

Essay Assignment Instructions 2023-2024 Digital Innovation

Towards the end of the course, you will work on an essay assignment (35% of course grade). This year we approach this assignment from a new angle by asking you to (i) use a large language model (ChatGPT) to generate an essay, (ii) critically assess and improve the AI-generated essay, and (iii) write a reflection on this assignment and the potential/limitations of this technology.

For the essay assignment, you will work in groups of two students. You can form the pairs yourself, the sign-up form is provided on Blackboard. The deadline for sign-ups is **Tuesday 16 May at 17.00**. In the form, you can indicate your duo partner (if you do not find one, you can still fill it in and we will match you) and your preferred topic. You do not need to be in the same tutorial group as your partner.

This year's overarching topic is **Responsible Digital Innovation**. You will find the topics of the essays at the end of this document.

On Thursday 23 May we will have a **mandatory workshop on the essay assignment** and its different parts.

Setup of the assignment

The essay assignment is divided in three parts.

Part 1. Generate an essay using ChatGPT. You are asked to use ChatGPT to generate an essay on your topic. During the essay workshop on 23 May, the teachers will provide you with example prompts. The topics are formulated as propositions which ChatGPT may support or reject, or on which it may take an in-between position. You are required to **submit the ChatGPT-generated essay of 1500 words, together with all the prompts you used (prompt log), on Blackboard by the end of the workshop (13:00). Provide the prompt log as an appendix to the ChatGPT-generated essay (provide only your prompts, without ChatGPT's response to each prompt).**

Part 2. Critically assess and improve the ChatGPT-generated essay. In the next step, you will work to improve the AI-generated text. Your goal is to verify whether the arguments provided by ChatGPT in your essay are correct and supported by evidence from good quality sources. In this part of the assignment, you review the AI-generated essay to correct mistakes, add/remove arguments, provide supporting evidence from the literature, add examples to illustrate the arguments etc. Use the AI-generated text as a draft and re-write it by elaborating, restructuring, providing examples, adding nuance, facts, insights, references, and quotes that illustrate ideas and correct misconceptions, wrong information, inaccuracies, or misleading statements etc. Your goal is to produce an essay which fulfils the Essay Criteria (see end of this document). **Keep track changes on (or otherwise highlight the changes you made to the text).** You are required reach the word count of 2500-3000 words in your final re-written essay.

You are offered two feedback moments with the teachers at this stage. These feedback moments are not mandatory but highly recommended. **You will be informed of the timeslot for the feedback meetings for your duo via Blackboard.**

The first feedback moment will be on **Thursday 13 June** and focus on discussing the AI arguments. For this feedback moment, submit your first draft of re-written essay on Blackboard by **11 June 17:00**. Include the original ChatGPT-generated essay of 1500 words from Part I as an Appendix.

The second feedback moment will be on **Thursday 20 June** and focus on discussing the framing of the problem and the conclusion. For this feedback moment, submit your second draft of the re-written essay on Blackboard by **18 June 17:00**. Again, include the original ChatGPT-generated essay of 1500 words from Part I as an Appendix.

Submit your final re-written essay (part 2) to Blackboard and to your peer group by email by Monday 1 July 17:00. Again, include the original ChatGPT-generated essay of 1500 words from Part I as an Appendix. Find who your peer group is in the document “Essay duos and topics” on Blackboard.

Part 3. Reflect on the process and technology. In this last step, you are asked to write a 800 word reflection answering a set of guiding questions about how you experienced ‘co-writing with AI’ and what constitutes responsible use of this technology **based on your own experience and having reviewed an essay** written by another group on your topic. You will be provided with an essay on your topic written by another group. To write the reflection, use the form provided on Blackboard (containing the guiding questions).

Submit part 3 reflection to Blackboard by Monday 8 July 17:00.

Essay structure

The essay will have the following structure:

1. **Introduction** (400-600 words):
 - names the topic question and defines/explains relevant concepts (and technologies, if necessary)
 - shortly presents the surrounding academic and/or societal debate
2. **Main body** (1,800-2,000 words):
 - presents arguments **for both sides of the question**
 - supports these arguments with reliable evidence and illustrates them with examples
3. **Conclusion** (300-400 words):
 - sums up the main arguments
 - connects the arguments and draws a convincing conclusion that answers the topic question
4. **References** (not included in word count)

The length of the essay should thus be between 2,500 and 3,000 words.

Essay Criteria

Introduction	Main Body	Conclusion	Language and structure
Precise definitions	Arguments given for both sides	Comprehensive summary of arguments	Academic tone
Accurate description of the problem	Clear reasoning behind arguments	Connection of arguments	Correct referencing
	Illustrative examples	Critical reflection	
	Sufficient evidence from reliable sources	Logical conclusion	

The style of the essay should be that of an **academic essay**, meaning an argumentative and well-structured piece of writing that concludes in a clear standpoint on an issue, based on thorough consideration of evidence. As opposed to, for instance, a research paper, such an essay does not have a clear method to rely on. In a way, the argumentation itself, based on a good assessment of evidence, becomes your method. Therefore, make sure that it is logical, convincing and clearly structured. [This Guardian article on smarter regulation for the sharing economy by Frenken et al.](#) serves as an example of what a well-structured argumentation looks like (keep in mind though that the exact format of the academic essay assignment is a bit different).

