Centering the Human: Digital Humanism and the Practice of Using Generative AI in the Authoring of Interactive Digital Narratives

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Abstract. This paper explores the application of chat-based Generative AI (GenAI) in the Interactive Digital Narrative (IDN) authoring process, advocating for a human-centered approach rooted in a Digital Humanist perspective. It scrutinizes GenAI's capacity to augment human narrative creation and unveils the complexities inherent in its integration into IDN authoring. The potential risks tied to GenAI's incorporation, including data exploitation, displacement of human labor, and the potential diminishment of human agency and creativity, are thoroughly examined. Offering a precautionary viewpoint, this work outlines Digital Humanist principles to guide GenAI's use in authoring, which includes elevating organic creativity and human agency. Further, emphasizing the need for transparency and accountability, the author underscores the importance of maintaining a harmonious, human-led creation process to serve the social good. The aim is to center the human elements of authoring while ethically leveraging GenAI's capabilities, paving the way for a future where IDNs embody collective human values and uphold creative integrity.

Keywords: Interactive Digital Narrative · Authoring · Digital Humanism · Generative AI · Ethics

1 Introduction

As chat-based Generative AI (GenAI) tools such as OpeanAI's ChatGPT, Google's Bard, Microsoft's AI-powered Bing, Midjourney, and more have entered mainstream use, anxieties about their potential impact on the creative industries have increased [1]. One of these anxieties is that GenAI will replace humans that are creative professionals. While such concerns are mainly hyperbolic, they identify a need to reflect on the relationships humans have with their AI production tools and their impact on the creative processes [2]. This relationship, mixed-initiative co-creativity, "assume[s] an autonomous computational system that explores the possibility space in its own ways as guided by human lateral decisions during the creative process, realizing and fostering human-machine co-creativity." [3] This "possibility space" could be authoring the system [4, 5], process [6, 7], and product [8] of an Interactive Digital Narrative (IDN).

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The author utilizes David Thue's definition of authoring "to be a process of making and acting upon decisions about how some elements of a narrative (or perhaps many possible narratives) should be"[9]. Scholars and practitioners IDN have a history of exploring GenAI in a mixed-initiative co-creative authoring process as part of authoring platforms [9–13] and Interactive Emergent Narratives [6]. IDN scholars have used GenAI to engineer dramatic beats [14, 15], narrative events and structures [16], and interactor models [17, 18]. However, new interoperable GenAI tools—integrated with development and design engines like Unity, Unreal, and Blender—scale the impacts of computational creative initiative and constitute a new IDN authoring practice. As more GenAI are utilized in the IDN authoring process of an IDN system, the human author is displaced.

Hargood and Green have discussed that the author's user experience using IDN authoring tools has received little attention [19]. Their insights come at a valuable moment when the products generated by GenAI tools can supplant human initiative in the co-creative process. When integrated with existing IDN authoring tools, GenAI can scale the efficiency of authors and their resultant experience's complexity [11]. In such an instance, the authorial burden of authoring IDNs [20] is eased as GenAI are used as an intelligent narrative technology [9] to overcome bottlenecks in production [13]. This use of GenAI can occur in all stages of IDN authoring, from ideation to post-production [21]. However, as a byproduct, less human authoring is required as various production tasks are automated. This shift in labor alters the creator's authoring experience and can diminish human creative initiative and the novelty of created experiences [2].

In response, the author outlines and positions a Digital Humanist perspective on creators using GenAI as part of their IDN authorship. A Digital Humanist perspective emphasizes humanity's active role in the digital age, harnessing technology while retaining a focus on human values and dignity. The position empowers IDN creators to use GenAI in their mixed-initiative co-creativity processes while upholding a commitment to human creativity, wellness, and experience. By navigating the relationship between the affordances of GenAI and the humanist aims of narrative, the author outlines a vision of IDN authoring that centers the human creative initiatives while displacing the creative processes of GenAI. The article's central contribution is establishing a Digital Humanist perspective on using GenAI as part of IDN authoring.

