Generative AI in Documentary Photography: Exploring Opportunities and Challenges for Visual Storytelling

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Abstract

Generative AI is increasingly used to create images from text, but its role in documentary photography remains under-explored. This paper investigates how generative AI can be integrated into documentary practice while maintaining ethical standards. Through interviews with six documentary photographers, we explored their views on AI's potential to support community-driven storytelling. While AI presents opportunities for creative expression and community involvement, concerns about trust, authenticity, and decontextualization of images persist. Photographers expressed doubts about AI's ability to accurately represent lived experiences, fearing it could compromise narrative integrity. Our findings suggest that AI tools should be designed to enhance collaboration and transparency in storytelling, complementing rather than replacing traditional documentary methods. This study contributes to the ongoing discourse on AI in photography, advocating for the development of tools that preserve the ethical foundations of documentary storytelling while empowering communities.

CCS Concepts

• **Human-centered computing → Human computer interaction (HCI)**.

Keywords

Generative AI, Documentary photography, Visual storytelling, Text-to-image generation

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1 Introduction

The advancements in generative artificial intelligence (generative AI), in particular text-to-image generation tools, have enabled the creation of highly realistic visual scenes from simple text descriptions, capturing the interest of millions of users and artists who regularly share their work on social media. These advancements have blurred the lines between AI-generated images and digital photographs, posing challenges even for professional photographers to distinguish between photos taken by traditional means and generated images. For example, in the last two years, we have seen Boris Eldagsen's AI-generated image, "PSEUDOMNESIA | The Electrician", win the award for the Creative category at the 2023 Sony World Photography Awards[1] as well as Miles Astray's digital ("real") photograph, "F L A M I N G O N E", win two awards in the AI category of the 1839 Awards in 2024[2].

This is not an entirely new phenomenon. Image manipulation and recreation have been part of the photography industry since the invention of the camera [56]. However, recent improvements in the quality of AI-generated images and their ease of use through tools such as Midjourney, Stable Diffusion, Leonardo.ai, or DALL•E have raised important discussions and serious concerns in particular when they have been used as a journalistic and documentary medium to depict current events. For example, AI-generated images that have been published to depict the conditions of the Palestinians in the context of the current Israeli-Palestinian conflict have been criticized for conveying a reductive and harmful narrative about the people of Gaza[3]. Similarly, Amnesty International's recent use of AI-generated images to call attention to the brutality of the demonstrations in Colombia in 2021 was strongly criticized, leading the organization to remove the images published[4]. While Amnesty wanted to denounce brutality while preserving the identity of the demonstrators, the media highlighted the risk of losing credibility if AI-generated images are published instead of photographs.

These examples illustrate the issues arising from using AI in documentary photography. However, we lack a nuanced understanding of the positive and negative impacts of AI in documentary

[1] https://www.theguardian.com/artanddesign/2023/apr/18/ai-threat-boris-eldagsen-fake-photo-duped-sony-judges-hits-back
[2] https://www.cbsnews.com/news/real-photo-ai-competition-flamingone-miles-astray/
[3] https://me.mashable.com/culture/34606/ai-artists-are-making-images-for-the-palestinian-cause-but-it-is-doing-more-harm-than-good-heres-why
[4] https://www.theguardian.com/world/2023/may/02/amnesty-international-ai-generated-images-criticism

photography and its practice. In the creative and cultural sectors, more generally, recent research has looked at how AI is changing existing practices [15]. In this context, recent HCI research on AI and Machine Learning (ML) in the visual arts has shown how visual artists use AI technologies in their practice as creative material [59] and how they pay attention to the power dynamics associated with these technologies [14]. Research has also shown how using AI in the arts triggers larger socio-technical issues by transforming the creative sector as a whole [26]. The impact of AI on artists has also been studied for its negative effects due to the use of proprietary images without consent to train the algorithms [34].

Despite the growing influence of generative AI in creating visually compelling images, there remains a notable gap in research exploring its use and impact on documentary photography practice. The current discourse lacks comprehensive findings that could shed light on how generative AI might be effectively utilized or, conversely, where its application may be inappropriate within the field. Furthermore, the absence of such research hinders efforts to design AI tools that are tailored to meet the creative, technical, and ethical needs of documentary photographers.

In this paper, we present an interview study with six established documentary photographers that aims to understand how they perceive text-to-image generative AI for visual storytelling and for engaging with communities in their work. Through a qualitative analysis, our findings show that text-to-image generation fails to depict lived experiences when used in place of documentary photography. However, it can become a tool for including community members and allowing them to self-report their realities. By enabling more active forms of participation, Generative AI could help overcome some limitations related to the 'photographer's gaze,' a standpoint seen as rooted in colonial views. Additionally, we show that another potential of the technology is to produce speculative imagery, a practice not traditionally aligned with documentary photography. However, beyond what can be done with AI for documentary photography, we show that there is still a blockage in its use due to the culture carried by the technology, which is perceived as lacking integrity and affecting the credibility of its users. By employing a transdisciplinary approach that integrates perspectives from the humanities and HCI, this research contributes to HCI with a critical understanding of how AI for generating images relates to documentary photography, which is fundamental for future design and application of this technology in this critical and sensitive field.

