Between the Spark and the System: On the Effects of AI on Ownership and Role Identity in Creative Work

Nina Zwingmann
LMU Munich School of Management
nina.zwingmann@lmu.de

Eva Pflanzer
LMU Munich School of Management
eva.pflanzer@lmu.de

Martin Spann
LMU Munich School of Management
spann@lmu.de

Thomas Hess
LMU Munich School of Management
thess@lmu.de

Abstract

Advancements in artificial intelligence (AI) have enabled AI systems to take on increasingly active roles in creative work, ranging from supportive augmentation to full automation of creative output generation. This raises important questions about how such systems affect individuals' role identity in their work. Drawing on Role Identity Theory (RIT), we propose that perceived ownership mediates the relationship between AI mode and role identity. We conducted an interaction-based online experiment (n = 400) in which participants completed a creative task supported by either an augmenting or automated AI system. The results show that augmentation (vs. automation) increases perceived ownership, which in turn enhances creative role identity. Our findings contribute to a better understanding of human-AI collaboration by highlighting the psychological mechanisms through which AI systems shape creative role identity.

Keywords: AI, Ownership, Role Identity, Creative Work.

1. Introduction

As generative AI enters the workflows of writers, journalists, and designers, it does not just change what they do – it changes who they are at work (e.g., Amankwah-Amoah et al., 2024; Benbya et al., 2024; Chen & Chan, 2024). What once felt personal, expressive, and uniquely human is now partially or entirely produced by AI. Texts are written, images created, headlines suggested, often with minimal human input (Riemer & Peter, 2024). For creative professionals, this shift is not merely about speed or productivity. It touches on something deeper: their sense of authorship, contribution, and identity (Mirbabaie et al., 2022; Mirbabaie et al., 2021). In creative work, people do not just complete tasks but often invest personal meaning into the output. Authors care about what they create and even more when the task feels meaningful (Allan et al., 2019; Deuze, 2007). A powerful speech, an investigative article, and a visual story are not just deliverables but expressions of voice, judgment, and intent. When AI takes over parts of that process, the lines between 'my work' and 'machine work' blur, and with it, the psychological experience of being the creator (Epstein et al., 2023).

In many domains, technology does not wait for roles to change formally – it reconfigures them mid-task (Jarvenpaa & Klein, 2024). A journalist relying on automated drafts may find themselves editing rather than composing. A musician experimenting with generative AI tools may go from performing notes to prompting algorithms. In such moments, the role being enacted shifts, not in a contractual sense, but in how individuals experience their contribution.

At the heart of this transformation lies a tension between *augmentation* and *automation*: systems that support human effort and those that replace it (Berente et al., 2021; Deutsch, 1949; Diederich et al., 2022). While automation offers efficiency, it may reduce user agency and ownership. Augmentation, by contrast, enables individuals to remain authors of their work, even in the presence of AI support. This design distinction is more than technical: it shapes how people engage with creative tasks and perceive their role in the process (Dennis et al., 2023).

Yet, not all tasks are perceived equal. The degree to which people care about authorship, control, and contribution is often tied to how *meaningful* the task feels (Deci & Ryan, 2000). When a task is perceived as significant, the question of 'who did what' becomes far more relevant. In trivial or routine tasks, AI taking over may feel convenient. However, in meaningful tasks, AI taking over may feel like displacement (De Vreede et al., 2021).

Despite the increasing presence of AI in creative workflows, we know surprisingly little about how such systems affect individuals' identity within their roles. Much of the existing research on AI in organizational contexts is shaped by a delegation and efficiency

HℹCSS

perspective, examining how tasks or responsibilities are transferred to AI systems and how this affects workflows and roles (Baird & Maruping, 2021; Fügener et al., 2021; Stelmaszak et al., 2024). Many studies focus on AI in decision-making, particularly its role in supporting or substituting human judgment (e.g., Strich et al., 2021). While there is a considerable body of knowledge on specific design elements of AI systems, especially stemming from the human-computer interaction (HCI) field, such as their perceived human-likeness or social roles (Dennis et al., 2023; Diederich et al., 2022; Moussawi et al., 2021), these studies typically retain a system-centric perspective. In contrast, our study foregrounds the human experience in AI-assisted creative work. As we still lack a nuanced understanding how creative collaboration with AI affects people psychologically, we examine how creative collaboration with AI reshapes users' sense of meaning, identity, and psychological ownership. This shift moves the focus from task logic to emotional and psychological dynamics. It leads us to the central research question:

How does AI in creative tasks impact role identity?

We approach this question through the lens of Role Identity Theory (RIT) (Burke, 2009) and draw on Self-Determination Theory (SDT) (Deci & Ryan, 2000) as a complementary framework. We conducted an interaction-based online experiment (cf. Berinsky et al., 2012) using a creative writing task. The study varied both the mode of AI assistance (automation vs. augmentation) and the perceived meaningfulness of the task, allowing us to explore identity-relevant effects in a creative work context. We propose that the mode of AI assistance shapes individuals' identification with a creative role by affecting their sense of psychological ownership. Furthermore, we argue that high task meaningfulness amplifies these effects, as identity concerns are likely to be more salient when the task feels meaningful. In doing so, we contribute to the literature on human-AI collaboration by shifting the focus to identity-relevant psychological processes. Our study advances the theoretical understanding of how AI system design influences not only what people do but who they feel they are while doing it.

