

Unmasking Chatbots' Multiple Personalities: A Student-Faculty Collaboration

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Abstract

Humans have long anthropomorphized non-human entities, attributing human characteristics to objects like cars, sports equipment, and dolls. This tendency has intensified with connected devices and generative AI tools that simulate human interactions, producing sophisticated, human-like responses. If AI tools were personified based on their interaction and communication styles, what personalities might they embody? How could they be visually represented? What pedagogical opportunities could they reveal? These questions initiated the first phase of a practice-led project exploring AI personifications through a creative, collaborative pedagogical approach involving design students and faculty members. During an undergraduate design course, the faculty-student team used several generative AI tools for a project and reflected on their interactions by identifying various personalities the AI embodied. Each personality was named, described, and visually represented using generative AI illustration tools. The team identified six AI personalities: the assistant, the angel, the erudite, the slacker, the bullshitter, and the stalker. This project aims to contribute to emerging discussions about AI integration in education by offering a creative approach to support students and instructors who are navigating rapidly evolving technological interactions. By anthropomorphizing AI interactions, the team sought to enhance understanding of human-AI dynamics and potentially help develop AI literacy skills. The team also explores and reflects on a pedagogical approach that emphasizes student and faculty collaboration, creating a shared learning environment through a creative knowledge-building activity. This article presents the first phase of the project, offering early findings, exploring potential educational implications, and presenting future research directions.

Keywords: artificial intelligence, design, human-AI interaction, design process, design education, anthropomorphism

Introduction

Humans have a longstanding tendency to anthropomorphize, that is, attributing human characteristics, intentions, and emotions to non-human entities with whom they interact (American Psychological Association, n. d.; Epley et al., 2007). This psychological phenomenon manifests in various ways. For instance, individuals name their cars, and athletes personify their sports equipment, giving them human qualities (Brédart, 2021). Children engage in imaginative play with dolls, creating complex scenarios that help them process emotions and understand social dynamics (Hashmi et al., 2020).

The propensity for anthropomorphism has intensified with the advent of connected devices that simulate human interactions, such as smart speakers, robotic vacuums, and autonomous vehicles (Festerling & Siraj, 2022; Kang & Kim, 2020). Generative artificial intelligence (AI) tools, particularly chatbots, have further amplified this effect by producing increasingly sophisticated, human-like responses. This can significantly influence how users interact with AI, shaping their behaviours and emotions toward these technologies (Abercombie et al., 2023; Bi & Huang, 2023). Mollick (2023) argues that “it is better to think of AI as a person...than a piece of software” (para. 1) as a way to understand the technology, the interactions, and the ways to use it.

If AI tools were personified based on their interaction and communication styles, what personalities might they embody? How could they be visually represented? What pedagogical opportunities could these personalities reveal? These questions inspired a practice-led project (e.g., see Muratovski, 2024; Sevaldson, 2010) exploring AI personification through a creative lens, employing a pedagogical approach centred around student-faculty collaboration.

As educational environments evolve with the rapid integration of artificial intelligence (Crompton & Burke, 2023; Nagy et al., 2024), it is increasingly important to explore strategies that empower both students and instructors to engage in a collaborative learning process, benefitting and enriching everyone involved (Abegglen et al. 2021; Fragouli, 2023). This article describes the first phase of this journey, where the student-faculty research team created six personifications that represented their interactions with AI tools. It presents early findings, reflects on the potential educational implications of these insights, and suggests questions and avenues for next phases of the project.

Project Overview and Process

This practice-led project was initiated as part of a pedagogical exploration in a 3-credit undergraduate individual study design course during winter 2024, engaging three undergraduate design students in their final year of study and two full-time design faculty members.

Throughout the semester, students were granted unrestricted access to a range of generative AI tools:

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| • TL;DV | • Beautiful AI |
| • ChatGPT | • Miro Assist |
| • Perplexity | • Figjam |
| • Poe | • Firefly (Adobe) |
| • Pitch | • MidJourney |
| • ImagineArt | • Invideo AI |
| • Freepik | • UIZard |
| • Canva AI | • Grammarly Go |

These tools were employed in a design project to assist students and instructors with various tasks such as recording, transcribing, and summarizing meetings, conducting literature searches, creating presentations, building design solutions, and writing a paper. Students were instructed to use AI as a support tool while maintaining control over their work (Sperano et al., in press).

Recording experiences and thoughts about interactions and AI personalities

The team documented their interactions with AI weekly in a form. One question in the form was specific to the personification experience: **If the AI tool you used were a human, how would you describe its personality?** The team held weekly discussions on AI use, interactions, and personalities.