1.1 GenAI as an IDN Authoring Tools

The way the author has discussed using GenAI in an IDN authoring practice crosses traditionally understood definitions of IDN authoring tools [9–11, 19]. Extending upon previous work [10], Shibolet and Lombardo define IDN authoring tools with three criteria. One, an IDN authoring tool comprises an independent and comprehensive workspace for IDN creation; two, the tool simplifies the authoring process; and three, a community of practitioners actively uses it [11]. According to this framework, chat-based GenAI tools are not IDN authoring tools. They afford procedural authoring, creating, designing, and developing as part of the creative process but are not used solely for IDN.

Further, the author does not invoke GenAI as an authoring tool in the same context as Kreminski and Mateas when they discuss Interactive Emergent Narrative (IEN). Their perspective is that of player-authorship [6], wherein the interactor's engagement with the

IDN system produces narrative meaning-making through an emergent process. Thue's inclusive definition of intelligent narrative technologies encompasses GenAI when such tools are used toward narrative ends [9]. Scaling Thue's recognition, the author positions GenAI as influencing the entirety of IDN authoring practices in the IDN system [2, 13, 22].

The latest The COST Action INDCOR (Interactive Narrative Design for Complexity Representations) paper proposes an action-thinking author model [23] with five phases that can all be influenced or automated by multiple GenAI tools. Ideation, meaning-making, and interaction can all be aided or automated by OpenAI's GenAI tools and plugins for code and design generation. Unity's AI Muse and Sentis can generate code, art assets, animations, and more for IDN authors [24]. Authors can validate their IDN experiences through generated and synthetic interactors [25]. Distributing the experience into an audience's hands is moderated by recommendation machine learning algorithms [26]. GenAI tools can increasingly edge human creative labor out of the IDN authoring process. However, this does not have to occur. The potential to pervasively use GenAI across all aspects of the IDN authoring practice impacts the resulting narratives [19], the creative initiative of human authorship, and requires perspective.

2 The Digital Humanist Perspective

Humanism is a philosophical stance that emphasizes the value and agency of human beings. Enduring in Humanism, the freedom of narrative expression and its necessity situate storytelling and the creation of narrative as innately human. Humans use narrative to communicate ideas [27, 28], understand identities [29, 30], and claim values [31, 32]. As storytellers, humans use narrative to express themselves through their voices, exercising autonomy and agency [33, 34]. Through this process, humans use narrative to make sense of the world to produce knowledge [35, 36]. IDN helps humans explore even more complex information in their worlds [37, 38]. A Humanist perspective on narrative and interactive narrative recognizes the value in the human's centrality in the IDN authoring process. As GenAI tools alter this process, a Digital Humanist perspective seeks to elevate and valorize the human elements of narrative creation.

The Digital Humanist perspective arose in many ways because of dissatisfaction with the contemporary understanding of Humanism, the tensions between Post-humanism and Transhumanism, and the accelerated growth of digital technologies [39]. Published in 2019, the Vienna Manifesto on Digital Humanism succinctly names these challenges and puts forward principles [40]. Critically, Digital Humanism stresses "the active and transformative capacities of human beings in the digital age." Digital Humanists seek the "development of digital technologies and society that is focused on the need of humans to liberate themselves from digital class society, digital domination, and digital ideology […] to together create a good digital society" [39]. Digital Humanists work practically to develop knowledge that results in a humane digital society where all benefit. As a philosophy, Digital Humanism aligns in many ways with Data Feminism, which seeks to challenge structures and power dynamics in data practices [41] to promote a more equitable form of data science [42]. It follows then that authoring IDNs, "should be shaped and used in manners that do not harm society and humans, but rather support the

establishment of a good, humane society" [43]. News organizations and other groups are already seeking to use IDN in the manner. Take, for example, INDCOR's work, "addressing complexity as a societal challenge by representing, experiencing and comprehending complex phenomena and thus also address the issue of 'fake news'" [44]. Such an example can be read as a Digital Humanist endeavor.

This approach contradicts Post-humanist or Transhumanist approaches to using GenAI in IDN authoring. These two philosophical positions engage with the relationship between humans and technology differently and provide different framing for GenAI's use in IDN authoring. Post-humanism challenges the centrality of humanity as a universal frame. For example, game developer Luden.io released a game that was made entirely using GenAI. The developers used, "all the generative systems we could find" [45]. Everything from dialogue to character art was generated. Reading the post-mortem of the project from Luden.io developer, Oleg Chumakov, they intentionally ceded creative agency to the GenAI tools [45]. They relied on prompts and fine-tuning but the major creative efforts were handled by GenAI.

