responsible for using AI tools consciously, critically, and responsibly.
- 6. Processing agreements/UG licences are a precondition for requiring the use of tools in teaching. If there is no processing agreement between the UG and the owner of the tool, and/or there is no UG licence, students may not be required to create a personal account or to purchase a tool (or a version with more functionalities). In such cases, a similar alternative that is free of charge must be offered. This also applies to open source tools. Proper processing and storage of personal information and data must be in place if use in teaching is required, and students must have equal tools at their disposal.
- 7. Scores of AI detection tools do not constitute evidence for cheating. Cheating scores that are generated by AI detection tools may not be used to prove that a student has cheated, because these scores are unreliable (high risk of incorrect scores and lack of transparency about how the tools work). Examiners are responsible for checking the authenticity of submitted work, assessing the work, and reporting any suspicions of cheating/plagiarism to the Board of Examiners of the degree programme in question. Boards of Examiners are responsible for determining whether cheating/plagiarism has indeed been committed and for giving students suspected of cheating/plagiarism the opportunity to put their case.
- 8. Lecturers bear final responsibility for the assessment of students and the content of the teaching. Lecturers are encouraged to use aids in their teaching and assessment, such as automated marking of multiple-choice exams in accordance with predefined answers. However, automated decision-making/marking based on a GenAI model, without any human checks of the assessment process, is not permitted. The relevant examiner legally bears final responsibility for administering examinations and determining their results.
- 9. Any adjustments to modes of assessment in order to ensure the validity of assessments must be communicated in good time. The lecturer may conduct an additional oral check when cheating is suspected. In order to ensure the validity of assessment, it may be necessary to adjust a mode of assessment, for example, from a written exam to an oral exam. This is only permitted if the learning outcomes can still be determined. Students must be notified in good time (via Ocasys) and adjustments to modes of assessment during an academic year are in principle not permitted, except in cases of force majeure. In addition, lecturers may conduct additional checks in the form of oral tests when cheating is suspected. These tests do not constitute additional examinations. Students must, however, be notified of this possibility in advance.
- **10. Interim checks are conducted for theses/final projects.** The thesis or final project is an important part of the degree programme, in which many of the learning outcomes are assessed. Interim checks (for example in the form of a meeting or an intermediate product) are therefore conducted to assess the authenticity of the work and the creation process. These checks are often already conducted. Interim checks may count towards the final assessment, although this is not a requirement.

Section 2: Strategy and development policy

Developments relating to AI have impact at multiple levels (University/faculty/degree programme/course unit) and on the competences of both students and lecturers. The action lines described below aim to support students and lecturers in learning to use AI tools in competent and responsible ways. Each action line described is followed by its owner between square brackets. When drawing up the action lines, it has been attempted to strike a balance between the University and faculty levels, leaving room for additions and extra activities in accordance with the context of each faculty and degree programme.

