

Digitimes #43

Maret 2024

The Essay: Use of ChatGPT Amongst Humanities and Social Science University Students



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Maret 2024



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ChatGPT: Optimizing Language Models for Dialogue

We've trained a model called ChatGPT which interacts in a conversational way. The dialogue format makes it possible to challenge incorrect premises, and request more information. ChatGPT is a sibling model to GPT-3.5, which is trained to follow an instruction in a prompt and generate a response.

➔ BACKGROUND

Since the release of Chat Generative Pre-training Transformer (ChatGPT), an LLM created by OpenAI—an artificial intelligence organization that aims to develop AI for-profit and nonprofit activity—there has been a huge wave of concern that ChatGPT could become an expedited means in education, especially in academic essays. According to Yu (2023), this poses a potential threat to academic integrity as students who employ ChatGPT to complete assignments could potentially result in academic dishonesty and foster cheating behaviors. Surprisingly, up to 89% of American college students utilize ChatGPT for their assignments, with a notable 48% even using it during exams (McGee, 2023). For some, the utilization of ChatGPT for essays or academic writings by students ultimately evokes a profound sense of unease.

To examine ChatGPT's capabilities in academic writing, Manohar and Prasad (2023) authored an article on HIV and Lupus while delving into ChatGPT's contributions to academic writing. They found that ChatGPT was easy to use and could generate texts with adequate clarity. However, one concern was raised by Hill-Yardin et al. (2023) who suggested that the use of ChatGPT in scientific writing could result in content that lacks an authentic authorial voice. Gordijn and Have (2023) attempt to outline the operational dynamics of a chatbot, describing its ability to respond to requests by effectively processing data to provide appropriate responses. However, they caution about risks, including inaccuracies, and plagiarism, among others. Moreover, Stokel-Walker (2022) further warns that chatbots may eventually replace humans in the social-humanities field of essay writing.

An array of technology researchers diligently scrutinizes the implications and operations of technology, consistently raising concerns about its formidable potential to reshape workflows and impact human writing (Hill-Yardin et al., 2023; Stokel-Walker, 2023). This apprehension occasionally leads to debates and calls for bans due to fears of fraudulent activities (Yu, 2023). However, discussions tend to label the tool as either good or bad, rather than exploring its practical applications and the motivations behind its usage. Instead, we propose examining ChatGPT's presence not just as a technological advancement, but as a tool utilized by individuals, particularly higher education students. Their authentic perceptions and interpretations of ChatGPT are explored through pre-existing attitudes. Pre-existing attitudes are a crucial framework for understanding technological adoption because they shape individuals' perceptions, behaviors, and decisions toward embracing or rejecting new technology (Bloch & Fernandes, 2023). The lens of pre-existing attitudes shapes how individuals perceive and interact with technological innovations, influencing their acceptance, resistance, or adaptation to these advancements. Understanding these attitudes helps decipher why individuals embrace (techno-optimists) or oppose (techno-pessimist) certain technologies and how they employ them in specific contexts. In the case of using ChatGPT in higher education, these attitudes influence the emergence of usage patterns and interpretations. We assume that students' optimistic or pessimistic viewpoints influence how they perceive the impact of ChatGPT on academic writing.

This study focuses specifically on the widespread use of ChatGPT in academic tasks such as academic essays. Higher education therefore provides an ideal research field to study this new trend and assess the extent to which ChatGPT supports college students' essay writing. Thus, we present a research question: how do attitudes toward technology influence the use of ChatGPT in the academic realm of higher education? By addressing this question, this study investigates the relationship between pre-existing attitudes toward technology and ChatGPT academic writing adoption.



→ **CHATGPT AND HIGHER EDUCATION**

In 2020, the third-generation Generative Pre-trained Transformer (GPT-3) was introduced by OpenAI. As an LLM, it prioritizes profit, by favoring the working pattern of the generative text language model and chat-based AI. Brown et al.'s (2020) demonstration exhibits GPT-3's remarkable advancement over its precursor, GPT-2, yet methodologically, GPT-3 bears similarities to GPT-2 (Budzianowski & Vulić, 2019). However, there is a significant increase in the number of parameters and an increase in the numerical values that determine the neural network to train on input data and produce output data. In GPT-3 alone, the parameters are massive, reaching 175 billion parameters (Brown et al., 2020).