Technological Post-humanists argue that human exclusivity is undermined as technologies become more integrated into humans and societies [43, 46]. This equalization shifts agency and authority toward GenAIs away from human creators. David Thue invokes a Post-humanist perspective on authoring when he states,

> It is common to say that an AI system 'decides' which output(s) it should produce as it operates. Since authoring is about making and acting upon decisions, we say that an authoring process can include a narrative AI system; in such cases, the decisions that are made during authoring will be shared between the author(s) and the system.

Contrarily, Digital Humanism would say that authoring is not shared but is directed and owned by the human creator. From a Transhumanist perspective, GenAI and human creators would not be separate entities but a single, technologically-enhanced creator with a shared agency in authoring the IDN. In this instance, the creative agency is collapsed into the cyborg that produces an IDN, not with, but through both organic and computational processes [47]. Transhumanist authoring may be many years off from being realized. Digital Humanism re-centers authorial agency and authority with humans, using digital technologies to expand human nature and human values rather than diminishing them (as in Post-humanism) or overstepping them (as in Transhumanism). For Digital Humanist IDN creators, GenAI is used with IDN authoring tools to scale human inclusivity, agency, creativity, values, dignity, and well-being—not diminish them.

3 The Digital Humanist Interactive Storyteller

The Digital Humanist IDN creator is empowered to use GenAI in their authoring as a material practice. Central to this practice is recognizing that storytelling and narrative are and always will be a human practice—that the creation and use of stories are central to human nature and the well-being of human society [48]. The following section outlines Digital Humanist principles for utilizing GenAI tools in an IDN authoring practice.

3.1 Elevating Organic Creativity

Central to a Digital Humanist's approach to IDN is an appreciation, respect, and elevation of organic creativity. Giovanni Emanuele Corazza, the founder of the Marconi Institute of Creativity and scholar of creativity and innovation, outlines organic creativity as "the potential for originality and effectiveness conducive to personal and social well-being" [49]. Corazza considers creativity and creative behaviors a productive practice in pursuing human happiness. Kreminski and Mateas have drawn a similar observation from the "play-pleasures of authorship" in some IENs [6]. Going further, Corazza couples joy with creative production to pursue well-being and human dignity. In response, but not condemnation, of computational creativity, Corazza states, "We should actively work to preserve and enhance the authentic, emotional, unique capacity of human minds to intentionally generate truly original and effective outcomes in our relational mesh leading to cultural accumulation. Authenticity is a fundamental element in establishing originality" [49]. This invocation is reminiscent of Walter Benjamin's observations on art and mechanical reproduction [50]. Corazza builds upon Benjamin's invocations by drawing a direct line between organic, authentic creative endeavors and the joy of producing something novel.

When discussing the relationship between AIs and humans, there is a tendency to either anthropomorphize the AI or technomorphize the human [51]. Understanding that each intelligence, human and artificial, progresses along unique routes of wildly different complexity underscores the fallacy of this parallelism [52]. In the first instance, humans get pleasure from creating narratives. A GenAI does not and cannot feel pleasure in the mechanistic creation of narrative assets or systems. Further, humans improve their social well-being when they share stories with others. AIs do not have a capacity for well-being, so producing or generating narrative content does not impact their underlying mechanisms or relationships with other entities. GenAI cannot imagine like a human; even machine hallucinations—aberrations in images, texts, and produced artifacts—are abstracted from the collective organic intelligence upon which a creator trains their GenAI. A Digital Humanist IDN author values the organic production of humans above material automated by tools. They celebrate the fundamental value of human storytelling and appreciate its beneficial influence on social well-being and human growth. A Digital Humanist IDN author chooses organic creativity over GenAI to scale the positive and pleasurable experiences of authoring IDNs for humans.

