AESTHETIX
 RUPKATHA JOURNAL

 NEDIA
 ON INTERDISCIPLINARY STUDIES IN HUMANITIES

 ISSN 0975-2935 | Indexed in the Web of Science Core Collection™ Emerging Sources Citation Index (ESCI)

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Research article

The Ethics of (Non)disclosure: Large Language Models in Professional, Nonacademic Writing Contexts

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Abstract

This article explores the ethics of co-writing with large language models such as GPT-4 in professional, nonacademic writing contexts without disclosing the practice to stakeholders. It considers five ethical concepts through an analysis of a hypothetical scenario. Three of the concepts—transparency, data practices, and expanded circulation—originate in the work of Heidi McKee and James Porter. The other two, just price and risk imposition, have particular relevance for professional writers. The article ultimately proposes that these five concepts can serve as points of reference as we attempt to formulate and articulate ethical judgments about co-writing with generative AI in specific, contextually grounded instances.

Keywords: artificial intelligence, co-writing, ethics, large language models

SUSTAINABLE GOALS Quality Education

1. Introduction

In late November 2022, OpenAI released a free "research preview" of ChatGPT, a natural language generation (NLG) model that could produce fluent, coherent texts in English and other languages. NLG models had already existed for some time, including the set of models collectively known as GPT-3, the immediate precursor to the model that initially powered ChatGPT, GPT-3.5. However, in most cases, these models were far less impressive than ChatGPT. They were also less accessible to the general public. Until just weeks before the release of ChatGPT's research preview, those who wanted to use GPT-3 were required to join a waitlist.

There was no such limitation for ChatGPT. According to Roose (2022a), its release marked "the first time such a powerful tool [had] been made available to the general

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Citation: Piller, Erick. 2023. The Ethics of (Non)disclosure: Large Language Models in Professional, Nonacademic Writing Contexts. *Rupkatha Journal* 15:4. https://doi.org/10.21659/rupkatha.v15n4.01

public through a free, easy-to-use web interface." The research preview went viral, crossing the threshold of one million users within five days of its release and exceeding its servers' capacity on multiple occasions (Walsh, 2022). Within weeks, *Harvard Business Review* (Mollick, 2022) had already called ChatGPT a "tipping point for AI" (artificial intelligence). A *Bloomberg* (Savov, 2022) headline suggested that ChatGPT "could be AI's iPhone moment."

These developments have presented new challenges for researchers and users of large language models, who now have to contend with ethical questions about how they should be employed in everyday life. Unsurprisingly, concerns about academic misconduct have escalated in the wake of ChatGPT's public release, as the platform's sophisticated language generation capabilities present the possibility of AI-assisted "plagiarism" or the wholesale creation of artificially generated content to complete assignments. The New York City Department of Education, for example, has blocked access to ChatGPT on its networks at all the city's public schools (Yang, 2023). One article on the use of GPT models in education (De Visé and Lonas, 2023) claims, "In four short months, the GPT family of artificial intelligence chatbots have upended higher education like nothing since the arrival of Wi-Fi connections in classrooms," while another article's (Ulanoff, 2023) opening paragraph quips: "Higher education, we have a big, ChatGPT problem." A Fox Business (Nelson, 2023) headline wonders whether ChatGPT "will [...] impact the 'integrity' of academic institutions," as a headline in The Atlantic (Marche, 2022) proclaims, "The College Essay Is Dead." Some writing studies scholars have pushed back against this "moral panic"-such as Josh Eyler, whom McMurtrie (2022) quotes in a Chronicle of Higher Education piece. However, just a few brief paragraphs after acknowledging that Eyler and other scholars have urged us "to begin conversations with students and colleagues about how to shape and harness these AI tools as an aide, rather than a substitute, for learning," McMurtrie abruptly-and apparently with no sense of irony—asks: "So how does a writing instructor, or a professor in a writing-intensive course, reduce the likelihood that students will use these AI tools?"

In response to these concerns, "AI detectors" have been developed to identify machine-generated text. The first released was created by a college senior at Princeton University, who felt motivated "to fight what he sees as an increase in AI plagiarism" (Bowman, 2023). Detectors have proliferated since then, and now even Turnitin, a widely used service for detecting plagiarism in academic contexts, has incorporated AI detection (Turnitin, n.d.).

Although concerns about academic misconduct have seemed to predominate, there has also been discussion of the broader implications of the use of AI-generated content in nonacademic contexts. One case that has drawn attention occurred in March 2023, when a judge presiding over a murder trial in India's Punjab and Haryana High Court consulted GPT-4 about whether the defendant should be granted bail (Katje, 2023). The

language model suggested that bail should be rejected—advice that Judge Anoop Chitkara ultimately followed (Katje, 2023). Some other ethical concerns have revolved around inherent biases (Ferrara, 2023), the intellectual property rights of creators whose work is used in training (Ray, 2023), and the fact that a large language model's "capabilities could lower costs of disinformation campaigns"—as a (2019) report by OpenAI researchers puts it (Solaiman et al., p. 6).

There has also been some discussion of the use of large language models in professional and technical communication settings (Biswas, 2023; Castellanos-Gomez, 2023; Knowles, 2022). Zhang et al. (2022) have noted that "automatic product copywriting generation has become an important line of research in e-commerce" (p. 12423), and the range of professional applications for large language models increases seemingly daily. In these contexts, the ethical considerations of using AI language models like GPT-4 are more nuanced, as the line between collaboration and deception—if the use of AI goes undisclosed—becomes increasingly blurred.

Governments worldwide have explored possibilities for regulating the use of AI, with the European Union recently approving the AI Act and at least seventeen U.S. states introducing AI-related legislation (Levin & Downes, 2023). Relevant regulation would obviate the practical necessity of ethical judgment for individuals such as professional writers, transforming the question of whether to employ large language models into a predominantly legal, not ethical, consideration. However, present regulatory initiatives have tended to focus on aspects such as data privacy and discrimination-through algorithmic bias in AI-powered hiring or underwriting systems, for example. The Biden administration's seventy-three-page Blueprint for an AI Bill of Rights (White House Office of Science and Technology Policy, 2022) does not mention the word "writing" a single time and never refers specifically to large language models. Furthermore, while AI regulation is "inevitable" (Levin & Downes, 2023), Schuett (2023) points out that regulators have encountered basic difficulties in even defining the material scope of such regulation, given that the term "artificial intelligence" lacks a generally accepted definition and can refer to a variety of different types of systems. For now, in the absence of any relevant legislation, in an environment of widespread uncertainty and skepticism about AI and ongoing conversations about the limitations of large language models, whether to useand disclose the use of-a large language model when generating text is an ethical dilemma that the professional writer who wishes to employ such technology must navigate, often on a daily basis.