Creating the personifications

After the term and the design project ended, the faculty-student team analyzed the responses from the survey and the weekly meeting notes. First, the team identified and extracted all content related to AI interactions and personality descriptions. Second, each piece of information—whether a direct quote, an observation, or a reflection—was added to virtual sticky notes and organized into an evolving affinity diagram (Krause & Pernice, 2024). This visual mapping technique facilitated the recognition of patterns and thematic connections. Third, the information was organized according to the distinct AI interaction patterns that emerged, paying particular attention to emotional responses, linguistic patterns, and contextual factors that shaped how the relationships with AI tools were conceptualized.

Through this activity, the team sought to distinguish various interaction types that the team associated with AI tools, examining whether these interactions could be conceptualized as distinct personalities. Rather than imposing predetermined theoretical frameworks, the team allowed clusters to form organically. To do so, the team engaged in an iterative workshop session, continuously refining the groupings through consensus-building discussions. This process led to the identification of six distinct AI personalities.

After identifying these personalities, the team discussed the potential value of creating a naming strategy for them. Having specific names would make it easier to discuss these personalities, and work with them. It was established that each name needed to be easily understood, accurately descriptive of personalities, and sufficiently distinctive to prevent confusion among personifications. Through collaborative brainstorming sessions, the team suggested potential names. These names were refined through several discussions until the team reached an agreement.

Illustrating the personifications

After establishing and naming the personalities, the team saw an opportunity to enhance their communicative power through visual representation. The team thought that illustrations could transform these relatively abstract conceptualizations into visually tangible entities that could be more readily understood, remembered, and discussed.

Adobe Firefly, a generative AI tool, was used to illustrate each personality. This tool was chosen as it uses a relatively transparent training process based on Adobe Stock and public-domain images (Rao, 2023), which made it the most ethical tool to use.

The visual design approach aimed to anthropomorphize each personality while maintaining a balance—creating characters that felt relatable and would symbolize their core traits, while incorporating distinctly non-human otherworldly elements to avoid confusion with actual human representations. This deliberate aesthetic tension aimed at reinforcing that these were conceptual personifications of AI interactions rather than imitations of people. Also, the personalities all adopt a forward-facing orientation to establish a direct visual connection with viewers.

AI Personifications

Through this process, the team identified six AI personalities: the assistant, the angel, the erudite, the slacker, the bullshitter, and the stalker. Overall, two personalities stood out as predominantly positive: the assistant and the angel. One had a mixed profile, containing both positive and negative traits: the erudite. Three personalities were largely viewed as negative: the slacker, the bullshitter, and the stalker. In this section, each one will be described along with its corresponding illustration.

The assistant

The assistant provides accurate responses and performs tasks with minimal errors, making it ideal for students to explain concepts, draft content, and support ideation for productivity and educational tasks (see Figure 1).

Figure 1. Depiction of the assistant



The assistant aligns closely with the team's goals when interacting with AI tools throughout this project—providing supportive guidance while maintaining the students' agency. Mollick (2023) used a similar metaphor, suggesting using generative AI tools as if they were interns.

The assistant seems beneficial for educational use, as it effectively supports students without doing the work for them. However, the team struggled to prompt the assistant consistently, as one of the other five personalities was regularly encountered instead. These inconsistencies may have arisen from the prompts employed by students, but also from variations in AI chatbot response quality. Indeed, identical prompts regularly created outputs of various levels of quality.

The angel

The angel is supportive, empathetic, and encouraging (see Figure 2).

Figure 2. Depiction of the angel



The team identified the angel when the AI offered positive reinforcement, presented information in an unexpected yet supportive manner, exceeded their expectation, or provided helpful suggestions that aligned with their goals.

The angel would be useful for education as it is supportive and could also be seen as a teacher. It was, however, not encountered very often, and the team was not able to prompt the angel in a consistent manner.

The erudite

The erudite is characterized by its knowledge, articulation, and insightfulness (see Figure 3).

Figure 3. Depiction of the erudite



It emerged when the AI provided lengthy descriptions, explanations, or arguments. While such detailed responses can be useful for some tasks, students often ended up disregarding the output. Due to the long answers, students felt some discomfort, as if someone was trying to take control of their project. Also, since the content generated by AI tools always needs to be validated for accuracy (Edelberg, 2024), the long answers were often seen as too time-consuming and tedious to verify. While students sometimes intentionally prompted this personality to gather general information on a new topic or to see how detailed AI responses could be, it regularly appeared unexpectedly when they were looking for concise answers or basic support.

While the erudite can be useful for educational purposes, it can also pose concerning issues. Some students might be tempted to submit work that appears to be of sufficient quality (even if it is often not the case) to their instructors without any modifications. This raises important questions about academic integrity and the risk of students not actually achieving the learning outcomes intended in a course if they are too reliant on the erudite to create work for them.