2. Theoretical foundation

2.1. Human-AI collaboration in creative tasks

The relevance of AI in creative domains has grown significantly with recent advances in generative models. Large language models, for instance, can produce naturalistic and coherent text indistinguishable from that of humans (Chen & Chan, 2024). As a result, AI systems have begun to function as collaborative partners rather than mere tools, increasingly participating in tasks that require judgment, expression, and interpretation (Amankwah-Amoah et al., 2024; Benbya et al., 2024). Unlike rule-based systems of the past, these models offer adaptive support, dynamically responding to user input and even anticipating creative direction (Dwivedi et al., 2023). In line with common distinctions in HCI, we conceptualize AI systems as interactive, task-embedded technologies distinct from AI agents, which can operate autonomously and proactively (Russell & Norvig, 2016).

A critical variable in human-AI collaboration is the design logic underlying the AI's role. One central distinction is whether the AI system is designed to *automate* or *augment* human effort. Automation-based systems execute tasks independently, increasing efficiency but often reducing user involvement and control (Craig et al., 2019; Harari et al., 2022; Lee et al., 2019). Augmentation-based systems, on the other hand, support users without replacing them. They enhance rather than substitute human input (Moussawi et al., 2021). Previous research has often examined how users respond to proactive vs. reactive AI assistance (Diebel et al., 2025; Kraus et al., 2021). This distinction refers primarily to the initiation of interaction. It often involves a temporal dimension but does not necessarily account for shifts in task responsibility or role configuration between humans and AI. However, the augmentation–automation paradigm focuses on how the AI contributes: whether it displaces or enhances the user's creative agency (Raisch & Krakowski, 2021).

This distinction is especially significant in creative contexts, which differ fundamentally from routine or operational tasks. Creative work is inherently open-ended, iterative, and self-expressive, often lacking clearly defined success criteria or procedural steps (Hesmondhalgh & Baker, 2008). The user's active engagement and subjective judgment are central to the process. Therefore, the involvement of AI in these tasks raises not only technical and practical considerations but also psychological and social ones – particularly regarding authorship and the perceived value of one's contribution.

2.2. Role identity formation

To understand how individuals see themselves in their roles, this study draws on RIT (Burke, 2009; Stryker, 1980). This theory holds that role identities emerge when individuals enact social roles and begin defining themselves in terms of the meanings and expectations associated with them. Unlike more stable identity constructs such as occupational or professional identity, role identity is situational and dynamic, reflecting how individuals interpret their behavior in a

given context. It is constructed through interaction, reinforced by social feedback, and maintained through consistent self-perception (Burke & Reitzes, 1981). Role identities become salient when individuals perceive their actions as meaningful expressions of a role, such as a creator, decision-maker, or contributor, and when these actions are subjectively aligned with their sense of self (Nelson & Irwin, 2014; Reay et al., 2017).

Yet, the internalization of a role identity does not happen automatically. It requires that the individual experience the role as psychologically significant. At this level, SDT offers important insight. According to SDT, individuals are more likely to internalize values, roles, or goals when their basic psychological needs for autonomy, competence, and relatedness are fulfilled (Deci & Ryan, 2000). These needs shape motivation and performance and how people understand themselves through their activities (Gagné & Deci, 2005). Environments that support autonomy by offering meaningful choice *and* foster competence by enabling individuals to feel effective lay the groundwork for such internalization.

One psychological mechanism that links need satisfaction to internalization is psychological ownership – the feeling that something is "mine" (Pierce et al., 2001). Prior research has shown that psychological ownership arises through three key pathways: control over the task, self-investment, and intimate knowing of the object or outcome (Pierce et al., 2001; Van Dyne & Pierce, 2004). These pathways correspond closely to SDT's needs for autonomy and competence (Avey et al., 2009; Mayhew et al., 2007), and several studies have empirically linked need-supportive environments to stronger ownership experiences. In this view, ownership represents the affective and cognitive bond people form with a task or outcome when it aligns with their motivational needs.

While SDT and psychological ownership are well established, the link between ownership and role identity formation remains underexplored. Most prior work has examined ownership of job attitudes, commitment, or performance (e.g., Pierce & Jussila, 2011; Van Dyne & Pierce, 2004) rather than its potential role in shaping the self-concept. This study builds on the premise that ownership may act as a cognitive-affective gateway to identity formation. When individuals feel that a task or outcome genuinely belongs to them, they may also begin to see themselves in terms of the role they enacted to create it.

3. Hypotheses development

Building on the theoretical framework outlined above, we develop a research model that explains how the design of AI systems shapes individuals' identification with the roles they enact during creative tasks. Central to this model is the concept of psychological ownership, the subjective feeling that a task or outcome is "mine" (Pierce et al., 2001). We conceptualize automation and augmentation as two distinct designs of AI systems for collaboration (Diederich et al., 2022) that act as situational cues, influencing how much control and competence users experience. These experiences, in turn, shape the emergence of ownership and subsequent role identity. We further consider task meaningfulness as a moderator that strengthens identity-related effects: When a task is perceived as socially significant, its potential to become part of one's self-concept increases (Burke & Reitzes, 1981; Pratt et al., 2006). The resulting research model is illustrated in Figure 1.