2 Related work

Generative AI has quickly established itself as a powerful tool for creative practices, including music [12, 63], visual art [57, 58], storytelling [43] or photography [48]. We will start by providing some background on documentary photography and then describe the various opportunities and challenges that emerged in the literature regarding the use of AI in photojournalism, visual storytelling, and speculation.

2.1 Background on documentary photography

Documentary photography is a practice that focuses on producing stories with social value or commentary, often with the intent to raise awareness about a situation and bring about change [21]. Documentary photographers work across a broad spectrum when making photographs. On one end, there are documentary photographers who adhere to the strict ethical standards of photojournalism and work to create "truthful representations" of what is photographed, working with an analog or digital camera and without altering images or manipulating the situation. This approach values transparency and objectivity, positioning the photographer as an independent observer.

On the other end of the spectrum, there are documentary photographers who take more "interpretative and impressionistic" approaches to making photographs [21]. For this latter group, any approach is valid as long as it is in service of telling the story. This includes altering images, creating or recreating scenes, and combining fictional and photojournalistic images. This broadening of the spectrum has been a result of the industry's understanding that "the screen has become the dominant access point for content" [13]. The importance of visual media online has led photographers to look beyond their genre in how they work and incorporate aspects from other image-oriented practices, such as documentary film, cinema, or interactive storytelling, into their practice as a way to differentiate themselves. Campbell uses the term "visual storytelling" to refer to this space of practice where individuals combine the respective strengths of different image-making approaches as part of their practice [13]. The space for visual storytellers aligns with the end of the spectrum where documentary photographers use a variety of approaches in their work to enhance their own "aesthetic abilities and commitment to reporting" [13].

Additionally, documentary photographers tend to work on projects for long periods of time, prioritizing community engagement and sometimes collaboration, while producing both photo stories, collections of photographs following one or multiple person(s) or settings over time, and photographic essays, collection of photographs on a shared aspect [21]. The emphasis on social commentary, long-term engagement, and openness to diverse storytelling techniques makes documentary photography a compelling space to explore how generative AI technology might influence or enrich the practice.

2.2 Generative AI in photojournalism

The research on generative AI in photojournalism is scarce. In a recent study, Thomson et al. [64] interviewed 20 editors at photo organizations to investigate the possible issues photojournalists face when using AI. The findings highlighted worries about misinformation and copyright implications as significant challenges to the public's trust in news organizations. Participants were worried about the potential implications of working with models like DALL•E and Midjourney that do not disclose the image sources used for training. They feared that if they used these models, they might be unfairly profiting from the copyrighted intellectual property of other individuals, which is a concern shared among creatives and artists more generally [26, 34, 35, 49]. Some participants highlighted the complete avoidance of generative AI imagery as they could protect their outlet's integrity and differentiate themselves from other news organizations that use generative AI. Finally, participants feared that using AI-generated images might raise confusion in the public about what is real and what isn't, which can directly affect the public's trust in news organizations and their credibility.

Recent work in Human-AI trust showed that trust depends on the socio-technical context and not just on technical performance [68]. Establishing trust in the system, which will lead creative people to use it, may therefore depend on the social transparency [25] of who develops, uses, and deploys the technologies.

In addition, Generative AI complicates the relationship between photography and reality. Traditional photojournalism and documentary photography are known for their attachment to the representation of reality through the perceived value of the digital photograph as a direct representation of the real world. Computer and AI generation technologies tend to produce photorealistic images that are both not real and also difficult to discern from digital photographs, even for professional photographers and editors [41]. As a way to better judge and understand AI-generated images, Hausken [30] argues that photorealism should be treated separately from photography. Photorealism refers to an aesthetic style that "mimics photographic representation of a scene" [30] but without the causal connection to the real world that defines traditional photography. Hausken argues that AI-generated photorealistic images, though visually convincing, are not anchored in reality and thus lack the documentary function inherent to photography. By distinguishing photorealism from photography, Hausken emphasizes the need to develop a new framework for interpreting and evaluating AI-generated content, particularly in fields like journalism, where the integrity and trustworthiness of visual media are paramount.

Finally, Tang [66] explores the impact of generative AI on photography, adopting a humanistic perspective to frame the discussion. In the context of traditional photographic practices, the artist functions as the central agent, wielding complete authority over the creative process and outcome. However, the integration of AI in artistic production signifies a paradigm shift, as computational processes increasingly mediate the creation of imagery. One critical element is that the reliance on AI-generated outputs may diminish the creator's subjective agency and, therefore, limit the artists' expressive potential [58]. In addition, the reliance on generative AI in this context might foster uniformity in the resulting works and consequently limit their diversity, which has been illustrated in a recent study involving a creative writing task [22]. Diversity is a beneficial value to be taken into account in AI development because it fosters broad and multiple perspectives while avoiding the offloading of ethical responsibility from corporations onto individuals [9]. Although these previous studies have highlighted concerns about using AI in photography, they do not address the perceived benefits and challenges from the photographers' perspectives in non-fictional storytelling contexts and particularly within work involving communities.