Use of sources:

We encourage you to make use of the literature we cover in the lectures. We also require you to find **at least five extra articles** relevant to the topic of your essay. Below, we suggest to you one such reading per topic, as to get you started (but you do not have to use it in your essay *per se*). Extra sources do not necessarily have to be academic publications, but make sure that the articles are of high quality, from reliable sources and cover a variety of insights of viewpoints as to assure a balanced argument. Apart from academic journals, good sources on digital innovation topics can be magazines/websites such as [WIRED](#) and [The Verge](#), newspaper articles (for easy access to all kind of news sources, check out [Nexis Uni](#)), or reports of relevant organizations. In the end, it is your own responsibility to assess whether such a source is of high quality and reliable. As in any academic text, you are required to provide sufficient evidence for all empirical claims by in-text references and a list of references at the end (use **APA** format).

Taking a stance:

While we invite and encourage you to take a clear stance on the addressed issue in the conclusion, this does not mean that the text can be one-sided. In a way, you act as a neutral judge, looking at all the evidence before spelling out your verdict. You should carefully and fairly consider **both sides** of the debate and justify your conclusions thoroughly in your argumentation. The answer to the topic question will thus in most cases not be a clear “yes/no”, but rather a “yes/no, but...” or “yes/no, if...”. If it is a clear “yes/no”, such a strong outcome has to follow clearly from a strong argumentation. We also ask you to provide recommendations to specific stakeholders relevant for your topic (e.g. policy-makers, companies, NGOs, citizens etc.).

Example of a (not) well-structured argument:

To get an idea what a good argument should look like, consider this (fictive) example, forming part of an essay on the question “*Should public transport be free of charge?*”:

“It’s obvious that free public transport is good. It would make our cities cleaner and less noisy. It would also be better for poor people. I would never take a car or a taxi if I could just take a free tram instead. In the Netherlands students have free OV, which shows that making public transport free can provide multiple societal benefits. It’s also a less problematic measure than higher taxes on fossil fuels, since these can lead to considerable popular opposition, as with the Yellow Vest movement in France. Maybe people would bike less, but that would probably not be the case. Would someone really take a bus

instead of walking if their destination is within walking distance? This makes it clear that making public transport free would result in various advantages (Kollegah & Bang, 2011; Yacine, 2017)."

This is not a good argument. While it might contain some valid points, they are not connected. It does not become clear what this paragraph is actually about, as multiple different points are mixed up in it. Logical connections remain implicit and are not explained, e.g. between free public transport and cleaner cities. A counterargument is brought up without being properly refuted. Any Dutch abbreviation (OV) should also be avoided. Overall, it does not really make much sense. Compare it to this example argument, on the same topic:

"Another point brought up by proponents of free public transport is that it would lead to considerable environmental benefits. As it would reduce car traffic and instead incentivize environmentally friendlier modes of transport, it could lead to lower CO₂ emissions as well as a reduction of other pollutants as well as noise pollution. Some leading transition scholars suggest that it might be one of the fastest and most efficient ways to reduce pollution significantly (Celo & Abdi, 2016). Commuter traffic, for example, could easily shift to regular electric train services if such a strong financial incentive is provided. However, opponents of free public transport fear that it could have the opposite effect, leading to people taking buses and trains instead of biking and walking, hereby increasing pollution (Xatar, 2017). Yet, empirical evidence suggests that this fear is unfounded. For example, a study in the city of Deppenhhausen, where free public transport was introduced, has shown that there were only fewer car drivers and the amount of bikers and pedestrians remained the same (Deppenhhausen City Council, 2020). Thus, by reducing car traffic, making public transport free could result in a reduction of CO₂ emissions and other forms of pollution."

This argument starts with a clear introductory topic sentence, has a main body with sufficient supporting sentences and ends with a concluding sentence that sums up the main point. It makes clear how one thing would lead to the other, and provides evidence for all claims. It shows both sides of the argument, but takes a clear position by refuting the counterargument with empirical evidence. Overall, it is well-structured, well-formulated and makes a lot of sense. Try to structure your arguments in such a way.