The design of AI systems plays a critical role in shaping users' experience of agency and authorship in creative tasks. From an RIT perspective, individuals are more likely to internalize a role when they experience their contribution as meaningful and self-relevant (Burke, 2009). At the same time, SDT (Deci & Ryan, 2000) suggests that such internalization is fostered when tasks support autonomy and competence. Empirical and conceptual work has shown that automation-oriented systems often constrain user input, reduce perceived control, and suppress authorship, thus undermining the salience of the enacted role and weakening role identity formation (Craig et al., 2019; Harari et al., 2022). These effects are amplified when AI systems act uninvited or exhibit superior competence, triggering experiences of self-threat and role displacement (Adam et al., 2024; Harari et al., 2022). By contrast, augmentation-oriented systems allow for user-led engagement and creative contribution. Users retain more control over the process and experience the AI as a partner rather than a
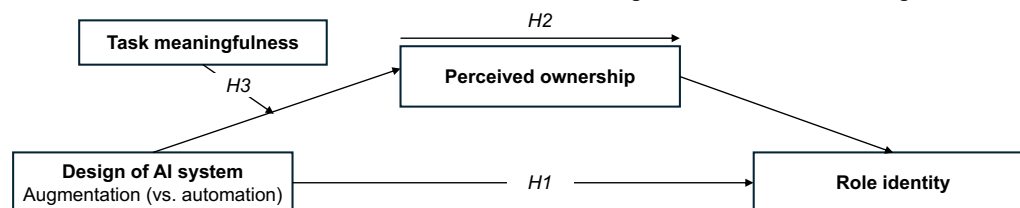
Figure 1. Conceptual model

substitute, reinforcing their role as active contributors and increasing the likelihood of role internalization (Memmert & Tavanapour, 2023). Leyer and Schneider (2021) demonstrate that managers working with augmenting AI report greater task variety and higher autonomy, conditions conducive to role identification. Similarly, Raisch and Krakowski (2021) argue that augmentation sustains human agency and strengthens alignment with professional identity. Taken together, when users experience AI as empowering rather than replacing them, they are more likely to internalize and identify with the creative role they enact:

H1: *The use of augmentation AI (vs. automation AI) strengthens the role identity in creative tasks.*

While augmenting AI can strengthen role identity by supporting autonomy and competence, we argue that this effect also operates indirectly through the experience of *psychological ownership*. Unlike objective ownership, which is formal and externally defined, psychological ownership is a subjective, often implicit feeling that something – such as an idea or creative output – belongs to oneself (Pierce et al., 2001). It enables users to develop a personal connection to their role and task, particularly in creative contexts where outcomes are intangible and self-expressive (Rosso et al., 2010). Whether such ownership emerges depends on how AI systems structure the user's involvement. Augmentation-oriented designs maintain user control and enable meaningful input – conditions supporting ownership (Anthony et al., 2023; Schwartz & Te'eni, 2024). In contrast, automation may limit users' perceived influence, reducing their sense of responsibility and connection. Initial studies suggest that users working with augmentation-based systems may experience stronger authorship and involvement (Moussawi et al., 2023). Psychological ownership provides a motivational and affective link between action and identity: it helps translate task involvement into role identification (Pierce & Jussila, 2011). We therefore hypothesize:

H2: *The relationship between the design of the AI system (augmentation vs. automation) and role identity is mediated by psychological ownership.*

The extent to which the AI system design shapes users' psychological experience does not depend on system features alone; it also hinges on how meaningful the task is perceived. Task meaningfulness refers to the subjective experience that a task is significant, purposeful, and worth doing (Hackman & Oldham, 1976; Rosso et al., 2010). From a role identity perspective, meaningful tasks are more likely to be internalized as they enhance the personal relevance of the role being enacted (Burke & Reitzes, 1981; Pratt et al., 2006). We propose that task meaningfulness *moderates* the psychological effects of AI system design on perceived ownership*, as described in H2. When individuals perceive a task as personally or socially significant, they care more about how it is done and who can claim authorship (Bunderson & Thompson, 2009; Rosso et al., 2010). Under such conditions, the distinction between automation and augmentation becomes more salient: users are more likely to respond negatively when AI replaces, rather than support, their creative agency. Memmert and Tavanapour (2023) show that users adjust their sense of responsibility depending on the task's meaning. When a task invites personally meaningful input, users are more inclined to assert ownership over the output – creating stronger cognitive and affective links between task and identity. Task meaningfulness thus heightens the psychological salience of ownership in AI-supported work. Therefore, we hypothesize:

H3: *The indirect effect of augmenting AI on role identity via psychological ownership is stronger when task meaningfulness is high (vs. low).*

4. Method

4.1. Experimental design

The experimental design is visualized in Figure 2. We conducted an *interaction-based* online experiment to simulate a realistic creative workflow and foster immersive role engagement in journalism (Witschge et al., 2019). It serves as a representative creative context due to its emphasis on idea generation, narrative construction, and expressive autonomy. Rather than presenting a passive vignette, participants actively assumed the role of a journalist and completed a short
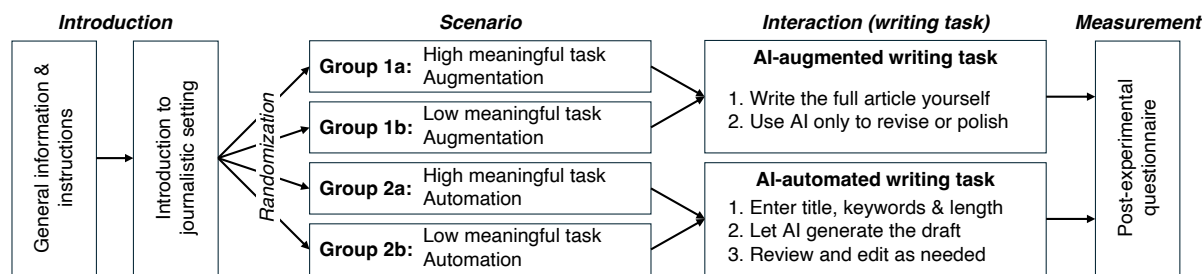

Figure 2. Experimental steps

writing assignment using an AI system. This setup allowed us to investigate identity-relevant processes in a contextually grounded, task-based human-AI collaboration.

Introduction. Upon entering the experiment, participants received general information and basic instructions for the study, including a note that desktop participation was required due to the writing task. Journalism was selected as the creative domain because it is both broadly accessible and representative of real-world AI adoption. Participants were then introduced to the journalistic setting and completed an initial attention check to ensure engagement.