An example of supporting organic creativity while using GenAI to scale the human elements of IDN authoring is the immersive theater experience, *Bad News* [53]. Performed in 2016, *Bad News* placed interactors in a procedurally generated town with a simulated history. An improvisational actor took dialogue prompts generated by the system and engaged with interactors live. GenAI generates the characters, town, and knowledge before the experience begins. Each town in *Bad News* is unique. A live-coding programmer known as the "wizard" moves an avatar of the live interactor around town based on that interactor's voice commands. The wizard also engaged in story sifting [4], "the wizard queries the simulation to search for narrative intrigue and potential dramatic nuggets that may be nestled in all its accumulated data" [53]. The wizard uses their creative curiosity to key up dramatic moments for a human actor to perform. Indeed, the actor in *Bad News* had to bring considerable improvisational talents to the work.

While GenAI provided the raw data, human creatives utilized their talents to create an organic process of narrative meaning-making for their interactors. GenAI is integral to the system's authoring, but the process of narrative meaning-making is only given life with the wizard's and actor's organic creativity.

3.2 Protecting Human Agency: Augment Instead of Substitute

Recognizing the centrality of organic creativity and its necessity to human well-being encourages Digital Humanist IDN creators to be inclusive of human creative efforts as they use GenAI in their IDN authorship. However, existing structures challenge this inclusivity. Aleena Chia of Goldsmiths discusses how the procedural generation of game art and assets is resulting in an underclass of creatives [54]. This underclass's work on conditioning algorithmic outputs is denigrated as a less-than-creative practice. These human artists' dignity is impugned. What Chia describes involves the substitution of human creatives and creative work accelerated by ceding too much creative agency to algorithmic generation.

Sense of Agency (SoA) is a constructive term for understanding the appropriate amount of agency to give a GenAI in a mixed-initiative creative interface [55, 56]. It is best understood by an example: a human flipping a switch to turn on a light might respond when asked who turned the light on, "I turned the light on." This response expresses a robust SoA. In authoring IDNs, a strong SoA occurs when the author feels that their use of GenAI effectively translates their narrative intentions into reality. They should feel that their creative decisions and outcomes are rooted within themselves, not the GenAI, asserting their role as the human creator. When an author gives the GenAI more agency than themselves, creators can feel distance from a resultant experience and perceive it as less novel [2].

Authors use GenAI as an action augmentation: "The system assists the user's action to produce the intended outcome" [55]. For example, *CharacterChat* is a GenAI tool supporting writers' creation of fictional characters [57]. To this end, the GenAI tool uses guided prompts for character motivations and suggestions for attributes to progressively transform the tool into the character the human author seeks to develop. The tool turns into the character the author is developing the longer they engage. In this instance, the author's action (developing a new character) is augmented by the GenAI system. Throughout the process, the human does not feel like their creative agency is diminished: the character deepens as they develop it. Compare this to work by Guzidal and Riedel, where the interactor and GenAI take turns authoring an artifact [58]. In that instance, agency shifts back and forth from AI to a human creator in a Post-humanist authoring relationship. In *CharacterChat*, the human creator defines all attributes, and the AI cannot depart from them—the human maintains creative agency. Critically, a Digital Humanist does not see agency as shared with an AI—the IDN creator is the agential actor—so safeguarding, valorizing, and recognizing human creative agency is critical.

3.3 Obligations: Transparency and Trust

GenAI systems are perceived as trustworthy when their processes are transparent and interpretable [59, 60]. However, the complexity of these GenAI systems can make it

difficult to be transparent about their reasoning and actions [61]. Interactors of IDN deserve to know how an author has used a GenAI in the same way they are aware of the development engines of their games and the cameras used to shoot their movies. These disclosures respect their agency as human consumers who care about production processes. Writing on computational creativity in 2009, Simon Colton and colleagues underscore that constructing AI systems for creativity involves social perceptions of the process as much as technical considerations [62]. A Digital Humanist approach to IDN production using a GenAI involves fully disclosing its use. Transparency in the production process makes it easier to discern how human elements and creative initiatives are implemented [61, 63]. This disclosure informs the Digital Humanist IDN creator's accountability to the dignity of their fellow human creators, communities, and society as they work to expand human agency and meaning-making through IDN.

Transparency regarding training data and how a GenAI renders that data for an IDN creator is also necessary. GenAIs are trained on the collective intelligence and production of humans. As such, they are biased, and those models trained on the open internet primarily represent the global north and west [64, 65]. Much like IDN, a concerted effort to call out and decolonize these models is critical [17]. In any case, the contemporary datasets have been sourced without direct consent from those individuals [66]. The lack of transparency and erosion of trust diminishes the value of human creativity and the resultant artifacts. IDN creators must be mindful of how their GenAI tools source their training data to maintain the dignity of their fellow creators and audiences.