These large parameters were further elaborated by experimenting with GPT-3 to create a sample of news articles. The experiment shows that GPT-3 can produce news text that is difficult to distinguish from news text that is usually made by humans (Brown et al., 2020: 25). For them, the presence of GPT-3 with its ability to produce texts from learning and mimicking human skills brought issues such as fraud, misinformation, abuse, and even plagiarism and/or cheating in academic essay writing. After seeing and reviewing these results, they argue that the presence of the GPT-3 "represents a concerning milestone." (Brown et al., 2020: 35).

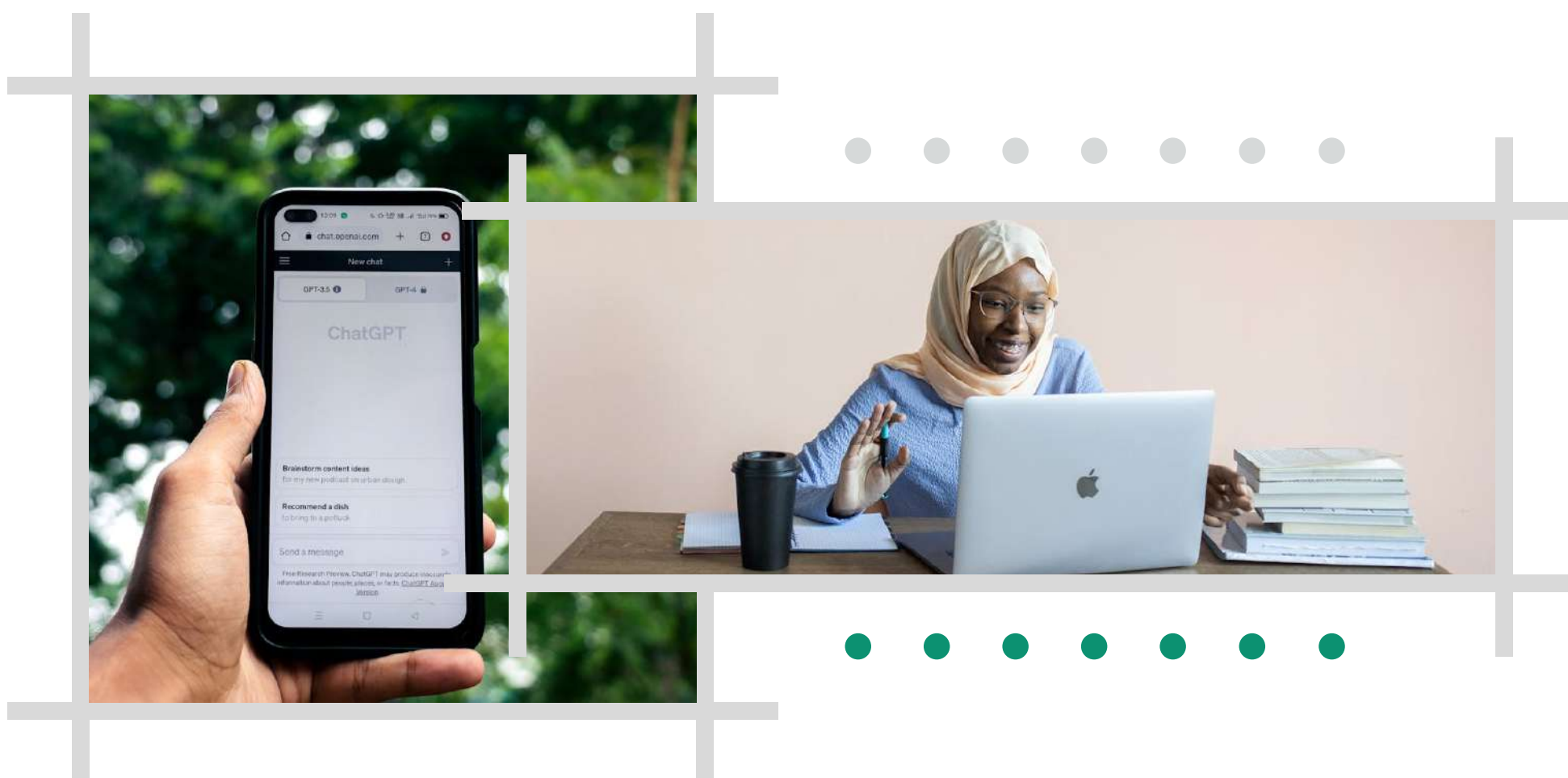
The machine's capacity to generate content akin to human creation evokes apprehension within the academic realm (Kobis & Mossink, 2021; Lund et al., 2023). When traced further, the problem of ChatGPT is a scourge of plagiarism when this technology is used to facilitate the creation of new writing with the support of previous studies that become input data and code in it (Lund et al., 2023). The resulting generative text, which looks like human writing, is composed of synthesis and generalization of writing from many studies or even other people's writing (Lund et al., 2023).

