Me, My Colleagues, AI: using generative tools as support for users data collection, analysis, and organization in HCI classes

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Abstract. Introduction*: Students have widely used Generative Artificial Intelligence (AI) tools to assist them in their daily classroom activities and assignments (with or without the consent of their teachers). These tools are beneficial and, when used critically, can help students complete their tasks and better understand the various associated aspects.* ***Objective****: In this paper, we present an experience using AI tools to support the collection, analysis, and organization of user data in projects developed during a User Experience course in undergraduate computing programs.* ***Methodology****: The study involved two teachers and 99 students across three classes of the course. AI tools were integrated into project activities, and feedback was gathered from approximately half of the participants to assess their initial impressions.* ***Results****: The preliminary findings highlight the potential of generative AI tools to enhance student performance and learning in User Experience classes.*
Keywords *HCI education, Generative AI tools, User Experience classes.*

1. Introduction

The rapid advancement of Artificial Intelligence (AI), particularly generative models, is reshaping various academic disciplines, including Human-Computer Interaction (HCI) and User Experience (UX) education. As tools like ChatGPT become more prevalent in classroom settings, educators and researchers are increasingly examining both their pedagogical potential and the challenges they present.

Recent studies have explored generative AI as a learning tool in diverse educational contexts, for instance, as conversational agents to foster critical thinking and reflection [Muthmainnah et al. 2022], as supporting tools during classroom debates [Zhang et al. 2025], and as coding assistants in programming courses [Qureshi 2023]. In HCI education specifically, generative AI has been used to support idea generation, persona modeling [Kharrufa e Johnson 2024], and early-stage prototyping [Sandhaus et al. 2025]. Furthermore, prompt engineering has emerged as a technique to enhance the quality and reliability of AI-generated responses, helping reduce subjectivity in tasks such as software estimation and interface design [Santos et al. 2024].

Despite these promising developments, significant challenges remain. Recent reviews highlight the absence of clear guidelines on how to effectively and ethically incorporate generative AI into teaching, learning, and assessment [Ogunleye et al. 2024]. This underscores the need for interdisciplinary collaboration to develop frameworks that promote critical and reflective use of AI in academic settings. In addition, researchers have drawn attention to the broader ethical and societal implications of AI in HCI, calling for research agendas that foreground human values, equity, and inclusion in the design

of AI-powered educational technologies [Duarte et al. 2024]. In this context, our work is aligned with the **Grand Challenge 6: Implications of Artificial Intelligence in HCI: A Discussion on Paradigms, Ethics, and Diversity, Equity and Inclusion**, as presented by [Duarte et al. 2024].

In this paper, we report an experience using AI tools to help students of UX courses related to undergraduate computing programs. The study was conducted at a university in the state of Rio Grande do Sul, Brazil. The students were allowed to use these tools to help them prepare, collect, analyze, and organize user data during their classroom project. Two teachers, who are also the authors of this paper, and 99 students participated in three different classes of this course, and we present the considerations about the experience from 51 of the students and from the 2 teachers.

The paper is organized as follows. In Section 2, we discuss studies related to the use of AI in Higher Education. In Section 3, we present aspects related to the classrooms, the participants, the activity, and the related ethical considerations. In Sections 4 and 5, we present the students' and teachers' points of view on using AI tools in their projects. Finally, in Section 6, we discuss final thoughts about the experience reported.

2. AI in Higher Education

Recent studies have investigated the **implications of integrating AI tools into higher education**, highlighting both opportunities and challenges.

[Muthmainnah et al. 2022] examined the role of AI-based tools in enhancing critical thinking skills in educational settings, with a focus on university-level learners. The authors state that interacting with AI applications, such as a conversational "AI friends", helped students build confidence, open-mindedness, and reflective thinking. These findings highlight the potential of AI-supported, inquiry-based learning to enhance critical thinking and technological engagement.

Considering the use of LLMs, [Zhang et al. 2025] investigated it during real-time classroom debates in a Design History course. The study examined how students engaged with AI in high-intensity, collaborative learning settings, revealing that LLMs helped reduce social anxiety, break communication barriers, and increase participation for less experienced students. However, the use of AI also introduced challenges, including information overload and reduced opportunities for independent critical thinking.

Specifically regarding ChatGPT, [Qureshi 2023] examined its use in an undergraduate computer science course, highlighting its potential to boost student engagement and the challenges it introduces. In a controlled study, students using ChatGPT outperformed peers in programming tasks but submitted less reliable code, raising concerns about accuracy and assessment integrity. The findings underscore the importance of ethical and thoughtful integration of AI tools in computing education.

Focusing on **AI use in HCI and UX classrooms**, [Freire et al. 2023] presented an experience report which examined the use of ChatGPT during a written exam of an HCI course. Using Bloom's taxonomy as an analytical framework, the authors examined which types of questions could be directly answered and which required a deeper engagement which the course's content. They highlighted challenges in evaluating students' critical thinking and subject mastery when AI tools are involved,

emphasizing the importance of designing assessments beyond surface-level responses. [Kharrufa e Johnson 2024] explored their pedagogical integration in an undergraduate HCI course, where students were encouraged to use AI as a "persona" to brainstorm and refine ideas, and as a mirror to assess their own understanding of core HCI concepts. Their findings stress the importance of fostering AI literacy and maintaining critical engagement with AI tools to avoid surface-level learning. And, [Sandhaus et al. 2024] examined students self-initiated use of these tools in a graduate-level interactive systems design course, offering insights into how AI shapes learning in HCI education. Based on group interviews, students reported increased creativity and accelerated workflows, particularly in the ideation and prototyping phases. However, students also raised concerns about shallow learning and over-reliance on AI, especially when used during early-stage ideation.