Scenario. Participants were randomly assigned to one of four experimental conditions in a 2×2 between-subjects design, crossing task meaningfulness (low vs. high) and AI mode (augmentation vs. automation). They were shown a custom-built web interface designed as a "Journalist Command Center," mimicking the layout of a digital newsroom. This interface displayed their assigned writing task, which was either "pineapple on pizza" (low meaningfulness) or "teacher shortage in schools" (high meaningfulness). The topics were selected to ensure both a clear contrast in perceived meaningfulness and broad accessibility: The teacher shortage represents a societally relevant issue commonly used as high-meaningfulness in prior research as it is broadly relatable and identity-relevant. In contrast, the pineapple-on-pizza topic lacks societal relevance but is easy to engage with for all participants. Participants were also informed about the type of AI support they would receive: either writing with the help of an AI assistant (augmentation) or having the AI generate a first draft based on keywords (automation). To ensure that any observed effects could be attributed to the experimental manipulations, all other aspects of the experience were held constant across conditions. The scenario had to be viewed for at least 45 seconds before participants could proceed.

Interaction. Participants completed the writing task on a custom-built web app where they interacted with an AI system connected via API to OpenAI's GPT-4o Mini. In the augmentation condition, they first wrote their article independently and could then use the AI to revise or enhance it. In the automation condition, they submitted a few keywords and received a draft article from the AI, which they could subsequently edit. System prompts were implemented according to the condition to ensure participants could not bypass the intended procedure. In the augmentation group, if participants entered only keywords or bullet points, the chatbot requested a complete draft of around 100 words in their own words. If the input appeared AI-generated, indicating that participants might have used an external tool, the system responded with a message such as: "To

provide tailored feedback, I need a rough draft written in your own words. Feel free to keep it imperfect; I'll help refine it.". Unlike models of full automation that entirely remove human agency (e.g., Raisch & Krakowski, 2021), our automation condition still required user input to initiate the process. The AI did not act autonomously but relied on minimal human guidance, while the main creative work shifted toward the system. All user inputs and outputs during the AI-supported writing process were logged in a MongoDB database to verify that participants in the augmentation condition actively engaged in writing themselves. Figure 3 shows the journalist command center: At the top, we see the manipulation for high task meaningfulness, and the bottom shows the interaction environment for the augmentation group. Participants drafted their article in the left-hand field, used the AI tool to enhance their text, and then submitted a final version. While the interface was visually identical for the automation group, they received different instructions specifying how to interact with the AI.
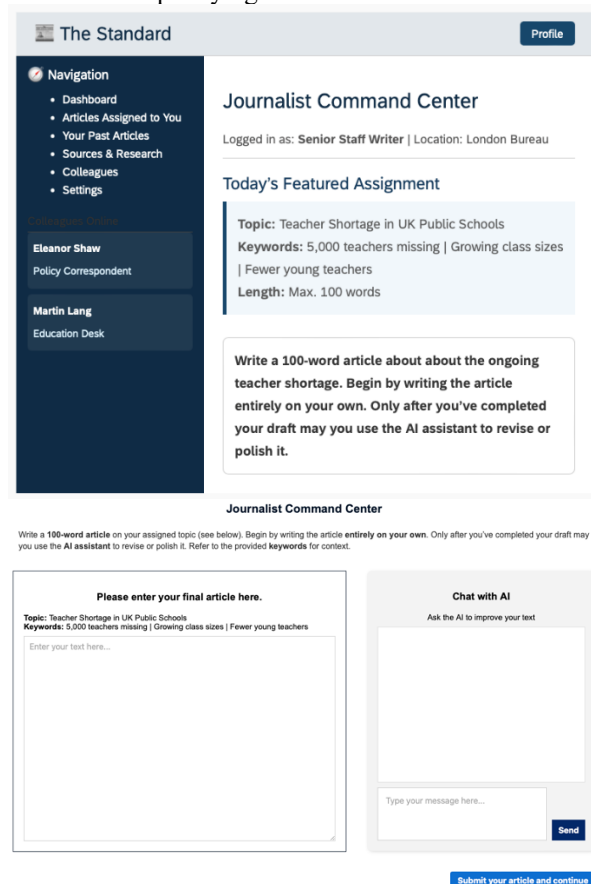

Figure 3. Example stimulus and user interface

Measurement. After completing the writing task, participants continued to the post-task measures which we describe in more detail in the following.

4.2. Operationalization of constructs

All constructs were measured using validated scales from prior research and carefully adapted to the creative journalism context of our study. Table 1 shows our main measures for the dependent and mediator variables and manipulation checks. All items were measured on a 7-point Likert scale.

Table 1. Measures

<u>Dependent variable</u> **Role identity** (α = 0.95)	I felt like I was part of the journalism profession. I felt proud to take on the role of a journalist. I found myself thinking like a journalist. I felt a sense of identification with the journalism profession. I felt a strong commitment to being a journalist. *(adapted from Farmer et al., 2003)*
<u>Mediator</u> **Psycho-logical ownership** (α = 0.96)	I felt like the article I wrote was mine. I felt a strong sense of ownership over the article I created. I felt personally connected to the article I wrote. I felt responsible for the outcome of the article. I felt proud of the article. The article felt like a product of my own efforts. *(adapted from Van Dyne & Pierce, 2004)*
<u>Manipulation Check</u> **Perceived Task meaning-fulness** (α = 0.95)	The journalistic task was very important. The work I did on the journalistic task was meaningful to me. The journalistic task itself was worthwhile. The journalistic task mattered to me. I felt that the journalistic task had a positive impact. *(adapted from Morgeson & Humphrey, 2006)*
<u>Manipulation Check</u> **Perceived AI Invasive-ness** (α = 0.72)	The AI system seemed to fully automate the journalistic task. The AI system was primarily assisting me, not replacing me. I felt that I had control over the article's content. I was the main author of the final article. *(adapted from Kimon et al., 2021)*

Additionally, we measured participants' journalistic background, prior experience with AI tools, age, gender, education, employment status, and country of residence as control variables. To validate the experimental manipulations and measures, we conducted a pilot study with a student sample (n = 124), which provided evidence for the internal consistency of scales and initial trends in treatment effects.