There are utopian and dystopian visions regarding the potential impact of technology on the social situations of society. In turn, these visions are referred to as techno-optimism and techno-pessimism. Techno-optimism tends to be triumphalist. It assumes that automatically, technological progress has positive effects on society. The emphasis is on the significance of technological innovation in bringing about progressive changes in societal life. Single-minded tendencies arise in techno-optimism through the belief that technology can be the ultimate solution to pressing issues faced by humanity. Ray Kurzweil (2005) emphasizes technological singularity, suggesting a profound transformation offered by technology to human life.

The challenges and concerns presented by GPT-3 technology in academia typically center around issues of copyright and plagiarism (Kasneci et al., 2023). The difficulty arises from challenging writings to distinguish between human and machine creativity (Elkins & Chun, 2020; Gao et al., 2022). This extends to the use of ChatGPT by students in higher education activities, leading to academic dishonesty (Cotton et al., 2023; Shidiq, 2023; Weimann-Sandig, 2023). Plagiarism becomes a more significant concern when generative texts produced by ChatGPT lack clear sources or synthesized origins (Dehouche, 2021). Interestingly, AI with natural language capabilities can detect violations, such as plagiarism, in scientific writing (Foltýnek et al., 2019). As of 2023, the advancement of AI technology has ironically turned language-based AI into a countermeasure against plagiarism detection systems that also use AI (Dehouche, 2021). It seems as though AI can now fool the systems and even generate text that appears human-made without being detected by plagiarism detectors. The issue of ChatGPT technology in the context of plagiarism, with the generalization of text from various sources without clear citations, introduces a flaw in the academic writing landscape.

While not diminishing the discourse surrounding ChatGPT as a technological innovation, this research endeavors to explore the technological issues through the lens of its users—humans who wield this AI technology as subjects. A key perspective to bridge this discourse is by examining an individual's pre-existing attitudes toward this technology. Pre-existing attitudes, whether they lean toward negativity or positivity, serve as indicators of one's stance and comprehension of the technology (Bloch & Fernandes, 2023). Significantly, these attitudes reveal discernible patterns in technology usage, shedding light on whether individuals embrace or denounce the technology's presence (Rejali et al., 2023). Consequently, an exploration of pre-existing attitudes toward technology grants individuals the liberty to perceive, comprehend, and attribute meaning to the technological landscape.





➔ **CHATGPT AND TECHNOLOGICAL DETERMINISM**

The view of technological determinism then becomes relevant when discussing the presence of ChatGPT in the world of education. Determinism assumes a specific relationship between certain causes, in this case, technology, and measurable outcomes or implications, in this case, social situations. Technological determinism suggests that change is no longer a choice but a necessity (Jones, 2011). According to Chandler (2015), technological inevitability tends to follow a linear development path. When contextualized with ChatGPT and various other Generative AI writing models, the development of these technological models emerge due to advancements in the field of artificial intelligence, given the availability of data and increased computing power.

The consequence of approaching the presence of ChatGPT in education deterministically is, among other things, the shared understanding of how technological advancements and their effects influence the ways humans live and navigate their lives. As Claude Fischer (1992) outlined when explaining the history of the telephone in America, he encapsulated technology with the analogy of a cue ball. Technology is something that comes from the outside and propels social situations with a bouncing effect. In a typology surrounding technological determinism, Allan Dafoe (2015) identified three common elements of determinism found in various perspectives: (1) the superiority of technology over humans, (2) the autonomous development of technology in historical moments, (3) human awareness of the social impact of technology assumed to be abstinent. Despite the emerging predictions regarding the impact of technology on societal situations, whether positive or negative, the technological narrative is positioned within a prophetic determinism (Pischetola, 2021).