1. Evaluate teaching, learning outcomes, and modes of assessment.

- The curriculum management of each degree programme is responsible for determining whether learning outcomes are still up-to-date and correctly formulated, how they can best and most reliably be achieved (with or without AI tools), and whether teaching and assessment need to be adjusted. Lecturers, too, should reflect on their assignments and assessments and decide how they can train their students in this new context. General principles could include shifting the emphasis from written (final) products to learning processes, argumentation, and critical reflection. The process preceding and surrounding theses/final projects deserves additional attention in this context, as it often mainly takes place behind closed doors and we aim to ensure the academic integrity of our graduates. It is recommended to consult (coordinating) examiners, educational support, and the Board of Examiners during the evaluation of the degree programme. [*Curriculum management*]
 - The <u>RUG EDU Support pages about Artificial Intelligence (AI) tools in</u> <u>education</u> offer general information about the possibilities offered by AI tools and suggestions for adjustments to teaching and assessment in order to prevent cheating and better ensure validity. Although these central UG pages receive updates, there is no easy or one-size-fits-all solution. [*CIT-ESI*]
- The UG policy on AI in teaching and in general stability of modes of assessment at University level will be evaluated with faculties [*US-SES*]:
 - Include in the agenda for the Annual Education Interviews (spring 2024).
 - Link to the evaluation of the UG assessment policy (late 2024).
- 2. Train students and lecturers to understand and responsibly use AI tools.
 - **Students** need a good basic understanding of how AI tools work and what the most important points of attention are in order to be able to interpret information and sources in an academic, critical way. In many cases, this is related to the objectives of existing academic skills teaching. Although first-year Bachelor's students in particular would benefit from attention being paid to this topic at the start of their degree programme, these objectives apply to all UG students. The advantage of e-modules is that they can reach all students (as well as lecturers).
 - University level: develop a stand-alone basic e-learning module about AI, which can preferably be incorporated in existing academic skills teaching, can be integrated in Brightspace and also provides basic information for lecturers. It is up to the degree programmes themselves to decide how and when to use such a module in their teaching. [CIT-ESI with University Library]
 - Faculty level: integrate AI in relevant course units about academic skills. [*Faculties*]
 - **Lecturers** seeking to improve their basic knowledge can also benefit from a standard module or e-module about the possibilities and risks of using AI tools in teaching. In addition, there is a need for workshops/microlabs about the use of AI tools for specific purposes (assessment, feedback).

- University level: integrate AI literacy in the range of training options for lecturers. [*CIT-ESI*]
 - Provide input for pilot versions of workshops. [*TAG Community of Practice AI in Education*]
- Faculty level: integrate AI in workshops for lecturers where possible. [*Faculty platforms and support networks*]
- Existing external free e-modules that can be shared.
 - <u>ChatGPT: de onderwijskundige gevolgen [Didactic consequences of ChatGPT]</u>
 <u>– HAN</u> (Dutch only)
 - <u>Nationale AI-cursus</u> [Dutch only]
 - Elements of AI University of Helsinki
 - The University of Queensland Library Digital Essentials module
 - MOOC on Generative AI in Higher Education van King's College London

3. Expand the provision of information.

- The general central information provision about AI in teaching towards staff members and students runs via the <u>RUG EDU Support web menu AI in</u> <u>Education.[CIT-ESI in collaboration with TAG and faculty experts]</u>
- After approval of policy: publish a general web page with UG basic rules and introduction, also in English [*US-SES*].
- After approval of policy: publish a concise UG web page for lecturers about the possible impact of AI tools on modes of instruction and assessment and possible solutions. This should build on the recommendations about adjusting assessment in order to minimize risks and ways of recognizing use (EDU Support page 'Dealing with fraud and risks'). [CIT-ESI]
- After approval of policy: publish a general UG web page for students and lecturers with information about risks/awareness with regard to the use of AI tools, what can be regarded as cheating, and the principles of academic ways of working. [*US-SES* + *CIT-ESI* + *US-AJZ*]
- **4. Collect and share faculty examples of guidelines, rules, syllabus texts, etc.** Examples from other institutions, faculties, and degree programmes can help to prevent duplicate work, speed up adjustments in teaching, and draw up additional rules and regulations (see also Appendix 2). Currently, there is no suitable University-wide platform available for this.
 - AI must be given explicit attention in the University-wide networks/platforms that have been introduced and are being expanded by bodies such as ESI, TAG, and the Jantina Tammes School. [*CIT-ESI in collaboration with TAG and JTS*]
 - Faculties are advised to establish working groups/communities that lecturers can reach via one single desk/email address. This way, all knowledge about the topic and all suggestions for possible solutions will be pooled and a lot of duplicate work will be prevented. [*Faculties*]
- 5. Build up expertise.
 - Build up and maintain information and knowledge. [CIT-ESI, TAG, JTS, Faculties]
- 6. Safeguard data processing and storage for existing software and when purchasing new tools and licences.
 - In order to assess the impact of tools and follow the steps in quality assurance (safeguarding privacy and data, costs and scalability, alternatives, and an exit strategy in case the UG decides to stop using a tool), new tools and licences with a GenAI component may only be purchased via standard UG procedures. [*Example: pilot/project/test in faculty, request via the Software Fund, decision-making on purchasing of UG-wide licence via the Management Council*]
 - The development of the national AI facility <u>GPT-NL</u> (a Dutch open language model) aims to strengthen digital autonomy in the Netherlands and decrease dependence on large providers/Big Tech. In-house transparent facilities will also ensure the