2.3 Generative AI for storytelling and speculation

The potential of AI generation models in visual storytelling has begun to be explored in HCI through the design and development of AI-powered systems for story generation. For example, such systems have been designed for different audiences such as children [27, 70], UX designers [44], or a general audience [4]. These systems represent a broader trend of integrating AI into creative practice by lowering barriers to storytelling. However, they have limitations when considering application to the domain of documentary photography. These tools primarily generate non-photorealistic images and are designed for creative fictional narratives, contrasting with the needs of documentary photographers who mainly work with context-rich and ethically responsible visual storytelling. In journalism, ReelFramer [69] and Opal [47] are two platforms exploring how Generative AI can be used to translate the textual content of news articles into other media. ReelFramer is a system that assists in planning and creating reel videos from articles, while Opal focuses on generating news illustrations based on the articles. Both systems are, however, not meant to document lived experiences.

Some recent initiatives have experimented with generative AI applied to the documentation of personal lived experiences. ReCollection [72] is an art installation exploring memory through storytelling. While recalling stories, participants' spoken language inputs were converted into visuals, allowing them to iteratively reflect on and collaboratively expand their memories. Another work to recreate memories is the Synthetic Memories project [61] organized by Domestic Data Steamers in Barcelona. Using the material from one-on-one interviews with communities, the project creates synthetic memories: visual reconstructions of memories grounded in the individual's recollections. In a similar vein, the project "Exhibit A-i: The Refugee Account" [38], uses generative AI technology to illustrate the experiences of refugees who had survived life in Australia's offshore detention centers, where real-time documentation of conditions or experiences was impossible. These projects demonstrated how AI-generated visuals can capture the essence of personal narratives.

While these artistic projects illustrate generative AI's ability to tell personalized stories, they do not present concrete empirical findings on how AI can be beneficial or dangerous in facilitating visual storytelling. In HCI, most literature studying AI-powered storytelling concerns applications in speculative design, which uses scenarios, models, and prototypes to ask critical questions about the world now and in the future [52]. These speculations "are intended to open up spaces of debate and discussion; therefore, they are by necessity provocative, intentionally simplified, and fictional" [23]. One example using generative AI is "In Event of Moon Disaster"[5], a project that leverages deepfake technology to show a speculative film narrative based on the Apollo 11 mission failure. The project demonstrates the advanced capabilities of deepfake technology and highlights some potential dangers of its use in popular media. There are many other examples where Generative AI has been used to speculate on topics such as climate change [40], community engagement and sustainable resource management [46], technology development [2, 24], as well as the development of communal spaces [6, 37].

In this context, Østvold Ek et al. presented a literature review to understand how generative AI is used in speculative practices. They found that it has mainly been used as a tool to generate images that manifest future scenarios [73]. One opportunity AI

[5]https://moondisaster.org/resources

tools present for speculative scenarios is the democratization of generative capabilities, making it easier for individuals to participate in speculative design [73]. Among the challenges identified, Dunnell et al. emphasize the necessity to carefully balance realism and abstraction when incorporating AI-generated imagery in speculative design [24]. They argue that "overly realistic depictions can lead to user discomfort," as evidenced by the risk of falling into the "uncanny valley," and that striking a balance ensures the speculative and critical potential of the design is not inadvertently constrained [24]. Østvold Ek et al. also highlighted that while researchers focus too much on the realism and accessibility of the tools, the main challenges are related to the tools not being understood by practitioners [73]. Other researchers have identified additional challenges in using generative AI in speculative practices. For example, Blythe warned about the potential for biases embedded in AI models that require careful consideration [10]. Benjamin et al. argue that a critical examination of the ethical implications of generative AI in both design practice and broader societal contexts is essential [6]. Dunnell et al. argue for further research that should prioritize developing intuitive and meaningful ways for humans to interact with generative AI systems [24]. According to them, fostering seamless collaboration and co-creation between humans and AI is key to unlocking the full potential of generative AI for speculation and design innovation.

Text-to-image generative AI offers new opportunities for storytelling and speculative design, as illustrated by projects like ReCollection, Synthetic Memories, ReelFramer, Opal, and speculative works such as "In Event of Moon Disaster" and "Exhibit A-i". These projects showcase the potential of AI to create personalized narratives and explore speculative futures. However, it remains unclear what role generative AI might play in the practice of documentary photography, where the need for factual integrity and ethical responsibility are more central and critical compared to speculative and imaginative storytelling.

3 Methodology

We built a corpus of interviews with documentary photographers to investigate how text-to-image generative AI as a technology can influence documentary photography practice. We asked them about their photography practice, how they interact with communities in their long-term projects, and how they expect this technology to factor into their practice.

3.1 Author Positionality

Our team comprises researchers with diverse disciplinary expertise, including interaction design, human-computer interaction, artistic research practices, interactive and collaborative machine learning, as well as science and technology studies of AI in creative and cultural sectors. Additionally, the first author has experience studying and working in visual storytelling, journalism, and media, with the particularity of involving communities in visual production. The first author's own practice of visual storytelling inspired the core question behind this paper on the possible impacts that AI generation can have on documentary photography and community-oriented work. This motivated the choice of the photographers interviewed: established figures in documentary photography who have significant experience engaging with different communities and are well-situated to reflect on their practice and the impact of AI technologies on the field.