Additionally, [Lu et al. 2024] provided a comprehensive review of AI-assisted UX tools from a human-centered design perspective, revealing significant gaps between current AI capabilities and the practical needs of UX designers. Their analysis found that critical aspects such as empathy building and user flow continuity are often neglected in AI tool design. Although not centered on education, the study highlights important considerations for integrating AI into HCI learning environments, e.g., the need for AI tools that align with designers mindsets and support critical, user-centered thinking rather than simplistic automation.

3. AI tools in our HCI classrooms

This section describes the aspects related to our classrooms, the participants involved, and the activity to be performed using (or not) AI.

3.1. The classroom

The activity reported took place during the first semester of 2025 in an undergraduate User Experience (UX) course at a Brazilian university. This course is a mandatory component of the fifth semester in the Computer Science, Software Engineering, and Information Systems programs.

The UX course introduces the fundamentals – concepts and theories – of HCI and UX; methods and techniques for user research, problem space organization, and interaction design; evaluation methods; and the impact of natural interaction (Figure 1). This course is the only IHC/UX discipline the students have in their programs. The classes are held twice a week, totaling 60 hours.

The UX course evaluation is based on an interaction design project, developed in groups of 3 to 5 students, with three deliveries. In the first delivery, the students explore user research and the problem space organization; in the second, they focus on the interface and interaction design; in the third, they apply evaluation methods and discuss interaction with natural technologies. In all deliveries, students apply the knowledge learned at the first topic in the course, fundamentals of HCI and UX.

3.2. The participants

The activity described took place across three classes of a UX course, each comprising between 30 and 35 students. Classes 1 and 2 were led by Teacher 1, while Class 3 was

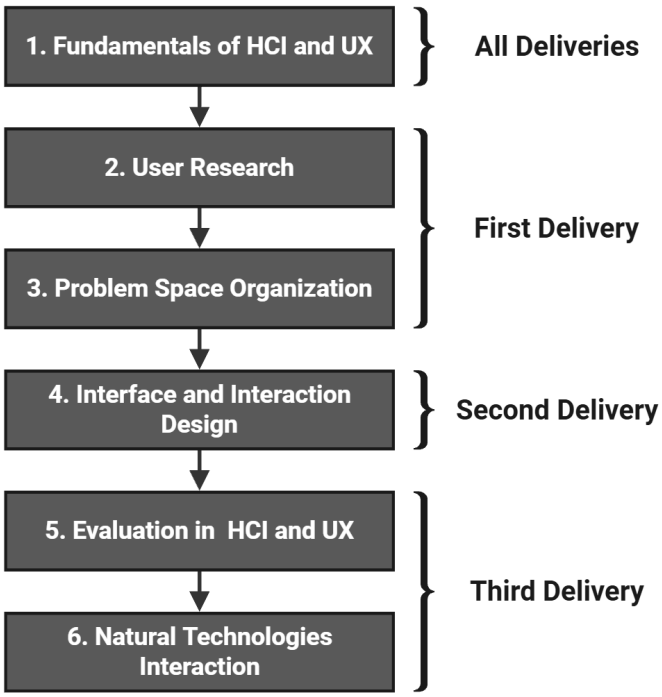

Figure 1. Course main topics: Fundamentals of HCI and UX; User research; Problem space organization; Interface and interaction design; Evaluation in HCI and UX; and Natural technologies interaction.

taught by Teacher 2 (Table 1). Teacher 1 had more than 20 years of experience teaching HCI and UX courses, and Teacher 2 was teaching the course for the first time, but had prior experience teaching courses related to Programming and Game Development.

Many students were also engaged in activities external to the program, such as research scholarships, internships, and full-time jobs, which impact the time they have to dedicate to extra-class activities.

Table 1. Distribution of students across the UX course classes. Class 1 and Class 2, both taught by Teacher 1, had 34 students and 32 students respectively. Class 3, taught by Teacher 2, had 33 students.

Classes	Number of Students	Teacher
Class 1	34	Teacher 1
Class 2	32	Teacher 1
Class 3	33	Teacher 2

3.3. The activity

The experience using AI tools reported here was associated with the first delivery of their interaction design project: collecting, analyzing, and organizing the user data.

The general project theme was the development of solutions (prototypes of interactive systems or applications) associated with the United Nations Sustainable Development Goal (SDG) 13 in Brazil Action against global climate change. According

to its description [1], Goal 13 aims urgent measures to combat climate change and its impacts (Figure 2).