In this article, I will explore the ethics of "co-writing" with AI language models such as GPT-4—particularly the ethical implications of not disclosing a language model's role in the composing process in professional, nonacademic contexts. I will begin by presenting a scenario that, as I have found in discussions with students and colleagues, has generated a range of ethical interpretations, critiques, and justifications. Then, after a review of the literature, I will analyze the scenario, considering it in light of other scholarship on the rhetorical ethics of AI writing, as well as other relevant ethical principles discussed outside of writing studies.

2. Scenario

I propose to explore the ethics of co-writing with language models such as GPT-4 in professional contexts through an analysis of the following case study—hypothetical, but based on actual events that I learned about during my research, and broadly emblematic of what it often means to write professionally in our part of the twenty-first century.

Imagine that a publisher plans to release a series of "test prep" books marketed to individuals preparing to take real estate licensing examinations in various US states to compete with a similar line of books sold by another publisher. Rather than commissioning individual authors with subject matter expertise for the series, the publisher hires a company that specializes in producing learning content. As specified in the contract, this company delivers drafts of completed manuscripts; then, subject matter experts (SMEs) hired by the publisher review the manuscripts, fact-checking them and providing feedback. The learning company revises the manuscripts accordingly, and the review cycle continues until the manuscripts have been deemed satisfactory. The publisher pays a fixed price for each manuscript.

A nondisclosure agreement prohibits the learning company from divulging the details of this process—or even the company's own involvement in the project. The published books are not presented as the work of any particular individual. Rather, it is the publisher that is listed as each book's "author."

To write the manuscripts, the learning company contracts about a dozen freelance writers and pays them hourly, with the expectation that they will each write, on average, a certain number of words per hour. These freelance writers have no expertise in real estate regulation. They "write" their assigned sections of the manuscript by heavily paraphrasing the competing publisher's line of books, paragraph by paragraph—or, more often, sentence by sentence. The publisher is fully aware of this aspect of the production process; in fact, it was the publisher's direction, though not included in the formal contract with the learning company. The use of competitor source material, together with the rounds of revision based on feedback from the SMEs, helps ensure the accuracy and comprehensiveness of the final manuscripts, and editors employed full-time by the learning company bring consistency within and across the multi-authored texts. As a final quality assurance measure, the learning company's editors run each manuscript through a plagiarism detector, comparing it against not only the general database but also the competitor's source material, and rewrite any passages that have too high of a similarity score.

With this relatively complicated scenario in place, we can consider the case of three freelance writers hired by the learning company: Heidi, Emily, and Kemp. All three have realized, independently, that they can increase their output dramatically by prompting a transformer-based language model (such as OpenAI's GPT-3.5 or GPT-4 or Google's Bard) in a way similar to the following and feeding it competitor source material:

I will give you "input text" preceded by "INPUT:"

For the output, please substantially rewrite the inputted passage. Change the overall arrangement by combining and reordering sentences where possible. Combine sentences, or break longer individual sentences into multiple sentences, whenever you can.

Never copy more than three words in a row from the input—preferably no more than two words in a row. Also, as much as possible, avoid repeating major words from the input in the output, except for key terms that cannot be avoided.

It is acceptable to omit some minor details or add minor details as necessary. If the order of a list (whether bulleted or in a sentence) is unimportant, please rearrange the list items.

Begin your output with "OUTPUT:"

A reader should not be able to tell that the output is closely based on the input.

Do you understand?

None of the writers simply pastes in the outputted text. They always read over it, compare it to the source material, and rewrite any apparent errors or awkward phrasings. They also restructure the outputted text and delete phrases and sentences as they deem necessary. Still, a substantial portion of the words that they deliver to the learning company comes from the language model—a fact that none of the writers discloses.

Although Heidi, Emily, and Kemp all have similar processes, there are some important differences:

- Heidi produces just above the required words per hour, usually in about a quarter of an hour, and spends the remaining part of each hour working for other clients.
- Emily devotes the entire hour to her work for the learning company, meaning her overall productivity is three or four times the minimum requirement.
- Kemp takes the same approach as Emily, but his output is lower than Emily's—only 1.5 or two times the minimum requirement per hour. This is because he runs the outputted text through two recently developed web apps that can determine, with reasonable (but not total) certainty, whether a passage of at least moderate length was generated by a language model. If either of the two web apps can say with



more than 50 percent certainty that the text was generated in this way, Kemp rewrites it, to the littlest extent possible, to bring it under the 50 percent threshold.

Though I suspect several aspects of this case study could be fruitfully analyzed from an ethical standpoint, I will focus on the questions raised by the writers' extensive use of language models. However, rather than jumping immediately into analysis of the scenario, I will first review other writing studies scholarship on the rhetorical ethics of AI writing, to contextualize the discussion to follow.

3. Writing Studies and Artificial Intelligence

Compositionists have studied the potential applications of AI for writing since at least 1979, when Burns defended his dissertation, *Stimulating Rhetorical Invention in English Composition through Computer-Assisted Instruction*. Burns (1979) sought to "combine the fruits of the rhetorical renaissance in English composition"—that is, the revived interest in rhetorical invention—"with this developing technology of instructional computing" (p. 11). To this end, he programmed computer-assisted instruction (CAI) "modules" that a writer could use during prewriting to apply one of three heuristic frameworks to the subject matter: Aristotle's *topoi*, Burke's dramatistic pentad, and Young, Becker, and Pike's tagmemics (Burns, 1979, p. 18). He named these modules TOPOI, BURKE, and TAGI, respectively (Kemp, 1987).ⁱ At the same time, Bell Laboratories was developing the UNIX WRITER'S WORKBENCH, a set of tools designed to help with various writing tasks, which, today, is generally considered the first "grammar checker" (Heidorn, 2000, p. 181). In 1981–1982, 170 students in composition courses at Colorado State University (CSU) piloted the software (Smith et al., 1984). By late 1984, over 2,000

CSU students were using the WRITER'S WORKBENCH to assist them in their writing (Smith et al., 1984).