3.2 Interviewed Photographers

We interviewed six photographers, all of whom were chosen because they have experience working on long-term projects (as opposed to news photography) and working closely with communities. While most have experience working in other countries, they are all currently based in the United States and are in the middle to late stages of their careers. They have the financial stability and flexibility to work on projects that are important to them for extended periods. While the photographers chosen did not have prior experience using generative AI image tools themselves, they are aware of the current developments and had previously seen examples of other photographers using generative AI (such as Phillip Toledano "Another America"[6] and Michael Christopher Brown's "90 Miles"[7].) We intentionally kept the sample size small to allow for in-depth conversations that would be rooted in matters of context, community, ownership, validity, and integrity. We wanted to understand how each photographer interacts with communities and how they think generative AI can factor into their practice. The photographers are:

- P1: Editorial and documentary photographer in Washington, D.C. (USA). Her work is primarily editorial and focuses on politics, immigration, human rights, and diaspora experiences in the United States.
- P2: Visual editor and independent consultant for nearly 50 years, based in Minneapolis, Minnesota (USA). His practice has focused on assisting and guiding how others produce and present their work, and currently also involves building a body of work about his hometown.
- P3: Documentary photographer based in New Orleans, Louisiana (USA). Her work focuses on the legacy of Western colonization and its present-day impact on communities, primarily in North America.
- P4: Documentary and portrait photographer based in New Orleans, Louisiana (USA). She works on long-term projects focusing on empathetic portraiture, exploring the notions of stereotypes, collective memory, and plural identities.
- P5: Photographic essayist working on long-form projects related to memory, family, community, and the American condition. He is based in Charlottesville, Virginia (USA).
- P6: Photojournalist and educator based in Pittsburgh, Pennsylvania (USA). Her work focuses on the human condition and the intersection of health and social issues.

We contacted each photographer via e-mail. The interviews were conducted online through the video conference tools Zoom and Google Meet. Each interview lasted approximately 60 minutes and was conducted in English. We recorded the audio of the interviews

[6] https://www.lensculture.com/articles/phillip-toledano-another-america-ai-generated-photos-from-the-1940s-and-50s
[7] https://michaelchristopherbrown.com/90miles

and transcribed them first using the automatic transcription service of the editor tool Descript[8] and then manually reviewed and corrected the transcriptions.

3.3 Semi-structured Interviews

The first author conducted the semi-structured interviews. They aimed to collect stories and testimonies on the way photographers work with communities as they make pictures and build narratives and how they perceive generative AI technologies in relation to their existing practice. To this end, we structured the interviews around two main points: existing practice and community involvement, as well as perceptions of generative AI technologies. During the interviews, we also asked the photographers to illustrate their answers with examples from their work.

3.3.1 Existing practice and community involvement. In the first part of the interview, we asked the photographers to introduce themselves and their practice by discussing one long-term project they had worked on. We discussed how they perceived participatory practices (e.g., co-creating narratives with the people they photograph) in the field of photography and their approach to involving and interacting with communities during project work.

3.3.2 Perception of generative AI technologies. In the second part of the interview, we used the documentary project, "Exhibit A-i: The Refugee Account" [38], described in section 2.3, as a starting point to discuss how generative AI could be included in documentary photography practice. We chose this project as it showed one way generative AI might be used in documentary photo practice: to recreate events and experiences that weren't documented in real-time. To our knowledge, this project is one of the few community-based projects that uses generative AI. As such, this work is linked to the practice of the documentary photographers we have targeted.

3.4 Data analysis

We conducted a thematic analysis [11] of the interview transcripts to extract themes related to the opportunities and challenges of generative AI in photography practice. We (the three authors of the paper) analyzed the data following a bottom-up approach, actively defining and naming codes and themes based on the participants' stories. We first familiarized ourselves with the data by reading the transcriptions. To address any potential biases or misunderstandings during the analysis process, the first author, who conducted and transcribed the interviews, provided clarifications and responded to questions raised by the team (during familiarization with the data) about the transcripts, thus ensuring a common understanding and robust interpretation of the data. We then independently highlighted quotes from the interviews that we identified as relevant to our research question. We have assigned a code to each quotation. At this stage, we put the codes together and discussed them collectively. We then created a unique list of codes. After the coding step, we organized the codes under themes. Developing the themes was first done individually and then collectively by discussing each theme until we reached a consensus. The collective identification of the themes was done using Miro. We extracted seven themes that we organized into three sections.

[8]https://www.descript.com/

4 Findings

We organize the themes from our analysis into three parts. First, in "Who tells the story", we report on the differences between the photographer's perspectives and the community in visual storytelling. In the second part, "The tensions of reflecting reality," we report how stories are told and how generative AI technology affects storytelling techniques. Lastly, in "The ethics of storytelling," we report on the ethical implications of using AI in storytelling from the perspective of the interviewed documentary journalists, highlighting the tensions in trust, integrity, and the contextualization of images.

4.1 Who tells the story

We found that there is a decolonial approach to documentary photography that involves rethinking the position of the photographers, particularly in relation to the community with which they work. This leads to forms of collaboration that may be visible or invisible. To this end, generative AI is seen as a promising tool for community members to gain agency in storytelling through more visible collaborations with photographers.