reproducibility of output, which is very important for the use of AI in research. [*National, SURF+AiNed*]

- This national action line can also be strengthened locally by running alternative open source tools (such as Llama, <u>BigScience BLOOM</u>, or <u>GPT4All</u>) locally or hosting them at the UG. The <u>RUG CIT Team Data Science</u> has a lot of hands-on expertise in (creatively) using open source models and is able to provide advice and support for the use of AI tools [*CIT*].
- Tools that are already part of the UG software package receive regular updates. Such updates may entail the addition of high-risk AI functionalities. One example is the program Atlas.ti, which is frequently used for qualitative analyses. Control mechanisms should be put in place for existing software and updates as well, so that data can be safely processed and stored. [*CIT (for CIT managed software + Faculties*]

7. Use and expand 'AI Free Zones'.

- Depending on the learning outcomes and the reliability of assessment, it may be necessary to create learning or assessment environments where AI tools cannot be used. The rooms in the Aletta Jacobs Hall (AJH) are already available as reliable 'AI Free Zones' for large numbers of students. A secure digital assessment environment has been created here. This 'AI Free Zone' is larger than those in use at other universities. There is ample opportunity to make more use of the AJH for these purposes outside examination weeks. [*Faculties + CIT*]
- In order to increase the flexibility and prevent excess pressure on the AJH during exam weeks, it may also be possible to create faculty 'AI Free Zones'. [*Faculties* + *CIT*]

Section 3: Division of responsibilities with regard to AI in teaching

- **Curriculum management/Degree programme management**: Evaluate whether learning outcomes, teaching, and modes of assessment should be adjusted. Notify students of degree programme-specific policy with regard to AI.
- **Board of Examiners**: Safeguard the quality of assessments, issue advice on risks involved in assessment, determine cases of cheating.
- **Lecturers**: Acquire at least basic knowledge of AI. Where necessary, adjust assessments and teaching at course unit level. Explain the relationship between AI, academic ways of working and the development of academic integrity to students within the context of their course unit/degree programme/field.
- **Students**: Take responsibility for acquiring academic ways of working. Familiarize themselves with the risk of using AI tools.
- **CIT-ESI**: Set up (basic) training modules on AI for lecturers in collaboration with TAG and UB, provide UG-wide information via general EDU Support web pages about AI, offer general didactic advice to lecturers via embedded experts in faculties, support lecturers in adjusting their assessments, build up expertise.
- **Faculty teaching support**: Support lecturers in adjusting their assessments. Share and expand central information provision, build up expertise.
- **TAG (Community of Practice AI)**: Collect and share information among lecturers, organize pilot versions of workshops, build up expertise.
- University Services SES: Draw up and communicate UG-wide teaching policy.
- **Software Fund + Management Council**: Coordinate purchase of tools.
- Jantina Tammes School (JTS) of Digital Society, Technology and AI The JTS 'Applied AI' community mainly focuses on events and on applications of AI tools within research and in society.
- **National initiatives and networks**: Establish a national AI facility to strengthen digital sovereignty, collect information, and offer guidance to students and lecturers. Examples of national initiatives: the SURF AI in Education community, the National Acceleration Plan for AI, Npuls, AiNed.

