

## **Guidelines for the Use of Artificial Intelligence in University Courses**

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### **1. Justification:**

- **We use artificial intelligence tools daily.** Consciously or unconsciously, practically all of us use some type of artificial intelligence (AI) in our daily lives. We even use systems that help us perform various university activities. For example: when we are writing a text message or an email and the ‘autocomplete’ tool suggests how to finish writing the sentence; when we search for information through Internet search engines that recommend keywords for the search; when we use word processing software that suggests grammatical corrections; and, when we use automated translation tools, among others. In addition, there are web and mobile AI tools that are freely accessible to anyone with an Internet connection and that allow us to generate text and audio-visual content.
- **Some AI can support learning processes and professional activities.** There are appropriate uses of such technologies which can be useful for [learning](#) and [teaching at universities](#). Moreover, there are different uses for these tools at the professional level; for example, AI tools contribute to activities in all the [stages of public policy processes](#).
- **But certain uses of AI are risky, so their use must be informed, transparent, ethical, and responsible.** AI tools are not suitable for every type of activity and certain types of uses can be counterproductive to the pedagogical process. Some uses of AI may generate risks for users and third parties. Furthermore, as explained in section 4 of the guidelines, it is essential to be aware of the ethical, environmental, and human rights implications associated with the use of these tools. It is precisely because of these risks that some universities have published [recommendations](#) and [guidelines](#) on the use of AI in academic contexts.

### **2. Objectives:**

1. **Prevention.** To prevent situations in which students consciously or unconsciously engage in academic dishonesty.
2. **Contribute to digital literacy.** Contribute to learning [basic knowledge about the use of emerging technologies](#) such as AI, their benefits and risks, and their implications for society.
3. **Promotion of responsible use.** Promote the responsible and ethical use of emerging technologies, such as AI, in learning processes and for future use in professional life.

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<sup>1</sup> I prepared these guidelines for my undergraduate and graduate public policy courses at Universidad del Rosario. I wish to thank my colleagues, students and people who generously commented on previous versions of this document. I especially thank my research assistant Sarah Muñoz-Cadena for helping me with the translation of the guidelines. I also thank Professor Anna Mills for her proof-reading, critical assessment, and valuable suggestions. The Spanish version is available [here](#). I very much appreciate any feedback you would like to share: [juandavid.gutierrez@urosario.edu.co](mailto:juandavid.gutierrez@urosario.edu.co)

### **3. Rules for the use of AI in and out of the classroom:**

1. **General rule.** In this course, the use of AI as a support tool to carry out different learning activities is allowed. The parameters for the use of these tools described below distinguish between ‘low risk’ and ‘high risk’ tools, according to the risks that the respective AI generates for the pedagogical process, for the users, and for third parties.
2. **Use of low-risk AI.** You may freely use low-risk AI tools, i.e., those that allow you to correct or review student-generated content or those that allow you to collect and process data. For example, grammar correction tools, [translation tools](#), audio-to-text transcription tools, and Internet information search tools, among others. It is recommended that where such tools enable you to do meaningful work (e.g., translation), you indicate their use in the appropriate section (e.g., methodology section).
3. **Use of high-risk AI.** AI tools that generate content (text and/or audio-visual), i.e., text-generating AI (generative AI, such as [ChatGPT](#)) and stable diffusion AI for image generation (Stable Diffusion, such as [DALL-E 2](#) or [Midjourney](#)) are considered high-risk in these guidelines. You may only include AI-generated content in your individual and group work when four requirements are fulfilled:
  - a. **Informed use.** Prior to using the tool, research who or what company developed the tool, how it was developed, how it works, what functions it can perform, and what limitations and/or risks it presents.
  - b. **Transparent use.** In your work, indicate in detail and expressly which tool you used and how you used it (a requirement currently requested by [scientific journals to those who submit manuscripts for peer review](#)).
  - c. **Ethical use.** The manuscripts must distinguish what was written or produced directly by you and what was generated by an AI tool. On this point, general citation rules apply, e.g., use quotation marks if you include textual paragraphs. Violations of this policy, particularly with respect to the second requirement, will be considered an infringement to academic integrity. In addition, ChatGPT is not a person, so [it cannot be considered your co-author](#) (just as you should not include Google as your co-author). Some [scientific journals](#) have already updated their publication policies to clarify that language models such as ChatGPT do not satisfy their ‘authorship’ attribution criteria.
  - d. **Responsible use.** It is recommended that the use of these AI tools be limited to early stages of research, to inspire or suggest directions, not to produce content that will later be included in your deliverables. In any case, if you choose to transcribe texts produced by Generative AI, you must prove that you have rigorously checked such information against reliable sources, since Large Language Models (LLMs) such as ChatGPT tend to offer [inaccurate, erroneous, and invented information](#).

