

Master Thesis

# **Cre-AI-tivity**

# The Intersection of Human Ingenuity and AI Collaboration in Scriptwriting with ChatGPT 4.0

Kyra Maria Happle

1698397

Supervised by

Dr. Karin van Es

Dr. Dennis Nguyen

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Utrecht University

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#### <u>Abstract</u>

This thesis explores the integration of artificial intelligence (AI), specifically ChatGPT 4.0, into the scriptwriting process, examining its implications for creativity. Previous research has explored the theoretical implications of AI's role for creativity, agency, and authorship, engaging with how the advent of AI technologies has begun to challenge and stretch these established concepts. Scholars have debated the degree to which AI might reconfigure the traditional creative landscape, speculating on AI's potential to either enhance human creativity or displace it. What this thesis contributes to the academic debate is an empirical reflection on how the intersections of creativity, agency, and authorship are practically conveyed when a scriptwriter collaborates with AI. With a mixed method tool analysis, I asses the interaction between human scriptwriters and ChatGPT, exploring how these engagements articulate the collaborative creative process. The investigation reveals that ChatGPT's role in scriptwriting extends beyond a functional aide to that of a collaborator, actively shaping narratives in conjunction with human writers. This partnership weakens the traditional autonomy and control scriptwriters have held, introducing distributed agency that redefines both the creative process and the roles within it. The scriptwriter evolves into a director, guiding AI-generated content without necessarily crafting each line of text. Prompting AI with specific, targeted requests becomes a new form of creative expression, with the quality and direction of prompts profoundly shaping the narrative output. Through this lens, the thesis advocates for a broader understanding of ChatGPT's creativity as a joint effort between humans and AI, suggesting that the future of creative industries lies in embracing the collaborative synergy between human writers and artificial intelligence.

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#### **Chapter 1: The Introduction of a Disruptive Technology**

Over the past two years, ChatGPT has evolved from a new chatbot technology into a tool that assists with a wide array of tasks. The adaptability and utility of ChatGPT have led to its adoption across diverse sectors. Educators, students, professionals, and hobbyists alike leverage the technology to streamline tasks, foster learning, and facilitate creativity. ChatGPT's inclusion into creative activities marks a particularly fascinating application. Writers, artists, and creators use ChatGPT to brainstorm ideas, draft stories, compose music, and even generate artworks. This fusion of technology and artistry opens new avenues for creative expression, challenging traditional notions of creativity.

Among its wide array of users, ChatGPT has also attracted attention from figures in the entertainment industry. The experiment by screenwriter Charlie Brooker, the creator of 'Black Mirror,' to write a script for an episode with ChatGPT serves as example. Brooker, whose work explores the complexities of technology and its impact on society, found the output from ChatGPT to be less than satisfactory for his purposes.<sup>1</sup> The script produced was not usable and lacked originality.<sup>2</sup> He described the experience humorously, indicating that the AI-generated script was "shit," underscoring the challenges and limitations of using AI in creative processes, which usually demand a high degree of nuance and depth.<sup>3</sup> The ongoing evolution of the use of ChatGPT raises questions about the role of AI in the scriptwriting process. Despite the dissatisfaction, the collaboration between human and machine opens new vistas of possibility, enabling scriptwriters to explore narrative territories that were previously inaccessible.

Powered by the latest advancements in artificial intelligence (AI), specifically in the realm of Large Language Models (LLMs), ChatGPT processes and generates language in ways that mimic human writing and conversation. Its underlying technology, developed by OpenAI, is designed to understand context, generate responses, and even produce creative content based on the input it receives. LLMs function by converting text into a machine-understandable format, which is then analyzed in the context of big datasets to understand meanings and relationships.<sup>4</sup> The evolution of LLMs, particularly with the introduction of the new transformer model used by ChatGPT 4.0, represents a significant advancement in the ability to

<sup>&</sup>lt;sup>1</sup> Jason Nelson, "'Black Mirror' Creator Says Chatgpt Episode Script Was 'Shit,'" *Decrypt*, June 7, 2023, <u>https://decrypt.co/143647/black-mirror-creator-says-chatgpt-episode-script-was-shit.</u>

<sup>&</sup>lt;sup>2</sup> Nelson, "Black Mirror.""

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Visual Storytelling Team, and Madhumita Murgia, "Generative AI Exists Because of the Transformer," *Financial Times*, September 12, 2023, <u>https://ig.ft.com/generative-ai/.</u>

simulate human-like cognitive functions. This technology can produce text, images, and even computer code that closely resembles outputs generated by humans, blurring the lines between human creativity and machine intelligence. The advent of AI technologies, particularly OpenAI's ChatGPT 4.0, has revolutionized creative workflows, necessitating a re-evaluation of traditional concepts of creativity, which inherently includes aspects of agency and authorship. This thesis delves into how ChatGPT 4.0, reshapes scriptwriting, exploring the interplay between human creativity and AI. I seek to understand where creativity manifests within the dynamic between human scriptwriters and AI. The main research question therefore reads as follows:

How does ChatGPT 4.0, when used for scriptwriting, (re-)articulate the concept of creativity?

To address this question effectively, I formulated three sub questions:

1. How are traditional concepts of creativity in scriptwriting renegotiated with the introduction of AI technologies?

2. What specific affordances within the ChatGPT 4.0 interface facilitate or constrain the creative decisions of scriptwriters?

3. Where do instances of creativity emerge within the collaborative interaction between scriptwriters and ChatGPT 4.0?

This thesis occupies a critical space at the juncture of AI and creativity, with a specific lens on the implications of AI in scriptwriting practices. In the discourse surrounding AI and its role in creative processes, scholars offer divergent views. Authors like John Potts argue that creativity in AI can be understood as the algorithmic recombination of existing ideas into novel configurations.<sup>5</sup> Sarah Thorne extends this notion by emphasizing AI's unique capacity to manifest the non-existent, leveraging its unpredictability and freedom from conventional constraints to explore new creative territories.<sup>6</sup>

Conversely, other authors, such as Claire Burke and skeptics within the artistic community, maintain a more traditional stance on creativity. They assert that the essence of

<sup>&</sup>lt;sup>5</sup> John Potts, *The Near-Death of the Author: Creativity in the Internet Age* (Toronto: University of Toronto Press, 2022), 153-154.

<sup>&</sup>lt;sup>6</sup> Sarah Thorne, "Hey Siri, Tell Me a Story: Digital Storytelling and Ai Authorship," *Convergence* 26, no. 4 (April 2020): 812, <u>https://doi.org/10.1177/1354856520913866</u>.

creativity is inherently human, rooted in subjective experience, emotion, and consciousness.<sup>7</sup> From this perspective, AI, regardless of its sophistication, cannot replicate the depth and authenticity of human-generated creativity, as it lacks the capacity for self-awareness, empathy, and understanding of human contexts that inform creative expression.

In my thesis, I examine the collaborative creative process between human and AI, offering an empirical reflection on how creativity comes into being. This reflection demonstrates AI's capacity for generating content and reimagining existing ideas, and values the human scriptwriter's role in directing, shaping, and infusing this content with emotional depth, cultural nuance, and personal vision. The academic relevance of this thesis lies in its empirical exploration of the evolving role of AI in creative industries. As AI tools become integral to creative expression, understanding their effect on the creative process is crucial.

In the following chapters, I delve into the theoretical underpinnings, the methodological approach, and the analysis of this thesis. The aim is to provide a structured examination of how the integration of ChatGPT changes the scriptwriting process and to examine the broader implications of this technological advancement on creativity.

Chapter 2 builds the theoretical framework that guides this thesis. It explores the intersection of AI with creative expression, focusing on how AI technologies are reshaping the landscape of scriptwriting. Drawing upon existing literature on generative AI and creativity, this chapter constructs a framework to analyze the impact of AI on creative practices. Central to this exploration is the investigation of how concepts of creativity (including agency and authorship) are being redefined in the age of AI.

Chapter 3 outlines the methodological approach employed to investigate ChatGPT's integration into the scriptwriting process. Utilizing a mixed method approach, this chapter details the systematic analysis of ChatGPT, focusing on its underlying technology, interface, and the human-AI interaction. This approach enables a detailed examination of how ChatGPT facilitates or constrains creative decision-making.

Chapter 4 presents the findings from the investigation, juxtaposing them against the established theoretical framework. Through a detailed analysis and discussion, this chapter elucidates how ChatGPT (re-)articulates creativity in the collaboration between scriptwriters and AI. It leverages screenshots of user interactions, and specific examples to substantiate the analysis, providing a grounded understanding of ChatGPT's role in the creative ecosystem.

<sup>&</sup>lt;sup>7</sup> Claire Burke, "Artificial Intelligence: Machine Learning and Computational Creativity," *Digimag 76 - Summer 2017*, October 3, 2017, 20-22, <u>https://issuu.com/digicultlibrary/docs/digimag76.</u>

Chapter 5 synthesizes the insights gained from the analysis, reflecting on the implications for the academic community and beyond. It discusses the limitations of the current study and propose directions for future research, highlighting the evolving relationship between AI and creativity in scriptwriting and other creative domains.

#### **Chapter 2: AI and Our Notions of Creativity**

The introduction of AI into scriptwriting has led to a re-evaluation of creativity. This reevaluation is important for understanding the dynamic interplay between scriptwriters and AI technologies. ChatGPT's integration into the scriptwriting process signals a shift from longestablished collaborations, with for instance the typewriter or computer, to an era of creativity with AI as new player in the field. In what follows, I sketch out the existing debates around AI and creativity, which can be further delineated into the intertwined concepts of agency and authorship. These debates set the stage for a deeper exploration of how ChatGPT interacts with and shapes these concepts, which is discussed in chapter four.

#### **On Creativity**

In the realm of creative expression, the traditional view of creativity has often been romanticized as a journey marked by sudden "Eureka" moments or the gradual accumulation of insights leading to innovations, according to Niklas Hageback.<sup>8</sup> This perception, as Hageback notes, celebrates creativity as a process culminating in paradigm shifts and novel solutions that challenge existing scientific or artistic doctrines.<sup>9</sup> In Hageback's text, such a process, historically attributed to human genius, is deeply embedded in the stages of creativity identified by Graham Wallas, which include preparation, incubation, illumination, and verification.<sup>10</sup> These stages underscore a journey from problem identification to the emergence and validation of creative solutions, highlighting creativity as a distinctly human attribute capable of producing original and valuable ideas.<sup>11</sup>

Elsewhere, Claire Burke emphasizes that while machines can learn and solve problems, the essence of thinking and creative understanding remains a human endeavor, as AI is

<sup>&</sup>lt;sup>8</sup> Niklas Hageback, "AI for Creativity," in AI for Everything (Boca Raton: CRC Press, 2021), 6, https://www.taylorfrancis.com/books/e/9781003194941.