Leon Furze (2023), in an op-ed published in *The Educator*, likens the emergence of ChatGPT in the educational landscape to a 'genie' appearing from a magical lamp. This metaphor refers to the assumption that the appearance of ChatGPT is something we must 'face' regardless of anything else. The assumption is that since we can no longer put it back into the magic lamp, there is no turning back from the advent of technology. This assumption leads to a tendency towards a univocal view of how ChatGPT becomes something inevitable and, therefore, certain. It is as if the presence of ChatGPT in education is deterministic.

➔ **TAKING PRE-EXISTING ATTITUDES TOWARDS TECHNOLOGY INTO ACCOUNT**

Maintaining the perception of technology as something that determines human behavior, it's undeniable that both triumphant and apocalyptic positions actively shape human beliefs about technology. Seufert, Guggemos, and Sailer (2020) present empirical research supporting the crucial role of beliefs in technology adoption. Therefore, this argument broadens the context for the significance of an individual's attitudes in how they adopt technology, including shaping patterns of usage. Attitudes reflecting an overall view of technology in life—whether techno-optimistic or techno-pessimistic—significantly predict someone's adaptation to technology.

One prominent framework that delineates the relationship between attitudes and technological adaptation is the Technology Acceptance Model (TAM). Fred Davis (1989) expounds through the TAM framework that pre-existing attitudes or an individual's perception influence choices such as usage intentions and actual usage behavior. This framework is built upon the Theory of Reasoned Action (TRA) in social psychology (Taylor & Todd, 1995). Through this theoretical construct, TAM targets two specific beliefs related to technology that determine an individual's behavioral intention in using technology, subsequently linked to further behavior: perceived ease of use and perceived usefulness.

Furthermore, TAM explains that the perceived usefulness of users is influenced by the ease of use of the technology. Davis (1989) asserts that an individual who holds a positive attitude toward technology, believing it to be easy to use and helpful in problem-solving, is more likely to adapt to the latest technology. The assumption of passive adoption of technological determinism drives individuals to determine the purpose of using technology. At this juncture, predictors of how technology is actually utilized refer back to pre-existing attitudes toward it. Therefore, an individual's general belief about technology is the strongest determinant of the specifically perceived ease of use, even after experiencing direct interaction with the related technology (Venkatesh, 2000).

The use of the TAM framework to examine the connection between pre-existing attitudes or perceptions towards technology and its adoption impact is pivotal for studies in technology-related educational changes. A study by Sue Clegg (2013) took a speculative approach to explore how the use of email affects academic identity. Clegg noted that academic identity is continually dismantled and constructed through various technological means embedded in academic social routines. Clegg's findings revealed that email usage reinforces managerial patterns and demonstrates a new 'transparent' academic identity but also allows space for intellectual elaboration (Clegg, 2013, p. 176). Several studies specifically focusing on educational technology use to investigate pre-existing attitudes and the changes in various adoption forms have also been conducted (Joo et al., 2018; Pierce & Ball, 2016; Schrum & Glassett, 2006; Wong, 2016).

In examining the correlation between pre-existing attitudes and the influence on technology adoption, researchers draw inspiration from these studies. The convergence of both issues then positions ChatGPT as a disruptive technology in higher education. Building upon numerous op-eds that strongly suggest ChatGPT's potential to transform higher education in terms of techno-moral change, researchers strive to capture the elements of lived experiences derived from ChatGPT usage by exploring pre-existing attitudes regarding its utilization methods.



➔ DATA COLLECTION AND RESEARCH METHODS

This study employs a qualitative approach using open and in-depth interviews to explore the diverse applications of ChatGPT in academic essays among social-humanities students. According to Bogdan and Taylor (1975), qualitative research aims to produce descriptive data from written or oral information gathered from interviewed subjects. Open and in-depth interviews refer to the process of obtaining information to address research questions through face-to-face interaction between the interviewer and interviewee. Using open and in-depth interviews aims to discover and capture issues more openly. The researcher utilizes semi-structured open and in-depth interviews to delve deeper into the subject matter, allowing greater room for respondents to express their opinions. During these interviews, the researcher employs an interview guide to focus questions within the scope of the research topic.