Appendices

Appendix 1. Substantiation: context and considerations for each theme

- General vision: integrate AI tools in teaching in a responsible way. AI offers many opportunities, and is also important outside the walls of the university and after graduation. AI enables a lot of new, creative, and active teaching, as well as different modes of instruction (personal tutoring, different types of homework, flipped classroom) with interaction, reflection, and application within the classroom. This ties in with certain topics from the UG Strategic Plan (*blended active learning, flipped classroom,* skills, and competence development). The use of tools among UG students and lecturers is already widespread and is still increasing further. Attention should be paid, however, to reliability and academic ways of working, attitudes, and core principles. Functionalities such as translation, revision, linguistic embellishment, and language correction have already been included or will be included in popular search engines and text processors such as Google and Word. GenAI will enable more functionalities, some of which may be unpredictable. The UG is responsible for training and helping students and lecturers with this, also with an eye to the changing labour market. Responsible handling of AI (knowledge, skills, reflection on output) is part of the academic development of students.
- **Teaching is based on human interaction.** Paraphrased from the UG Strategic Plan: learning is a social process, in which lecturers and students interact with each other. Students benefit from lecturer supervision when learning skills to handle information, research, and possible instruments and tools responsibly and critically. AI tools are not content experts; lecturers and fellow students are. AI tools may also help to teach skills at higher levels in some cases: the minimum levels expected from students could be raised (*raising the bar*). Lecturers must offer students context, feedback, and assessments in a way that AI tools are unable to provide. The use of AI does then not replace learning.
- **Evaluate teaching and assessment.** AI tools should not be able to replace the activities pursued in the context of teaching. Some learning outcomes may have been superseded by the possibilities of AI and have to be adjusted and/or linked to AI use. Certain modes of assessment have become more vulnerable, in particular essays. Some modes of instruction and assessment may therefore have to be adjusted, with more emphasis on current and specific topics, non-written modes, assessment of development/learning processes rather than products, intermediate products, contextualization, verbalization, application, and reflection. Adjustments in teaching must always be viewed from the perspective of constructive alignment: learning outcomes (what should students know or be able to do as a result of the course unit?) - learning activities (what activities are appropriate for students in order to develop the desired competences?) - assessment (how can students demonstrate that they have acquired the desired levels of competences?). This differs from one degree programme and one course unit to another. The curriculum / degree programme management is therefore responsible for investigating the impact of AI on the teaching, learning outcomes, and modes of assessment of its degree programme, and if necessary to adjust these. In addition, lecturers will have to adjust their teaching at the course unit level. The Board of Examiners is responsible for checking the quality of the assessment programme and assessment plans. Assessments must always be reliable and valid.
- **AI Free Zones.** In addition to adjustments to teaching and assessment, it is also possible to create a learning or assessment environment in such a way that AI cannot be used (AI Free Zone). This also safeguards the achievement of learning outcomes. The digital assessment stations in the AJH constitute a large, reliable AI Free Zone for the UG with physical invigilation and a secure digital assessment environment, which many other institutions do not have. It may also be possible to create faculty AI Free Zones to enable even more flexibility.
- UG framework, but with room for context and differences among degree programmes. The University-wide framework for AI in teaching must offer sufficient room

for the diversity in degree programmes and differences in the impact that the use of AI tools has. The framework must explain what is or is not permitted and which topics should be addressed at faculty or degree programme level. It must offer room for implementation and for the specific characteristics of the individual faculties, if necessary to set out additional rules and activities or to provide further explanations, and to explore what the best options are given the available resources and possibilities. A one-size-fits-all policy is not possible due to the diversity in degree programmes and academic fields/disciplines.