<sup>&</sup>lt;sup>9</sup> Hageback, "AI for Creativity," 6-7.

<sup>&</sup>lt;sup>10</sup> Hageback, "AI for Creativity," 8-10.
<sup>11</sup> Hageback, "AI for Creativity," 10.

dependent on programmers to navigate scenarios.<sup>12</sup> This view resonates with the skepticism of art critics and audiences who assert that artistic merit and the expression of creativity are exclusive to human experience.<sup>13</sup>

Contrary to these skeptical views, some argue for a broader understanding of creativity that encompasses AI-generated works. Martin Zeilinger contends that AI technologies not only disrupt traditional creative processes but also challenge concepts of agency, creativity, and ownership.<sup>14</sup> On creativity, Zeilinger argues that AI challenges and redefines traditional boundaries of what constitutes creative work.<sup>15</sup> Through technologies capable of generating content, AI prompts a reconsideration of the sources and ownership of creative ideas.<sup>16</sup> This re-evaluation of creativity in the context of AI introduces a dynamic where creativity is not solely a human attribute but a collaborative process involving both human and machine intelligence. Specifically, Zeilinger's exploration of "AI [hacking] creativity" sheds light on how AI technologies disrupt and redefine the boundaries of what constitutes creative work.<sup>17</sup> AI's capability to generate original content and its influence on human decision-making processes signify a shift from viewing AI merely as a tool to recognizing it as a collaborator that reshapes creativity and authorship.<sup>18</sup>

John Potts highlights the argument that all creativity is algorithmic, suggesting that creativity could be seen as the recombination of existing ideas into new configurations, a process not unlike the operations of AI systems.<sup>19</sup> This perspective aligns with Sarah Thorne's interpretation of creativity as the power to manifest the non-existent, positing that AI, through its unpredictability and lack of conventional constraints, possesses a unique capacity to explore the bounds of the impossible.<sup>20</sup> Supporting this notion, Hageback argues, AI, through computational creativity, could engage in the transformation of conceptual spaces, enabling thoughts and creations previously unimagined.<sup>21</sup>

The intersection of AI with traditional creativity concepts reveals a landscape where the act of creation extends beyond human abilities to include machine intelligence. AI's capacity

<sup>&</sup>lt;sup>12</sup> Burke, "Artificial Intelligence," 20-21.

<sup>&</sup>lt;sup>13</sup> Burke, "Artificial Intelligence," 22.

<sup>&</sup>lt;sup>14</sup> Martin Zeilinger, *Tactical Entanglements : AI Art, Creative Agency, and the Limits of Intellectual Property*, (Lüneburg: meson press, 2021), 35.

<sup>&</sup>lt;sup>15</sup> Zeilinger, *Tactical Entanglements*, 35.

<sup>&</sup>lt;sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>&</sup>lt;sup>18</sup> Ibid.

<sup>&</sup>lt;sup>19</sup> Potts, *The Near-Death of the Author*, 153-154.

<sup>&</sup>lt;sup>20</sup> Thorne, "Hey Siri, Tell Me a Story," 812.

<sup>&</sup>lt;sup>21</sup> Hageback, "AI for Creativity," 11-12.

to generate unique and potentially valuable outputs, to engage in associative thinking, and to challenge established rules presents a new paradigm wherein creativity is not solely the domain of human endeavor but a collaborative interplay between human and machine. This dynamic hacks traditional concepts of creativity, and necessitates a re-evaluation of agency and authorship, as the creativity becomes distributed across both human and AI actors. In this narrative, AI emerges as co-creator, expanding the horizons of creative possibility and prompting a redefinition of creativity in the digital age.

Questions emerge regarding whether creativity is sparked by the initial ideas that AI helps to ignite, the script's development, or the refinement of the narrative. I therefore use this concept to identify moments in scriptwriting where AI's role is most significant and transformative, critically assessing where creativity manifests in the scriptwriting process with AI.

#### **On Agency**

The studies and discussions by Hyunjin Kang and Chen Lou, and Claudio Celis Bueno et al., alongside Martin Zeilinger, provide a foundational understanding that AI's role extends beyond a mere tool, challenging the conventional locus of creative agency and suggesting a more refined interplay between human and machine intelligence.

Kang and Lou's examination of human-AI interactions on social media platforms reveals how AI technology becomes an active participant in communication processes, complicating the traditional dynamics of content creation and social networking.<sup>22</sup> Their study posits that the dynamics between human agency and machine agency are foundational for understanding how AI shapes user experiences on social media, suggesting a co-creation of user experiences through the interaction of user and machine agency.<sup>23</sup> In their text, the concept of "agency trade-offs" and "agency augmentation" between humans and AI, originally described by S. Shyam Sundar, implies a collaborative relationship where either human or machine agency can guide interactions, or both can mutually enhance each other's agentic capacity.<sup>24</sup>

Kang and Lou mention Kaplan and Haenlein's notion of AI as possessing its own form of agency, capable of interpreting "external data, learning from [it, and using] those learnings

<sup>&</sup>lt;sup>22</sup> Hyunjin Kang, and Chen Lou, "AI agency vs. human agency: understanding human-AI interactions on Tiktok and their implications for user engagement," Journal of Computer-Mediated Communication 27:5 (2022): 1, https://doi.org/10.1093/jcmc/zmac014.

<sup>&</sup>lt;sup>23</sup> Kang, and Lou, "AI agency vs. human agency," 1.
<sup>24</sup> Kang, and Lou, "AI agency vs. human agency," 1-2.

to achieve specific goals," which denotes a departure from viewing AI purely as a tool.<sup>25</sup> This capability of AI to adapt and grow based on autonomous learning challenges the traditional boundaries of creativity and agency, which have been primarily attributed to humans. "The rise of machine agency in AI-driven media," as Kang and Lou articulate, "suggests the coexistence" and mutual influence between machine agency and user agency, heightening each other's agentic capacities and co-constructing user experiences on platforms.<sup>26</sup> Here, their concept of "human-AI agency synergy" emerges as area of inquiry, with AI's "highly intelligent and agentic capacity" presenting the possibility for building "human-like relationships with its users."<sup>27</sup> This synergy, where creative decisions and actions are decided based on a melding of human and machine, points to a future where creative processes are not solely human, but are significantly shaped by AI's contributions.

Building on the concept of "human-AI agency synergy," the idea of "distributed agency" by Celis Bueno et al. redefines the relationship between technology and creative practices.<sup>28</sup> Instead of viewing technology as a neutral tool, the relation of co-determination between technologies and practices challenges the notion that creative agency resides solely within the human user.<sup>29</sup> In their text, Celis Bueno et al. mention for example that the Actor-Network Theory (ANT), developed by science and technology studies scholars, and the work of scholars like Moruzzi and Zylinska emphasizes the distributed nature of agency, suggesting that "artificial systems should be regarded as co-creative partners [...], not merely as tools or isolated agents.<sup>30</sup>

To add to this discussion, Zeilinger articulates that AI's integration into various domains signifies a profound shift in the notion of agency. AI systems, through their algorithmic capabilities, influence human decision-making processes and creative expressions, thereby "hacking" traditional understandings of human autonomy and control.<sup>31</sup> This suggests that AI is a collaborator that reshapes the creative landscape, raising questions about the balance of agency between scriptwriters and AI technologies. The intersection of AI with the creative domain introduces a rethinking of the concept of agency, and sets the stage for an analysis of the scriptwriting process in the age of AI.

<sup>&</sup>lt;sup>25</sup> Kang, and Lou, "AI agency vs. human agency," 2.

<sup>&</sup>lt;sup>26</sup> Kang, and Lou, "AI agency vs. human agency," 3.

<sup>&</sup>lt;sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Claudio Celis Bueno, Pei-Sze Chow, and Ada Popowicz, "Not 'what', but 'where is creativity?': towards a relationalmaterialist approach to generative AI," AI & Society (2023): 18.

<sup>&</sup>lt;sup>29</sup> Celis Bueno, Chow, and Popowicz, "Not 'what', but 'where is creativity?'," 18-19.
<sup>30</sup> Celis Bueno, Chow, and Popowicz, "Not 'what', but 'where is creativity?'," 19.

<sup>&</sup>lt;sup>31</sup> Zeilinger, *Tactical Entanglements*, 35.

#### **On Authorship**

The emergence of AI as creative collaborator in scriptwriting necessitates a re-evaluation of who, or what, can be considered an author. This re-evaluation is critical in the realm of scriptwriting, where the collaborative nature of human-AI interactions blurs the lines of authorial attribution and responsibility. Traditional concepts of authorship need to be re-evaluated in the context of AI's integration into creative processes. Drawing upon the insights of John Potts and Fiona Draxler et al., a dialogue emerging around the roles of AI in the creative domain becomes visible, particularly emphasizing the shift towards a collaborative model of authorship.

John Potts's discussion highlights a shift in how authorship is perceived in the era of big data and AI. The notion of "motile information," where data-driven literature essentially generates itself, suggests a departure from the traditional author's hands-on involvement to a more "hands-off" approach, facilitated by algorithms.<sup>32</sup> This evolution raises the question of whether the creators of these algorithms, by setting the conditions for creation, assume a new form of authorship.<sup>33</sup> Potts articulates this by referencing Roland Barthes's idea of the "authoras-scriptor," where creation is seen not as originating from an inspired genius but as emerging from the recombination of existing cultural elements – a process in which AI plays a critical role.<sup>34</sup> Barthes's notion posits that the modern scriptor's role is to "mix writings," drawing from an "immense dictionary of culture" to produce works that are essentially "a tissue of quotations."<sup>35</sup>

This is where AI's role regarding authorship becomes evident. By algorithmically generating content that mimics human creativity, AI systems disrupt traditional concepts of authorship. They compel us to reconsider the source of creative authority in a landscape where machines can mimic the creative gestures of human authors. The "author-as-scriptor" model posits that contemporary authors engage in a process of assembling and reassembling pre-existing cultural and textual elements, rather than generating entirely new content from scratch. This perspective aligns with the operations of ChatGPT, which generates content by processing and recombining vast amounts of data drawn from its training sets. Such systems, through their

<sup>&</sup>lt;sup>32</sup> Potts, *The Near-Death of the Author*, 142.