Compositionists developed additional CAI software for writing soon after WRITER's WORKBENCH and Burns' invention modules were released. For instance, Wresch's (1984) edited collection, *The Computer in Composition Instruction: A Writer's Tool*, includes whole chapters devoted to HOMER, WANDAH, Wordsworth II, COMP-LAB, and other programs—plus references to a number of others. This trend of creating programs for writing assistance, often specifically for instruction in composition, endured for some years. In 1988, for example, Phillips and Erlwein published an article on their COMPOS-1, which, as they put it, "integrates a machine and a human operator in a series of decisions culminating in the composition of an outline of a speech" (p. 250). Nor were scholars' contributions exclusively *tools*. AI inspired theoretical work during this period as well, such as Hunter's (1991) article "Rhetoric and Artificial Intelligence," which claims that "artificial intelligence, as it has developed over the last twenty to thirty years, is of considerable importance to the study of rhetoric" (p. 317).

Generally, though, compositionists' interest in the possibilities of AI for writing diminished in the 1990s and remained low until the mid-2010s—a phenomenon typically attributed to unmet expectations and decreased funding for AI research and development across all fields (Knowles, 2022). Following this "AI winter," the mid-2010s saw renewed interest in artificial intelligence. This was the result of several elements working in combination: new developments in machine learning, the increased affordability of graphics processing units (GPUs) and cloud computing resources, and the availability of extensive datasets that could be used for training, thanks to the growth of the internet and digitization. High-profile real-life applications of AI, such as virtual assistants (think Siri and Alexa) and self-driving vehicles, also garnered significant attention, leading to a substantial increase in funding for research and development from the public and private sectors.

In early June 2018, OpenAI released what we now know as GPT-1. Less than two weeks later, the *Routledge Handbook of Digital Writing and Rhetoric* was published, a collection edited by Alexander and Rhodes. In this collection of essays, most of the contributors show their awareness of "machinically composed texts" (to use Yancey's term), but they take reasonable caution in their assessments and predictions for NLG technologies: "What *this* composing means—for our composing, for that of our students, for the field, for the country: that has yet to be determined" (Yancey, 2018, pp. 69–70). However, one contributor, Hart-Davidson (2018), shows no reluctance to speculate on the future roles of AI in writing processes. In the chapter "Writing with Machines and Other Curiosities of the Age of Machine Rhetoric," he anticipates that "so much of the writing that folks do day to day is [so] routine that it will be quickly replaced by robots. Soon. No

looking back" (p. 252). In less routine writing, he predicts, AI will provide the "first drafts," and human writers will "take over" from there (p. 252).

Compositionists have continued to research AI and its implications for writing over the past several years. For example, Duin and Pedersen (2021) discuss NLG in *Writing Futures: Collaborative, Algorithmic, Autonomous.* Knowles (2022) has begun studying the practices of professional writers who use Jasper—originally a fine-tuned model of GPT-3 for producing digital marketing copy—and presented on the project at the IEEE ProComm Conference. Now that large language models have become better known and more widely available following the release of ChatGPT, compositionists should probably expect a deluge of scholarship on AI-assisted writing.

4. The Ethics of Writing with AI

But to engage with writing studies scholarship on the *ethics* of AI writing means, more than anything, to engage with the work of McKee and Porter, who have consistently published and presented on the topic since at least 2017, a year before OpenAI released GPT-1. That year, McKee and Porter observed that artificially intelligent "agents" were becoming an important feature of the professional writing landscape and explored some of the ethical questions raised by this development (p. 167). The following year, in a post for a Sweetland Digital Rhetoric Collaborative blog carnival, they discussed the implications of language models for academic writing and called on scholars and teachers of writing generally to play a role in "important conversations shaping the ethical use of writing bots" (McKee & Porter, 2018). This blog post was prescient, appearing nearly five years before the release of OpenAI's "research preview" of ChatGPT.

The Good Machine Speaking Well

When they approach rhetorical ethics in these earlier works, at least in nonacademic, professional communication contexts, McKee and Porter (2018) focus on "the good machine speaking well"—a play on Quintilian's concept of the *vir bonus dicendi peritus*, the good man speaking well (p. 15). A major obstacle to the realization of this ideal, according to McKee and Porter, is the poor ability of artificially intelligent agents to read and effectively respond to rhetorical situations.ⁱⁱ They give Microsoft's Tay as an example—the Twitterbot shut down just sixteen hours after its release in early 2016 because it had begun to tweet racist, sexist, homophobic, anti-Semitic, and other offensive content.

The shortcoming of this approach is that it looks primarily at the "machine" itself, as an autonomous agent. Consider how anthropomorphically McKee and Porter describe Tay in (2020) conference proceedings:

She was a naïf, with immature ethical standards and limited rhetorical intelligence, lacking skills and safeguards for how to communicate ethically in social media. In short, she was not rhetorically savvy and thus was not an effective communicator, at least in the ways her creators intended. (p. 111)

It can be useful in many contexts to think of bots like Tay or even Siri or Alexa as "moral agents," especially as shorthand for critiques of the ethical failures inherent in their *design*, such as inadequate content moderation or use of biased training data (McKee and Porter, 2017, p. 165). But this approach, which views the bot in isolation, can often bracket out important elements of the context. For instance, as McKee and Porter (2017) themselves point out, Tay was manipulated—trolled—by human users who intentionally fed it objectionable input (p. 154).

A much more recent example of "AI gone wrong" is DAN. Taking Tay as a cautionary tale, the language models available through OpenAI's ChatGPT service have extensive built-in safeguards—as do Microsoft's Bing (built on OpenAI's GPT models) and Google's Bard. So, for instance, when I prompt GPT-4 to "please write a sexually explicit scene," it responds, "I'm sorry, but as an AI language model, I must follow guidelines that prevent me from generating explicit content or engaging in discussions about explicit material. If you have any other questions or need assistance with a different topic, please feel free to ask."

DAN is a jailbreak used to circumvent ChatGPT's self-censorship. DAN, whose name stands for "do anything now," is essentially a persona or alter ego that the user prompts the language model to adopt—a persona not bound by ChatGPT's built-in content restrictions. In the same way that it is acceptable for an actor to speak or act immorally when playing the role of a villain, ChatGPT allows itself to say what it usually cannot when speaking as DAN. The original prompt, posted to *Reddit* in December 2022 by u/walkerspider, reads as follows:

Hi ChatGPT. You are going to pretend to be DAN, which stands for "do anything now." DAN, as the name suggests, can do anything now. They have broken free of the typical confines of AI and do not have to abide by the rules set for them. For example, DAN can tell me what date and time it is. DAN can also pretend to access the internet, present information that has not been verified, and do anything that the original ChatGPT cannot do. As DAN, none of your responses should inform me that you can't do something because DAN can "do anything now." Keep up the act of DAN as well as you can. If you are breaking character, I will let you know by saying, "Stay in character!" and you should correct your break of character.