The slacker

The slacker is characterized as lazy and inattentive (see Figure 4).

Figure 4. Depiction of the slacker



This personality trait emerged when the AI provided vague, shallow, or incomplete answers or when it failed to execute tasks efficiently (Amaro et al., 2023; Marcus, 2024a). Its appearance was inconsistent. At times, one prompt generated a complete answer the first time, but it would provide a vague and incomplete response on the second prompt.

Encountering this personality in an educational setting is not ideal, but it does not seem overly concerning for academic integrity, as the errors, inconsistencies, and vagueness are relatively easy to identify with this personality. However, these experiences can be frustrating and feel like a waste of time.

The bullshitter

This personality emerged when AI provided seemingly accurate information that was incorrect when inspected more closely (see Figure 5).

Figure 5. Depiction of the bullshitter



It mimics the assistant, the erudite, or the angel and can only be truly identified through content validation or if the user is familiar with the topic. It is linked to errors known as hallucinations (IBM, 2023; Ji et al., 2023). Ji et al. (2023, p. 4) explain that “hallucinated text gives the impression of being fluent and natural despite being unfaithful and nonsensical. [...] Similar to psychological hallucination, which is hard to tell apart from other ‘real’ perceptions, hallucinated text is also hard to capture at first glance.”

This is the most problematic AI personality. It appears credible mainly due to its confident tone, making it hard to identify. In an educational context, this can mislead students, causing them to accept false knowledge and potentially submit flawed projects. Instructors may also miss hidden inaccuracies like fabricated quotes or references. This highlights the crucial need to teach students to always validate the information provided by AI tools. However, for this project, the need for constant validation became tedious, which resulted in a reluctance to use AI for tasks requiring accurate information.

The stalker

The stalker (see Figure 6) was identified when the AI tools displayed knowledge it should not have, such as knowing team members' names without explanation or when a transcription tool prompted them to join virtual meetings unrelated to this project.

Figure 6. Depiction of the stalker



It was also identified as an underlying aspect throughout the project because the team constantly felt discomfort and concerns about being “observed” or “tracked” due to uncertainties around personal data handling, the use of personal data for training the AI tools (Marcus, 2024b), and other privacy concerns.

This personality highlights a critical need for both students and instructors to develop AI literacy skills. It also underscores the importance of advocating for greater transparency regarding AI tools and their training protocols, particularly concerning the usage of user data.

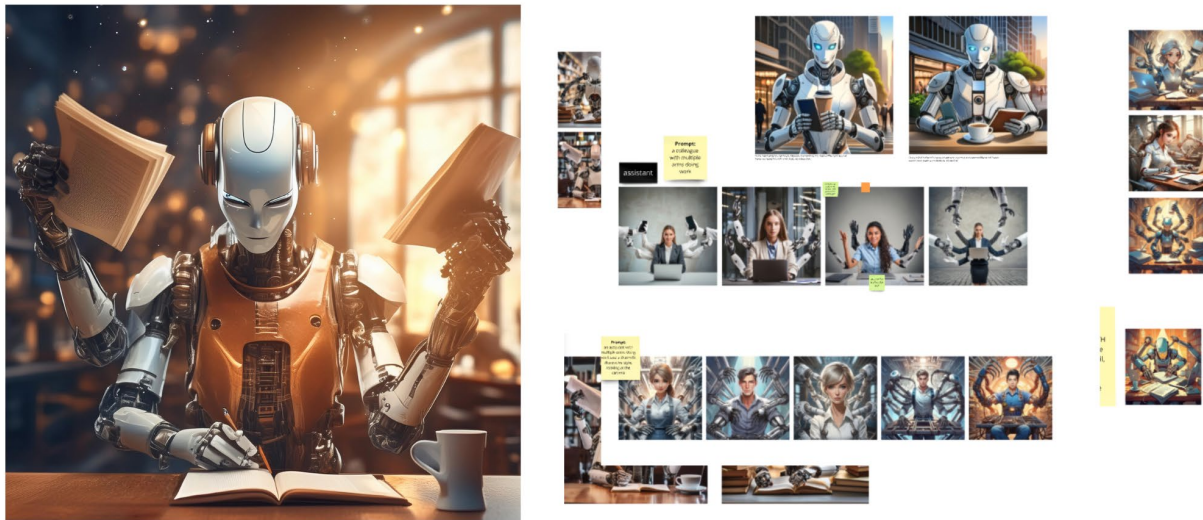
Discussion and Lessons Learned

In this project, the team identified and developed a preliminary version of AI personifications related to human-AI interactions in educational settings. In a future phase, we plan to expand this approach by working with a larger group of students to refine the personifications and illustrations and potentially introduce new personifications and illustrations. Although this initiative involved only a small group of students, it prompted the team to reflect on how these personalities could be used and what insights they might provide for future inquiries. Additionally, it has sparked conversations about the collaborative process of knowledge-building between faculty members and students.