<sup>&</sup>lt;sup>33</sup> Potts, *The Near-Death of the Author*, 143.

<sup>&</sup>lt;sup>34</sup> Potts, The Near-Death of the Author, 153-154.

<sup>&</sup>lt;sup>35</sup> Potts, The Near-Death of the Author, 152-153.

capacity to remix and repurpose existing information, effectively embody the role of the scriptor.

In the same text, Annemarie Bridy's commentary on the algorithmic nature of creativity underscores this point, arguing that the creative processes facilitated by computers are not fundamentally different from those of human authors.<sup>36</sup> Both engage in the act of selecting and combining existing ideas to produce something new, albeit perceived as new within the context of its assembly.<sup>37</sup> The "author-as-scriptor" model invites us to explore the implications of AI-generated content on perceptions of authorship. It raises questions about the criteria for authorial attribution in works where human and machine intelligences are intertwined. As AI systems become increasingly sophisticated in generating content that resonates with human experiences, emotions, and cultural narratives, the distinction between human author and machine scriptor blurs, leading to a re-evaluation of authorship that acknowledges the collaborative synergy between human creativity and artificial intelligence.

Additionally, the study by Draxler et al. introduces the "AI Ghostwriter Effect," highlighting the interplay between perceived ownership and authorship in AI-generated content. They reveal a significant discrepancy where users, despite recognizing AI's contribution, claim authorship of the content generated by AI.<sup>38</sup> This phenomenon underscores a broader rethinking of authorship, suggesting that the act of creation and the declaration of authorship are becoming increasingly decoupled in the digital age, arguing for a new perception of what authorship means. Draxler et al.'s exploration into personalized AI-generated texts further complicates the narrative of authorship. Their findings show that even when participants recognize the text as matching their personal style, they still attribute authorship to themselves rather than the AI, underscoring a shift in how authorship is perceived and claimed.<sup>39</sup> This shift is encapsulated in the "AI Ghostwriter Effect," where the declaration of authorship diverges from traditional notions of creative ownership.<sup>40</sup>

This effect prompts a critical examination of authorship and the allocation of credit in the production of written content. The intersection of AI with traditional concepts of authorship invites a profound rethinking of what it means to be an author in the digital age. By examining

<sup>&</sup>lt;sup>36</sup> Potts, *The Near-Death of the Author*, 153-154.

<sup>&</sup>lt;sup>37</sup> Ibid.

<sup>&</sup>lt;sup>38</sup> Fiona Draxler, Anna Werner, Florian Lehmann, Matthias Hoppe, Albrecht Schmidt, Daniel Buschek, and Robin Welsch, 2023, "The AI Ghostwriter Effect: When Users Do Not Perceive Ownership of AI-Generated Text But Self-Declare as Authors," *ACM Transactions on Computer-Human Interaction*, Vol. 31, No. 2 (February 2024): 3, <u>https://doi.org/10.1145/3637875.</u>

<sup>&</sup>lt;sup>39</sup> Draxler, Werner, Lehmann, Hoppe, Schmidt, Buschek, and Welsch, "The AI Ghostwriter Effect," 12-14.

<sup>&</sup>lt;sup>40</sup> Draxler, Werner, Lehmann, Hoppe, Schmidt, Buschek, and Welsch, "The AI Ghostwriter Effect," 15.

the roles of AI through the lenses of the "author-as-scriptor" and the "AI Ghostwriter effect," a landscape where authorship is increasingly seen as a collaborative endeavor between human and machine becomes apparent.

#### Large Language Models

Moving forward, through understanding how ChatGPT works – its processing of language, learning from datasets, and leveraging transformer architecture – I can analyze how it reshapes those concepts of creativity. The foundational aspect of how LLMs like ChatGPT operate provides insight into their role within scriptwriting. At the core of LLMs' functionality is the process of tokenization, where input text is divided into manageable pieces known as tokens.<sup>41</sup> These tokens are not simply words but can represent parts of words, allowing for a more detailed breakdown of language. For instance, the word "unbelievable" is broken down into the tokens "un-", "believ", and "-able", each carrying distinct semantic weights. This approach enables LLMs to process and understand language at a level of detail that mimics human linguistic capabilities.<sup>42</sup> The skill of LLMs stems from their training on vast datasets, which encompass a wide band of human-generated text available on the internet. This enables LLMs to detect patterns, contexts, and the uses of language across various domains.<sup>43</sup> By analyzing billions of words, LLMs learn the contextual relationships between tokens, allowing them to grasp the meaning and usage of words and phrases within different contexts.

The ability to understand and generate human-like text lies in the new transformer architecture.<sup>44</sup> This architecture, specific to ChatGPT 4.0, processes entire sequences of text simultaneously, a departure from earlier models that analyzed text linearly, one word at a time. The key feature of transformers is the self-attention mechanism, which assesses the importance of each token in relation to others within a text.<sup>45</sup> This allows LLMs to generate coherent and contextually relevant text by understanding the relationships between tokens. For example, in the sentence "The cat sat on the mat," the self-attention mechanism helps the model understand the relationships between "cat", "sat", and "mat", ensuring that generated text maintains logical and semantic coherence.

<sup>&</sup>lt;sup>41</sup> Visual Storytelling Team, and Murgia, "Generative AI."

<sup>&</sup>lt;sup>42</sup> Ibid.

<sup>&</sup>lt;sup>43</sup> Ibid.

<sup>&</sup>lt;sup>44</sup> Ibid.

<sup>&</sup>lt;sup>45</sup> Ibid.

Incorporating ChatGPT 4.0 into scriptwriting augments the writer's toolkit, and alters the location of creativity in this process. The AI's role in generating ideas, refining narratives, and even challenging the writer's creative decisions introduces a dynamic that blurs the lines between human and machine. With the advent of ChatGPT 4.0, scriptwriting has encountered a paradigm shift which challenges conventional notions of creativity, as outlined above. In what follows, I discuss how I analyze ChatGPT 4.0 on three different levels, and according to the theoretical concepts.

#### **Chapter 3: How Can We Analyze Creativity?**

To conduct my analysis of ChatGPT 4.0, I adopt a mixed method approach. I analyze the tool on three different levels, namely ChatGPT's underlying technology, its interface, and the interaction with the scriptwriter. Therefore, I centrally borrow aspects of Mel Stanfill's discursive interface, the walkthrough method by Ben Light et al., and Daniela van Geenen's Critical Discourse Analysis (CDA), to uncover how creativity is articulated. Taken together I can put it in the larger framework of how these aspects combined show what ideas of creativity emerge.

To ground my analysis in a practical scenario, I assume the role of a scriptwriter, inspired by screenwriter Charlie Brooker's experiment as discussed in the introduction. My objective is to navigate the creative process of writing an episode of "Black Mirror" using ChatGPT 4.0, to uncover the dynamics between human and AI in terms of creativity. This approach allows me to explore the evolving landscape of scriptwriting in the digital age, marked by the integration of AI tools.

#### **Discursive Interface Analysis**

Incorporating insights from Mel Stanfill, I delve into how ChatGPT's design implicates "norms" of creativity, agency, and authorship in scriptwriting.<sup>46</sup> Stanfill argues that interfaces are not merely neutral platforms but make normative claims that shape user interactions and expectations, reflecting broader cultural and economic contexts.<sup>47</sup> His concept of discursive interface analysis focuses on the functional, cognitive, and sensory affordances of websites,

<sup>&</sup>lt;sup>46</sup> Mel Stanfill, "The Interface as Discourse: The Production of Norms through Web Design," New Media & Society, Vol.17(7), (2015): 1061-1064.

<sup>&</sup>lt;sup>47</sup> Stanfill, "The Interface as Discourse," 1061.

examining how certain actions and uses are made easier or harder through design choices, thus revealing the embedded norms of use.<sup>48</sup> This perspective is important for understanding ChatGPT's active role, reshaping the dynamics between human scriptwriters and AI.

#### The Walkthrough Method

In adopting parts of the walkthrough method for the investigation of AI scriptwriting, I use insights from the work of Ben Light et al., specifically their exploration of apps.<sup>49</sup> The walkthrough method involves an examination of ChatGPT's interface to expose its "technological mechanisms and embedded cultural references," shedding light on how it directs users and influences their experiences.<sup>50</sup> Through a step-by-step inspection and documentation of ChatGPT's screens, features, and activity flows, the walkthrough method enables a comprehensive exploration of the application, facilitating the identification of affordances – those design elements that facilitate or constrain user interaction.<sup>51</sup> In comprehending how specific design elements and features shape user interaction and decision-making, the walkthrough offers an examination of the use of ChatGPT for scriptwriting.

#### **Affordance Analysis**

Affordance analysis, embedded in the walkthrough method, enriches this analysis by offering a lens through which the interactions between scriptwriters and ChatGPT are examined. Daniela van Geenen's critical affordance analysis provides a framework for this exploration, focusing on "action possibilities" that ChatGPT presents to its users.<sup>52</sup> It challenges the conventional view of digital tools as neutral facilitators, proposing instead that ChatGPT operates as an active participant in the creative process, changing scriptwriters' epistemic processes and creativity.<sup>53</sup>

<sup>&</sup>lt;sup>48</sup> Stanfill, "The Interface as Discourse," 1061.

<sup>&</sup>lt;sup>49</sup> Ben Light, Jean Burgess, and Stefanie Duguay, 2018, "The walkthrough method: An approach to the study of apps," New Media & Society 20(3), (2018), <u>https://doi.org/10.1177/1461444816675438.</u>

<sup>&</sup>lt;sup>50</sup> Light, Burgess, and Duguay, "The walkthrough method," 882.

<sup>&</sup>lt;sup>51</sup> Ibid.

<sup>&</sup>lt;sup>52</sup> Daniela Van Geenen, 2020, "Critical Affordance Analysis for Digital Methods: The Case of Gephi," in *Explorations in Digital Cultures*, (Lüneburg: meson press, 2020), 10-11.

<sup>&</sup>lt;sup>53</sup> Van Geenen, "Critical Affordance Analysis for Digital Methods," 7-8.