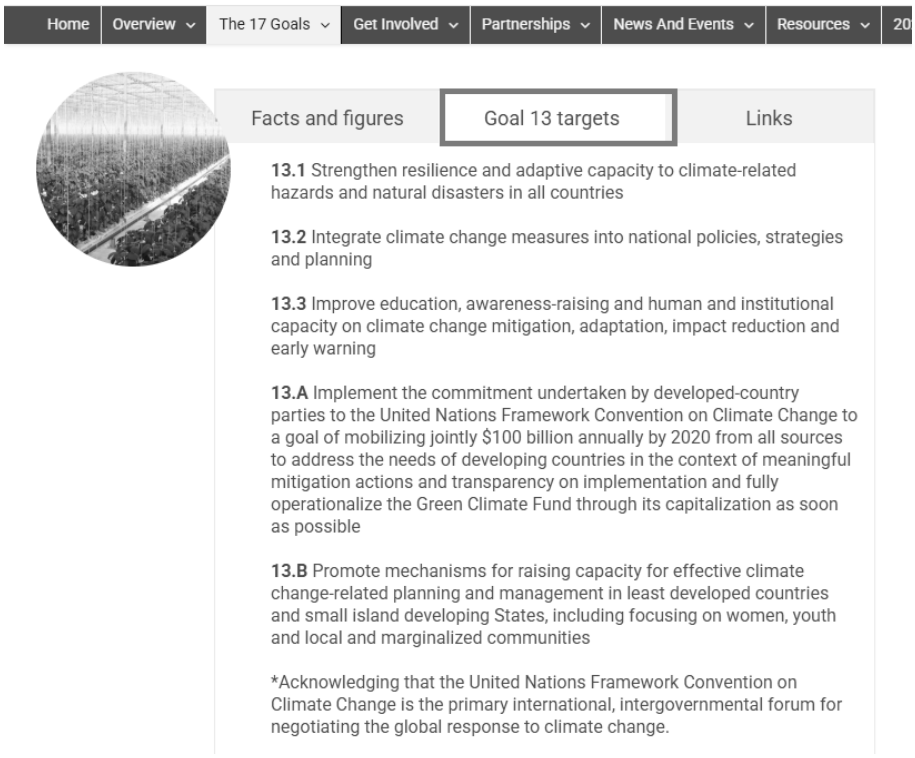

Figure 2. Description of SDG 13 Action against global climate change.

The first delivery of the project has the following steps:

- Defining the group (3 to 5 students);
- Defining the group focus, through brainstorming and competitive analysis;
- Planning the user research, including its goal, target audience, technique to be used, ethical aspects to be considered, questions to be asked, the strategy to reach the audience, as well as the form to register the data collected;
- Analyzing the data, describing the results obtained, and users' profiles and needs obtained for them;
- Organizing the data, including the creation of personas and scenarios (it is important to highlight that for these steps we demanded a specific type of persona – the model used in the course text book [Barbosa et al. 2021] – and a specific type of scenario (the analysis or problem scenario, not the interaction scenario - from the same text book).

Regarding the technique for data collection in the user research step, students could choose between questionnaires, interviews, brainstorming and focus groups. The teachers allowed the use of AI tools to create the questions, analyze the collected data, identify the different users profiles and needs, and create personas and scenarios. In the project specification, students were informed that they had to detail the tool used, the prompts created, the interaction with the tool, the results obtained, and so on (Figure 3 shows an excerpt of the project specification highlighting this aspect).

[1]https://brasil.un.org/pt-br/sdgs/13, accessed on August 7, 2025.