Human efforts demand recognition as part of building trust through transparency. Recognizing this effort and being transparent about GenAI's use reduces the tool to a statistical abstractor. GenAIs find patterns in what has already been produced by humans. They do not develop what has been said or created but scrape together something similar to what others have published. Reducing GenAIs to this function cements the entity as a tool—nothing more—that authors can use in their process. It is not a collaborator on par with a human nor a divine muse.

3.4 GenAI as the Divine, the Muse, and Other False Narratives

In the contemporary moment, there is a tendency in scholarship and industry to conflate human creators and computational processes for creativity [16, 39]. Further, some members of the mainstream press glorify AI as divine [52]. An article by Stephen Marche of the Atlantic claims that "an encounter with the superhuman is at hand" [52]. Technocrats tend to frame GenAI as a demonic or an angelic savior. Both parallels run counter to Digital Humanist thought. Andrews wrote in 2015, "Humanism is a 'philosophy or set of beliefs, that holds that human beings achieve a system of morality through their own reasoning rather than through a belief in any divine being" [67]. Humanism has long rejected concepts of the divine as vehicles to make meaning of human situations. Such analogizing and semantic work contradicts "human reason applied to evidence in contrast with theism, theological speculation, and revelation" [67]. Beyond stultifying intellectual engagement, these claims simplify or abstract implementation into some sorcery while diminishing technical literacy in the underlying systems of GenAI.

The Digital Humanist IDN creator rejects these false narratives and does not use them to explain authoring processes, inspiration, or the resulting artifacts. For example,

Digital Humanist IDN creators would dismiss the Transhumanist theological assertion that Gen AI is a "created co-creator" and that "God is working through the human creatures to develop robust technologies, for good" [68]. Digital Humanism pursues a secular approach to avoid the abuses made in the name of the divine. Such a rejection is critical for maintaining an IDN author's ethical, social, and cultural accountability [69]. This accountability is essential when considering how IDNs can transform [37, 70] and influence the behavior of interactors. Roth and Koenitz discuss how interactors construct "personal meaning from a story or piece of art" through eudaimonic appreciation [71].

> Media users with eudaimonic motivations seek entertainment offerings that deal with decisive and meaningful life events. By observing how characters cope with hardship or how they emerge victorious from a difficult challenge, they hope to deduce general life lessons, even insights into the meaning of life.

In the IDN authoring process, deferring to an AI-as-Divine-Creator or AI-as-Agential-Collaborator—instead of as a tool—shifts these "entertainment offerings" to illuminated texts. Meaningful life events are not defined by human minds but are said to be handed down to them by divine AI-like revelations. The responses to decisive life events are not originated through the design of an IDN creator but are claimed to be developed at the behest of an inscrutable GenAI. The false narrative becomes a rhetorical mechanism for the author to avoid the harmful effects of an IDN system. As discussed by IDN scholars, IDN can be used for ill ends [69, 72], and the authority of the divine associated with a GenAI tool may scale those negative impacts. This technochauvinism is a step backward and contradicts Digital Humanism's secular foundation.

4 Counter Arguments to a Digital Humanist Approach to GenAI's use in IDN Authoring

There are limitations and critiques to the Digital Humanist approach to using GenAI in IDN authoring. The author wishes to address these to expand the position and invite further deliberation. As societal, cultural, political, technological, and economic factors interact, these debates will evolve. The author is writing from a particular time-slice in a quickly changing space.

4.1 IDN has Always been a Digital Humanist Endeavor

One of the earliest forms of IDN was a teaching tool [73]. INDCOR explores IDN's use in comprehending complex issues [38]. These are ostensibly applications that can be understood through a Digital Humanist lens. However, as Bernstein discusses, IDN can be used for domination and villainous intent [72]. Henry Jenkins referred to the 2016 presidential campaign of Donald Trump as a deviously successful transmedia campaign [74]. While there is an inclination to use IDN toward humanist ends, there are ways in which the field's research and artifacts can be used for ill. Much like Digital Humanism is a response to Humanism's failings, as a field, IDN must grapple with how the systems we have explored and designed might be used to dimmish human well-being. Moreover,

while previously procedural content generation tools were used as part of larger human-led production efforts [75], interoperable GenAI tools can displace more of that creative effort in the authoring practice. It is increasingly essential to center the human in this authoring process to keep creative minds working together to produce IDNs that improve the lives of interactors.