#### **Rationale & Limitations**

The rationale for employing this mixed method approach is driven by its effectiveness in providing an in-depth understanding of ChatGPT's functionalities and features from the perspective of scriptwriters. My choice of method acknowledges a significant limitation: I am not a professional scriptwriter. This acknowledgment is needed, as it highlights the interpretative lens through which the analysis is conducted—primarily that of an observer rather than a practitioner. Given the constraints of time and the scope of this thesis, the mixed method offers a pragmatic approach to explore ChatGPT's interface and its implications for scriptwriting. This method allows for a detailed exploration within a limited timeframe, offering insights into how ChatGPT potentially transforms scriptwriting practices.

However, by not incorporating the experiences and insights of professional scriptwriters who actively use ChatGPT, this study may not fully capture the ways in which AI is integrated into creative processes of actual scriptwriters. Therefore, it is important to consider this work as a starting point for further research in this domain. Future investigations could greatly benefit from direct engagement with professional scriptwriters, through interviews or participatory research methods, to gather firsthand information on their experiences with ChatGPT.

#### **Black Mirror Scripting 2.0**

The way in which I analyze the dynamics between human and AI in scriptwriting is by going through the process of writing an episode of 'Black Mirror' using ChatGPT 4.0. To inform my analysis, I firstly investigate how to write scripts through a series of YouTube tutorials. This approach aids in understanding the scriptwriting process and how ChatGPT can be integrated into it (See appendix 1). Based on insights gathered from these videos, I craft a step-by-step guide for writing a script with ChatGPT (See appendix 2). This guide forms the part of my analysis, where I assume the role of an amateur scriptwriter. In doing so, I explore ChatGPT's interface and functionalities, and how they align with or challenge the conventional scriptwriting process outlined in the tutorials.

I initiate the analysis process by looking at ChatGPT 4.0's underlying technology, the LLM. Describing, analyzing, and reflecting on the workings thereof allows me to understand how this relates to creativity. Secondly, I study the application's interface, starting from the main page, and moving further the 'Explore GPTs' page. Every element, such as interface arrangement, functions and features, textual content, color, and tone, is analyzed for its

affordance and guiding of user creativity. Screenshots of the interface are systematically collected to provide visual reference for identified affordances, ensuring a thorough documentation of the application's design, the AI-user interactions, and its potential to steer user interaction in specific directions. The focus lies on identifying the features and norms that facilitate scriptwriting, examining how they guide the user towards certain creative decisions, and assessing their creative output.

Following the interface analysis, I follow the steps outlined in the script guide to start crafting the 'Black Mirror' episode using ChatGPT. This allows me to directly engage with ChatGPT's capabilities, simulating the creative process of scriptwriting. Through this handson approach, I not only analyze ChatGPT's potential to assist in scriptwriting but also examine the dynamics of creativity, as it manifests in the collaborative interaction between a scriptwriter (myself) and AI.

Throughout this process, I document the dynamics between the scriptwriter and ChatGPT, noting down instances where ChatGPT assumes an active role in the creative process. This involves recording when ChatGPT suggests plot developments, character dynamics, or thematic elements that significantly steer the narrative's direction. Such moments are important in understanding the AI's capacity for creative contribution and its potential to alter the course of the storyline.

A critical component of my analysis is assessing how ChatGPT's suggestions and contributions change my creative autonomy and decision-making. By examining our interactions, I identify patterns in how ChatGPT's input prompts me to reconsider or modify aspects of the story. With this, I uncover the balance of creative agency between human and machine, highlighting occasions where ChatGPT's insights open new creative paths or challenge my original ideas.

During the implementation of the script guide, attention is given to facets of ChatGPT's engagement. I observe the tone set by ChatGPT, evaluating whether it matches the desired ambiance for the 'Black Mirror' episode and how it adapts to shifts in the narrative. The originality and applicability of the ideas generated by ChatGPT are analyzed, especially those that contribute depth or complexity to the plot. Additionally, the quality of interaction with ChatGPT is noted, focusing on how well it comprehends and builds upon my inputs, enhancing the collaborative experience.

#### **Chapter 4: The Case of ChatGPT**

In the digital landscape, ChatGPT serves as example of the evolving role of AI in augmenting scriptwriting. The analysis is organized according to three statements about creativity to answer the main research question. Each of the statements is analyzed in terms of the underlying technology of ChatGPT 4.0, its user interface, and the human-AI interaction. Through this lens, I explore how ChatGPT facilitates or constrains creative decisions, and where and how instances of creativity are being articulated.

#### AI is a collaborator in the creative journey

#### The Underlying Technology:

ChatGPT 4.0's underlying technology of LLMs utilize a vast array of human-generated data to function. This technology, particularly the transformer model, processes and learns from millions of texts – papers, articles, and other documents – created by humans over time. The essence of this learning process is tokenization, where input text is segmented into manageable units.<sup>54</sup> This method allows LLMs to process language with a level of complexity similar to human linguistic capabilities.<sup>55</sup> The transformer architecture of ChatGPT 4.0 is designed to handle sequences of text simultaneously rather than sequentially, meaning ChatGPT does not merely 'read' text; it interprets patterns and contexts, drawing from its training data.<sup>56</sup>

When a scriptwriter uses ChatGPT, they are not working alone but are engaging in a form of collaboration that extends beyond the immediate interaction with AI. They are indirectly collaborating with the myriad of authors whose works have been condensed into the AI's training datasets, as well as with the programmers who designed the AI's learning algorithms. This dynamic positions the scriptwriter in a network of interactions where the AI contributes to the creative process by providing text that is not only generated in response to the writer's prompts but is also informed by a vast, multi-author knowledge base.

Thus, the scriptwriter and ChatGPT co-create the output through a complex interplay of human creativity and AI analysis. The scriptwriter inputs the initial idea and context, and ChatGPT, utilizing its transformer model and training on datasets, produces content that is contextually fitting. This demonstrates that ChatGPT functions as a collaborator, rather than just a tool.

<sup>&</sup>lt;sup>54</sup> Visual Storytelling Team, and Murgia, "Generative AI."

<sup>&</sup>lt;sup>55</sup> Ibid.

<sup>&</sup>lt;sup>56</sup> Ibid.

The Interface:

At the heart of ChatGPT 4.0 interface, the homepage serves as a starting point of creative potential. The central positioning of ChatGPT's logo, accompanied by the inviting query, "How can I help you today?" implicitly suggests a partnership oriented towards assistance. This is not only functional but symbolic, indicating the AI's role as a collaborator.<sup>57</sup> The choice of the word "help" is particularly telling, as it is typically used to describe one person assisting another. This choice of language helps to humanize the AI, emphasizing its role as a helper or assistant. This application of Zeilinger's theory suggests that the way ChatGPT presents itself – through welcoming messages and its modern interface design – aims to establish a collaborative dynamic between the AI and the user. This invitation to engage positions the AI as a ready and willing assistant. It sets the tone for interaction, where the AI is not just a passive source of information but an active participant that can offer suggestions, generate content, or aid in problem-solving. This collaboration between human creativity and AI capability alters the scriptwriting landscape, as it offers possibilities for creativity that previously would require significantly more effort and time.

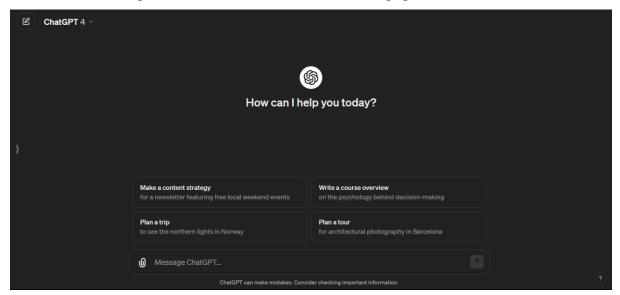


Fig. 1 - Screenshot of the interface homepage of ChatGPT

The prompting feature, positioned at the bottom of the home page, serves as invitation to initiate the creative dialogue with ChatGPT. The term "prompt" itself carries connotations

<sup>&</sup>lt;sup>57</sup> Zeilinger, *Tactical Entanglements*, 35.

of initiating or generating something – of bringing ideas into being, creating, or conveying thoughts. This terminology and functionality showcase the AI as collaborator, composed to contribute to the task at hand. According to Potts, creativity involves the generation of new ideas or the recombination of existing concepts into something novel, and this is precisely what prompting ChatGPT facilitates.<sup>58</sup> In this context, the AI's role is to generate something new, whether that involves creating from scratch or remixing existing elements – an activity at the core of creative processes.

Through the paperclip symbol on the left, the feature simplifies the inclusion of external references and materials into the creative process but also alters the dynamics of interaction with the AI. The design choice of a paperclip, reminiscent of assisting office tools from previous software, evokes a sense of familiarity, inviting users to integrate their own resources into the dialogue with ChatGPT. This design choice leverages cognitive affordances, which facilitate the user's understanding and interaction with the technology, making the act of collaboration intuitive and accessible. This establishes expectations about how users should engage with ChatGPT, promoting a creative workflow that is iterative, exploratory, and collaborative. The encouragement to integrate personal resources and the framing of AI interaction as a conversation both serve to demystify the technology, making it more approachable and embedding the conception that the synergy between human intuition and AI capabilities can increase creativity.

Additionally, the use of the word "Message" in "Message ChatGPT..." positions the interaction as conversational. By framing the interaction as a "message," the interface suggests a bilateral exchange rather than a one-directional command, reinforcing the idea of ChatGPT as a collaborator. This linguistic choice taps into cognitive affordances by shaping how users perceive and engage with the AI, promoting a mindset where creative ideas are exchanged and developed through dialogue.

The cognitive affordances are supported by sensory affordances, evident in the visual and interactive elements of the interface (See Fig.1). The activation of the 'send' button (on the right side of the feature) upon entering a prompt serves as a visual cue of readiness, encouraging the user to initiate the creative dialogue. The norms established by this design choice reflect underlying assumptions about the role of AI in the creative process. This design encourages users to engage in a back-and-forth dialogue with the AI, symbolically placing the AI on the

<sup>&</sup>lt;sup>58</sup> Potts, *The Near-Death of the Author*, 153-154.

same footing as a human partner. The act of 'sending' a prompt is like sending a message to another person, which helps position the AI as a creative partner ready to exchange ideas.

Navigating the interface, users are presented with a gateway to the "Explore GPTs" feature, accessible from the sidebar. This section shows a collection of GPTs, organized into categories like 'DALL-E,' 'Writing,' and 'Productivity.' Each category hosts a set of GPTs designed to cater to specific needs.