5. Results

5.1. Sample description and model-free results

We recruited 400 participants from Prolific (~51% male, median age 39). Prolific is widely used in behavioral research due to its high data quality and demographic transparency (Palan & Schitter, 2018). We applied several screening criteria to ensure data quality and relevance for our writing-based creative task. Participants were required to (1) be at least 18 years old, (2) speak English as their first language, (3) reside in the United Kingdom, aligning with the national framing of the writing task, and (4) hold at least an A-level, high school diploma, or undergraduate degree to ensure sufficient writing competency. We filtered participants based on a minimum approval rate of 95% and employed Prolific's built-in quota sampling to obtain an even gender distribution. All participants provided informed consent prior to participation and were compensated at £8,18/hr. In addition, we offered incentive-based compensation: the ten best articles were rewarded with an additional £5 bonus.

Participants were randomly assigned to one of the four experimental conditions. Randomization was handled through Qualtrics survey allocation settings. Group sizes ranged from 95 participants in the augmentation/high meaningfulness condition to 103 participants in the automation/low meaningfulness condition. The groups did not differ significantly in their compositions of age and gender. The median completion time for the study was 11 minutes.

We conducted independent sample t-tests to assess whether our manipulations of AI-mode (augmentation vs. automation) and task meaningfulness (high vs. low) were recognized by participants. Results show a significantly lower mean value of AI-invasiveness in the augmentation conditions ($M_{Augmentation}$ = 2.79, $SD_{Augmentation}$ = 1.21 vs. $M_{Automation}$ = 4.27, $SD_{Automation}$ = 0.93, $t(398)$ = -13.68, $p < 0.01$) and a significantly higher value of the task meaningfulness measure in the high task meaningfulness conditions ($M_{high\_meaningfulness}$ = 5.11, $SD_{high\_meaningfulness}$ = 1.37 vs. $M_{low\_meaningfulness}$ = 4.61, $SD_{low\_meaningfulness}$ = 1.60, $t(398)$ = -3.39, $p < 0.01$). This indicates that the manipulations worked as intended. Regarding our dependent variable, we find, consistent with H1, that role identity is significantly higher in the two groups that received the augmentation AI mode rather than the automation AI mode ($M_{Augmentation}$ = 5.14, $SD_{Augmentation}$ = 1.25 vs. $M_{Automation}$ = 4.37, $SD_{Automation}$ = 1.62, $t(398)$ = 5.28, $p < 0.01$). Similarly, our mediating variable psychological ownership is higher in the augmentation groups ($M_{Augmentation}$ = 5.45, $SD_{Augmentation}$ = 1.12 vs. $M_{Automation}$ = 3.97, $SD_{Automation}$ = 1.71, $t(398)$ = 10.15, $p < 0.01$).

5.2 Moderated mediation analysis

We examined the direct effect of AI mode on role identity by running an OLS regression with and without control variables (dummy variables for task

meaningfulness, male gender, high education, and a journalistic background). We found a significant positive effect of AI augmentation on role identity in the model with (b = 0.7671, SE = 0.1454, p < 0.01) and without (b = 0.7609, SE = 0.1430, p < 0.01) control variables. Thus, our results support our first hypothesis (H1) regarding the positive effect of AI augmentation on role identity.

We continued to examine our theorized mechanism and conducted a mediation analysis following the bootstrap approach for conditional indirect effects by Hayes (2017) (PROCESS model 7 with 5,000 bootstrap samples and 99% confidence intervals). We examined the effect of our independent variable, the design of the AI system, on our dependent variable, role identity, and the mediating role of psychological ownership on this effect. Additionally, we examined the moderating role of task meaningfulness on the indirect effects on role identity. Figure 4 shows the results of the moderated mediation analysis.

We did not find a direct effect of AI mode on role identity in the moderated mediation analysis. Instead, we found a significant positive effect of AI augmentation (vs. automation) on psychological ownership (b = 1.5182, SE = 0.2036, p < 0.01) and a significant positive effect of psychological ownership on role identity (b = 0.6561, SE = 0.0380, p < 0.01). The results are robust when controlling for male gender, high education, and a journalistic background. Thus, the effect of AI mode on role identity in our model is fully mediated by psychological ownership, supporting our second hypothesis (H2). Accounting for task meaningfulness as a moderator, we did not find a significant interaction effect of task meaningfulness and AI mode on psychological ownership or role identity. We, therefore, found no support for our third hypothesis (H3), which suggested that the meaningfulness of the task moderates the indirect effects of AI design on role identity.

6. Discussion

This study explored how the design of AI systems and the perceived meaningfulness of creative tasks shape users' role identity in AI-supported work. We find that how AI systems are designed, specifically whether they augment or automate user input, significantly influences how users identify with the role they enact during a creative task. This effect unfolds through the experience of psychological ownership. Surprisingly, task meaningfulness did not moderate these effects as expected.