4.2 Digital Humanism is a Luddite Approach to AI in IDN

In the face of Post-humanism and Transhumanism, the author recognizes that Digital Humanism is a relatively conservative or precautionary approach to the relationships between humans and their creative tools. However, the idea that Post-humanism and Transhumanism will surpass the Digital Humanist position speaks to a tech determinism and fatalism that diminishes human agency. The approach is not Luddism because it embraces the "human being and its abilities and uses digital technology to expand them, not defeat them" [39, 76]. Technochauvinism, technological determinism, or belief in the divine providence of GenAI works against the humanization of the world for all. Post-humanism and Transhumanism would speed technology integration at the cost of human nature to achieve a romantic vision of human equity. In such an instance, the Digital Humanist is skeptical that structures of oppression would not stretch their tentacles in new ways to dehumanize the world through emerging technology [77, 78]. Indeed, more technology and computation may not solve the social and ethical challenges of using GenAI in the process of IDN authoring [79, 80]. Instead, maintaining a human-centered approach in the relationship with GenAI keeps our focus on liberating, empowering, and elevating humanity to build a "humane digital society where all humans lead a good life, flourish, and can realize their potential." [39].

4.3 AI Supplementation of Creativity

Critics of Digital Humanism's approach to GenAI in IDN might suggest that the tools be used to supplement human production so that human authors can focus on larger and more complex narrative systems, processes, or products. As Chia discussed, the supplementation of human creativity by GenAI in the name of efficiency often displaces human creative labor along geographic and racial lines. This use runs counter to a Digital Humanist approach. Additionally, as GenAI models begin to be trained on data created by other GenAI models, the novel quality of the creative work recedes, and errors perpetuate [81]. Organic creativity is ever diminished when an IDN creator supplements their content with increasingly lower quality material at the expense of human well-being. A Digital Humanist perspective maintains all human creative behaviors in the production loop. This inclusion maintains the dignity of those creative artists, programmers, sound designers, musicians, 3D modelers, and writers.

5 Moving Forward with Digital Humanism, GenAI, and Interactive Digital Narrative

Protecting and elevating human creative agency is of paramount concern. A practical approach is for an IDN creator to reflect on their GenAI usage and ask themselves, "Did I do this?" If the answer is yes, they then perceive their use of GenAI as aligned with

the principles of Digital Humanism. For a more informed assessment, Thue presents a series of questions IDN authors might consider as they use GenAI [9].

- **How does the AI system behave?** Answers can be found via experimentation with a system or examining its underlying code to understand how it works.
- **How can I influence the AI system's behavior?** By determining its inputs and the effect of those inputs.
- **How can I determine the AI system's inputs?** By identifying collections of content being used, an AI's settings, the parameters being used, and any utilities used to define operations.
- **What of the AI system itself can I change?** Access to and understanding the underlying code enables the technical literacy to edit the AI system.
- **How can I refine or repurpose the AI system's outputs?** By identifying outputs and patterns that are particularly valuable

Understanding the answers to the questions provides a more substantial basis for understanding a human's SoA in the IDN authoring process. Further, an IDN author, answering these questions and becoming literate in the underpinning systems of a GenAI, enables them to make informed decisions about how they are using their tools and the effect of their creative initiative. With this information, they can more rightly claim their creative autonomy and agency. Lastly, providing this level of transparency in how a GenAI works is critical for critique and building trust with audiences. Such questions should be built into the necessary UX evaluations of IDN authoring tools [19].

Educators of IDN need to teach students how GenAI works, where their training data comes from, and why its use can be problematic when creating their experiences. While institutional panic has rocked higher education over the last year, cooler heads prevail, and educators are finding constructive ways to use the tools. Teaching students that human and organic creativity is critical and necessary for the well-being of society should be highlighted. This approach can help students engage in a provocateur relationship with the GenAI system, choosing to dismiss some or all of the tool's suggestions in preference for their organic creative choices [82].