- **Policy in the field of AI in teaching is temporary.** Developments in the field of AI are moving fast: it seems probable that GenAI will be integrated in applications such as Google and Word in the short term. The policy must be updated if and when necessary. A suitable moment for evaluation would be after one year, linked to the evaluation of the UG Assessment Policy, in addition to interim monitoring moments in the Annual Education Interviews.
- **Student use must be in line with learning outcomes.** Sharp lines are not easy to draw due to the many different types of use of AI tools and the differences between subject fields and course units. AI can be very useful for (much more quickly) collecting information, putting analyses into words, and correcting, reformulating, and translating texts but not if it thwarts the learning outcomes. The learning outcomes must always prevail.
- **Cheating.** Illegitimate use of AI by a student that interferes with assessing the learning outcomes constitutes a case of cheating. This falls under the existing definitions of cheating/plagiarism as set out in the Model Teaching and Examination Regulations (see Appendix 4). The risk of cheating (also in general) is much higher if there is no supervision. The risks are highest for reports, essays, and take-home exams that are written without supervision and outside of a secure environment. Lecturers must be able to see what work students have done and to assess this work within the framework of the learning outcomes. The assessment can be improved if students indicate when they have used GenAI. Making the use of GenAI transparent will also help students' learning process in using tools responsibly and competently.
- **Students remain responsible for academic integrity.** AI output entails risks: it may produce factual errors as well as convincing-looking nonsense. AI tools do not understand their own output (*stochastic parrot*); they only produce material on the basis of probability. Students are responsible for checking and verifying the reliability of information and sources and to reflect on their input methods and output. Critical abilities are essential. Students are also expected to be able to think critically after they graduate. However, they need help to acquire this ability. First-year students in particular cannot be expected to be able to do everything already; students need to be supervised in learning these things.
- **Students must be notified in good time.** It is often unclear to students what is or is not permitted. They must be notified clearly and in good time (before the start of the course unit).
- Extra attention to final project/thesis. The final project/thesis deserves extra attention given its weight in the degree programme as well as the fact that in its most common form, it entails a lot of unsupervised research and writing. In general, an academic thesis is a manuscript that is complex in content. In most cases, there will be interim feedback moments between a student who is working on a thesis and their lecturer. The supervising lecturer will identify developments and also discuss the process with the student. This will largely prevent misuse of AI and is therefore one of the most effective steps in order to better ensure authenticity. AI tools such as ChatGPT may be less of a risk for final projects/theses that rely more heavily on projects and experiments, but they are still a factor to bear in mind. Interim checks are needed in order to ensure authenticity. A more demanding form of checking is through provisional interim assessments (possibly with pass/fail grading), requiring students to submit and give explanatory notes to interim assignments or draft versions throughout a course unit or thesis process (see the example of FEB in Appendix 2).
- **AI detection tools are insufficiently reliable to serve as evidence.** It is currently impossible to unambiguously establish and prove the use of AI tools with AI detection tools. These detection tools are untransparent *black boxes* with a high risk of false-positive and

false-negative results. We appear to be running a race that cannot be won; detection will always remain one step behind, and detecting AI use with these tools does not seem feasible. Scores from AI detection tools may therefore not be used as evidence for cheating. AI detection does not form part of the UG licence for the current plagiarism scanner. Although even without detection tools, certain signals can be distinguished (generalities, unusual style, factual errors, lack of spelling mistakes, incorrect references) that could point to the use of AI, it is difficult to prove it and AI tools will continue to improve in these aspects. <u>More signals</u> and tips to recognize the use of AI tools can be found on EDU Support.