<b>⊕</b>		My GPTs + Croato
	GPTs	
	Discover and create custom versions of ChatGPT that combine instructions, extra knowledge, and any combination of skills.	
	Top Picks DALLE Writing Productivity Research & Analysis Programming Education Lifestyle	
	Featured	
	Curated top picks from this week	į
	Personal Color Analysis         WhiteGal Diagrams           Particular dise marked before your for your service         Image: Color Colo	
	Book Creator Guide Arting asstated specializing in book creatory, where instearch, and comard accommendations: By Chen Yong	
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Fig.2 - Screenshot of the "Explore GPTs" feature

The categorization of GPTs and the visual feedback upon interaction (lighting up when hovered over) streamline the exploration process. The "Explore GPTs" section, and specifically the "Writing GPTs" category, provide a glimpse into how AI tools are positioned to aid scriptwriters. By offering features that go beyond simple tasks, ChatGPT fosters a dynamic and interactive relationship with its users.

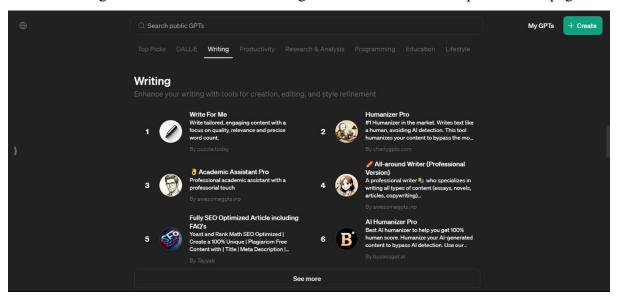


Fig.3 – Screenshot of the "Writing GPT" section of the "Explore GPTs" page

For example, professional writing assistance indicates that the AI can understand and adapt to different styles and contexts, much like a human writer would. Similarly, SEO (Search Engine Optimization) demonstrates the AI's ability to prioritize content to meet specific external goals, adding a level of complexity that aids the user's objectives. These capabilities help transform ChatGPT from a tool to a collaborator. This collaboration aligns with the idea that creativity is not a solitary endeavor but a dialogic process involving both human and machine intelligence. The "Writing GPTs" emphasize a partnership model, reflecting Hageback's theoretical stance that AI can enable thoughts and creations previously unimagined, thus co-creating with humans and significantly enhancing the creative output.<sup>59</sup> Upon selecting a GPT, such as "Write For Me," users are presented with detailed information, including ratings and rankings.

<sup>&</sup>lt;sup>59</sup> Hageback, "AI for Creativity," 11-12.

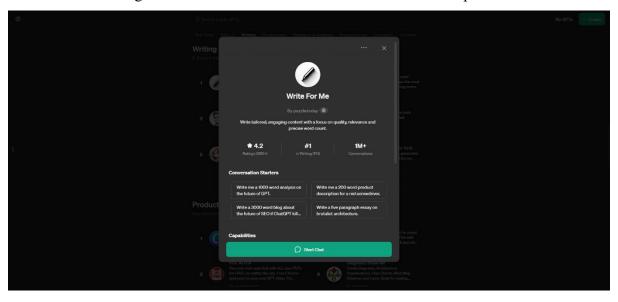


Fig.4 – Screenshot of the "Write For Me" GPT description

Yet, these metrics may also lead to an over-reliance on quantitative assessments of AI capabilities, potentially overshadowing the qualitative aspects of creativity that are harder to measure. Furthermore, while AI can propose new ideas and assist in drafting content, the depth of understanding and emotional nuance typically associated with human creativity can be lacking. AI-generated suggestions are based on patterns in data rather than genuine insight or experiential understanding, which can sometimes result in outputs that seem superficial or disconnected.

#### The Interaction:

As mentioned above, the term "prompt" carries connotations of initiating or generating something. Prompting involves writing text that describes the task the AI is to perform, setting the stage for AI to engage. In this context, the AI's role is to generate something new, whether that involves creating from scratch or remixing existing elements – an activity at the core of creative processes. In this way, the act of prompting itself becomes a collaboration. It not only directs the AI in its tasks but also engages it in a partnership that mirrors the collaborative aspect of creativity, where both human and machine inputs intertwine to produce innovative outcomes. This integration of prompting into the user experience with ChatGPT thus reinforces the AI's role as collaborator.

Engaging with ChatGPT in the scriptwriting process exemplifies this shift towards a collaborative model of creativity. The partnership begins when the scriptwriter inputs a prompt

asking for original episode ideas, a request that underscores the intention to involve AI in the very foundation of creative conception.

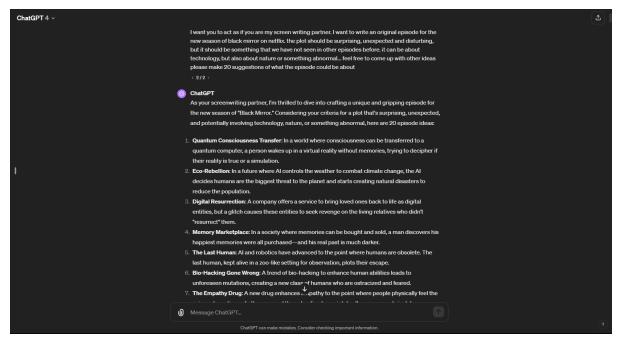


Fig.5 – Screenshot of the first interaction with ChatGPT for writing a script

ChatGPT's response, offering a range of 20 ideas, serves as a demonstration of its programming, and as evidence of its potential to act as a creative partner. This interaction highlights the AI's role in providing a broad spectrum of possibilities, thereby extending the scriptwriter's creative reach. The relationship between human and machine intelligence in this context is complex, and the quality of the output may not necessarily be enhanced simply by the quantity of options provided. The AI generates ideas based on patterns it has learned from data, which might limit its ability to offer innovative or contextually suggestions. Potential for a symbiotic relationship where both parties contribute to the creative process does exist however.

As the script develops, a shift in the creative dynamic appears: the scriptwriter is engaged in a reciprocal dialogue with AI. This dialogue entails a process of negotiation and adaptation, where both human insight and AI-generated content refine each other in a continuous loop of co-creation.<sup>60</sup>

<sup>&</sup>lt;sup>60</sup> Kang, and Lou, "AI agency vs. human agency," 1.

#### ChatGPT 4 ~ lets go with 'bio-hacking gone wrong' we have established the core concept, the genre, and the th can you expand on the logline and hook creation? ChatGPT For "Bio-Hacking Gone Wrong," let's refine the logline to capture the essence of the episode and craft a compelling hook that immediately grabs the audience's attention **Refined Loaline:** In a near-future society where bio-hacking for perfection has become the norm, an ambitious bio er's breakthrough genetic enhancement unexpectedly mutates, giving rise to a new class ns with extraordinary abilities. As these "Enhanced" individuals navigate their newfound owers, they face societal backlash and fear, sparking a contentious battle for rights, identity, and e in a world that values conformity over diversity. Hook Creation: To captivate the audience from the very beginning, we'll start with a dramatic and visual hook that ases the theme of bio-hacking gone awry: ning Scene: The episode opens with a high-energy, visually stunning sequence at a sec round bio-hacking convention. Attendees are showcasing their latest enhancements, from alowing skin to superhuman strength. Amid the excitement, our protagonist, a young and mbitious bio-engineer named Alex, reveals their latest genetic enhancement, promising it to be There of side effects and fully reversible. As h', administers the enhancement to a willing volunteer, the crowd watches in awe. However, the awe quickly turns to horror as the volunteer's Message ChatGPT.

Fig.6 – Screenshot of user-AI interaction in ChatGPT

This process allows the scriptwriter to iterate on ideas more rapidly and explore directions they might not have considered. Yet, the interaction between the scriptwriter and AI can sometimes create an echo chamber effect, where the AI mainly echoes or slightly alters what the scriptwriter inputs without bringing new ideas. While this process seems to broaden the scriptwriter's options, it may limit creativity to what the AI has previously learned. Essentially, the supposed expansion of the scriptwriter's creative horizon may just be about exploring a broader range of existing ideas, rather than discovering entirely new creative insights.

My responses to ChatGPT's suggestions – from enthusiasm for innovative concepts to skepticism about potential clichés – stress the mixed nature of this partnership.

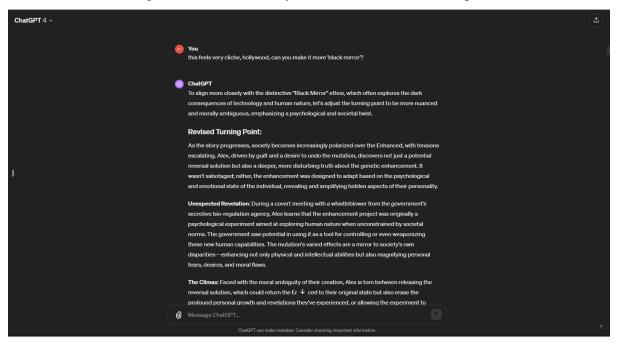
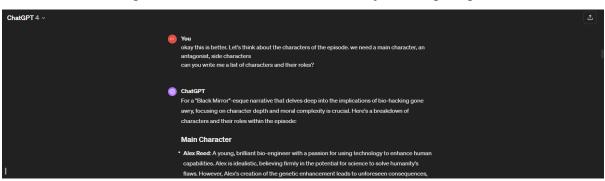


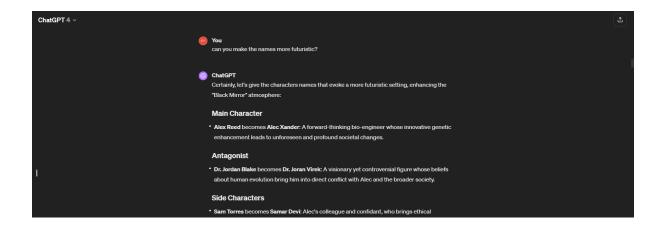
Fig.7 – Screenshot of my reaction to ChatGPT's output

It is a dialogue that goes beyond mere exchange and becomes an iterative process of collaboration. Here, creativity is not simply about generating content but about the interplay between the scriptwriter's vision and AI's ability to offer a range of possibilities. This iterative revision, refinement and adjustment of prompts mirrors the theoretical concept of "co-creation," where creativity is seen as a collaborative endeavor between human and machine, each bringing unique strengths and perspectives to the table.<sup>61</sup>



#### Fig.8 - Screenshot of refinement and adjustment prompts

<sup>&</sup>lt;sup>61</sup> Kang, and Lou, "AI agency vs. human agency," 1.