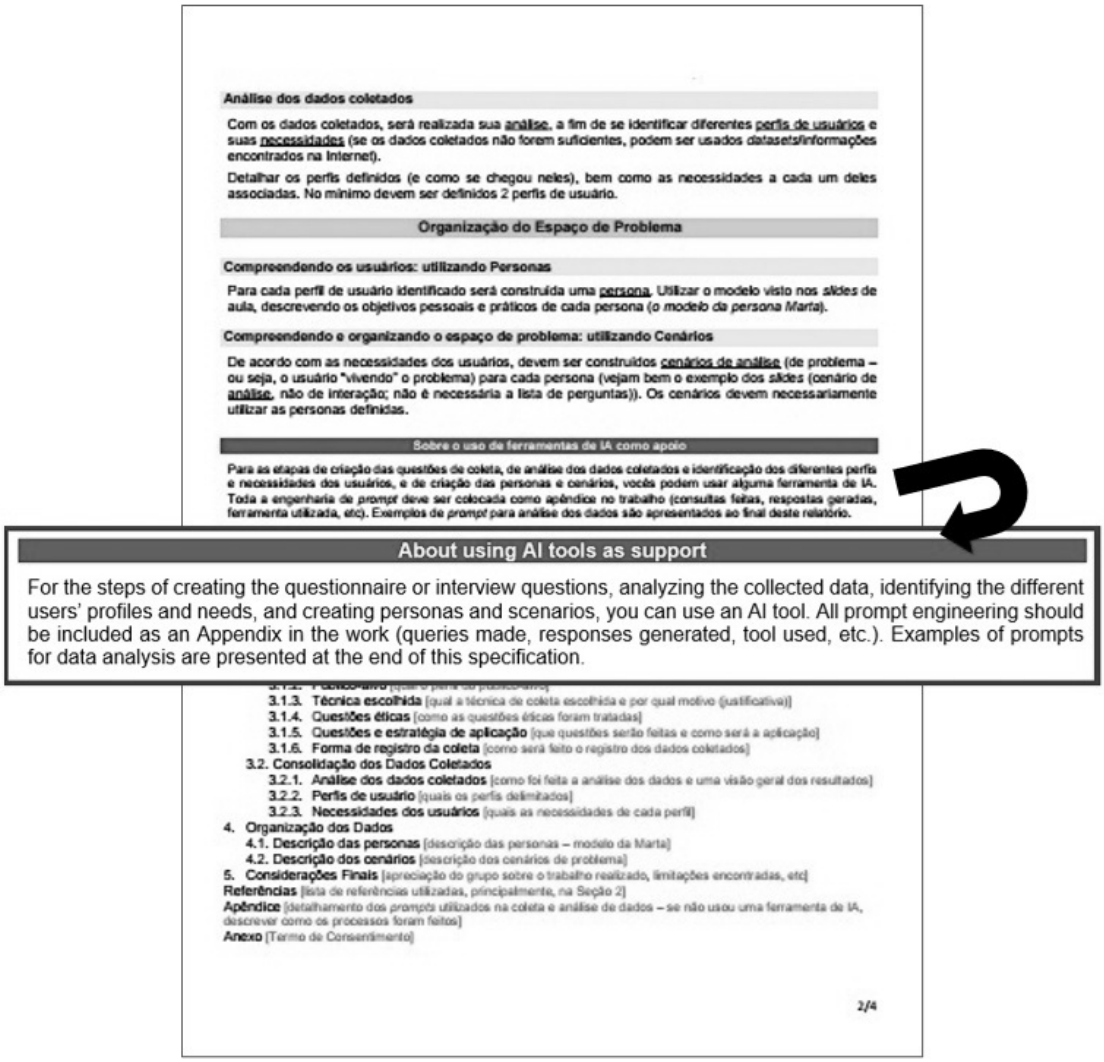

Figure 3. Blurred part of the project specification (in Portuguese), highlighting how to use AI tools as support.

The project specification also presents examples of prompts that the students could use, presented in Listing 1 and 2.

The students had about four weeks to complete their project reports. During this period, classes were used to deepen their understanding of the conceptual topics associated with it, discuss the project with their colleagues, and get teacher support.

After the group reports were delivered, the students were asked to answer a questionnaire about their experience using AI as a support tool during the project collaboration. The questionnaire contained nine questions – five closed-ended and four open-ended – organized into three groups:

- The participant profile;
- The use of AI tools in the project;
- The final considerations.

The questionnaire was made available through Google Forms for two weeks after the project delivery. The students were invited to participate, remembering the voluntary

Listing 1. Example of Prompt for Thematic Analysis of Questionnaire Responses.

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Prompt for Thematic Analysis of Questionnaire Responses

Apply the following method to analyze the study results, which I will
describe below.

The method to be used is thematic analysis.

The study consisted of an online questionnaire in which participants
answered questions about [describe the focus]. When completing the
questionnaire, participants answered two open-ended questions:

Question 1: [insert question 1]

Question 2: [insert question 2]

The following results consist of the responses to each of the questions:

Participant Responses to Question 1

Participant 1 Response: [insert answer of Participant 1 to Question 1]

Participant 2 Response: [insert answer of Participant 2 to Question 1]

Participant Responses to Question 2

Participant 1 Response: [insert answer of Participant 1 to Question 2]

Participant 2 Response: [insert answer of Participant 2 to Question 1]
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aspect of their participation (as described in Section 3.4), by messages in the virtual learning environment used as class support (Moodle) and by the teachers during the classes.

3.4. Ethical Considerations

The study was approved by the University Research Ethics Committee [2], considering all related aspects, such as the goals, tasks, risks, and other pertinent study information.

The Free and Informed Consent form was presented at the beginning of the questionnaire, explaining the research objectives, context, potential risks, benefits, and the participant's right to voluntary participation. It was emphasized that participation was entirely voluntary, not linked to course grading, and that participants could withdraw from the study at any time without any consequences. Only after consenting to the terms were the questions presented to the students.

Students were assigned unique codes (e.g., ST1, ST2 to ST51) for anonymity and confidentiality during the analysis and the report.

4. AI tools in our HCI classrooms: the students' point of view

Of the 99 students in the three classes, 51 answered the questionnaire, sharing their impressions about the activity.

Considering the **student's profile**, as we can see in Figure 4, 70.6% (36 students)

[2]Research project entitled *Práticas (Inov)Ativas no Ensino de Computação*. Project number *74391423.0.0000.5336* approved by the University Ethics Committee (CEP/PUCRS)

Listing 2. Example of Prompt for Thematic Analysis of Interview Responses.

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Prompt for Thematic Analysis of Interview Responses

Apply the following method to analyze the study results, which I will
describe below.

The method to be used is thematic analysis.

The study consisted of an in-depth interview in which participants answered
questions about [describe the focus]. The following results consist of the
questions asked by the Interviewer and the responses of each Interviewee:

Interviewer Question 1: [insert question 1]

Participant 1 Response: [insert answer of Participant 1 to Question 1]

Participant 2 Response: [insert answer of Participant 2 to Question 1]

Interviewer Question 2: [insert question 2]

Participant 1 Response: [insert answer of Participant 1 to Question 1]

Participant 2 Response: [insert answer of Participant 2 to Question 1]
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were from the Software Engineering, 27.5% (14 students) from Computer Science, and only 2.0% (1 student) from the Information Systems undergraduate programs.

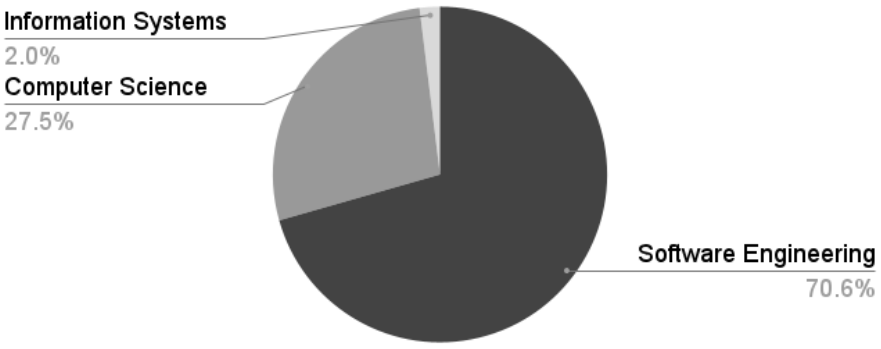

Figure 4. Student distribution by academic program: 70.6% (36 students) were enrolled in the Software Engineering program, 27.5% (14 students) in Computer Science, and only 2.0% (1 student) in the Information Systems program.