4.1.1 Limits of the photographer's gaze. Within photojournalism and documentary practice, the photographer's gaze refers to the perspective from which the photographer makes images. This perspective has traditionally focused on the photographer as the expert on other's experiences, something P3 has labeled one of the *"primary flaws of journalism"*. Photographers have done this by positioning themselves as *"a fly on the wall... impartial observers who are just hanging out in the background"*(P3) whose photographs should speak for themselves, one *"should be able to consume it and read it and understand it without any caption"* (P3). In P3's own words: *"Journalism as a whole is deeply rooted in colonial philosophy of this notion that a small group of people... are somehow better equipped to report on and tell stories of the other than those folks and communities are themselves"*. This perspective also implies a singular truth in storytelling and that the photographer is the arbiter of said truth. As P2 noted, *"how many people are on the planet? That's about how many truths there are"*.

By recognizing the *"baggage of gender and race and language and trauma"* (P6) that they bring to their work and acknowledging their role as outsiders in the communities they document, photographers can better recognize the limitations of their perspective and work to engage with the people they are documenting continually. In doing so, they center the expertise of the people they photograph and move beyond the flawed perspective of the photographer as the expert on other's experiences.

Moving beyond this traditional perspective has allowed photographers to develop a different take on their role as experts. The interviews surfaced three potential roles: the photographer as a service provider, the photographer as a domain expert, and the photographer as an advocate. These roles are not mutually exclusive but represent different ways photographers can engage with the people they are documenting.

- *photographer as a service provider*: In this role, the photographer sees themselves as *"someone with a tool that is very useful for people"* (P4) and actively looks for ways to give

back in the form of images made (headshots or event photos), or a cut of profits if a print is sold.

- *photographer as a domain expert*: In this role, the photographer has a deep understanding of the people and communities they are documenting for a long time. As P4 noted, *"when we do documentaries like this, we become experts in our... topic where we're documenting, because we're just obsessed with it"*.
- *photographer as advocate*: In this role, the photographer immerses themselves in the lives of the people they are documenting and has a stake in the outcome of their stories. As P6 noted, *"it's a true immersion in people's lives and in the outcome... you have something at stake in the outcome"*. Beyond documenting, they involve themselves in helping the community they are working with.

4.1.2 Invisible and visible community-involved storytelling. Looking beyond the photographer as the expert, interviewees highlighted the value and possibilities around community-involved storytelling. This approach is driven by an understanding that there will always be context and nuance that cannot be included in the photographer's pictures. As one participant noted, *"it was kind of ridiculous for me to come in at the end of a nine-month-long trip and be like, 'I am telling the story,' as someone who's here with you for a week out of nine."* (P3). Through collaboration, photographers can include the community's perspective in ways that add more nuance and context to the project.

Community collaboration requires ceding narrative control in some way. For instance, interviewees highlighted Adam Ferguson's project, "Migrantes,"[9], where Ferguson framed the images and controlled technical aspects such as exposure but allowed the people being photographed to decide when the image was made. As P5 put it, *"So he's framing the image, controlling the exposure. But they control the moment the image is taken.... so it's kind of a handing off of some aspect of control."* This is one example of an invisible form of collaboration, a form of collaboration focused on involving the community *"in the process at every step of the way"* (P3). Photographers noted that one way to achieve this is by frequently consulting the community on what matters to them and what things are essential to have a more fair and inclusive representation of the community. Other photographers emphasized how they review their images with the community to respect the trust they've built. In this way, they establish *"a collaboration of making sure that [the community feels] comfortable in how they're being represented"* (P3). Through these collaborative practices, the photographer can engage the community in conversation about *"how they are represented and what that means, what they see or don't see in that representation, ways that they might want to challenge it or feel challenged by what they see in that representation"* (P5). In invisible collaboration practices, this conversation is ongoing and ends mainly when the project is published.

On the other hand, in visible collaboration practices, the conversations continue after publication, as viewers can engage with the community's and photographer's perspectives. In their work, P5 has published addendums inside of the main book. These addendums are comprised entirely of photos and texts produced by the community featured in the main book. The goal of the addendum is to *"add to the way that you can see ... and understand these images"* (P5). Readers can derive one understanding from the main book. At the same time, the addendum provides a different perspective that can be compared and contrasted with the main book, allowing for a more nuanced understanding of the photographer's and community's perspectives. Another example mentioned by the interviewees is Charlotte Schmitz's "La Puente" [10], where Schmitz asked the women she photographed to decorate the images she made of them as they saw fit using the nail polish they always carried with them. In both projects, the community visibly participated in the storytelling process and added their perspective to the outcome. Other forms of visible participation include the community members providing materials like photographs or anecdotes in the form of text or audio for the project.