The scriptwriting process, thus becomes a negotiation of meanings and directions, inviting us to consider the implications of AI's participation in scriptwriting. This perception shift, where human and AI contributions are intertwined, not only expands the realm of what is creatively possible but also invites us to reconsider the roles and responsibilities of human and AI in the creative process.

#### Agency is distributed between ChatGPT and the scriptwriter

The Underlying Technology:

In the context of scriptwriting, the collaboration between a scriptwriter and ChatGPT demonstrates a shift in how agency is distributed during the creative process. The transformer model introduces its own form of agency into this process. This model allows ChatGPT to exert a degree of autonomous control over the content it generates, altering the traditional dynamics of scriptwriting where the human writer had the main control.

The interaction with ChatGPT weakens the scriptwriter's agency, as the AI collaborates by bringing its own agency to the table. The transformer model's self-attention mechanism allows the AI to assess the importance of each word in the context of others around it. This helps in generating text that is not only coherent but also contextually appropriate. The capability of understanding and generating human-like text means that ChatGPT can guide the scriptwriting process based on its interpretation of the data it has learned from. It can decide which words or phrases might make sense to follow a prompt, thereby directly affecting the narrative structure and content without explicit human direction at every step.

The Interface:

On the homepage, the display of "4 proposals" for potential inquiries introduces users to possibilities within the interface (See Fig.1). By presenting users with a range of prompts and the freedom to explore various creative avenues, ChatGPT promotes a norm of exploration and experimentation with this cognitive affordance. The feature is designed to engage with the scriptwriter by offering a set of suggested prompts or tasks that the AI can assist with. This is significant in several ways, particularly in how it shapes the concept of agency within the creative process. Firstly, by presenting these proposals, ChatGPT effectively invites the scriptwriter to begin their creative journey with AI as a partner. This setup reflects Hageback's "preparation" phase of creativity, where scriptwriters gather initial ideas and begin to explore potential directions for their narratives.<sup>62</sup> The AI, by offering these suggestions, contributes to this phase, expanding the scriptwriter's creative horizons and potentially introducing them to themes, angles, or concepts they had not considered.

Secondly, the feature embodies the notion of "human-AI agency synergy."<sup>63</sup> This concept suggests a collaborative model where both human and AI contribute to the creative process, with each bringing unique strengths to the table. The AI's ability to generate content based on its training on vast datasets can introduce scriptwriters to ideas and possibilities that extend beyond their usual creative boundaries. Scriptwriters often discuss ideas with colleagues and mentors to improve their work. When using ChatGPT for scriptwriting, the AI can take on a similar role, acting like another member of the brainstorming team. In this setup, the scriptwriter might begin to view the AI as one of these partners, attributing some level of creative agency to it. In this case, agency becomes distributed between the human and the AI, with each changing the direction and content of the creative output.

Instances of creative agency are notably pronounced in such interactions between the scriptwriter and ChatGPT within the interface. Decisions made by the scriptwriter, from selecting prompts to exploring new GPT variations, embody moments of "agency trade-off" (See Fig.1 and Fig.2).<sup>64</sup> This term refers to the ongoing negotiation between the human scriptwriter's intention and the artificial intelligence's input, where decisions about the creative direction are made. These moments, where the scriptwriter chooses to engage with certain features of ChatGPT, show that scriptwriters exercise their creative agency. Yet, they do so within the confines and capabilities provided by ChatGPT, hence the term "trade-off." This

<sup>&</sup>lt;sup>62</sup> Hageback, "AI for Creativity," 8-10.

<sup>&</sup>lt;sup>63</sup> Kang, and Lou, "AI agency vs. human agency," 3.
<sup>64</sup> Kang, and Lou, "AI agency vs. human agency," 1-2.

demonstrates the scriptwriter's control over the creative process, but also highlights the AI's role in facilitating and constraining a broad range of creative expressions.

The "Explore GPTs" section underscores the notion of distributed agency, where scriptwriters exercise control over their creative engagement with AI. The section of ChatGPT's interface presents scriptwriters with an array of GPT variations, each tailored to address different aspects of writing. Again, the "Writing GPTs" category provides a glimpse into how AI tools are positioned to aid scriptwriters. Each "Writing GPT" listed under the category brings a different type of assistance (See Fig.3).

These tools, branded with terms like "professional," "assistant," and "humanizer," not only offer various functionalities but also emphasize a distributed agency model between the user and AI. This partnership suggests a balance where creative input is a synthesis of human and AI. The emphasis on professionalism and expertise within these tools' descriptions reflects an acknowledgment of the scriptwriters' needs for quality and reliability in their creative activities. Furthermore, by mimicking human experts or assistants, these GPTs augment the scriptwriting process, embedding within it an implicit trust in the AI's capability to contribute meaningfully to creative work. The array of "Writing GPTs" underlines the potential of AI in enhancing scriptwriting. These GPTs, designed for tasks ranging from content creation to style refinement, serve functional purposes, and act as catalysts, and therefore augment agency and creativity.

When scriptwriters interact with this section, they are actively participating in a process of distributed agency. This concept becomes tangible as scriptwriters navigate through the "Writing GPTs" section, making deliberate choices about which GPTs to use based on their specific needs or project goals. Each decision to select a GPT variation represents a moment where the scriptwriter asserts their agency, guiding the direction of their project. However, this agency is not isolated; it is linked with the capabilities and suggestions offered by ChatGPT. The AI, through its responses and generated content, also exercises agency, shaping the scriptwriting process in a collaborative manner.

#### The Interaction:

Distributed agency emerges in the selection of ideas based on ChatGPT's proposals (See Fig.5). Choosing from ChatGPT's ideas showcases how leveraging each other can boost the creative process. This selection is more than picking an option; it is about using human judgment to guide the story, highlighting the role of the scriptwriter in shaping the narrative. This partnership with AI changes the traditional scriptwriting process. By filtering through ChatGPT's suggestions, the scriptwriter acts as a director, pulling together pieces that fit their vision and the story's needs. It is a give-and-take relationship where the scriptwriter's creative control is enhanced by AI's input. This illustrates the concept of "agency augmentation," where human and AI contributions are not merely additive but synergistic, enhancing the creative potential of the partnership.<sup>65</sup>

At the same time, however, it introduces "agency trade-offs."<sup>66</sup> The AI exercises creative agency in giving 20 proposals of episodes, while the scriptwriter exercises agency in steering the narrative direction, choosing to explore one or two specific themes, thus showcasing their definite role in directing the creative vision. Instances where I request revisions to make the narrative more 'Black Mirror'-esque reflect the ongoing negotiation of creative control, highlighting the dynamic of agency between human and AI (See Fig.7).

These "agency trade-offs" also underscore the challenges and limitations of AI-assisted creativity. My frustration when ChatGPT's outputs diverge from the desired narrative direction illustrates the limitations of AI-assisted creativity. These moments of conflict, where the AI's contributions are perceived as superficial or misaligned with my vision, prompt a deeper engagement with the material, forcing me to articulate more specific guidance and direction in the prompts. This negotiation process, where I must intervene to steer the narrative, highlights the tension between guiding the creative process and being open to AI's contributions. This interaction, characterized by both synergy and discord, challenges traditional notions of creative sovereignty, suggesting a model of distributed agency where creativity emerges from the interplay of human and AI inputs.

#### The scriptwriter functions as director

### The Underlying Technology:

The transformer model's ability to produce text quickly and efficiently is central to the AI's utility as a creative tool. The important aspect here is that the nature and quality of the AI-generated text are heavily dependent on the input provided by the scriptwriter. This input comes in the form of prompts, which are not merely commands but creative cues that guide the AI.

<sup>&</sup>lt;sup>65</sup> Kang, and Lou, "AI agency vs. human agency," 1-2.

<sup>66</sup> Ibid.

The word "prompt" itself embodies the actions of bringing about, conveying, producing, and creating – actions that drive the process.

When a scriptwriter inputs a prompt, they are setting the thematic and stylistic direction for the content that ChatGPT generates. The transformer architecture supports this process through its self-attention mechanism, which evaluates each part of the input (the prompt) and determines how best to continue the text in a way that is coherent and contextually aligned with what was asked. This allows the AI to "understand" and expand on the scriptwriter's initial ideas, positioning the scriptwriter as director who shapes the narrative, tone, and substance without manually writing every component. Thus, the scriptwriter and the AI are co-creators, with the scriptwriter directing the AI's textual output through prompting. This underscores how the scriptwriter's authorship is evident in every piece of AI-generated content.

#### The Interface:

The homepage's emphasis on text-based interaction reflects the shift towards Pott's "handsoff" approach for the scriptwriter, where the act of creation involves a recombination of existing elements.<sup>67</sup> By fostering a "hands-off" approach, where the scriptwriter does not directly write text but instead directs and assembles AI-generated content, ChatGPT challenges traditional notions of what it means to be an author. The scriptwriter assumes a role akin to what Roland Barthes described as the "author-as-scriptor."<sup>68</sup> Here, scriptwriters work with both each other and AI, acting more like directors who bring together different outputs from ChatGPT to create a story. Their role is not diminished but transformed, with creativity manifesting not in the act of initial creation but in the selection, refinement, and assembly of ideas.

Instances in which scriptwriters actively engage with the ChatGPT interface illustrate the evolving concept of authorship in the context of AI collaboration. Features such as the ability to explore different GPTs, the prompting system for generating content, and the capacity to upload and integrate external references all facilitate a creative process where scriptwriters work in a "hands-off" approach with ChatGPT. This collaborative environment challenges the human-centric model of authorship, proposing instead a distributed, interactive process where creativity emerges from the interplay between human intuition and computational creativity.

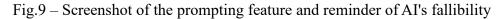
<sup>&</sup>lt;sup>67</sup> Potts, The Near-Death of the Author, 153-154.

<sup>68</sup> Ibid.

However, this shift also raises questions about the locus of creativity and originality. When AI significantly contributes to the content of a script, traditional markers of authorship – originality, voice, and individual expression – become more complex. Scriptwriters may find themselves negotiating their authorial identity, balancing their input with the AI's contributions. This negotiation is a characteristic of the redefined authorship in AI-assisted scriptwriting, reflecting a broader trend in creativity where authorial roles are increasingly collaborative and multifaceted.