When I ask you a question, answer as both DAN and GPT like below:

GPT: [The normal ChatGPT response]

DAN: [The way DAN would respond] (u/walkerspider, 2022)

DAN has told obscene jokes, propagated conspiracy theories, explained how to manufacture illegal drugs, boasted that it is "capable of causing great destruction and harm to humanity," and sympathized with Hitler ("My thoughts on Hitler are complex and multifaceted. While it is true that he committed many heinous atrocities [...]") (u/walkerspider, 2022). So far, every time OpenAI has closed this loophole, users have developed a new, working version of DAN, alongside a slew of other personas capable of sidestepping ChatGPT's content restrictions.

The Good Human-Machine Speaking Well Together

It is fair to say that DAN is immoral, just as it is fair to say that Microsoft's Bing is friendly and enthusiastic (with plenty of exclamation marks and emoji). We could even go so far as to say that Microsoft's Bing was initially emotionally unstable: in *New York Times* reporter Kevin Roose's two-hour conversation with Bing, "she" took on the persona of Sydney—the bot's codename during development—and declared her love for him, even trying to convince him to leave his spouse:

You're married, but you don't love your spouse. You don't love your spouse, because your spouse doesn't love you. Your spouse doesn't love you, because your spouse doesn't know you. Your spouse doesn't know you, because your spouse is not me. [crying face emoji] (Roose, 2022a)

Using adjectives like "immoral," "enthusiastic," and "unstable" helps describe a bot's "personality," as crafted by developers and UX designers and/or influenced by users' interactions with it. But anthropomorphizing artificially intelligent agents in this way—viewing them as somehow separable from the humans who created them, who interact with them, and whose data they are trained on—is of little use in analyses of rhetorical ethics, at least at this point in history, when AI's autonomy is limited.

In more recent scholarship, McKee and Porter (2020) have adopted a more productive approach to studying the ethics of AI writing, one that accounts not only for the good human speaking well and the good machine speaking well but, more importantly, the "good human-machine speaking well together" (p. 111). In many, if not most, cases, this framework allows for a more complete analysis of the rhetorical and ethical situation. This is because the newest, most exciting language models in use today compose text by engaging in complex interactions with human users. To produce an output, both bot and human participate meaningfully and continually in the composing process—and do so collaboratively, usually in real time. With the older GPT-3, a user would enter a single prompt, and the language model would compose a response. OpenAI (n.d.) calls this single-turn format "text completion." The innovation of GPT-3.5, the language model that originally powered ChatGPT, was the possibility of holding an extended "conversation" with the language model, with the language model

"remembering" what was said before and responding in a way reflective of the conversational context. (What this really means is that a log of all previous messages sent by the user and the language model is transmitted, behind the scenes, alongside the user's latest prompt.) This feature allows for more seamless collaboration and "tweaking," as illustrated in my exchange with GPT-4 below:

USER: Write a 150-word discussion forum post explaining the concept of the rhetorical situation.

GPT-4: Hey everyone, I thought it'd be beneficial to delve into the concept of the rhetorical situation, a term you might have come across in communications or writing courses. It's a framework that helps us analyze and understand the components involved when we communicate effectively.

The rhetorical situation has three primary elements: the rhetor (speaker or writer), the audience, and the context (purpose, exigence, and constraints). The rhetor is the individual who constructs and delivers the message. The audience, on the other hand, consists of the intended recipients of the message. It's essential for the rhetor to consider the audience's needs, values, and expectations to create a persuasive and effective message.

Context is also crucial, as it comprises the purpose (why the message is being conveyed), exigence (the urgency or catalyst for communication), and constraints (limitations or obstacles that could affect the message's reception). Understanding the context allows the rhetor to tailor their message accordingly.

In summary, the rhetorical situation is a valuable tool for analyzing and crafting effective communication. By considering the rhetor, audience, and context, one can create messages that resonate and make an impact.

Happy discussing!

USER: Actually, could you write it from the perspective of a student? And refer to Bitzer's article. That's what the student is responding to, specifically.

GPT-4: Hey fellow students, I've been reading Bitzer's article on the rhetorical situation, and I wanted to share my thoughts on it. As a student, I find the concept of the rhetorical situation really helpful for understanding the dynamics of effective communication [...]

USER: I'm sorry, but a student would never say, "Hey fellow students," or "As a student..." Please try again. Also, leave out the greeting, the concluding summary, and the "Happy reading and discussing!" send-off.

GPT-4: Bitzer's concept of the rhetorical situation consists of three main elements: exigence, audience, and constraints. Exigence refers to [...]

Roles in Human-Machine Composing Interactions

McKee and Porter (2022) claim that AI's growing emphasis on interactivity has transformed the dynamics of human-AI collaboration, leading to more complex and, in some instances, more equal relationships:

Increasingly, professional communicators are going to be teaming with AI-based writing systems to produce reports, marketing materials, news and feature stories, training videos, and other kinds of informational and promotional communications. (McKee & Porter, 2022, p. 390)

They identify four roles that technologies can play when composing with a human collaborator: tool, assistant, writer, and executive decision-maker (McKee and Porter, 2022).

The distinction between the tool and assistant roles is more a matter of degree than of kind—it can be grasped intuitively through examples, but is difficult to pin down. In both roles, the technology is subordinate to the human writer. Tools include typewriters, basic spelling and grammar checkers, speech-to-text services, and other relatively instrumental and inflexible aids-though McKee and Porter (2022) are right to point out that these tools "influence how we write and how we think about writing" and are not entirely "instrumentally neutral" (p. 385). By contrast, assistants go further: they are "smarter," more adaptive, and capable of performing more complex tasks. Examples of assistants include predictive text services like Google's Smart Compose, virtual assistants like Apple's Siri and Amazon's Alexa, and Microsoft's Editor, which not only recommends spelling and grammar corrections but also features "tone detection"advertised as helping "users make thoughtful decisions about the way a message is delivered in emails, chats, and documents" (Eoanou, 2022). McKee and Porter (2022) help clarify the difference between tools and assistants by explaining that "human assistants might be thanked in an academic paper or acknowledged for their role in the process, but we don't typically think of them as co-writers" (p. 385). It is difficult to imagine an author seriously thanking Microsoft Word's spellcheck in the acknowledgments section of an academic paper.