4.1.3 Generative AI as a tool for people to tell their story. Interviewees saw ways generative AI might be helpful as a storytelling tool. Some photographers considered the technology's potential to provide agency to those photographed. For P6, the process of *"putting AI, a toolbox of AI, into the hands of people who need to create their own work or statement or reality or whatever they want the world to see. That has integrity"*. In this way, Generative AI becomes a tool for people to relate their experiences. Additionally, generative images enable addressing stories related to sensitive topics and vulnerable populations, such as children, while protecting their privacy. In P3's own words: *"What does it mean to actually then create an image where we can... see an approximation of a real scenario without invading this, um, child's privacy without this being something that could haunt her as she grows up and has this forever tied to her real name and Google searches on the internet."* Generative AI can also be a tool to counteract propaganda. As P3 mentioned, *"what are the contexts in which we have only been able to access archives constructed by the colonizer, by the government, by the side of a war one? What happens when we use generative AI to do that? Manifest images from the other perspective because those were never formalized or retained."* In these contexts, Generative AI can be a tool for individuals to create or recreate the images that were never *"formalized or retained"* (P3). Thus, our interviewees saw generative AI as a tool that enables community members to tell their stories. In other words, it can be a means of expression that leads to a visible form of collaboration with photographers.

4.2 The tensions of reflecting reality

We found that, although documentary photography's goal is to represent reality faithfully, it tries to go beyond a simple literal transmission of information. Documentary photography aims instead at representing the lived experiences of those whose stories are being told. To this end, generative AI appears to have several limitations that prevent it from being used. However, generative AI shows the potential to speculate on possible alternatives and imaginary fictions that cannot be represented otherwise.

4.2.1 Going beyond information. Documentary photography is marked by a natural look and focus on aiming to show things as they happen. Many images are information-based, focused on

[9] https://adamfergusonstudio.com/migrantes

[10] https://charlotteschmitz.com/lapuente/

an action such as *"here's somebody handing someone a check"* or *"here's someone digging the first shovel of a new project"* (P2). However, interviewees emphasized that images are successful if they go beyond expressing just information. Through the interviews, participating photographers identified two measures for images to go beyond that. First, certain interviewees proposed to acknowledge imperfections in the produced images. Unaccountable variables in photography, such as sudden movements, something entering the frame, a sudden change of light, or a change in emotion, can transform an image into something that resonates with the viewer. As P4 put it, *"[Y]ou react in the moment that's in front of you, and you react to the emotion of the person of your own emotion, and like sometimes you just try to take a photo really quickly, and something happens that's like this mistake that makes the photography feel different"*. Secondly, interviewees highlighted that images needed to say more than words. An image is successful if it is *"reflective of something larger"* (P2) and adds more to a setting than a textual description would. In P2's own words: *"If you use words to describe a setting and then look at the photograph and get no more than you did from the words, then you don't need a photograph."*

According to the interviewed photographers, generative images seem to fall short of these measures. When considering imperfections in generative images shown in the Exhibit A-i project, some interviewees primarily focused on the technical glitches in the images, such as unnatural lighting, inconsistent body proportions, and missing details. From these imperfections, P1 noted, *"any visual person or visual storytellers would know that this is kind of fake."* P5 highlighted that these inconsistencies felt like a *"weird machine amalgamation of visual cliches"* and disconnected them from the people depicted and their story. Similarly, P6 noted that while some generative images had the type of imperfection, *"an intriguing sort of blur"* that might resonate with a viewer, it doesn't have the same effect or goal. In the case of the generative image, it is a manipulation to call the reader into the frame through a *"beautiful aesthetic"* (P6).

Participants also pointed out that the generative images were unsuccessful in going beyond words, focusing on the subject or nouns of the prompt. In one example[11], there was an image with the following caption: *"On one occasion I waited at the police station all day to make a complaint about being beaten by a Nauruan man. The police officer said something like 'my shift is about to end' and did not take my complaint."* When evaluating the image, P2 noted that the image was *"purely literal"*, showing a cop and another person, but lacking the *"sense of waiting that amount of time... of just exhausted by the lack of attention"*. To say more than words and be successful, this image would have to convey those qualities visually. Practically, photographers can work on conveying these qualities by adjusting their use of color (or tonality in black and white images), light, distance (from the situation being photographed), and composition when making images [21]. Such qualities cannot be obtained from manipulating the features currently provided in generative AI systems for images.

4.2.2 Accounting for the lived experiences and speculating about it. Interviewees noted that generative images appear as shallow imitations of human experience, lacking in intimacy and human emotion. As P5 put it, generative images *"might be kind of like pretty to the eye. But there's something always awry or amiss that isn't from this world that isn't from the lived human experience"*. Other photographers spoke of the same quality, saying the generative images lack *"true human angst"* (P6) and make the people in them *"feel like ghosts"* (P4). Referencing the Exhibit-AI project directly, P5 expressed how the generative images use *"oversimplified cliche representations from baseline tourism photojournalism"* and shallow depth of field from a *"DSLR with a 35 or 50 mm lens"* to minimize the information the viewer gets as reasons for why the images lack human emotion. The result is that the generative images *"flatten out"* (P6) the interpretation of refugee's stories to something outside of human experience.