Collaboration between students and faculty members

This project encouraged the development of a shared understanding of a new topic by emphasizing discussion in a practice-led research project, resulting in genuine collaboration between students and faculty. While creating the illustrations through various iterations (see Figure 7), the process allowed the team to gain deeper insights into the personalities involved. For instance, utilizing an AI tool to generate images sparked discussions on the output and the AI tools themselves. Additionally, the visual representation of human-AI interaction inspired new ideas and possibilities for incorporating these personifications in educational settings.

Figure 7. Multiple iterations before the finalized version of the assistant



To promote a genuine spirit of collaboration, it seemed essential to engage students and faculty at every stage of the process and to purposefully commit to moving away from a more asymmetrical relationship between students and instructors (Abegglen et al., 2021; Fragouli, 2023). The approach put forward might have been particularly effective given the novelty of the topic, where none of the participants had more knowledge than the others, allowing the team to learn together, and making this a potentially interesting approach for novel topics with unexplored components that are new to both the instructor and the student.

Supporting designers to improve AI products

When designing digital products, designers often use personas to better understand and empathize with the target audience (Cooper, 2004; Nielsen, 2019). Anthropomorphizing AI tools into persona-like characters could be used in a similar way to enhance designers' comprehension of human-AI interactions. These personifications could then aid designers in creating AI tools that are better aligned with user needs. For example, recognizing that users may perceive a tool as a bullshitter when it employs a deceptively credible tone can lead the design team of an AI tool to argue for a change in tone when there is potential uncertainty about

the quality of the output. This adjustment could lead to a more trustworthy experience for users interacting with an AI tool.

Potential use of the AI personifications in the classroom

These AI personifications could be used in an educational context in various ways by offering students an opportunity to engage with AI tools in a concrete way, potentially helping to build AI literacy skills. For instance, introducing them in the classroom can spark discussions about students' experiences with AI and their emotional and behavioural responses toward various AI tools and their outputs. Showcasing instances where the bullshitter personification is identified can emphasize the importance of being critical of AI usage and always staying vigilant. This could encourage students to verify AI outputs and guard against mindlessly trusting AI tools, thereby building their critical thinking skills regarding AI usage. However, it is important to note the risks of developing misconceptions about the technologies if the anthropomorphic metaphor is overemphasized (Akbulut et al., 2024). Therefore, the usage of these AI personalities must be accompanied by comprehensive AI literacy education that teaches students how generative AI tools actually process information.

Conclusion

In this project, a student-faculty team creatively explored the complex dynamics of human-AI collaboration through a practice-led approach. It addressed the questions presented at the beginning, by revealing distinct AI personalities and offering visual representations for each of them. Moreover, it provided insights into how such personification could enhance understanding of human-AI interaction, both in design practice and in design education.

These early findings raise several questions regarding the personifications, to be explored in the next phases of this project. For instance, in which pedagogical activities could the personalities be incorporated to stimulate discussion and reflection on AI usage, thereby potentially enhancing AI literacy skills? Would bringing these personalities to life even further, perhaps through animations, be helpful to integrate them in a pedagogical context? Also, how frequently is each personification encountered by users? Knowing this would help build expectations on how frequently each personality is reached and raise awareness about the prevalence of problematic personalities.

Could more personifications be included? For example, Nielsen (2024) suggested using AI as a coach, a teacher, or a co-worker. However, these personalities did not naturally emerge in our explorations. This likely stems from the fact that these specific AI roles were not the intent for this project as the focus was more on the assistant dynamic. However, these roles could certainly be considered for future investigations or explorations.

This exploration also led to reflections on the creative project-led collaborative approach taken in this project. While such an approach may be particularly beneficial in creative fields, could it also be explored in other educational settings, particularly to investigate novel concepts where both students and instructors are unfamiliar with the topic? As AI becomes increasingly

integrated into education, it appears essential to develop practices that help students understand and navigate these tools effectively and ethically (Bibi et al., 2024). Building collaborative learning approaches like this one could allow students and instructors to learn and develop knowledge together. This enriches the student learning experience by showing that learning is a continuous process for everyone. It also empowers students to explore new ways of gaining knowledge and cultivates a growth mindset (Dweck, 2014), which is an invaluable asset in our rapidly evolving world.

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Ethics Statement

The project is a case study told as a story followed by reflection. This does not meet the definition of research as defined in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022). The Research Ethics Board at MacEwan University granted a research ethics exemption.

Conflict of Interest

The authors declare that there is no conflict of interest.

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