- **Inform students and lecturers of the disadvantages and possible risks of AI.** The use of AI has its disadvantages and risks: it may generate complete nonsense as output, answers may be biased, the impact on the environment and climate may be high, <u>copyrights may be infringed</u>, and input and sensitive data may be transferred to (commercial) developers.
- **Preconditions for requiring the use of AI in UG teaching.** Many AI tools are *black boxes*, and there are usually no processing agreements between the UG and the owners. This means that we do not know what will happen to the data. All input is stored. This means that there is a high risk of infringement of privacy and intellectual property/plagiarism. Sharing sensitive information must be prevented and minimized. Many tools are owned by commercial parties and have a licence that has to be purchased in order to be able to use the tool or to gain access to more options. Students and staff must be aware of this and must be supported/trained in this field. New tools must be purchased, and existing ones checked, via controlled routes.
 - Any use of AI that involves students having to provide their personal details may not be made compulsory without a UG licence and processing agreement.
 - Students who are unable or unwilling to use AI may not be disadvantaged compared to students who do want to use it and are able to afford it (for the sake of equal opportunities). Some AI services are located behind a paywall, involving extra costs. This would disadvantage students who are unable or unwilling to pay the amount involved. In such cases, a similar alternative that is free of charge must always be offered. At the same time, however, if all students are permitted to use AI tools, AI can also promote equal opportunities (*levelling the playing field*), for example for dyslexic students and non-native speakers.
 - Formal decisions always require a human being to bear final responsibility. Automated decisions based on algorithms/models about students are not permitted (see also the draft AI legislation of the EU).
 - We must urge students and lecturers not to share any privacy-sensitive data (names of students, names of respondents in studies, contact details) because we do not know what the provider will do with them.
- **EU legislation about AI.** An accelerated process of drawing up EU legislation about AI is currently ongoing, but no laws have been established yet. Legislation will offer more general protection and frameworks. These frameworks will categorize use into risk groups that are subject to different rules. Some AI use will be forbidden by law (for example fraud prediction based on profiling). Providers/tools will have to satisfy criteria in order to qualify for a quality label and for the tool to be admitted to the EU. General principles of EU legislation include 'safe, transparent, traceable, non-discriminatory, and environmentally friendly'. In concrete terms, this means that there will be a transparency requirement for providers and assessment at EU level before a tool can enter the European market.

Appendix 2. Examples of training courses, guidelines, templates, communication

General information

•

- <u>RUG EDU Support page: Artificial Intelligence (AI) tools in education</u> (also about adjustments to assessment and teaching and how to prevent cheating)
 - General pages with information for students from other institutions:
 - <u>Avans University of Applied Sciences: ChatGPT for students</u>
 - <u>Utrecht University: A Chatbot as Study Aid</u>
 - <u>Leiden University info page: ChatGPT: What is possible and what is allowed?</u>
- <u>Magazine: Smarter education with AI</u> Magazine set up by the Npuls National Growth Fund programme, including 'practical tips for the classroom, interviews with leading experts, background stories, and inspiring examples of AI in education. Various topics are covered, including the application of AI in education, AI and assessment, ethics, guidelines, and policy.'

Existing external training programmes

- <u>ChatGPT: de onderwijskundige gevolgen [Didactic consequences of ChatGPT]</u> from HAN University of Applied Sciences in collaboration with SURF (Dutch only, e-learning, free)
- Nationale AI-cursus [National AI course] (Dutch only, e-learning, free)
- <u>Elements of AI</u> (e-learning, free, basic)
- <u>The University of Queensland Library Digital Essentials module</u> is free to use and adapt under Creative Commons (with attribution).
- <u>Creative and critical engagement with AI in education</u> from metaLAB Harvard (e-learning, free)
- MOOC on Generative AI in Higher Education van King's College London

Citing/quoting/referencing sources

- <u>Elsevier publishing ethics</u>
- How to make reference to ChatGPT:
 - <u>MLA reference style</u>
 - <u>APA reference style</u>

Examples of faculty elaborations

FEB Rules and Regulations for 2023/2024 (Article 10)

Adjustments to the thesis policy by means of provisional practical assignments (interim assessments). This requires students to complete interim steps that lecturers can check and which can be graded as pass/fail.

Example from UMCG: short-term rules issued by the Board of Examiners

It is important to know which course units in the various degree programmes include writing assignments. The examiners of these course units will have to screen their teaching and assessment. Here are some examples of how teaching can be adjusted:

- \circ $\,$ Make sure that the examinations of the course unit consist of a mix of modes of assessment.
- \circ ~ Focus more on the students' progress than on their final products.
- Redesign assignments to include more presentations, discussions, or even drawings.
- Make less use of modes of assessment that require writing skills if this is not a skill that has to be assessed.
- Explicitly include ChatGTP as a component of the assignment by asking students to verify a ChatGPT output or to formulate a good prompt.