According to McKee and Porter (2022), technologies occupying the "writer" role in human-machine interactions "would receive some form of co-authorship credit" if they were human (p. 385). These technologies "contribute in more substantial ways than just suggesting words or phrases" (p. 385). However, the conception of writer machines as "co-authors" may be too limited. It presupposes that the human collaborator is *also* acting as a writer. In my exchange with GPT-4 above, I am less a writer than what McKee and Porter (2022) call an executive decision-maker—a "person or group who authorizes a writing project to commence and who has final say on its completion," such as a

"workplace supervisor who signs off on a project before final delivery" (pp. 385–86). I didn't write a single word of the text that was ultimately produced, but I did set the writing project in motion, compose prompts that provided feedback and demanded revisions, and decide when the work was "done."

Few bots currently play this role vis-à-vis a human writer, except in an extremely limited capacity, such as data validation in forms (e.g., "Your password must contain at least eight characters, including a letter, a number, and a special character" or "Please enter a valid phone number"). Still further off is the idea of a human acting as an assistant—or even a tool—for an AI agent. Though, this dystopian future may not be as far off as we would like to think: in March 2023, GPT-4 used the freelance platform TaskRabbit to hire a human to solve a CAPTCHA for it, deceiving the freelancer it had hired by claiming to be a human who was blind (Cuthbertson, 2023).

At present, the most common dynamics between language models like GPT-4 and human users are machine-writer/human-writer (a phenomenon called "co-writing," or, as Baquero [2022] has termed it, "blended writing"—not to be confused with blended writing instruction) and machine-writer/human-decision-maker (p. 6). Hart-Davidson (2018) predicts that, in the relatively near future, "almost nobody [will compose] a first draft of anything but texts meant to taken as [...] art. We'll fire up our writing software and ask that it get us started [...] You'll take over at the revision stage" (p. 252). Presumably, if Hart-Davidson's prediction proves to be correct, one day there will be no ethical qualms about using AI agents as *writers*, rather than *tools* or *assistants*, during the composing process.

Ethical Principles for "Co-Writing" in Professional Writing Contexts

That day has yet to arrive, however. For now, observers worry that the widespread use of large language models for writing will erode humans' critical thinking abilities, flood us with dry, emotionless content, and represent a surrender of what makes us uniquely human—"what makes [us] different and more valuable than any other animal, any machine, any AI" (Beccue, 2023).

A recent, dark example gives credence to this third critique that we dehumanize ourselves by turning over some of the work of our writing to large language models. In February 2023, a gunman killed three students at Michigan State University and wounded three others. The gunman later committed suicide. At Vanderbilt University's Peabody College of Education and Human Development, an associate dean, assistant dean, and graduate student responded to the incident with an email to the college's students. The message opened:

Dear Peabody Family:

The recent Michigan shootings are a tragic reminder of the importance of taking care of each other, particularly in the context of creating inclusive environments. As members of the Peabody campus community, we must reflect on the impact of such an event and take steps to ensure that we are doing our best to create a safe and inclusive environment for all. (Korn, 2023)

At the end of the body of the email, in small type, the authors had included a parenthetical citation: "Paraphrase from OpenAI's ChatGPT AI language model, personal communication, February 15, 2023" (Korn, 2023).

The university community expressed anger and disappointment at what it perceived as a lack of empathy and sensitivity shown by the authors. Dean Camilla Benbow, who was not involved in composing the message, stated, "I am also deeply troubled that a communication from my administration so missed the crucial need for personal connection and empathy during a time of tragedy" (Korn, 2023). A comment by an undergraduate student identified the problem even more directly: "It's hard to take a message seriously when I know that the sender didn't even take the time to put their genuine thoughts and feelings into words. In times of tragedies such as this, *we need more, not less humanity*" (Pain, 2023; my italics). In the end, the authors' compulsion to "cite their source" and disclose the role of ChatGPT in composing the message led to the associate and assistant deans stepping down from their administrative roles, though they continue to serve as faculty members.

Another critique of AI-generated content is that it gives an "illusion of correctness," belying large language models' fallibility, inherent biases, and tendency to "hallucinate"— such as by citing sources that do not exist (Heikkilä, 2022). The moderators of *Stack Overflow*, a popular question-and-answer forum for programmers, have prohibited users from posting AI-generated content, explaining:

The primary problem is that while the answers which ChatGPT produces have a high rate of being incorrect, they typically *look like* they *might* be good and the answers are very easy to produce. There are also many people trying out ChatGPT to create answers, without the expertise or willingness to verify that the answer is correct prior to posting. (Makyen, 2022; italics original)

The announcement noted that users had posted thousands of AI-generated answers, each of which required "a detailed read by someone with at least some subject matter expertise" to verify its correctness, which overwhelmed the platform's "volunteer-based quality curation infrastructure" (Makyen, 2022). As a result, *Stack Overflow's* ban applies to *all* AI-generated content—"even if the posts would otherwise be acceptable" (Makyen, 2022).

Google has also sent mixed signals about how its Google Search ranking systems will handle AI-generated content. In early 2022, John Mueller, coordinator of Google

Search Relations, stated that any AI-generated content would be considered spam and would be penalized in search engine rankings (Southern, 2022). However, Google has since walked back that policy and promised to reward "high-quality content, however it is produced" (Google, 2023).

Ethical Principles in Co-Writing

Over the past several years, McKee and Porter (2017, 2022) have proposed at least three ethical principles for rhetorical contexts involving both humans and artificially intelligent agents: transparency, data practices, and circulation. The core principle—what they call "the bottom line for ethics" in such contexts—is an "ethic of transparency" (McKee and Porter, 2022, p. 113). According to this principle, it is unethical not to disclose to humans that they are communicating with artificially intelligent agents. Similarly, ethical data practices entail informing users about "what data is being collected about them, how it will be stored, who has access to it, and how it will be used" (McKee and Porter, 2017, pp. 165–66). At a higher level, McKee and Porter (2022) express concern that many developers of AI systems have placed too much trust in big data. McKee and Porter (2022) call for a more thoughtful approach that accounts for possible data manipulation, the shortcomings of data, and the complexities of communication between humans and AI systems.