Regarding their **familiarity with AI tools**, students responded using a 5-level Likert scale, ranging from Not familiar (1) to Very familiar (5). As shown in Figure 5, 45.1% (23 students) reported being very familiar, 35.3% (18 students) familiar, 17.6% (9 students) somewhat familiar, and 2.0% (1 student) unfamiliar. No students indicated being not familiar.

Regarding the **AI tools they used** (with the option to select multiple tools), the default options included ChatGPT, CoPilot, DeepSeek, and Gemini. Among these, ChatGPT was the most commonly used, with 49 students selecting it, followed by CoPilot with 26, DeepSeek with 20, and Gemini with 10. Additionally, students could include other tools not listed in the predefined options, with Llama, Perplex, and Pixtral each being selected by 1 student (Figure 6).

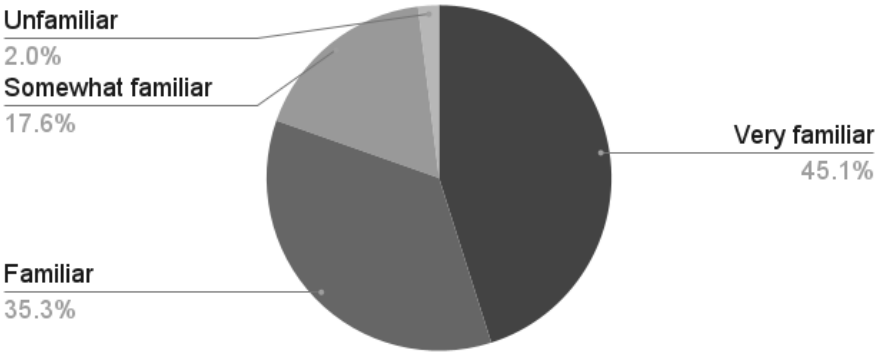

Figure 5. Student self-reported familiarity with AI tools on a 5-point Likert scale: 45.1% (23 students) considered themselves very familiar, 35.3% (18 students) familiar, 17.6% (9 students) somewhat familiar and 2.0% (1 student) unfamiliar. No student selected the option of Not familiar.

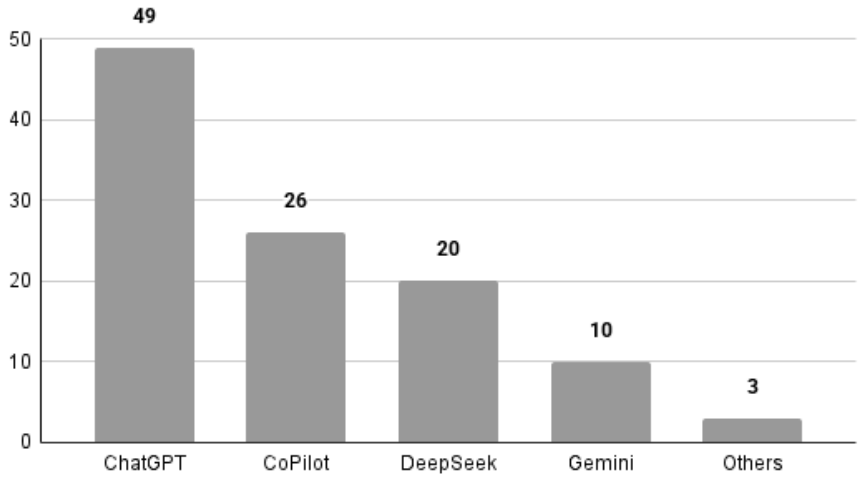

Figure 6. AI tools used by students. ChatGPT was the most commonly used tool (49 students), followed by CoPilot (26), DeepSeek (20), and Gemini (10). Other tools selected include Llama, Perplex, and Pixtral, each chosen by 1 student.

Specifically regarding the **use of AI tools in the project** (Figure 7), when asked about the stage they used some AI tool, the creation of personas (31 answers), scenarios (20), users' profiles (20), and data analysis (18) stand out; but they are also used for develop questions for the user research (15), the brainstorm (13), and the competitive analysis (5). Eight students describe other uses related to the report writing improvement (5 answers) and audio transcriptions (3), and two did not use any AI tool in their projects.

An in-depth analysis of **how many project stages each student used AI tools** (Figure 8) shows that usage across one to four stages was most common: 11 students used AI tools in one stage, 15 in two stages, and 9 in both three and four stages.

When asked what **AI tool was used to perform the step in which they used an AI tool the most**, ChatGPT stood out, with 38 answers. DeepSeek was mentioned 4 times, and Cloude, Llama, and Sora were mentioned once. Some students highlight