Practical implementation of AI policy - University of Groningen Faculty of Arts

The implementation of the Faculty policy on Artificial Intelligence in teaching (and in particular: the use of AI-generated content by students) could necessitate changes to our current way of teaching. To accurately assess what changes need to be made, the Institute of Education has the following practical requests for programme coordinators within the Faculty:

- 1. The syllabus of <u>each</u> course unit within your degree programme must include a section on AI. A template for this section, which can be customized according to the needs of the course unit, can be found here: <u>Template for the AI section of the syllabus</u>
- 2. In addition to the general explanation of the syllabus, lecturers will have to spend the first 10-15 minutes of the first lecture or seminar of a course unit on discussing the use of AI tools with their students, with a focus on academic integrity. A template for these guidelines, which can be customized according to the needs of the lecturer, can be found here: <u>Guidelines for</u> <u>discussing AI in the classroom</u>
- 3. The impact of AI on each degree programme must be assessed. This assessment must contain:
 - a. The course units within the degree programme that are impacted most by AIgenerated content.
 - b. The mode(s) of assessment within the degree programme that is or are most vulnerable to interference by AI-generated content.
 - c. The forms of AI use deemed permissible or useful within the degree programme.
 - d. A template for the risk assessment can be found here: <u>AI Risk Assessment</u>. You can use this template to arrive at a general conclusion regarding the level of risk. Feel free to customize the assessment form or to use a different assessment method if necessary.
 - e. The length and other additional content of the assessment can be determined within the programme, based on the programme's needs and preferences.
- 4. Recurring training sessions on AI (both for beginners and those with more advanced knowledge) will be offered by the IoE, in collaboration with ESI and CLIQ. Please refer lecturers to these training sessions.
- 5. Critically reflect on the current Teaching & Examination Regulations, and if the risk assessment indicates areas of high risk, make changes in consultation with Hans Kluck, policy advisor on quality assurance.

The ultimate deadline for syllabus inclusion is 1 September 2024. By this date, each new course unit must have this section included in the syllabus. Preferably, however, new course units starting in the second semester will already contain this template. Lecturers will be notified by the Institute of Education to include this template in their course units as soon as possible.

The deadline for the risk assessment is 1 June 2024. By this date, each degree programme must have presented this short overview to the Institute of Education, which will include it in a general report for the Faculty Board.

If you have any questions or comments, please contact education.policy.arts@rug.nl

Examples at degree programme level

The following is the June 2023 policy from the Research Master's programme in Behavioural and Social Sciences:

'Dear student,

This message is to inform you about the current position of the Board of Examiners on the use of ChatGPT and related programs in the Research Master's programme in Behavioural and Social Sciences (BSS). Please note that AI technology is developing rapidly, and it is possible that our position is revised soon.

Generally speaking, unless your lecturer says otherwise, you are permitted to use ChatGPT to:

- Check the spelling or grammar of your writing;
- Write transitions between two paragraphs;
- Summarize a text;
- Generate mock exam questions to help prepare for an exam;
- Annotate code (for instance, R-code).

If you have used ChatGPT or similar programs in your work, you must acknowledge how you used them. For instance:

- I declare that no content produced by artificial intelligence technology has been presented as my own work.
- I declare that I used the following program (name of the program and indication of the link) to produce the materials necessary for background research and the study of my results during the preparation of this work. I used this to [..., e.g., summarize texts].
- I declare that I used the following program (name of the program and link) to generate materials that are included in my work in a modified form. I used this to [..., e.g., write transitions between paragraphs].

Below, we list several purposes that you should not use ChatGPT for. We will also explain why you should not.