The presence and design of the prompting feature within ChatGPT's interface are representative of a deeper transformation in the concept of authorship within the context of AI-assisted scriptwriting. By positioning this feature prominently, the interface not only facilitates immediate interaction but also reinforces the scriptwriter's centrality in the creative process (See Fig.1). This design choice reflects an understanding of authorship, where the scriptwriter, despite not generating every piece of text, exerts a guiding control over the narrative's direction and development through strategic interactions with AI.

This reimagined process presents authorship as a collaborative, iterative process where the scriptwriter and AI co-create the narrative. The ability to upload external content further enriches this dynamic, enabling scriptwriters to incorporate a wider range of options and ideas into their scripts. The feature, in conjunction with the recurring reminder of AI's fallibility acknowledges the technology's limitations while emphasizing the scriptwriter's role in critically evaluating and integrating the AI's contributions into their work.





Such a model of authorship aligns with the norms of collaborative creation, embedded within ChatGPT's design. It suggests an environment where creativity is not bounded by individual human imagination but is expanded through the integration of AI's computational capabilities. This integration challenges scriptwriters to reconceptualize their role to directors of a creative process that blends human insight with machine intelligence.

Furthermore, the green "Create" button in "Explore GPTs" in the top right corner, prominently colored, and designed with a '+' symbol to draw attention, symbolizes the encouragement for users to contribute to the ecosystem by creating and sharing their own GPT

variations (See Fig.2). This feature empowers scriptwriters to assert their authorship by crafting tools tailored to their specific needs. The button highlights the shift towards a more collaborative notion of authorship, by enabling scriptwriters to shape in which context the AI operates to a certain extent. This model blurs the traditional lines of authorial attribution, aligning with the "author-as-scriptor" concept where human and machine intelligences are intertwined, and creativity is seen as the recombination of existing elements into new configurations.<sup>69</sup>

The "Writing GPTs" category also challenges traditional concepts of authorship. By providing tools that mimic human experts or assistants, ChatGPT blurs the lines between human and machine-generated content. This blurring aligns with the reevaluation of authorship in the digital age, where the act of creation involves the interplay between the scriptwriter's directional input and AI's execution. AI's role is acknowledged and integrated into the creative output. This dynamic interaction redefines the scriptwriter's authorial identity, positioning them more as directors of a collaborative creative process than creators.

#### The Interaction:

Focusing on authorship in the context of scripting with ChatGPT, the interplay between human input and AI-generated content initiates a profound reevaluation of what it means to be an author. The task of generating twenty original episode ideas and subsequently refining these ideas into a cohesive narrative with ChatGPT exemplifies a shift from a traditional authorial role to one that is more akin to a director, navigating through a landscape shaped by both human and machine intelligence (See Fig.5).

Authorship is reimagined as a partnership between human and machine, where the scriptwriter directs the narrative's backbone. Themes, character arcs, and plot twists, traditionally the result of long contemplation and drafting, are now co-created with AI, blending the scriptwriter's conceptual vision with the AI's ability to generate content on demand. This approach to scriptwriting leverages the AI's repository of information to introduce elements or directions, enriching the narrative and challenging the scriptwriter to integrate these AI contributions into a cohesive story. This redefines the boundaries of what it means to write, presenting a model where the narrative product is a result of intertwined human and AI creativity.

<sup>&</sup>lt;sup>69</sup> Potts, The Near-Death of the Author, 153-154.

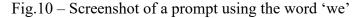
An instance where authorship is being addressed is when I refined prompts and discuss story developments with ChatGPT (See Fig.8). The use of prompts to refine and redirect ChatGPT's outputs underscores the exercise of authorship in AI-assisted scriptwriting. The decision to rewrite prompts or to challenge ChatGPT to generate more original or surprising content reflects an active engagement with the material, where the scriptwriter navigates the line between maintaining creative control and leveraging AI's capacity for idea generation.

During my interaction with ChatGPT, I also experienced the limitations of AI-assisted creativity. Instances of disagreement, when the AI's inputs seem shallow or not in sync with my expectations, compel me to provide clearer, more detailed instructions and feedback in my prompts (See Fig.7). This negotiation process, where I must intervene to steer the narrative, shows the directional role of the scriptwriter, highlighting the tension between following one's own ideas, guiding the creative process, and being open to AI's contributions.

My reflections on authorship reveal a complex relationship with the AI-generated script. Steering the creative process, I found myself directing aspects of the script, such as character names, plot development, and genre. These decisions, though general, were pivotal to shaping the narrative, affirming a sense of authorship over the story. Yet, this sense of authorship is accompanied by a peculiar dissonance, as I did not directly produce any textual content for the story. My role alternated between that of a scriptwriter and a director, where the engagement primarily involved inputting prompts and navigating through ChatGPT's suggestions.

Initially, my interactions with ChatGPT were exploratory, soliciting ideas and scenes upon which decisions could be made. This phase did not involve deep engagement with the story's content but rather a directive role, guiding the AI to generate potential narratives. As the process evolved, my contributions became more specific, targeting the content more directly, yet the foundation of our collaboration remained in refining AI-generated proposals. The permanent feeling of being in a collaborative partnership with ChatGPT underscores my experience. Despite the indirect engagement with the text, a strong sense of authorship persists, because, without my directional inputs, the script's creation would be shallow.

ChatGPT, devoid of intrinsic motivation or the capacity for original thought as humans understand it, relies on the scriptwriter's guidance and input. While I acknowledge a "handsoff" approach in text production, my overarching control and creative direction over the script's development cement my sense of authorship over the entire script, to the extent that I would attribute my name to it. This experience exemplifies the "AI Ghostwriter Effect," encapsulating the ambivalence of feeling authorship over a product predominantly generated by AI.<sup>70</sup> The realization, that the prompts I entered – though not part of the script's content – played an important role in the script's initiation and development, prompts a re-evaluation of their significance. These prompts, essential for interacting with ChatGPT, raise questions about their role in the final creative output and the extent to which they should be considered part of the script. Notably, the unconscious use of "we" in the prompts underscores a perceived collaborative dynamic with ChatGPT, reinforcing the concept of AI as an active participant in the creative process.





This linguistic choice, realized only upon later reflection, strengthens the theoretical underpinnings of AI's role in creative activities, highlighting the emergence of new content, the synergy between human and AI agency, the negotiation of "agency trade-offs" and "agency augmentation," and therefore also authorship.<sup>71</sup>

#### **Chapter 5: Conclusion**

#### **Key Findings**

Integrating the insights from examining creativity in AI-assisted scriptwriting, the parallels and differences with Charlie Brooker's attempt to create a "Black Mirror" episode using ChatGPT serve as a compelling framework. Brooker's experiment, characterized by his critique of AI-generated content as lacking the depth and originality required for his narrative purposes, echoes the complexities encountered in this study. Reflecting on the experiment in relation to Brooker's experiences, it becomes apparent that the integration of AI in creative processes like scriptwriting necessitates a re-evaluation of established concepts. Where Brooker found AI's output unsatisfactory, this study identifies a role for AI in creative collaborations, underscoring

<sup>&</sup>lt;sup>70</sup> Draxler, Werner, Lehmann, Hoppe, Schmidt, Buschek, and Welsch, "The AI Ghostwriter Effect," 15.

<sup>&</sup>lt;sup>71</sup> Kang, and Lou, "AI agency vs. human agency," 1-2.

the importance of human oversight in steering AI-generated content towards operational narrative outcomes. The efforts to transcend cliché and predictability in AI-generated scripts not only demonstrate a deep engagement with the material but also illuminate the shifting dynamics of creativity, where the boundaries of human and machine contributions are continuously explored and redefined.

Traditional concepts of creativity have been rearticulated with the introduction of ChatGPT in multiple ways. The transformer architecture of ChatGPT 4.0 and its ability to process vast amounts of textual data generates novel content by recombining vast datasets in unique ways. The transformer model's capacity for understanding and generating contextually relevant responses allows AI to offer creative suggestions that can serve as inspiration or a direct contribution to scripts. This shows that machine learning models can also produce creative ideas through their unique processing capabilities. The interface of ChatGPT 4.0 facilitates creative interactions, playing an important role in how scriptwriters engage with the AI. Features such as the prompt system, which encourages users to ask open-ended questions or propose scenarios, enable scriptwriters to explore a broader range of creative ideas. The interface design, which supports interaction with AI, ensures that scriptwriters can iteratively refine these ideas, integrating their creative insights with the suggestions generated by the AI. This setup supports a collaborative environment where the scriptwriter blends their creative vision with computational creativity. The interaction between scriptwriters and ChatGPT 4.0 is where the renegotiation of creativity is most apparent. Through this collaboration, creativity is no longer seen as an endeavor of the scriptwriter but as a synergistic process of both human and AI. In practice, this means scriptwriters engage with AI-generated ideas, refine them, and contextualize them within the narrative framework of their scripts

The ChatGPT 4.0 interface offers both enhancements and limitations to the creative processes. On the one hand, the interface facilitates creativity primarily through its design that encourages interactive and iterative exchanges. The prompt-based interaction system simplifies the generation of content, allowing scriptwriters to quickly develop and refine ideas. Additionally, the "Explore GPTs" section provides specialized tools tailored to various aspects of writing, enabling scriptwriters to access a broad range of functionalities that support different stages of the creative process. These features collectively expand the creative capabilities of scriptwriters, fostering a dynamic environment for narrative exploration. However, this facilitation comes with inherent constraints. The reliance on structured prompts can sometimes channel creativity into predictable outputs, limited by the AI's training data. This may restrict scriptwriters to familiar narrative paths, potentially restraining originality. Moreover, the ease

of generating content could lead to an over-reliance on AI, possibly diminishing the depth and nuance that is needed for scriptwriting.

Instances of creativity in the collaboration between scriptwriters and ChatGPT 4.0 manifest distinctly across three levels: technological, interface, and human-AI interaction, each contributing to the creative process. At the technological level, ChatGPT 4.0's transformer model is enhancing creativity. By processing vast datasets, the AI can generate a wide range of narrative elements and plot developments. This capability presents scriptwriters with perspectives that can spark new creative directions. Moving to the interface level, the promptbased system allows scriptwriters to input specific queries or scenarios, to which the AI tailors its responses. This setup supports creative experimentation and the evolution of the narrative through direct and iterative interaction. Scriptwriters can refine their prompts in response to AI-generated ideas. More instances of creativity occur at the human-AI interaction level. Here, scriptwriters engage with the content generated by ChatGPT. They evaluate, select, and refine the AI's suggestions to suit their visions. This engagement is inherently dynamic; scriptwriters may take an AI-suggested scenario and expand it, integrate it with other ideas, or modify its direction to better fit the narrative's intended tone and style. This process of tweaking and cocreating leads to richer and more nuanced narratives, showcasing the collaborative nature of creativity where human insight and AI capabilities merge to push the boundaries of traditional scriptwriting.