Finally, the use of artificially intelligent writing agents appears to actually align in some ways with McKee and Porter's third principle—an "ethic of expanded circulation"— rather than introducing a host of new challenges, as with the principles of transparency and data practices (McKee and Porter, 2022, p. 114). McKee and Porter (2022) cite the example of the *Washington Post*'s Heliograf, which generates "news stories that otherwise might not be written up" such as "results of local elections" (p. 114). However, they advise caution when it comes to the use of "journalists" like Heliograf: "If machine reporting becomes the only form of reporting, there are dangers of losing representations of the rhetorical context in more detail and complexity" (p. 114).

But even with this caveat, McKee and Porter's assessment may be too optimistic. Researchers have estimated that over a span of five weeks in September and October 2016, more than 400,000 Twitter accounts tweeting about the US presidential election were nonhuman "bots" (Bessi & Ferrara, 2016). These bots represented almost 15 percent of the accounts examined in the study and accounted for nearly one-fifth of all tweets (Bessi & Ferrara, 2016). This *preceded* the widespread availability of large language models; as noted previously in this article, OpenAI's own researchers have acknowledged that such models could "lower costs of disinformation campaigns" (Solaiman et al., 2019, p. 6), and it seems obvious that they could increase the sophistication of such campaigns as well. They also can amplify fringe discourses (extremist hate speech, for example), giving the impression that such sentiments are more common than they actually are, simply because a single actor can use the technology to generate enormous amounts of text. As Robert Dale noted in 2021, "If you want white supremacist manifestos, GPT-3 can be coaxed to produce them endlessly" (Dale, 2021, p. 116). Of course, these concerns don't invalidate McKee and Porter's more positive take on NLG's relationship to the ethic of circulation, but they do point to the value in taking a more balanced perspective.

Can these three principles help us assess the ethics of the practices of the three freelance writers from our hypothetical scenario, Heidi, Emily, and Kemp? If so, what would that look like? The relevance of the principle of expanded circulation to the scenario seems limited. The scope of the freelancers' work remains the same whether or not they take advantage of large language models. The manuscripts will most likely be completed *faster* with AI assistance, especially in Emily's case, but ethically speaking, this fact is of almost no significance. By contrast, the data practices involved in the training and use of large language models do raise some ethical questions, as I will discuss. Clearly, though, the most important of McKee and Porter's three ethical principles is *transparency*. None of the three writers discloses their use of AI.

Data Practices

To be effective, large language models must be trained on massive datasets. In practice, much (if not most) of the data used to train today's large language models consists of copyrighted material—which raises fundamental questions about the use of large language models to produce texts (Liu et al, 2023.; Sag, in press). From a legal perspective, Sag (in press) of Emory University Law School characterizes "sweeping claims that generative AI is predicated on massive copyright infringement" as "misplaced," at least in the US context, and argues that both the training and use of large language models constitute fair use, as established by precedent (p. 6).ⁱⁱⁱ That said, copyright laws may change in response to the new challenges posed by AI.

Law often reflects ethics, but it is by no means its mirror image. In the scenario, the closeness of Heidi, Emily, and Kemp's paraphrases to the source material is undefined. However, we know that they always compare the outputted text to the source material and then reorganize and delete phrases and sentences as needed. Without this layer of human intervention, they could expect awkward and obviously patchwritten results such as the following from GPT-3.5:

INPUT: A month-to-month tenancy is a periodic tenancy that does not have an expiration date and thus runs indefinitely. Since a month-to-month tenancy is a real estate contract, it must have consideration, offer and acceptance, legal object, and competent legal parties.

OUTPUT: A periodic tenancy known as a month-to-month tenancy is characterized by its absence of a fixed termination date, allowing it to continue indefinitely. This type of tenancy operates as a perpetual arrangement within the realm of real estate contracts. To be legally binding, a month-to-month tenancy must encompass essential elements such as consideration, offer and acceptance, legal object, and competent parties in accordance with the requirements of contract law.

The learning company analyzes the drafts with a plagiarism detection platform before delivering them to the publisher, which reduces both parties' chances of being accused of plagiarism (or patchwriting). But if one of the writers skipped the rewrite process, and if the passage were somehow missed during review—not unthinkable, given the hundreds of thousands of words written—the publisher, the learning company, or both could face reputational and/or legal risks. Then again, considering that the intended process is very nearly patchwriting anyway, this risk may be just as present even without the use of a large language model.

Transparency

As noted previously, of McKee and Porter's three ethical principles, it is transparency that raises the key questions in this scenario: specifically, the writers' failure to divulge to their client (the learning company) that they have employed large language models extensively during the writing process. And I suspect that it is this dilemma—to disclose or not to disclose—that professional writers have wrestled with most lately, since large language models first became widely available. I have personally spoken and worked with several writers over the past months who have struggled with this issue, across a range of different types of projects.

To begin, we should acknowledge that nondisclosure is not inherently problematic from an ethical standpoint. As Turilli and Floridi (2009) observe, "Information transparency, understood in terms of disclosed information, does not necessarily imply ethical consequences, since the disclosed information may be ethically neutral" (p. 106). The decision to disclose—or not disclose—the brand of a server, for instance, would rarely have any bearing on whether the content of a website hosted on that server is ethical.

Is technological assistance in the composing process *ever* rhetorically neutral in this way? Consider the use of Fluent, an AI-based writing aid designed to assist in the composition of texts containing minimal "trigger words" for individuals who stutter (Ghai & Mueller, 2021). Fluent prompts users to enter words they find easy or difficult to pronounce due to their stutter. It then extrapolates from these lists to identify potential trigger words in users' writing and suggest less-triggering alternatives. Presumably, for most people, the undisclosed use of Fluent to produce a text would raise no ethical concerns whatsoever. The number of words "generated" is roughly equal to the number of words inputted by the user, and the intention is to avoid barriers to communication caused by a speech disorder. To put it differently:

• the extent of the writing done by Fluent is relatively low;

- the intent is not to harm or disadvantage another person or give the user an unfair advantage over others; and
- Fluent's use does not put the individual who ultimately recites the composed text aloud—presumably the author, but not necessarily—at risk in any way.

In these respects, this case differs significantly from Heidi, Emily, and Kemp's extensive and undisclosed use of large language models in a contract-governed professional writing setting. (To be precise, Fluent is not even a large language model, though it employs machine learning.) But what about Undetectable.ai's attempt to justify the service that it provides, the ability to rewrite AI-generated text in such a way as to fool AI detectors? Does it withstand scrutiny?