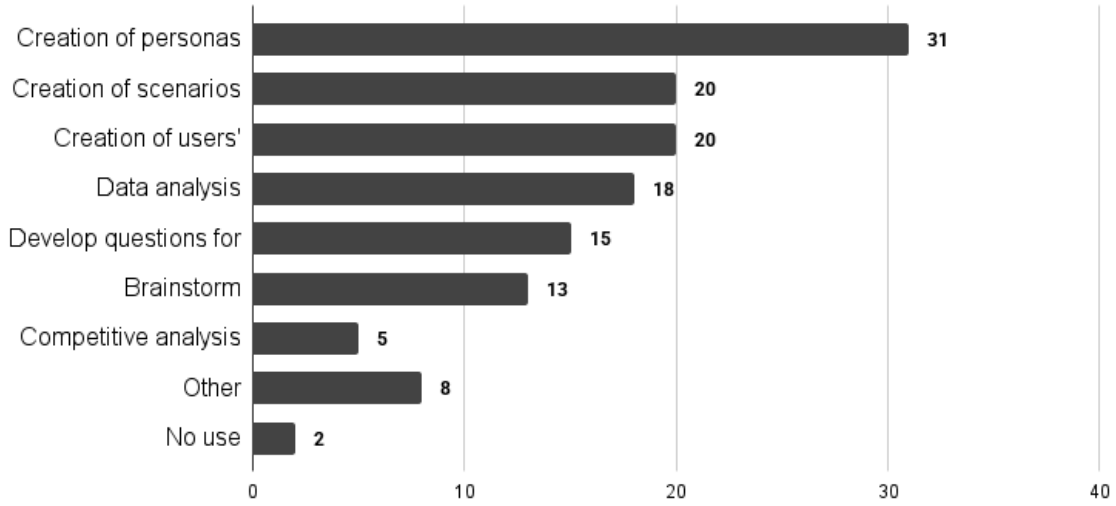

Figure 7. How students used AI tools during their projects. Most common uses included creating personas (31 responses), scenarios (20), user profiles (20), and data analysis (18). Other uses included developing research questions (15), brainstorming (13), and competitive analysis (5). Some students also mentioned report writing (5) and audio transcription (3), while two reported not using AI tools at all.

the use made, as support to brainstorm ("*At the time of the brainstorming to get ideas*" [3] - ST44), in the improvement of the questions to be made ("*Basically, to improve the questions, chatGPT was used.*" - ST14), in the profiles organization ("*We use AI to organize the profiles, we send it our questions and answers, and then we compare the profiles it creates with our profile ideas and create our profiles.*" - ST40, "*To make a first general categorization of the profiles.*" - ST44), in the process of developing personas and data analysis, but mentioning difficulties associated ("*ChatGPT for generating personas/images and attempting analysis - it wasn't possible to take advantage of much.*" - ST23, "*ChatGPT for faster results analysis*" - ST26), and in the scenarios creation ("*ChatGPT, while helping to create scenarios*" - ST2).

Digging deeper into this question, they were asked to describe **how they reached the results**, whether there were many interactions, whether they offered examples in addition to the prompts, and so on.

Of the 51 students who answered the questionnaire, 32 said they perform few interactions with the AI tool, three at most. Some highlight no need further interaction ("*There were few interactions and no examples used other than the prompts.* - ST13), but others mentioned the need of informing the context ("*The context was given, in addition to specifications of the expected result.* - ST28), providing a more complete prompt ("*It didn't take that many iterations, we were able to ask for exactly what we wanted, with a complete prompt.* - ST16), and using examples to improve it ("*There were few interactions with well-defined inputs and examples in the prompts.* - ST23, and "*There weren't that many interactions and we gave examples to base it on (you need some context).* - ST24).

[3]The students answers were originally written in portuguese.

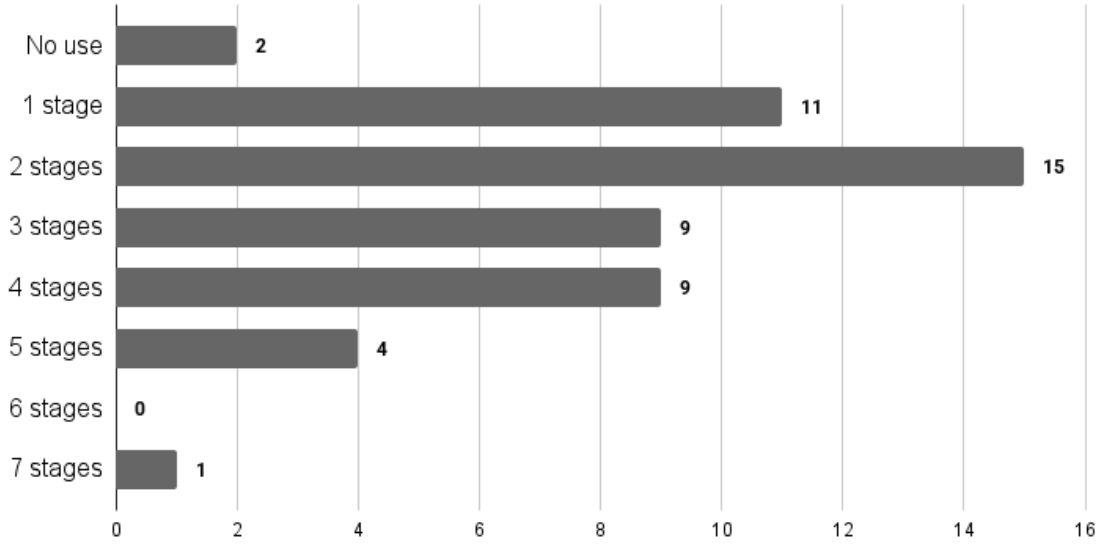

Figure 8. Stages of using AI tools in the project. The number of project stages in which students used AI tools. Most students reported using AI in one (11 students), two (15), three (9), or four (9) stages of their projects.

The characteristic of this approach – aiming to execute fewer interactions – is to be more assertive in the first prompt ("*No examples were provided, but the prompt is always very detailed, with only the necessary information. The aim is to provide all the information so that the result is good the first time.* - ST33, or "*I always write a more assertive prompt, being more detailed in what I write, which results in fewer interactions and a very small number of corrections.* - ST42), and to give examples to demonstrate better what they need ("*We provided the example persona available in Moodle so that the AI could deliver the results in the expected format. Some changes were requested through extra prompts, but there were no more than 3 interactions for each question.* - ST31, "*In addition to the prompts, we send examples, such as slides and other documents.* - ST47).