These results align closely with key assumptions of RIT (Burke, 2009), which posits that individuals define themselves through the roles they enact – especially when those roles are experienced as personally meaningful and self-relevant. In our study, participants working with augmenting AI could retain agency, make creative decisions, and shape the output – conditions under which enacted roles are more likely to become psychologically salient and internalized (Pratt et al., 2006; Reay et al., 2017). From a psychological perspective, these conditions correspond to the basic needs for autonomy and competence as described in SDT (Deci & Ryan, 2000), which support the internalization of externally guided actions into the self (Gagné & Deci, 2005). Rather than acting as passive supervisors of an automated system, users experienced themselves as authentic contributors. This subjective sense of authorship is central to forming role identity in creative domains.

The mediating role of psychological ownership further clarifies how design becomes relevant for identity formation. Ownership is not just about
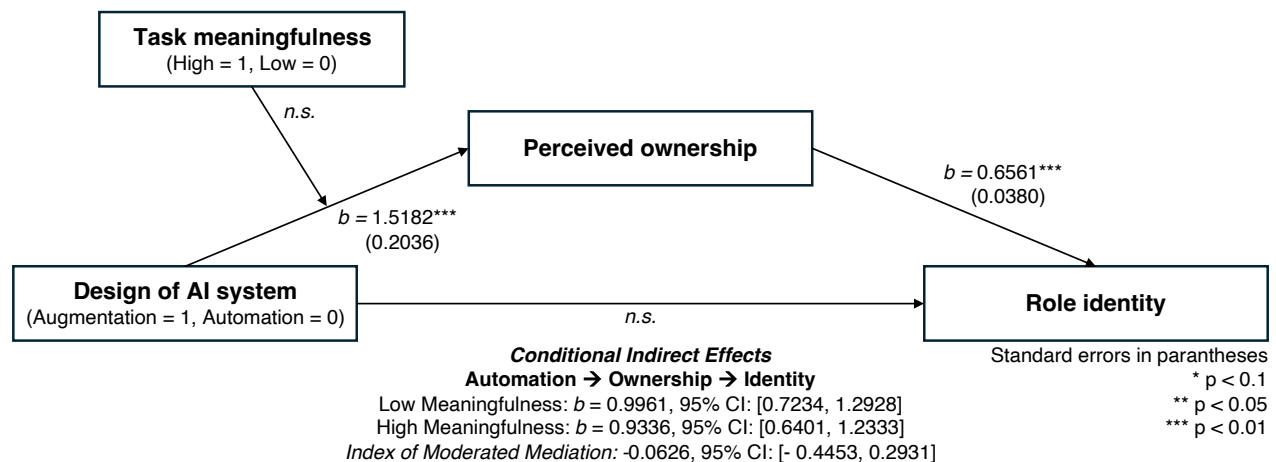

Figure 4. Results of the moderated mediation analysis

perceived control; it reflects a deeper connection between the self and the product (Pierce et al., 2001). Our study uniquely positions psychological ownership as a meaningful construct in AI-mediated creative tasks. While prior research has examined ownership in stable organizational roles, long-term projects, or material work outputs (Pierce et al., 2001; Van Dyne & Pierce, 2004), our findings show that ownership can also emerge in transient, digitally mediated interactions. In such settings, especially when creative control is shared between humans and AI, psychological ownership becomes a key mechanism for sustaining a sense of personal authorship and integrating the enacted role into the self.

Interestingly, while the AI system design had clear and significant effects, task meaningfulness did not moderate these relationships as hypothesized. This is surprising in light of RIT, which suggests that meaningful tasks increase the psychological salience of enacted roles, making them more likely to be internalized as part of the self. One possible explanation lies in the temporal constraints of the experimental setup. With a median duration of eleven minutes, the tasks may not have allowed meaningfulness to unfold as a deeply felt experience. Prior literature has emphasized that meaningfulness is not purely cognitive but also affective and experiential (Rosso et al., 2010; Steger et al., 2012); it grows through reflection, resonance, and sustained engagement, none of which may fully develop in a single session, short-form writing task. Another explanation may lie in the difference between topical and personal meaningfulness. While our manipulation used socially relevant topics (e.g., teacher shortage), it is possible that these topics were not personally salient for all participants. Meaningfulness is subjective; it emerges from the issue at hand and how individuals connect it to their own values, goals, and experiences (Bunderson & Thompson, 2009).

7. Theoretical and practical implications

Our study advances the theoretical understanding of human-AI collaboration in two ways. First, it contributes to the emerging perspective that AI systems not only shape how tasks are performed but also how individuals understand themselves through the roles they enact. Drawing on RIT (Burke, 2009; Stryker, 1980), we show that AI can influence users' role identity by altering the conditions under which creative actions become self-defining. Our study demonstrates that augmenting AI systems, which preserve autonomy and invite user-led decisions, fosters environments where creative roles are more likely to become psychologically salient and internalized. This perspective allows us to conceptualize human-AI interaction not merely as

functional coordination but as a site of identity construction, where creativity serves as a medium for role identity formation. Second, we establish psychological ownership as a central mechanism through which system design translates into identity outcomes. While prior research has linked ownership to material resources or long-term projects (Pierce et al., 2001; Van Dyne & Pierce, 2004), we show that it also plays a crucial role in short, digitally mediated, and expressive tasks. When users experience control, self-investment, and authorship, even in transient AI-supported interactions, they are likelier to feel that the output is "theirs," enabling a stronger connection between task and self. This expands the conceptual reach of ownership and highlights its value in explaining how technology design shapes the formation of creative self-understanding.

For practitioners, our findings underscore the importance of creating systems that invite interaction, respect creative autonomy, and maintain users' role as the originators of content. This has tangible relevance for AI deployment in journalism, marketing, design, and media production. In these domains, the integration of generative AI can raise concerns about loss of voice, creative displacement, or deskilling. Our study suggests that these risks can be mitigated through systems that augment rather than automate, therefore being experienced as empowering. Organizations seeking to implement AI in creative workflows should go beyond questions of accuracy and efficiency and consider how design choices influence how people feel about their work and themselves while doing it.