This research necessitates a rigorous methodological approach despite its limited scope. The study's limitation, open and in-depth interviews, was confined to the Universitas Gadjah Mada, specifically targeting undergraduate students majoring in humanities, with a composition of two individuals from six faculties within the humanities domain, which are the Faculties of Social and Political Sciences, Law, Psychology, Philosophy, Economics and Business, and Cultural Sciences. This configuration was chosen by the researcher to align with resource and time constraints. The selection of 12 informants was determined considering the recommended sample size for phenomenological studies by Creswell (1998), ranging from 5 to 25 informants, and data saturation was reached when there was no longer agreement among informants' beliefs (Constantinou, 2017). The choice of two participants from these faculties aimed to ensure representation from diverse academic backgrounds to illustrate the varied experiences of using ChatGPT. The justification for each faculty's representation was based on the differing types of academic essays assigned to each faculty.

Furthermore, the interview outcomes will be analyzed using a typological approach. The researcher considers typology, in its simplest form referring to categorization, as enabling an in-depth exploration of different participants' experiences or perspectives (Stapley et al., 2022). Considering the pre-existing attitudes towards technology as a variable in this study, creating a typology allows the researcher to identify how these attitudes generate patterns, similarities, and differences in the use of ChatGPT in academic essay writing among students majoring in humanities. Employing typology, the researcher aims to minimize prejudice or bias towards the data and, conversely, let the data speak for itself.

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→ FINDINGS

Our research focuses on the distinct use cases of ChatGPT and their rationale. We highlight the variety of methods and motivation that resonates across our research subjects. To anchor our analysis, we maintain the assumption that pre-existing attitudes matter in the ways that students are using ChatGPT.

In contrast to Cotton et al. (2023), Shidiq (2023), Yu (2023), and Weimann-Sandig (2023), our study finds that usage of ChatGPT is not uniform. Some social-humanities students have an optimistic view, seeing ChatGPT as a technology that aids in academic essay writing, while others maintain conventional methods. Some exhibit skepticism and reluctance to adopt ChatGPT or see its concrete potential. Additionally, some students fluctuate between these categories. Based on open and in-depth interviews (N=12), we put forth three groups which may encompass the methods and motivation of students using ChatGPT. This typology is anchored through the combination of assessed pre-existing attitudes toward technology and their adoption or use of generative AI.

→ Adaptionist

We found two students who hold techno-optimist attitudes and perceive ChatGPT as a technology that enhances the efficiency of academic essay writing. We call them adoptionists. The adoptionist maintains that technology contributes positively to them in their daily life. Furthermore, with the adoption of ChatGPT, students in this category discovered considerable advantages by harnessing ChatGPT's capabilities for their essay writing.

Our respondents discussed their experiences using ChatGPT for academic essays, especially in courses on topics where they lacked confidence. They portrayed ChatGPT as a companion for discussion, capable of addressing questions about unfamiliar subjects. This served as an initial foothold in academic essay writing, enabling them to explore ideas further and aiding in structuring the essays.

"To put it simply, I believe in its results around 90% [...] because ChatGPT is great at explaining new topics and it's easily understandable."

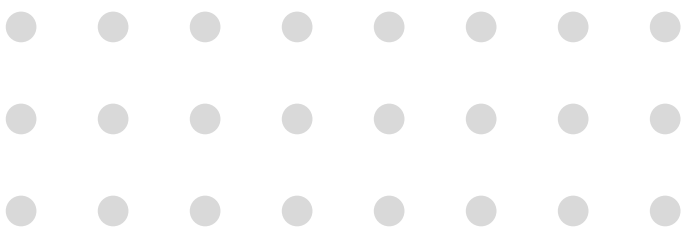
Furthermore, the students emphasized the benefits of efficiency and excellence in enhancing the quality of their writing. Efficiency was achieved as they could minimize the energy and time spent on topics or courses they needed to exert extra effort into learning due to lack of mastery. Meanwhile, the enhancement in the quality of their writing was attained through paraphrasing and summarizing. They experimented with contrasting outputs between ChatGPT and various other AI tools, discovering that ChatGPT significantly outperformed the rest.