While Generative AI as a medium cannot render lived experiences, participants saw ways it might be helpful as a tool for speculation, creating new approaches that could extend into the future of the practice itself. As P3 noted, documentary photographers spend a lot of time focused on *"trauma and conflict and like the worst things that happened"*, but very little on solutions or futurism. Another photographer considered that Generative AI might be more valuable if it represented *"something that hasn't happened... actually leaning into that fiction"* (P4). By leaning into speculation and fiction, Generative AI can be used as an experimental art form or as a way to create *"mystical work"* (P6), as well as a tool to explore personal identity. It could be used to create gender euphoria by enabling an individual to edit a photo of themselves with *"body modifications to make [them] feel like 'I am more in my body' "*(P3). Alternatively, it could be used to *"involve everything... someone's like full identity"* (P4) to generate an image that doesn't look like the person does physically.

4.3 The ethics of storytelling

We found that the ethics of storytelling were central when it came to using generative AI in documentary photography. In particular, we found that because of how the photographer's integrity and responsibility are at stake when telling a story, they tend to mistrust AI and worry about its dangers in decontextualizing the images generated. Photographers emphasize the importance of visual literacy for audiences to consume generated images critically.

4.3.1 Mistrust of AI for documentary photography. Several photographers emphasized that the generative images lacked integrity when used in documentary practice, like the Exhibit A-i project. For P6, the combination of documentary intent, *"interviews or documents based in truth"*, with visuals that are not *"documentary pure, but machine generated"* in the project lacks integrity. For P4, the text and captions made them *"really interested and concerned about the story"*. In contrast, the images made them feel like they're *"going to see a fiction movie about, a story based on real facts rather than translating the experiences"*. This cinematic feeling, *"takes away the journalistic and documentary approach... we're not seeing real people anymore."* P5 shared a similar sentiment, *"I want to believe the text, but my brain is reading the image and going liar, liar, liar, liar, liar. And so what it does to me instead of humanizing the people that provided this text, it calls into question the veracity of the stories they're telling me."* The generative images, he goes on to say, *"dehumanizes, ... disconnects me from the people and their story and, just feels ... like*

[11] https://www.exhibitai.com.au/statements#lw18

some weird machine amalgamation of visual cliches from reportage photojournalism." (P5).

The use of generative images creates distrust in the veracity of the interviews and ultimately distrusting the entire story and situation. In P6's own words:

> *"It's completely false. Therefore, you have to ask, well, is the interview true? No. Well, then, how can I believe the interview? I don't believe it either because the photos are fake, so the hell with it all, and then you shut it down, and you doubt it all, and then nobody goes to look at this island, and these people have suffered for no reason. There will never be any hope. There will never be change there."*

In this way, generative AI has the potential to break trust in both the photographers and the institutions that publish their work and *"cheapen[ing] the stories that are really important"* (P5). Trust in institutions is crucial because, once broken, it is nearly impossible to restore. Referencing the time National Geographic magazine published a heavily edited image of the Great Pyramids of Giza as their cover[12], P6 stated, *"you never see any meaningful thing about National Geographic that somebody doesn't bring that up. I mean, you do it once, and it's forever."* This incident exemplifies how even a single breach in integrity can have lasting consequences on an institution's credibility.

For photographers, the risk goes beyond institutional trust. Their work is a matter of personal responsibility. As P4 emphasized, *"At the end of the day, I took this photo, it's still my gaze... you can't really just completely erase the way you frame everything."* P5 echoed this, noting that, *"ultimately it's my name attached to an image... if it makes a bad decision and the image is manipulated, then yeah, it's my name on the line, so I don't really want to trust a computer with that necessarily."* When generative AI is involved, this responsibility can become obscured, threatening the trust and credibility that both photographers and their audiences rely on.

4.3.2 Worries around decontextualization and visual literacy. When reviewing the Exhibit A-i project, interviewees raised concerns about how images are decontextualized and how generative AI might exacerbate those fears. Interviewees emphasized the importance of captions in establishing context in photojournalism practice. As P1 stated, a caption *"speak[s] to the photo itself"*. Captions are used to describe the action unfolding in the image and explain visual details and image-making approaches. When the captions and the photos don't align, P1 noted, it can lead to investigations that *"would help reveal certain photos are fake because of the lack of details and information"*. For P3, who has an ongoing project using double-exposure portraits (a technique where two photographs are overlain to create one image) to explore identity, trauma, and memory, captions play a significant role in their work. In this context, their captions include interview snippets that highlight a *"hugely important part of that person's experience"* and also explain the process of making the photograph so the viewer can fully appreciate the project's circumstances. In their own words: *"I don't want them to do it without reading the, like, this is what I've done and why, but it's a process and those decisions were very intentional"* (P3).

[12]https://petapixel.com/2016/07/04/nat-geo-says-committed-honest-photos-era-photoshop/

Given the value of captions in practice, interviewees express how worried they are about their work being decontextualized online. P3 highlighted how it is easy for others to *"strip images of that context, or willfully or accidentally mis-contextualize them"* through re-publishing them online and how difficult it is to predict how others might re-use images. Given how essential captions are to appreciating their work, they emphasized they would be *"horrified"* if one of their photographs were used as an example of *"how you can make a double exposure portrait in three easy steps"* because the decisions around making the images were very intentional, and reusing them as a tutorial would take away from the documentary intent and make them gimmicks.