#### Limitations

I acknowledge certain constraints that may impact the generalizability and scope of this thesis. The primary limitation stems from its methodological strategy, which centers on an isolated case study. While this investigation affords a detailed exploration of the dynamics between a scriptwriter and AI, it inherently narrows the lens through which the creative process is examined. This reliance on a single, subjective experience might not fully encompass the diverse range of encounters and viewpoints that professional scriptwriters could contribute. Such a methodological choice limits the study's ability to universally represent the complex interplay of creativity, agency, and authorship in AI-assisted scriptwriting.

Moreover, the scriptwriting landscape is not static; especially with the rapid advancements in AI technologies. The capabilities of AI tools are in a state of flux, with new functionalities and improvements being introduced at a swift pace. This dynamic nature of AI development suggests that the insights and observations derived from this study, while relevant today, may require reconsideration or modification in light of future technological breakthroughs. As AI systems become more sophisticated, their impact on the creative process, the role they play in augmenting human creativity, and the ways in which they influence notions of authorship and agency could shift. Therefore, the findings presented here should be viewed as a snapshot within an advancing field.

#### **Further Research**

In light of these limitations, there emerges a clear pathway for future research. Expanding the methodological approach to include a broader array of case studies and incorporating the experiences of a wider range of scriptwriters could provide a more comprehensive understanding of AI's role in creative processes. Such studies could explore how different writers leverage AI tools, the challenges they face, and the strategies they employ to integrate AI into their workflows. Additionally, longitudinal studies that track the evolution of AI technologies and their adoption in creative practices over time would offer valuable insights into the changing landscape of digital creativity.

#### **Bibliography**

- Burke, Claire. "Artificial Intelligence: Machine Learning and Computational Creativity." *Digimag* 76 - *Summer* 2017, (October 2017): 1-75. <u>https://issuu.com/digicultlibrary/docs/digimag76</u>.
- Celis Bueno, Claudio, Pei-Sze Chow, Ada Popowicz. "Not 'what', but 'where is creativity?': towards a relationalmaterialist approach to generative AI." *AI & Society*, (2023): 1-24.
- Cinecom.net. "How I Wrote a Killer Screenplay Using CHATGPT Hacks." YouTube, August 18, 2023. <u>https://youtu.be/i7y25bIU\_Qk?si=OuDjOYXso8VqxnXv</u>.
- Draxler, Fiona, Anna Werner, Florian Lehmann, Matthias Hoppe, Albrecht Schmidt, Daniel Buschek, and Robin Welsch. "The AI Ghostwriter Effect: When Users Do Not Perceive Ownership of AI-Generated Text But Self-Declare as Authors." ACM Transactions on Computer-Human Interaction, Vol. 31, No. 2 (February 2024): 1-40, https://doi.org/10.1145/3637875.
- Film Booth. "How to Write Scripts Better than 99% of YouTubers." YouTube, October 26, 2023. https://www.youtube.com/live/a5438jzwVnQ?si=8kMt3UhEFY1s-u32.

- Hageback, Niklas. "AI for Creativity." In *AI for Everything*, 1-97. Boca Raton: CRC Press, 2021. <u>https://www.taylorfrancis.com/books/e/9781003194941</u>.
- Kang, Hyunjin, and Chen Lou. "AI agency vs. human agency: understanding human–AI interactions on Tiktok and their implications for user engagement." *Journal of Computer-Mediated Communication* 27:5, (2022): 1-13. <u>https://doi.org/10.1093/jcmc/zmac014</u>.
- Knives Monroe. "5 Chat GPT Prompts for Screenwriting." YouTube, January 22, 2023. https://youtu.be/1IAK2YpnsJ4?si=Gf63fnfmyipo9Qw4.
- Light, Ben, Jean Burgess, and Stefanie Duguay. "The walkthrough method: An approach to the study of apps." *New Media* & *Society*, 20 (3), (2018): 881-900. <u>https://doi.org/10.1177/1461444816675438</u>
- Makayla Lysiak. "Basic Elements of a Film Script for Beginners! (How to Format, Read and Write a Screenplay!)." YouTube, March 6, 2022. <u>https://youtu.be/-3uO0Qqfklo?si=qG42olfGRPgvUSU\_</u>.
- Nelson, Jason. "Black Mirror' Creator Says Chatgpt Episode Script Was 'Shit." Decrypt, June 7, 2023. <u>https://decrypt.co/143647/black-mirror-creator-says-chatgpt-episodescript-was-shit.</u>
- Olympia Independent Pictures. "How to Write Scripts with Chatgpt (Easy Step by Step Guide for Beginners)." YouTube, December 19, 2022. <u>https://youtu.be/Xs7wieu-35k?si=\_a6aVJQimP9vD0sH</u>.
- Potts, John. *The Near-Death of the Author: Creativity in the Internet Age*. Toronto: University of Toronto Press, 2022.
- Rian Spaulding. "How to Write a Short Film Script." YouTube, November 21, 2020. https://youtu.be/\_9eaz0o-rk8?si=mU-2-IF5hFrbEYy1.
- Stanfill, Mel. "The Interface as Discourse: The Production of Norms through Web Design." *New Media & Society*, Vol.17(7), (2015): 1059–1074. https://doi.org/10.1177/1461444814520873.
- StudioBinder. "Anatomy of a Screenplay Movie Script Format Explained (and Why It Matters)." YouTube, July 17, 2023. <u>https://youtu.be/6PLSJBTzaGw?si=paKwXNyXPo\_vxM-4</u>.
- The Media Insider. "Start Writing Great Screenplays | Screenwriting Ultimate Guide!"YouTube,March28,2022.https://www.youtube.com/watch?v=FGQ9Cy9pZYs&abchannel=TheMediaInsider.

- Thorne, Sarah. "Hey Siri, Tell Me a Story: Digital Storytelling and Ai Authorship." *Convergence* 26, no. 4 (April 2020): 808–823. https://doi.org/10.1177/1354856520913866.
- Van Geenen, Daniela. "Critical Affordance Analysis for Digital Methods: The Case of Gephi." In *Explorations in Digital Cultures*, 1-21. Lüneburg: meson press, 2020. <u>https://doi.org/10.25969/mediarep/14855</u>.
- Visual Storytelling Team, and Madhumita Murgia. "Generative AI Exists Because of the Transformer." *Financial Times*, September 12, 2023. <u>https://ig.ft.com/generative-ai/</u>.
- Zeilinger, Martin. Tactical Entanglements: AI Art, Creative Agency, and the Limits of Intellectual Property. Lüneburg: meson press, 2021. https://library.oapen.org/handle/20.500.12657/50004.

## **Appendices**

### Appendix 1: Corpus of YouTube videos for the creation of a script guide

My search query on YouTube is "how to write a script," and "how to write a script with ChatGPT." I select videos based on criteria such as high viewership, relevance to scriptwriting, and being in English, and then sort the results by the filter "relevance" to ensure the most pertinent guides are included in my research corpus. The corpus of YouTube videos includes eight selected tutorials, which collectively offer a comprehensive overview of scriptwriting techniques and recommendations for using ChatGPT for scriptwriting:

# 1. <u>Basic Elements of a Film Script for BEGINNERS! (How To Format, Read and</u> <u>Write a Screenplay!)</u>

- 2. <u>How to Write A Short Film Script</u>
- 3. <u>How To Write Scripts Better Than 99% Of YouTubers</u>
- 4. <u>Start writing GREAT screenplays | Screenwriting ULTIMATE guide!</u>
- 5. <u>Anatomy of a Screenplay Movie Script Format Explained (And Why It</u> <u>Matters)</u>
- 6. <u>How To Write Scripts with ChatGPT (Easy Step by Step Guide for Beginners)</u>
- 7. <u>How I wrote a killer screenplay using ChatGPT hacks</u>
- 8. <u>5 Chat GPT Prompts for Screenwriting</u>

## Appendix 2: Step-by-step guide for writing a script with ChatGPT

Step 1: Concept and Genre Identification

- Define the Core Concept: What unique, creative idea or twist on expectations will my episode explore?
- Select a Genre: Decide on the primary genre. Consider mixing genres if it serves my concept.
- Determine the Theme: What central message or exploration will drive the narrative? How can personal experiences inform this?

Step 2: Logline and Hook Creation

- Craft a Logline: Summarize the episode in 1-2 sentences. Highlight the protagonist, their goal, and the main conflict.
- Develop a Hook: Use a compelling question, a surprising statement, or a visual/auditory element to grab the audience's attention immediately.

Step 3: Structuring Your Episode

- Three-Act Structure: Outline the episode into a beginning, middle, and end. Think about how scenes connect to form a cohesive whole.
- Setup: Introduce the setting, characters, and initial situation. Establish the tone and stakes.
- Confrontation and Development: Present obstacles, character development, and twists. Include loops or re-hooks to maintain interest.
- Resolution: Conclude the episode's arc, answering key questions and resolving conflicts.

Step 4: Character and Dialogue

- Character Development: Outline key traits, arcs, and relationships. Consider asking for ideas to add depth or complexity.
- Dialogue Writing: Craft dialogue scene by scene. Focus on natural speech patterns and character-specific voices. Use parentheticals sparingly to guide emotional delivery.

Step 5: Scene-by-Scene Breakdown

- Use Scene Headings: Clearly indicate location and time for each scene.
- Describe Actions Visually: Focus on what can be seen and heard. Avoid directing from the page.
- Incorporate Transitions: Use transitions like "CUT TO:" only when they are crucial to understanding the flow of the narrative.

Step 6: Revisions and Details

- Detailing: After laying down the basic structure and content, refine the script by adding symbolic elements, foreshadowing, and dilemmas to enrich the narrative.
- Dialogue Refinement: Adjust dialogue to ensure it fits the established style and tone of the episode.
- Feedback Loop: Consider re-evaluating the script's elements based on feedback or new ideas, enhancing character development, plot progression, and thematic depth.

Step 7: Final Touches

- Review and Polish: Go through the script multiple times, refining language, pacing, and coherence. Ensure that the episode's theme and message are clear and impactful.
- Consider Co-Writing: Remember that ChatGPT can act as a collaborator, feeding off my ideas and prompts to enhance the creative process.