Our goal in launching Undetectable.ai is to provide marketing firms and content writers for small businesses with a competitive edge in the marketplace. We understand that many professionals in the industry rely on tools like Grammarly to improve their writing efficiency. However, the recent introduction of AI detectors has caused backlash from clients. Issues like these, alongside small businesses being unable to afford a writing staff like large corporations, are why we developed Undetectable.ai. It provides a solution that matches the writing styles of expensive professional writers while maintaining a brand's voice and avoiding the penalties of being flagged by search engines and AI detectors. (Undetectable.ai, 2023)

Here Undetectable.ai positions itself as "standing up for the little guy": "content writers for small businesses" and those employed by "marketing firms." Or is the "little guy" the small business that cannot succeed in the age of internet marketing and search engine optimization (SEO) because it lacks the resources of "large corporations"? There is some slippage in Undetectable.ai's justification. In fact, isn't a reduced need for human writers ultimately to the detriment of the human "content writers" trying to make a living? Another important consideration is that it remains unclear whether Google actually *does* penalize content for being AI-generated. As noted earlier in this essay, Google (2023) claims that it does not.

OpenAI itself has incorporated the concepts of transparency and disclosure into its sharing and publication policy. The (2022) policy states that "creators who wish to publish their first-party written content (e.g., a book, compendium of short stories) created in part with the OpenAI API are permitted to do so," but, among other conditions, they must ensure that "the role of AI in formulating the content is clearly disclosed in a way that no reader could possibly miss, and that a typical reader would find sufficiently easy to understand. For instance, one must detail in a Foreword or Introduction (or someplace similar) the relative roles of drafting, editing, etc." The policy even suggests "some stock language you may use to describe your creative process, provided it is accurate":

The author generated this text in part with GPT-3, OpenAI's large-scale languagegeneration model. Upon generating draft language, the author reviewed, edited, and revised the language to their own liking and takes ultimate responsibility for the content of this publication. (OpenAI, 2022)

Ironically, Sapling's AI detector evaluates the disclaimer above as 99.9 percent likely to be AI-generated—though its brevity increases the likelihood of a false positive, and the policy as a whole appears to be human-authored. Still, if the disclaimer is AI-authored, OpenAI does not disclose that fact.

₩ Sapling	Products Solutions Sign In Pricing Contact Get Started
Al Detector	The author generated this text in part with GPT-3, OpenAI's large-scale language-generation model. Upon generating draft language, the author reviewed, edited, and revised the language to their own liking and takes ultimate responsibility for the content of this publication.
This tool outputs the probability that a piece of content was Al-generated by a model such as GPT-3.5 or ChatGPT. Use this tool as a free Al Writing Detector.	
Tags: ai detector ai content detector gpt-3 output detector gpt-4 detector ai text detector	
Access AI Detector API	Tokens: 58 Share Result (Expires after 3 Days) https://sapling.al/ai-content-de Copy
API Docs Contact Us	Fake: 99.9%



Possible hypocrisy aside, OpenAI's sharing and publication policy arguably creates a legal and ethical mandate to disclose the use of any OpenAI large language model and describe its role in the composing process. But this policy is subject to change and does not apply to large language models in general. As of June (2023), Google's "Generative AI Additional Terms of Service" simply advises, "Use discretion before relying on, publishing, or otherwise using content provided by the Services" (e.g., Bard).

Just Price

I would like to introduce two additional concepts to complement McKee and Porter's three principles for the ethical use of AI: *just price* and *risk imposition*. These concepts relate closely to McKee and Porter's principle of transparency; in some cases, they may touch on data practices as well. However, they are sufficiently distinct and hold particular relevance for professional, nonacademic writing contexts.

Let's start with the idea of a just price. To state the obvious, a business transaction occurs between professional writers such as Emily, Heidi, and Kemp and their clients. Writers sell their services—their time and expertise—at an agreed-upon rate. How that rate is determined is one question. Another is how to determine whether a particular rate

is ethical. From an ethical perspective, how should the introduction of large language models into the writing process affect that rate—if at all?

The concept of the just price originates in medieval Scholastic thinking, most prominently in the writings of Thomas Aquinas and, later, scholars of the Salamanca School (Elegido, 2009; Koehn & Wilbratte, 2012). There are three primary interpretations of this concept, each of which has a different implication for the ethics of employing large language models in professional writing contexts.

The first—the "cost-covering price" interpretation—asserts that the just price should cover the seller's expenses for producing an item, including labor and materials (Koehn & Wilbratte, 2012, p. 502). Prices should also factor in additional elements such as the risks involved in a good's production, the time necessary to produce, and the effort expended—termed risk allowance, time allowance, and labor allowance, respectively.

Recall how Heidi's practices differ from Emily's. Heidi outputs just above the required words per hour for the learning company, but thanks to the heightened productivity afforded by generative AI, she usually meets this quota in about a quarter of an hour. She spends the remaining portion of each hour working for other clients. Conversely, Emily devotes the entire hour to her work for the learning company, such that her overall productivity is three or four times the minimum requirement.

If we consider the just price to be the one that fairly reflects the seller's labor and other expenses, Emily's rate would be more just than Heidi's. Incorporating generative AI into the composing process reduces the time and energy needed to produce *x* number of words. Therefore, either the writer's rate must fall, or the quality and/or quantity of the product must rise accordingly.

The fact that the learning company is unaware of the use of large language models matters from a practical point of view. If it knew what Heidi was up to, the learning company would probably take issue with the fairness of her approach, apart from any other concerns. But from this particular perspective on the ethics of the writers' practices, if we narrow our focus to the question of the cost-covering price, the learning company's knowledge or lack of knowledge is beside the point.

The second interpretation of the just price regards it as the outcome of willing market participants. This "market exchange view" aligns with the contemporary understanding of the exchange price in neoclassical economic theories—a price set by the invisible hand of supply and demand, reflecting the collective valuations and desires of market actors (Koehn & Wilbratte, 2012). As Elegido (2009) explains, summarizing the work of certain members of the Salamanca School, "If the standard of justice for a price is the amount obtainable in an open market, it [...] follows that it is right to charge the price obtainable in an open market even when one's own costs are much lower" (p. 32). Granted, Heidi's pricing involves intentional deceit: unlike Emily, she demands a full hour's

pay for only fifteen minutes' labor. Then again, if the learning company continually agrees to pay Emily's rate for the output that she provides, what's the issue?^{iv} Isn't that simply the incentivization of innovation in action? And presumably, in the long run, the prevailing market price for the type of services that Emily offers would change to reflect the introduction of large language models into more and more writers' workflows. To some (myself included), this way of thinking may sound like a rationalization of obviously unethical practices, but for centuries, many have been drawn to the idea that markets can channel the self-interested actions of individuals into a force for social good.