Another 16 students highlight the need for a deeper interaction, not only informing the context and using examples, but interacting with the tool to refine the responses obtained, as we can see in the following answers, for instance:"*We sent the context of the material, gave examples and interacted with it to improve and refine what we expected.*. (ST41), "*There were several prompts with examples. With each response sent, adjustments were made until a satisfactory expected result was returned.* (ST4), "*Multiple prompts were used, providing examples and specifying them. At each iteration, we asked it to refine the answer or change it if necessary.* (ST22).

The other three answers are related to the lack of use of AI tools in the project (two of the 51 respondents, as we saw before), and one more generic answer about the ease of use of a specific tool (Claude AI tool).

The final part of the questionnaire allows for **more reflexive considerations**. The first question was about how the students believe the use of the AI tools most helped them to (Figure 9). Students could select more than one option. 46 students consider that the use of AI tools helped speed up the process, 22 students that helped to better understand

the analysis process, 19 students that helped to better understand the data organization process, 2 students do not use it, and no one considered that it did not help at all.

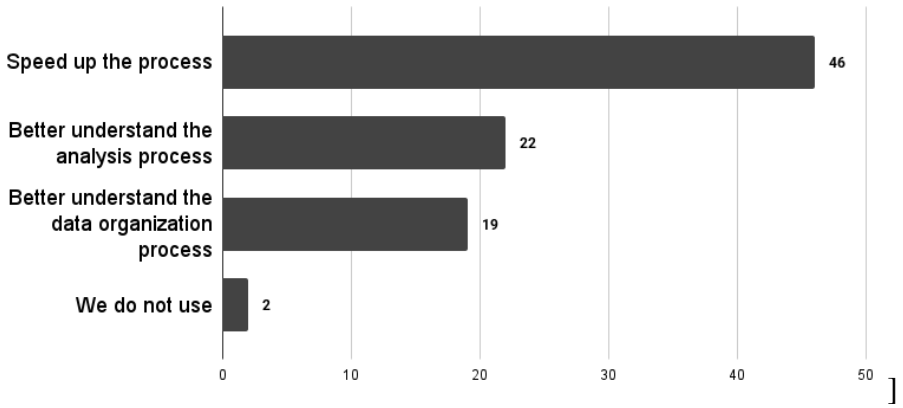

Figure 9. How students believe the use of the AI tools most helped them to. Most common uses included helped speed up the process (46 responses), helped to better understand the analysis process (22), helped to better understand the data organization process (19), do not use it (2).

In the second question, 30 of the 51 students considered how this use of AI tools to support data analysis and organization could be improved. Their considerations can be discussed under support, prompt engineering, and computational aspects.

Regarding the support aspects, 12 of the 30 students who answered this question highlight the power of these tools to accelerate the different processes used ("*Accelerates the generation of work that require a lot of effort.* - ST22, "*It better organizes the information and data collected, speeding up and including what is most important in a more concise and precise way.* - ST25), to improve it ("*Teachers could demonstrate best practices in using AI so that student work is not replaced by AI, but rather enhanced. AI should be an aid, not a content generator.* - ST47), and to promote time to understand these processes ("*I liked the freedom and incentive we had to speed up "manual" work, this allowed us to acquire more knowledge in less time and increased our motivation to do the work. Documenting the use of AI and the results obtained at the end was also useful to better understand the process.* - ST 31). They also highlighted the need to understand the tasks performed ("*I don't think teachers can do much other than encourage the use of these tools as support instead of blindly considering the answers and not delving into the content. And I think this has already been done in the UX discipline, the use of the appendix itself, for example.* - ST5, "*While being careful not to leave the work solely to AI, it is necessary to interpret what the AI responds.*" - ST29), and to "*use it in moderation* (ST38), and "*always check the veracity of the answers* (ST43).

"*I believe that using AI as a tool is quite useful for accelerating the process, but it is necessary to use it sparingly and carry out the correct prompts.*. (ST45) –this answer points to another aspect os the students responses: the prompt engineering. 13 of the 30 responses to this question deal with the need to build prompts "*more specific and detailed* (ST18), and "*more effective* (ST21), "*providing more information so that the tool can analyze more assertively* (ST36). The need to build a more detailed prompt includes "*providing examples for the AI to generate the analyses and making a good*

prompt, explaining exactly what we need it to do and making the necessary number of iterations to generate a good result. (ST40), and "*giving more access to information or things developed on other platforms used in the development of the work, for example, things developed on forms.* (ST42).

Considering computational aspects, 5 of the 30 highlighted the need for more training ("*For data organization, in our case, since we had a large volume of responses in the questionnaire (208), with the prompt we tried, the creation of categories, such as organizing which response belonged to which category, was not very good, and because of that, we chose to analyze the data manually. I believe that it can be improved by training the AI to analyze increasingly large volumes of data, of different types, especially open-ended responses.* - ST2), more precise graphics generation ("*I believe that with better graphics generation and better visibility, there are still many bugs in graphics generation.* - ST26), and more computational power ("*I think it depends more on the computing power of companies. AI still can't achieve acceptable enough performance to be reliable.* - ST41). One of the participants also underlines that "*there could be a way to make the AI be like a group participant (interacting and helping). Like Meta AI but better.* (ST24).

The final question was open to any general comments or suggestions. Only 5 of the 51 students who answered the questionnaire left their remarks.

One student mentioned that "*The use of AI is extremely useful if used correctly.* (ST36). Another highlight the need to balance the agility allowed by the AI tools with the confidence in their responses ("*I believe that much of the project was unfeasible to do exclusively by AI, because at every moment (even when not requested), it invented data and made statements without any basis. But it was very useful for doing more extensive parts, such as counting, standardization, among others.* - ST5).