*"I use it for paraphrasing because the results are much better than Q*****
[...] It helps make my writing more engaging and easier to understand."*

The dominant orientation for students in this category is the perception of usefulness. However, they also acknowledge the limitations of ChatGPT. For example, searching for literature. ChatGPT at times generates fake references. This is known as hallucination. The model fabricates texts which pretend to be academic references based on the prompt and as sophisticated as their decision tree allows. These students observe the patterns of limitations of ChatGPT and maximize what can be obtained from it. Therefore, with an emphasis on the perception of usefulness, students in this category tend to be open to exploring and adopting new technologies in an academic context.

➔ **Pragmatist**

We identified six students who maintain techno-pessimistic perspectives but are slightly open to trying new technologies. We categorize them as pragmatists because, despite their pessimistic stance on technology, they remain curious about ChatGPT's potential. Some remain skeptics about the technology's capacity to solve human critical issues such as poverty, healthcare, and environmental sustainability. However, they recognize ChatGPT, as an emerging technology, can help with academic settings, like quizzes and essays. Although they acknowledge ChatGPT's worth, they retain skepticism regarding its substantial impact on the writing process.



The pragmatics predominantly uses ChatGPT for procedural rather than substantive aspects of academic essays. In other words, ChatGPT is primarily used to aid in structuring essays. They admit to having ideas beforehand and position ChatGPT as an aid in elaborating them.



"I asked ChatGPT to provide a writing framework for a specific discussion, and it generated seven discussion points.[...] When entering the prompt, I already had ideas about the discussion. I then selected among those seven points the ones that seemed most fitting."

The students in this category are aware of the limitations of the free version of ChatGPT's database, which only goes up to January 2022, resulting in outdated outputs. They also recognize the potential for bias in the text produced by ChatGPT, so their usage emphasizes perceived ease of use in procedural and technical aspects related to ChatGPT. Some students in this category emphasize the creativity of the prompts used. They highlight that the more specific and precise the prompt written, the more relevant and coherent the produced output will be.

For students in this category, doubts about ChatGPT lie in the substantial aspects it generates. Their drive to use ChatGPT is for efficiency needs and to enhance productivity, as they fully understand the limitations of ChatGPT.

➔ **Conventionalist**

In this particular group, we've pinpointed four students displaying a techno-pessimistic outlook on technology, seeing ChatGPT as a potential threat to education's integrity and critical thinking when applied to essay writing. Coined as conventionalists, they firmly uphold traditional academic essay-writing approaches as the optimal means for expressing creativity and ideas. Consequently, they exhibit reluctance to employ ChatGPT for academic essay tasks.

For students in this group, they are more attentive to the limitations in the writing process generated by ChatGPT. Firstly, the produced content is limited by the database only up to January 2022 and the accessible open sources. Secondly, most students in this category detect a form of "fabrication" in the data processing performed by ChatGPT based on the sources used.



"I once tried to request the source inclusion, but then, the referenced source wasn't found. So, I concluded there was a fabrication in its generating process."

Furthermore, these students doubt the quality of ChatGPT, finding it very general and excessively repetitive. When reading, they can gauge that the text seems to be machine-generated. Researchers also inquired about the perceived advantages of using ChatGPT, and the response received was 'There are none, and they are not significant.' Those in this group also need clarification regarding guidelines. As there is no clear guidance on using ChatGPT in academic essay writing, it's challenging to justify its use in the process.

→ DISCUSSION

The discourse on the usage of ChatGPT in higher education is predominantly alarmist on how generative AI may induce widespread academic dishonesty amongst students (Yu, 2023). In contrast, our findings suggest such claims are premature. The presented typology illuminates the diverse manners in which students engage with ChatGPT, categorizing them into three groups: adoptionists, pragmatists, and conventionalists. These categories challenge the prevailing narrative and demand a sociological explanation—their view of how technology shapes society affects their adoption of it. While emphasizing the importance of understanding students' individual choices and behaviors, and their agency, it is equally vital to consider discernible patterns in the data that suggest inherent limits to this agency.

Based on the findings, this discourse aims to present an alternative perspective amid the widespread concern about the potential threat to educational integrity posed by ChatGPT's entry into academia. Each typology group's individuals possess a distinct comprehension of ChatGPT, encompassing its functions, purposes, and certain limitations. Their diverse awareness and behavioral patterns in response to ChatGPT's presence in the academic sphere offer a different viewpoint. Their viewpoints and reactions suggest that ChatGPT doesn't consistently prompt academic fraud or dishonest behavior but can instead serve as another tool they use with greater responsibility within their determined positions. Contrary to Weimann-Sandig (2023), they don't view ChatGPT as a threat that replaces the creativity of humanities students but rather as a potential aid that complements their ideas.