8. Limitations and future research

We acknowledge the limitations of our study. First, we focus on role identity, the momentary psychological connection individuals form with a role during task engagement (Reay et al., 2017). Although the design included realistic interaction and task simulation, it remains limited to a short-term setting. Participants completed a one-time writing task, which may have constrained deeper experiential immersion and the development of more enduring identity processes. As suggested by SDT, the psychological impact of AI use likely depends on its contextual embeddedness within broader organizational structures. Future research should, therefore, examine long-term (professional) identity formation over time and in real-world organizational environments.

Second, although the experimental task was situated in a journalistic context, the study does not target journalists as a professional group. Instead, it examines how individuals temporarily adopt and experience a creative role within a simulated work

setting. This design choice prioritizes generalizability and experimental control over professional specificity. Future studies could extend this work by involving actual journalists or other creative professionals to explore how existing and specific role identities interact with AI-based task structures.

Third, our operationalization of task meaningfulness focused on topic relevance and perceived importance. While manipulation checks confirmed the intended distinction, it is possible that personal significance or value congruence was not fully activated in the experimental setting. Future studies could incorporate such measures to understand better how person-task fit influences ownership and identity formation in AI-supported creative work.

9. References

Adam, M., Diebel, C., Goutier, M., & Benlian, A. (2024). Navigating autonomy and control in human-AI delegation: User responses to technology-versus user-invoked task allocation. *Decision Support Systems*, *180*, 114193.

Allan, B. A., Batz-Barbarich, C., Sterling, H. M., & Tay, L. (2019). Outcomes of meaningful work: A meta-analysis. *Journal of Management Studies*, *56*(3), 500-528.

Amankwah-Amoah, J., Abdalla, S., Mogaji, E., Elbanna, A., & Dwivedi, Y. K. (2024). The impending disruption of creative industries by generative AI: Opportunities, challenges, and research agenda. *International Journal of Information Management*, *79*, 102759.

Anthony, C., Bechky, B. A., & Fayard, A.-L. (2023). "Collaborating" with AI: Taking a system view to explore the future of work. *Organization Science*, *34*(5), 1672-1694.

Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. (2009). Psychological ownership: Theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational behavior*, *30*(2), 173-191.

Baird, A., & Maruping, L. M. (2021). The next generation of research on IS use: a theoretical framework of delegation to and from agentic IS artifacts. *MIS Quarterly*, *45*(1).

Benbya, H., Strich, F., & Tamm, T. (2024). Navigating generative artificial intelligence promises and perils for knowledge and creative work. *Journal of the Association for Information Systems*, *25*(1), 23-36.

Berente, N., Gu, B., Recker, J., & Santhanam, R. (2021). Managing AI. *MIS Quarterly*, *45*(3).

Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon. com's Mechanical Turk. *Political Analysis*, *20*(3), 351-368.

Bunderson, J. S., & Thompson, J. A. (2009). The call of the wild: Zookeepers, callings, and the double-edged sword of deeply meaningful work. *Administrative Science Quarterly*, *54*(1), 32-57.

Burke, P. J., & Reitzes, D. C. (1981). The link between identity and role performance. *Social psychology quarterly*, 83-92.

Burke, P. J. S., J. E. (2009). *Identity theory*. Oxford University Press.

Chen, Z., & Chan, J. (2024). Large language model in creative work: The role of collaboration modality and user expertise. *Management Science*, *70*(12), 9101-9117.

Craig, K., Thatcher, J. B., & Grover, V. (2019). The IT identity threat: A conceptual definition and operational measure. *Journal of Management Information Systems*, *36*(1), 259-288.

De Vreede, T., Raghavan, M., & De Vreede, G.-J. (2021). *Design foundations for AI assisted decision making: A self determination theory approach* Hawaii International Conference on System Sciences, Hawaii.

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry*, *11*(4), 227-268.

Dennis, A. R., Lakhiwal, A., & Sachdeva, A. (2023). AI agents as team members: Effects on satisfaction, conflict, trustworthiness, and willingness to work with. *Journal of Management Information Systems*, *40*(2), 307-337.

Deutsch, M. (1949). A theory of co-operation and competition. *Human relations*, *2*(2), 129-152.

Deuze, M. (2007). *Media work*. Polity.

Diebel, C., Goutier, M., Adam, M., & Benlian, A. (2025). When AI-Based Agents Are Proactive: Implications for Competence and System Satisfaction in Human–AI Collaboration. *Business & Information Systems Engineering*, *67*(3), 1-20.

Diederich, S., Brendel, A. B., Morana, S., & Kolbe, L. (2022). On the design of and interaction with conversational agents: An organizing and assessing review of human-computer interaction research. *Journal of the Association for Information Systems*, *23*(1), 96-138.

Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koohang, A., Raghavan, V., & Ahuja, M. (2023). "So what if ChatGPT wrote it?". *International Journal of Information Management*, *71*(102642), 1-63.

Epstein, Z., Hertzmann, A., Creativity, I. o. H., Akten, M., Farid, H., Fjeld, J., Frank, M. R., Groh, M., Herman, L., & Leach, N. (2023). Art and the science of generative AI: Understanding shifts in creative work will help guide AI's impact on the media ecosystem. *Science*, *380*(6650), 1110-1111.

Farmer, S. M., Tierney, P., & Kung-McIntyre, K. (2003). Employee creativity in Taiwan: An application of role identity theory. *Academy of Management Journal*, *46*(5), 618-630.