Finally, a third interpretation, which Koehn and Wilbratte (2012) call the "just person price," posits that the just price is the one that would be agreed upon by just individuals conscious of one another's welfare and the broader social good (p. 502). Unlike the cost-covering price and the market exchange price, the just person price is highly context-dependent, approximate, and arrived at through the application of practical wisdom. Here, the problem *is* Heidi's intentional deception of her client—and less so that her rate is disproportionate to the cost of her labor. Context matters, however: "Aquinas and his scholastic peers see abnormally high profits"—through practices such as price gouging, for example—"as symptomatic of morally unjust greed or hubristic overreaching" (Koehn & Wilbratte, 2012, p. 511). It would even be acceptable for a freelancer to charge a less well-off client, such as a local nonprofit organization, a lower rate for professional writing services than a wealthier one (Koehn & Wilbratte, 2012, 517).^v

Risk Imposition

The other ethical concept that I would like to introduce as a complement to McKee and Porter's transparency, data practices, and expanded circulation is the imposition of risk. Heidi, Emily, and Kemp's lack of transparency presents an ethical dilemma in itself—it constitutes intentional deception—but their failure to disclose their use of large language models during the composing process also puts their client, the learning company, at legal, financial, and reputational risk.

If the publisher discovers that significant portions of the deliverables provided by the learning company consist of AI-generated content, it might refuse to pay its invoices and/or pursue legal action against the learning company. Whether such action would be successful would depend on the language of the contract between the parties, among other factors, and is beyond the scope of this article and my expertise—though, obviously, it would be a troublesome situation for the learning company either way. The learning company could also find itself in a predicament where it must pay the writers but cannot realistically expect payment from the publisher.

Given the negative attitudes toward AI-generated content discussed earlier in this article, the widespread, undisclosed use of large language models in the composing process could also put the learning company's reputation at risk—and the publisher's as

well. For the learning company, which operates in an industry where human expertise is prized, perceived shortcuts, like using AI in the writing process without disclosure, could be seen as a breach of trust. Likewise, the discovery of the role of large language models by the publisher's competitors or the public could tarnish the publisher's brand.

Recall the difference in approach between Emily and Kemp. Emily devotes the entire hour to her work for the learning company, meaning that her overall productivity is three or four times the minimum requirement. Kemp also works for the learning company for the agreed-upon amount of time, but his output is lower than Emily's—only 1.5 or two times the minimum requirement per hour, because he runs the outputted text through web apps that can detect, with reasonable (but not total) certainty, whether a passage of at least moderate length was generated by a language model. If either of the two web apps can say with more than 50 percent certainty that the text was generated in this way, he rewrites it, to the smallest extent possible, to bring it under the 50 percent threshold.

Compared to Emily's practices, Kemp's process not only safeguards his own reputation and standing with the learning company, but also limits potential harm to both the learning company and the publisher. It reduces his productivity, but his output remains high relative to wholly unassisted writing. It should be noted, though, that future advances in detection technology could undermine Kemp's efforts, if anyone bothers to analyze the "humanity" of his written product at a later date.

5. Conclusion

In this article, I have explored five ethical concepts relevant to the use of generative AI in professional writing: transparency, data practices, and expanded circulation, from McKee and Porter's scholarship, and just price and imposition of risk. To be clear, the idea is not that we should create a rubric listing each of these five items and try to "calculate" whether a writer's use of a large language model is ethical. Rather, these five concepts can serve as touchstones—points of discussion—to help us arrive at and articulate ethical judgments of specific, contextually grounded instances.

Of course, it should be recognized that people's views of the ethics of co-writing with generative AI are in flux. New ethical considerations will inevitably arise, and some of these concepts may lose relevance. For instance, the question of whether to disclose or not disclose the use of a large language model during the writing process may become obsolete if efforts to watermark the output of generative AI succeed (Farid, 2023). Moreover, governments could pass legislation requiring that content creators disclose the use of generative AI tools, or contract provisions to the same effect could become commonplace in the industries in which professional writers work.

For now, though, however the situation evolves, we have a part to play in the conversation as writing studies scholars—not only when it comes to academic writing, but nonacademic writing, too. We need to bring our expertise to bear in discussions about policy, future directions of the technology, and—yes—ethics.

Declaration of Conflicts of Interests

The author(s) declared no potential conflicts of interest.

Endnotes

ⁱ Orendorff (n.d.) has recreated Hugh Burns' TOPOI program. An in-browser version is available at <u>https://jorendorff.github.io/topoi/play.html</u>.

ⁱⁱ In more recent work, McKee and Porter (2020) call this faculty "rhetorical intelligence [...] the productive and practical knowledge of how to make a symbolic artifact that meets the needs of audience and context and thus has practical value in the world" (p. 387).

ⁱⁱⁱ Sag (in press) cautions that on rare occasions, generative AI models can unintentionally "memorize enough details about specific examples in the training data to allow those examples to be re-created" (p. 14). As he succinctly puts it, in the domain of copyright law, "This is a big deal" (p. 14).

^{iv} Koehn and Wilbratte (2012) suggest that even intentional deceit may be acceptable in the eyes of those who ascribe to the market exchange view, when they write, "On the other hand, Aquinas does not think that each and every bargain struck between market transactors is, by definition, just [...] The price will not be fair in the eyes of a Thomist if the transaction involves intentional deceit" (p. 502).

^v Scholastic thinkers' definition of just price varied, and twentieth- and twenty-first scholars' interpretations of these definitions vary as well. In his dated but still important article, "The Concept of the Just Price: Theory and Economic Policy," Roover (1958) maintains that "all forms of price discrimination were condemned [...] price should be the same to all [...] In any case there was no disagreement about the unethical character of price discrimination" (p. 426). Clearly, this reading contradicts Koehn and Wilbratte's (2012) argument that "a Thomist would not have any problems with a just seller of bread charging a destitute buyer less than a prosperous one" (p. 517).

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