Table 1. The typology illuminates the diverse manners in which students engage with ChatGPT, categorizing them into three groups.

n=12	Frequency	Characteristics	Usage	Motivation
Adaptionist	2	They are techno-optimist adopters.	Substantial aspects 1 'Discussion companion' 2 Search tool 3 Literature search 4 Improvement of writing quality	Perception of usefulness
Pragmatics	6	They are techno-pessimistic but see value in ChatGPT for specific academic purposes.	Procedural and technical aspects 1 'Discussion companion' 2 Search jumping off point 3 Summarizer	Perception of usefulness
Conventionalist	4	Someone who is techno-pessimistic chooses to work on academic essays conventionally without the assistance of technology.	Doubtful about the quality of ChatGPT.	Defending their creativity and idea authenticity.

Through the conducted interview process, various deterministic stances of students toward technology, coupled with their pre-existing attitudes, were effectively conveyed and exposed. Individuals within the adoptionist group could perceive utility as one of the primary foundations for their use of ChatGPT in the academic domain. Despite all the shortcomings and limitations of ChatGPT, they managed to find functions that at least provided them with a space to work faster and reap benefits from ChatGPT. Similarly, individuals leaning toward techno-pessimism within the pragmatic category only viewed ChatGPT as an assisting tool. Their main goal was to utilize ChatGPT as a means to fulfill the effectiveness and efficiency they needed in their work. They did not see ChatGPT's benefits as extensively as those in the adoptionist category. Those in the pragmatic group tended to use ChatGPT only when needed and for technical tasks. They remained critical, striving to maintain a distinction between their accountability as students and their use of ChatGPT. In contrast, individuals within the conventionalist group rejected the presence of ChatGPT and were reluctant to engage deeply in the practice of automated work within education. Their deterministic position leaned toward pessimism regarding ChatGPT's potential significance in educational progress or its ability to aid the educational process itself. In fact, during interviews, some of them even condemned the presence of ChatGPT when integrated into the narrative of higher education.

In our findings, we did not encounter students who wholeheartedly believed in ChatGPT at 100%. We sought to explore various interpretations, and perhaps within these, we could find one or maybe two students who consciously surrendered all aspects of their educational reality to ChatGPT. This might be intriguing, showing a form of techno-optimism where someone fully is reliant on technology, perceiving it as a helper and facilitator across all aspects of life. However, our findings revealed that students did not fully trust it. Each individual within the typology groups acknowledged various shortcomings and inaccuracies of ChatGPT. Even during interviews, they were capable of highlighting various limitations of ChatGPT, particularly when employed within academic contexts. From this, we see that students' awareness and understanding of ChatGPT's capabilities and attributes are complemented by its limitations, preventing them from relying entirely on ChatGPT. There's still an effort to utilize it within its functions and utility or perhaps to seek the efficiency and effectiveness offered by ChatGPT when used in the academic landscape.



➔ CONCLUSION

The emergence of ChatGPT as a Generative AI has ignited extensive debates within higher education. As a technology capable of instantly generating text, ChatGPT is often viewed as a menace to essay writing, as evident from the upsurge in op-eds by influential thinkers heralding the decline of academic essays in higher education. Conversely, albeit among a smaller cohort, there are thinkers expressing enthusiasm for ChatGPT's emergence and its potential to streamline essay writing. This qualitative research, utilizing open and in-depth interviews for typology development, aims to centralize the perspectives and experiences of social-humanity students amid this transformation, capturing their lived reality. As a note, the social-humanity students we encountered were limited to the social-humanity cluster of Gadjah Mada University and those currently enrolled in this academic semester.