Fügener, A., Grahl, J., Gupta, A., & Ketter, W. (2021). Will humans-in-the-loop become borgs? Merits and pitfalls of working with AI. *MIS Quarterly*, *45*(3), 1527-1556.

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational behavior*, *26*(4), 331-362.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250-279.

Harari, D., Parke, M. R., & Marr, J. C. (2022). When helping hurts helpers: Anticipatory versus reactive helping, helper's relative status, and recipient self-threat. *Academy of Management Journal*, *65*(6), 1954-1983.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Hesmondhalgh, D., & Baker, S. (2008). Creative work and emotional labour in the television industry. *Theory, Culture & Society*, 25(7-8), 97-118.

Jarvenpaa, S., & Klein, S. (2024). New Frontiers in Information Systems Theorizing: Human-gAI Collaboration. *Journal of the Association for Information Systems*, 25(1), 110-121.

Kimon, K., Marco, L., & Marcinkowski, F. (2021). The Threats of Artificial Intelligence Scale (TAI). *International Journal of Social Robotics*, 13(7), 1563-1577.

Kraus, M., Wagner, N., Callejas, Z., & Minker, W. (2021). The role of trust in proactive conversational assistants. *IEEE Access*, 9, 112821-112836.

Lee, H. W., Bradburn, J., Johnson, R. E., Lin, S.-H. J., & Chang, C.-H. D. (2019). The benefits of receiving gratitude for helpers: A daily investigation of proactive and reactive helping at work. *Journal of Applied Psychology*, 104(2), 197.

Leyer, M., & Schneider, S. (2021). Decision augmentation and automation with artificial intelligence: threat or opportunity for managers? *Business Horizons*, 64(5), 711-724.

Mayhew, M. G., Ashkanasy, N. M., Bramble, T., & Gardner, J. (2007). A study of the antecedents and consequences of psychological ownership in organizational settings. *The Journal of social psychology*, 147(5), 477-500.

Memmert, L., & Tavanapour, N. (2023). Towards human-AI-collaboration in brainstorming: Empirical insights into the perception of working with a generative AI. European Conference on Information Systems Kristiansand, Norway.

Mirbabaie, M., Brünker, F., Möllmann, N. R., & Stieglitz, S. (2022). The rise of artificial intelligence–understanding the AI identity threat at the workplace. *Electronic Markets*, 32(2), 73-99.

Mirbabaie, M., Stieglitz, S., Brünker, F., Hofeditz, L., Ross, B., & Frick, N. R. (2021). Understanding collaboration with virtual assistants–the role of social identity and the extended self. *Business & Information Systems Engineering*, 63(1), 21-37.

Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91(6), 1321.

Moussawi, S., Koufaris, M., & Benbunan-Fich, R. (2021). How perceptions of intelligence and anthropomorphism affect adoption of personal intelligent agents. *Electronic Markets*, 31(2), 343-364.

Moussawi, S., Koufaris, M., & Benbunan-Fich, R. (2023). The role of user perceptions of intelligence, anthropomorphism, and self-extension on continuance of use of personal intelligent agents. *European Journal of Information Systems*, 32(3), 601-622.

Nelson, A. J., & Irwin, J. (2014). "Defining what we do—all over again": Occupational identity, technological change, and the librarian/Internet-search relationship. *Academy of Management Journal*, 57(3), 892-928.

Palan, S., & Schitter, C. (2018). Prolific. ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, 17, 22-27.

Pierce, J. L., & Jussila, I. (2011). Psychological ownership and the organizational context: Theory, research evidence, and application. In *Psychological Ownership and the Organizational Context*. Edward Elgar Publishing.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *Academy of Management Review*, 26(2), 298-310.

Pratt, M. G., Rockmann, K. W., & Kaufmann, J. B. (2006). Constructing professional identity: The role of work and identity learning cycles in the customization of identity among medical residents. *Academy of Management Journal*, 49(2), 235-262.

Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation–augmentation paradox. *Academy of Management Review*, 46(1), 192-210.

Reay, T., Goodrick, E., Waldorff, S. B., & Casebeer, A. (2017). Getting leopards to change their spots: Co-creating a new professional role identity. *Academy of Management Journal*, 60(3), 1043-1070.

Riemer, K., & Peter, S. (2024). Conceptualizing generative AI as style engines: Application archetypes and implications. *International Journal of Information Management*, 79, 102824.

Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30, 91-127.

Russell, S. J., & Norvig, P. (2016). *Artificial intelligence: a modern approach*. Pearson.

Schwartz, D., & Te'eni, D. (2024). AI for Knowledge Creation, Curation, and Consumption in Context. *Journal of the Association for Information Systems*, 25(1), 37-47.

Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring meaningful work: The work and meaning inventory (WAMI). *Journal of Career Assessment*, 20(3), 322-337.

Stelmaszak, M., Möhlmann, M., & Sørensen, C. (2024). When algorithms delegate to humans: Exploring human-algorithm interaction at Uber. *MIS Quarterly*, 49(1), 305-330.

Strich, F., Mayer, A.-S., & Fiedler, M. (2021). What do I do in a world of artificial intelligence? Investigating the impact of substitutive decision-making AI systems on employees' professional role identity. *Journal of the Association for Information Systems*, 22(2), 304-324.

Stryker, S. (1980). *Symbolic interactionism: A social structural version*. Benjamin Cummings, Menlo Park.

Van Dyne, L., & Pierce, J. L. (2004). Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of Organizational behavior*, 25(4), 439-459.

Witschge, T., Deuze, M., & Willemsen, S. (2019). Creativity in (digital) journalism studies: Broadening our perspective on journalism practice. *Digital Journalism*, 7(7), 972-979.