4. **Monitoring.** The teacher's focus is on collaborative, [pedagogical strategies](#) rather than punitive ones. However, students should be aware that AI-generated text can often be identified as such by specialized software. For example, [Turnitin](#) announced that it is working on adding an AI handwriting detection module. In addition, it is likely that, soon, the generative tools themselves will include a '[watermark](#)' in their results that will make it easier to track whether a text was produced by AI. Anyone who uses these tools should consider their use public rather than private information since it may be possible, now or in the future, for software to detect that text was machine-generated.
5. **Support from the teacher.** At the beginning of the semester, the professor will explain what AI is, what language models are and how tools such as ChatGPT work, what opportunities and risks they generate for academic and professional work, and what ethical, environmental, and human rights implications are associated with the use of these tools. The professor will always be available to clarify the scope of these guidelines, to discuss and collaboratively revise them, and to address questions about the use of AI.

#### **4. Why is an informed, transparent, ethical, and responsible use of AI necessary?**

- The use of AI tools must be informed, transparent, ethical, and responsible for –at least– four reasons: (1) because AI tools are not always reliable; (2) because there are risks that certain uses will negatively affect learning ; (3) because of the risk of users treating AI as if it were a human being; and, (4) because the use of the tools has ethical and human rights implications due both to the way they were developed and/or because they may replicate or amplify social issues such as discrimination. Each of the four reasons is explained in detail below:
  - **First**, AI text generators' [answers are NOT always reliable](#) even though they produce text [that looks convincing](#). LLM-based systems such as ChatGPT [are not as accurate](#) as other tools such as calculators. In fact, ChatGPT tends to include [false or fanciful information](#) in its responses. Microsoft's built-in chatbot for its [Internet browser, Bing](#), and [Google's chatbot, Bard](#), have also presented [the same types of problems](#). These systems [do not distinguish true from false](#). Why does this happen? LLMs spin words from probabilistic inferences based on the data they were trained on, but they do not have the ability to understand what they produce or associate meanings with the words they utter (they are '[stochastic parrots](#)'). Recently, [a media outlet that used a ChatGPT-type tool](#) to write texts had to publish corrections to multiple articles due to serious inaccuracies.
  - **Second**, the use of text-generating tools may reduce students' motivation to [write and think on their own](#). The course aims at developing the students' cognitive skills through specific learning activities. These activities require that students embrace the opportunity of thinking and writing on their own, but such predisposition may be hindered by using LLMs to generate texts that . This policy seeks to prevent some [AI tools from becoming automated plagiarism mechanisms](#).
  - **Thirdly**, users, consciously or unconsciously, often mistakenly view AI behavior as if it were human (the [Eliza Effect](#)). For example, we may imagine that the system has

feelings, wishes, emotions, understanding, beliefs, or intentions where it, in fact, has none. LLM-based tools [do not understand their](#) own output; they simply mimic language patterns from the synthesis of large volumes of data. The problem of [anthropomorphizing machines](#) is exacerbated by the fact that some chatbots have produced .

- **Fourth**, we must consider the ethical and human rights implications associated with the use of AI systems. Some tools tend to reproduce or amplify [derogatory](#) and [discriminatory stereotypes](#) associated with [gender](#), race, ethnicity or disability. Concerns have been raised about [massive copyright infringement](#) in the development of generative AI tools. New forms of [colonialism](#) may arise through the non-consensual extraction of information from historically marginalized communities; [some tools](#) may have been developed in [contexts of labor exploitation](#). The development and operation of such systems generates a [considerable carbon footprint](#).

### **5. Open Guidelines:**

- AI is a rapidly changing set of tools, which is why these guidelines will remain open to future evaluation, modification, and revision. From the beginning of the semester and throughout the semester the professor will open spaces to discuss the guidelines with students and, if necessary, modify the guidelines through co-creation exercises.
- For those interested in the challenges that generative AI creates for those of us who teach in universities, I recommend the text [“Adapting College Writing for the Age of Large Language Models”](#) by professors Anna Mills and Lauren M. E. Goodlad.
- For those who would like a brief introduction on how LLMs work and what their main risks are, I recommend [“On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🐦”](#) by Emily M. Bender, Timnit Gebru, Angelina McMillan-Major and Shmargaret Shmitchell.
- For anyone interested in basic information about AI, I recommend checking out the [DAILY Curriculum](#) project produced by MIT.

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