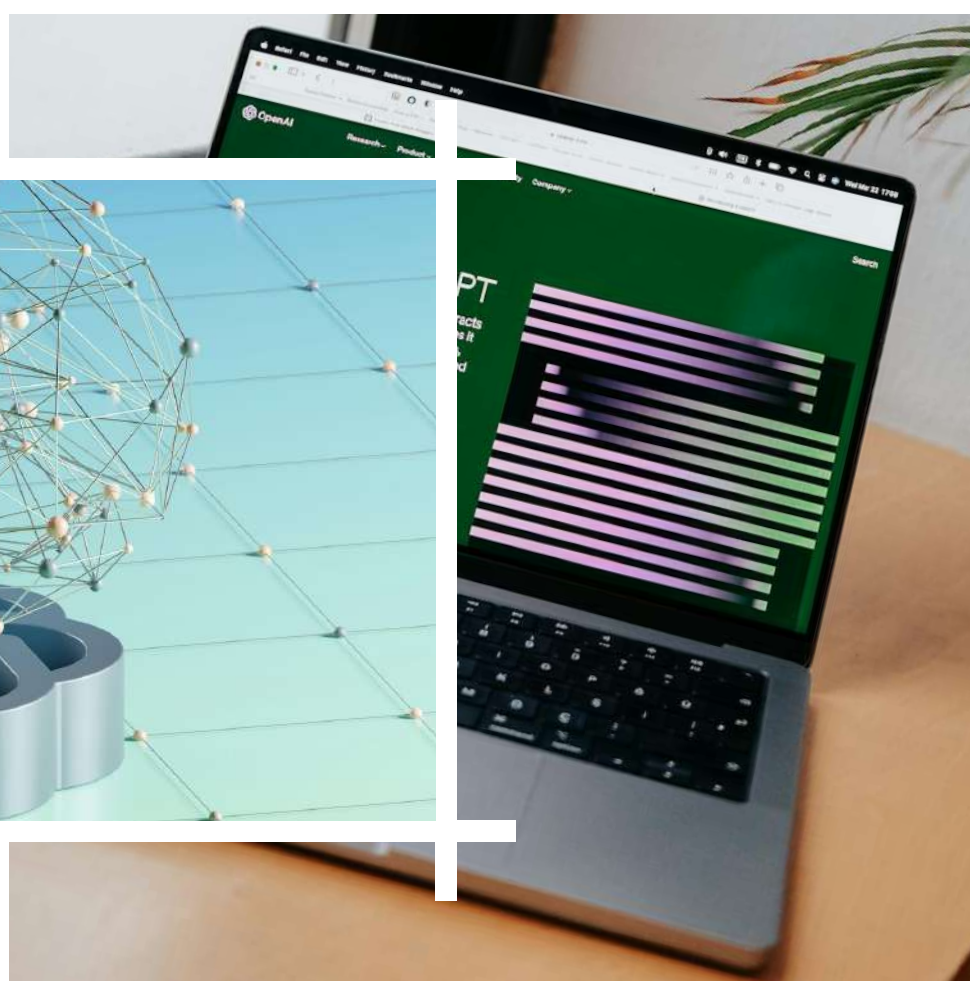
The emerging typology categories mirror the diverse ways in which social-humanity students react to and incorporate ChatGPT into their work. Researchers have classified them into three groups: adoptionists, pragmatists, and conventionalists. This classification corresponds to how students' pre-existing attitudes toward technology shape their adoption and acceptance of ChatGPT in academic essay writing. The findings also shed light on how social-humanity students embrace ChatGPT, perceiving it as easy to use and valuable. For some students using ChatGPT, there might have been instances of academic dishonesty, yet they engaged in self-censorship of that information and confined their responses within specific contexts. The implication is that ChatGPT isn't entirely embraced negatively but approached with a more critical and responsible stance.

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→ ABOUT CfDS

Center for Digital Society (CfDS) is the research center established by the Faculty of Social and Political Sciences, Universitas Gadjah Mada. The institution is created under the concern over the contemporary dynamics of socio-political condition of the world that is accentuated by the impeccable influence of information technology. The phenomenon triggers the new patterns and complexities in the society, and thus requires new approaches in managing such complexities.

CfDS pledged to delve more on the study of contemporary digital society, including related issues surrounding the topic; such as the issues of smart city and urban development. The emphasis is then put on the utilization technology to shape the society in becoming digitalized, as well as to bring solvency to social issues.

VISION

Solving Social Problem and Accelerating Prosperity through Indonesia Digital Society.

ACTIVITIES

- Research and Development
- Dissemination and Publication
- Education and Policy Advocacy



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