- Write an academic paper from scratch. There are two reasons not to do this: (1) the ability to independently formulate ideas, theories, and/or research questions is an important part of the learning outcomes of the Research Master's programme, and is typically reflected in the learning outcomes of each individual course unit. Using ChatGPT to write your entire paper is considered an act of plagiarism and constitutes cheating; (2) ChatGPT is surprisingly bad at writing academic papers, it struggles with vetting sources and proper referencing. Your text may look good at face value, but to an expert (like your lecturer) it will be clear that it was not written by a human.
- Find academic literature. The reason not to do this is reflected above: ChatGPT is not good at distinguishing valid academic work.
- Assist with assignments or take-home exams. Assignments or take-home exams should be completed in accordance with the instructions provided, to satisfy the learning outcomes of a course unit. Using ChatGPT is not included in the instructions of any course unit so far, so using ChatGPT to complete assignments or exams constitutes a case of cheating.

Perhaps the most important advice we can give you is: make sure you have an active line of communication with your lecturer! Whenever you are unsure about whether or not a specific use of ChatGPT is allowed, please ask.'

Examples at course unit level

- <u>Example of a guideline in a syllabus at course unit level</u> by Florian Lippert and Pablo Valdivia, for European Culture and Literature (Faculty of Arts)
- <u>Incorporating ChatGPT in essay teaching</u> (Ryan Wittingslow and Dave Beyno, UCG workshop)

Appendix 3. (Inter)national guidelines and supporting documents

Policy/guidelines

- <u>KU Leuven</u>
- <u>University of Twente</u>
- <u>Utrecht University</u>
- <u>VU University Amsterdam</u>
- <u>UK Russel Group universities</u>
- <u>Cambridge 1</u>, <u>Cambridge 2</u>
- <u>UK Joint Council for Qualifications</u>
- <u>Harvard Information Technology</u>
- <u>ETH Zurich</u>
- <u>Tartu University Guidelines</u>
- <u>University of South Australia</u>
- <u>Generative Artificial Intelligence Guidelines Australian Academic Integrity Network (AAIN)</u>

Guidance/information pages

- <u>HAN handreiking ChatGPT & Toetsing</u> [HAN guide on ChatGPT & Assessment]
- <u>Fontys factsheet</u>
- <u>Radboud info page</u>
- <u>Leiden info page for staff</u>
- <u>UvA Risico-inventarisatie misbruik AI bij toetsing</u> [risk inventory on AI in assessment]
- <u>Cambridge: Preventing plagiarism guidance for teachers</u>

Other

- <u>EU legislation on AI</u> 'Generative AI, like ChatGPT, would have to comply with transparency requirements:
 - Disclosing that the content was generated by AI
 - \circ $\;$ Designing the model to prevent it from generating illegal content
 - Publishing summaries of copyrighted data used for training'
- <u>'Developing a framework to re-design writing assignment assessment for the era of Large Language Models'</u>, Ya-Ping Hsiaoa, Nadia Klijnb, and Mei-Shiu Chiu (2023)
- <u>SURF AI in Education community</u>
- <u>National Acceleration plan for AI</u>
- <u>Unesco AI and education: guidance for policy-makers</u>

Appendix 4. UG definition of cheating

2023-2024 Model Teaching and Examination Regulations (TER), Article 9.18 - Cheating and plagiarism

- 1. Cheating is an act or omission by a student that partly or wholly hinders the forming of a correct assessment of their or another's knowledge, understanding, and skills.
- 2. Cheating also includes plagiarism, which means copying someone else's or your own work without correctly acknowledging the source.
- 3. The assessment of theses and written assignments requires a plagiarism check to be performed, by means of a plagiarism scanner accessed by the University. Students are individually responsible for maintaining academic integrity.
- 4. If a student cheats, the Board of Examiners may exclude that student from participation in one or more examinations or final assessments for a maximum of one year.
- 5. In the event of serious cheating, the Board of Examiners can ask the Board of the University to definitively terminate the student's registration in the degree programme.
- 6. The Board of Examiners sets out its course of action in the event of cheating in its Rules and Regulations.