Educators can also teach different forms of prompt engineering that align with Digital Humanist values. One such form is called Chain of Thought engineering [83]. It involves modeling one's creative process as a series of discrete steps. These discrete steps are then given to the GenAI to follow as part of its computational processes. The benefit of this approach is two-fold. First, it encourages authors to reflect on their creative practices. This reflection includes their creative intentions, steps to achieve those intentions, and expected outcomes. Such reflection can result in a more significant SoA in the creative process. Second, the Chain of Thought engineering forces the GenAI to conform to the human creator's authoring process and their creative steps. Human authorship and creativity shape the use of GenAI, not the other way around.

Protecting the livelihood and well-being of human artists, writers, and creatives whose work can be exploited is a priority. A sustainable GenAI practice that protects organic creativity must shift from contemporary large-language models that use data scraped from the internet to more finite data sets that individual creators have opted into. Alternatively, chat-based GenAI can block the names of artists, existing artifacts, and more to keep individuals from co-opting a creative's style and brand as their own. For

example, Adobe keeps its GenAI Firefly from utilizing the names of visual artists [84]. If consent cannot be established, GenAI tools should automatically opt out creatives of all kinds from being included. Doing so exemplifies the Digital Humanist perspective on human dignity and appreciation for organic creativity.

To maintain a personal aesthetic and support the dignity of other creators, IDN creators might compile their creative material as training data for a personal GenAI tool. Training a GenAI in this manner augments the creator's action with their material. The IDN author's voice is extended, their style perhaps deepened through a reflection on their work parsed and remixed by their GenAI tool. The IDN author that pursues this approach demonstrates respect for the work of others. This approach might be an extension of authoring groups or studios compiling multiple individual creators' efforts as training data for a GenAI representative of their groups' talents. In this manner, a community or development studio's brand or style is augmented and extended by GenAI. It might provide a new baseline or composite understanding of the studio's creative efforts, aesthetic, voice, and style. Human creators can then use this GenAI as they experiment and expand on their community's efforts through their organic creativity. An example of this would be Stephanie Dinkin's *Not the Only One*, an "AI entity is trained on oral histories (data) supplied by three generations of women from a single-family" [85]. The data, given freely, generates a composite memoir from these women's experiences. From the site, "This project works toward the creation of culturally-specific, natural language-based AI that reflects the goals of the communities making them" [85]. *Not the Only One* is exemplary of an IDN author using GenAI toward Digital Humanist ends.

6 Final Thoughts

Interoperable chat-based GenAI's capacity to scale the affordances of traditional IDN authoring tools provides an exciting new horizon, offering a transformative shift in how IDNs are conceived, authored, and enjoyed. However, their capacity to supplant human creativity through the scale of their production requires a precautionary approach. The author has put forward Digital Humanism as a perspective to critically investigate the new scale and complexity of this shift in authoring while maintaining a human-centric position. This positioning means elevating organic creativity above computational creativity, seeking wherever possible to employ human creators in the production loop. Further, it means maintaining human initiative and agency in the authoring process. Maintaining this initiative requires transparency in how GenAI data is sourced and how the tool uses that data at the behest of an IDN author. Lastly, to maintain human accountability and support human dignity, the Digital Humanist perspective denies myths of the divine and the anthropomorphizing of GenAI tools.

As scholars of IDN, the power of telling stories and using narrative to create meaning is central to the field. As a Digital Humanist, one recognizes that creating IDNs and experiences gives human creators a sense of joy, well-being, and accomplishment. GenAI should be implemented in an authoring practice that assists in creating compelling and engaging narratives rather than as an independent entity that marginalizes the human creator. To that end, scholars and creators employing a Digital Humanist perspective on IDN authoring need to develop a deep understanding of GenAI tools' processes, source

consent for inclusive training data, and utilize prompt engineering to extend human approaches to creative processes.

Through this human-centric approach to IDN authoring, the field can nurture a truly humane digital society where GenAI assists and augments human creativity rather than displaces or dominates. In this effort, IDN scholars and practitioners find themselves allied with educators who are seeking to integrate GenAI toward similar ends. A Digital Humanist approach to the use of GenAI in authorship supports the IDNs of tomorrow that reflect our shared human values, enrich our collective narrative tradition, and uplift, rather than erode, our dignity as human storytellers.

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