Topics:

The topics you can choose from are:

Koen Frenken:

1. Business-to-business sharing platforms will greatly disrupt supply chains in many industries

Radjou, N. (2021). The B2B Sharing Revolution. Terra Nova report, 18 November, <https://visionarymarketing.com/wp-content/uploads/2022/04/terra-nova-note-the-b2b-sharing-revolution-181121.pdf>

2. AI is fundamentally incompatible with sustainable development

van Wynsberghe, A. (2021). Sustainable AI: AI for sustainability and the sustainability of AI. AI Ethics 1, 213–218.. <https://doi.org/10.1007/s43681-021-00043-6>

3. Granting gig workers in food delivery an employment status instead of a freelancer status, will take away their entrepreneurial freedoms

Koutsimpogiorgos, N., van Slageren, J., Herrmann, A.M., & Frenken, K. (2020). Conceptualizing the Gig Economy and Its Regulatory Problems. *Policy & Internet*, 12(4), 525-545. <https://doi.org/10.1002/poi3.237>

4. Applying the gig economy model to voluntary work is necessary to help people in need

Mos, E. (2021). Platformization in the third sector: Reframing volunteering and civil society relations as a platform transaction. *City*, 25(3-4), 315-331. <https://doi.org/10.1080/13604813.2021.1935773>

Dwayne Ansah:

1. Integration of ChatGPT in academic settings leads to the erosion of academic integrity

Lin, Z. (2023). Why and how to embrace AI such as ChatGPT in your academic life. *Royal Society Open Science*, 10(8), 230658. <https://royalsocietypublishing-org.proxy.library.uu.nl/doi/pdf/10.1098/rsos.230658>

2. Web scraping for social science research is unethical

Luscombe, A., Dick, K., & Walby, K. (2022). Algorithmic thinking in the public interest: navigating technical, legal, and ethical hurdles to web scraping in the social sciences. *Quality & Quantity*, 56(3), 1023-1044. <https://link-springer-com.proxy.library.uu.nl/article/10.1007/s11135-021-01164-0>

3. The inability of citizens to exercise control over their personal data creates significant injustice

Cinnamon, J. (2017). Social injustice in surveillance capitalism. *Surveillance & Society*, 15(5), 609-625. <https://ojs.library.queensu.ca/index.php/surveillance-and-society/article/view/6433>

4. Digital tools lack transparency and worsen ethical decision-making

Sleigh, J., Hubbs, S., Blasimme, A., & Vayena, E. (2024). Can digital tools foster ethical deliberation?. *Humanities and Social Sciences Communications*, 11(1), 1-10. <https://www.nature.com/articles/s41599-024-02629-x>

Olafur Thorarensen:

1. Government regulation of social media is ineffective

Rocheftort, A. (2020). Regulating social media platforms: A comparative policy analysis. *Communication Law and Policy*, 25(2), 225-260. [Regulating Social Media Platforms: A Comparative Policy Analysis \(tandfonline.com\)](https://www.tandfonline.com/doi/full/10.1080/17445019.2020.1811111)

2. Google's track record of innovation could change healthcare for the better

Sharon, T. (2016). The Googlization of health research: from disruptive innovation to disruptive ethics. *Personalized Medicine*, 13(6), 563-574. <https://doi.org/10.2217/pme-2016-0057>

3. Use of predictive policing is critical for eliminating crime

Meijer, A., & Wessels, M. (2019). Predictive policing: Review of benefits and drawbacks. *International Journal of Public Administration*, 42(12), 1031-1039. <https://www.tandfonline.com/doi/pdf/10.1080/01900692.2019.1575664>

4. It is better for AI to learn from people's behavior, than to tell it what is good or bad

Maruyama, Y. (2021). Symbolic and statistical theories of cognition: towards integrated artificial intelligence. *Software Engineering and Formal Methods. SEFM 2020 Collocated Workshops: ASYDE, CIFMA, and CoSim-CPS, Amsterdam, The Netherlands, September 14–15, 2020, Revised Selected Papers* 18. [Maruyama.pdf \(cifma.github.io\)](https://cifma.github.io/Maruyama.pdf)

ASSESSMENT RUBRIC – Step 1

Please provide an assessment of how the AI-generated essay you received rates in terms of the following criteria, including qualitative comments/explanation of the strengths and weaknesses:

Essay criteria	Insufficient	Sufficient	Very good	Comments/explanation and suggestions on how you will improve
Introduction				
Creative title				
Strong hook				
Precise definitions				
Good description of debate				
Main Body				
Convincing argumentation				
Fair assessment of counter-arguments				
Illustrative examples				
Sufficient evidence from reliable sources				
Conclusion				
Good summary				
Connection of arguments				
Critical reflection				
Logical conclusion				
Strong ending				
Language and structure				
Consistent paragraph structure (macro)				
Well-structured paragraphs (micro)				
Attractive writing style				
Academic tone				
Correct referencing				
Overall Score				

ESSAY ASSIGNMENT: REFLECTION – Part 3 DIGITAL INNOVATION 2023-2024

Student names:

Essay topic:

Supervisor:

Please provide an answer to the following guiding questions:

1. The essay you generated with ChatGPT had some weaknesses. Explain why you think there are these weaknesses and give concrete examples from your essay. What did you learn from prompting ChatGPT during the workshop to generate the essay? *(Minimum 200 words, maximum 300 words)*

3. To what extent co-writing this essay with AI can be seen as responsible use of this tool and why (not)? If you have used ChatGPT to improve the essay in Part 2, explain how you used it and to what extent this constituted responsible use. *(Minimum 200 words, maximum 300 words)*

3. What have you learnt by reading the essay written by your peer group on the same topic? *(Minimum 200 words, maximum 300 words)*