And the other three underlines the advantages of its use in the classroom: "*I liked how the use of AI was allowed as long as it was shown in the report, I think it is more transparent.* (ST43), "*I thought it was really cool to have the freedom to use AI as a support tool. Most teachers still demonize its use. I understand that it is a fear that students will not actually try to learn by doing the work/exercise, and will just give prompts to the AI to do. However, I believe that it is available to speed up most processes in our area. If students are well instructed, as in this course, it has everything to add to their learning.* (ST2), and "*I believe that a direct approach to communication with teachers and professors regarding how it will be used so that there is an understanding of what is being done by the student together with the help of AI.* (ST13).

Students' considerations about using AI as an "explicit" support can help teachers reflect on ways to improve its use in the classroom.

5. AI tools in our HCI classrooms: the teachers' point of view

At first glance, it is possible to notice – from the students' responses – that they used AI tools beyond the tasks allowed in the project specification. As mentioned previously, the teachers allowed the use of AI tools in the user research, data analysis, and development of personas and scenarios stages. We could observe that the students also use the tools for brainstorming and competitive analysis.

In a broader view, teachers can observe that using AI tools allowed students not

only to speed up the analysis process but also to better reflect on the entire process. Students – in private conversations - also mentioned their concerns about unrestricted use of AI tools by the students and that initiatives like this could help them to learn how to do it in a critical way.

The need to report the prompt engineering was thought to reinforce – to the students – the need to think about the results obtained. Some groups only inserted - in the report - a brief explanation and not the entire “conversation" with the tool, making it difficult to understand their reflection processes.

In an in-depth analysis of the reports received, teachers noticed that many groups delivered artifacts different of the requested ones. The most frequent cases were related to the personas and scenarios construction.

Teachers requested – detailed in the project specification and remembered several times during the classes – a specific model of personas and a specific model of scenarios. To build a persona, the students should use the model presented in the course textbook that details its personal and practical goals [Barbosa et al. 2021]. Several groups, even the ones that informed the AI tool with the persona example – extracted from the teacher slides – did not present it in the complete form in the report (e.g., presenting only the main text while missing the goals). Considering Class 1, only 1 (of the 7 groups) makes a complete persona, with all items required; in Class 2, only 4 (of 8 groups); and, in Class 3, only 3 (of 7 groups).

Considering the scenarios, teachers requested the analysis (or problem) scenario from the same textbook. Besides being explicit in the project specification (“*According to the users’ needs, scenarios of analysis (of the problem that is, the user experiencing the problem) must be constructed for each persona."*) and being remembered during the classes, several groups create interaction scenarios. The group’s results for this step were worse: for Class 1, only 1 (of the 7 groups) built the scenario as requested; in Class 2, only 2 (of 8 groups); and, in Class 3, only 2 (of 7 groups).

Analyzing the reports’ Appendices (where the groups should detail the interaction with the AI tool chosen), teachers could observe that some groups did not send the tool an example of the model, or even given the correct model, mentioned also that it should be instantiated to their “app" (the solution they intend to build in the next step of the project).

Teachers’ observations about the students’ use of AI and the students’ considerations help to think about how to communicate better the possibilities of using it effectively and critically in the classroom.

6. Final Thoughts

AI tools have been widely used by students while performing their academic assignments. This use is sometimes done without a more critical reflection on the results obtained and how to interact with these tools to get the needed information.

In this scenario, we reported an experience on explicitly allowing UX students to use these tools in the first stage (first delivery) of the course’s interaction design project. The project specification highlighted the tasks for which they could use the tools and the need to include an appendix with the details of the prompt interaction.

After the project report delivery, the students were invited to answer a questionnaire about the experience. 51 (of the 99) students answered the questionnaire, showing familiarity with AI tools, mainly with ChatGPT. 49 (of the 51) students used it in some stage of the project, with 1 to 4 stages being the most common use (with 44 answers). Considering their interaction with the tool to get the information they need, 32 (of the 51) perform few interactions, some highlighting the work done to prepare a very detailed first prompt, presenting context and examples, to avoid further interaction. 16 (of the 51) emphasize the need to deepen the interaction to get better results.

Most students (46 of 51) believe the AI tool speeds up the process, and 28 (of 51) emphasize that it helps them better understand the parts of the process (analysis or data organization). Some of them highlight the need to use these tools as an aid (not a final solution) in performing tasks that require effort, leaving time for understanding the process and creative tasks. There was also emphasis on the need for teachers to make explicit the possibility of using these tools in their assignments, teaching how to do it, and asking – also explicitly – for a more critical use of them.

Despite the explicit information in the project specification and during project execution in the classrooms, teachers should find novel ways to highlight the specific artifacts students have to create, and how using AI tools could help them. During the classes, some students asked for more detailed examples of prompts. Instead of providing specific prompts, teachers should help students to understand the prompt engineering needed to do it and how to apply it appropriately.

As emphasized by the students, they have, basically, to paths to follow: an in-depth prompt engineering previous to consult the tool, to get the information needed in few interactions; or, creating the prompts, interacting with the tools to get the desired information, analyzing the information received critically, and refining the interaction until they improve the results. Both require that students know how to do it and, mainly, require a continuous discussion about it in the classroom environment.

As next steps in reflecting about the use of AI tools in our classrooms, we need more experience reports, bringing them to discussion forums, enabling teachers to share their thoughts with their peers, and improving how we can advance our teaching and learning methods.

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