According to the interviewees, generative images would exacerbate these worries because the way audiences consume such photography is uncritical. In P4's own words: *"we're gullible, we eat everything we see as if it's true"*. Interviewees highlighted the importance of visual literacy to combat these worries. Audiences need to understand *"what an image means and how it can be read and... what is real and what is not"* (P5). Visual literacy, P5 stated, comes from looking at many photographs, *"trying to be attuned to what I think is important"* and asking *"critical questions"* when reading images, about the *"point of origin, the purpose or intent"* and about whether the image is on or off the mark. P6 suggested a similar set of questions for assessing whether a project has integrity: *"Where is the info coming from? Who's controlling the tool? How is it being presented?"*

5 Discussion

In this article, we interviewed six documentary photographers working with communities to explore their practices and assess the potential impact of text-to-image generative AI on their work. Through qualitative analysis, we showed their desire to go beyond the limits of the photographer's gaze and how generative AI, particularly text-to-image tools, could assist in this regard. However, while documentary photographers aim to depict lived experiences, AI technology has significant limitations in achieving that. Our findings revealed that AI could be used to produce speculative imagery as an alternative, a practice not traditionally aligned with documentary photography. Moreover, due to the cultural associations and perceptions surrounding AI, photographers expressed mistrust of the technology, seeking to maintain their professional credibility. In this section, we will discuss further the tension between using AI for self-expression and for expressing reality, examine for whom this technology should be intended, and discuss trust and social transparency issues.

5.1 Tension between using AI for self-expression and for expressing reality

The results of our interviews with photographers showed a tension in the use of generative AI in documentary practice: while the photographers interviewed highlighted the technology's potential as a tool for increased self-expression, they also acknowledged and pointed out the technology's deficiencies when creating realistic perceptions of lived experience.

On the one hand, we found a potential for increased self-expression from the photographers' perspective. Generative AI seems to offer

individuals the ability to represent who they are in their creative processes. We see this possibility of expression as a form of agency that we link to the notion of *identity*, as described by Bennett et al. [8], i.e., an aspect of agency that is the alignment of what is produced with what characterizes the user. However, our findings show that the agency given by generative AI extends this notion of identity beyond the ability to express what characterizes people. It also enables them to express the experiences that they lived and to represent these experiences visually. We propose to call this *representational agency*: agency as a means of expressing one's identity linked to both who we are and what we lived and experienced.

In addition, the interviewed photographers valued the technology's ability to be a tool that allows the people photographed to express their own experiences while remaining anonymous. This is useful when discussing sensitive topics or working with vulnerable communities such as children or persecuted individuals. A compelling example of this can be seen in the documentary *Welcome to Chechnya*, which used generative AI for "face replacement" to protect the identities of LGBTQIA+ individuals fleeing persecution in Chechnya [54]. This approach ensured participants could safely share their stories without fear of retaliation while preserving the emotional authenticity of their expressions. As Pisarska pointed out, traditional anonymity techniques, such as pixelation or filters, can often create a dehumanizing effect; however, AI allowed the filmmakers to retain the integrity of the narratives while safeguarding the participants [54].

On the other hand, the interviewees found that generative AI exhibits deficiencies and limitations when creating realistic perceptions of lived experience. The photographers interviewed identified several limitations in AI-generated images that led them to doubt their viability as substitutes for camera-based photography. While some of these limitations are technical and might be "resolved" through future advancements in AI technology [71], others stem from deeper conceptual and aesthetic issues. Our findings showed that there is still a significant gap when wanting to express a fuller range of human emotions with generative images that are traditionally obtained using components of photography such as color, light, distance, and composition [21]. The results of generative AI are generally images that are out of sync with the narrative and appear clichéd, cinematic, ghostlike, or beautiful but lacking substance. AI-generated images often display inconsistencies that feel like *"weird machine amalgamations of clichés,"* (P5), resulting in a lack of authenticity and originality. While the inherent beauty of these images can initially captivate viewers, it often backfires by creating a sense of detachment. This perceived manipulation of attention shifts focus away from the intended narrative, disconnecting viewers from the story.

Photographers suggested addressing this tension by focusing on the technology's potential to present past and future stories, enabling the representation of lived experience while escaping from the need for realism. Our findings suggest that photographers value AI's ability to navigate beyond the present, an area where traditional photography cannot perform. They highlighted the potential of using AI to look forward, as a way to explore personal identity, as well as backward, to revisit memories and build lost or misrepresented histories. That said, it is hard to avoid the need for realism because realism is linked to the representational agency of systems for the users. Dunnell et al. [24] pointed out that the challenge in speculative scenarios is to balance the degree of realism and abstraction to make the scenarios convincing, at least to those who are the users. When users are the ones telling their stories, this balance can be even more important. Existing work using generative AI as a speculative tool tends to be focused on communication, for instance, about societal issues [24, 40, 46]. We argue that using AI in documentary photography has both a communicational and a representational role. They need to communicate social issues while preserving integrity in representing people's lived experiences.

> ***Research recommendation:*** Engage with the concept of representational agency in generative AI systems to examine their role in speculative and fictional scenarios. This engagement can be explored by examining how realism and abstraction enable users to construct personally meaningful narratives while maintaining emotional authenticity, as well as the use of anonymity when needed in storytelling.

5.2 Generative AI in documentary photography: A tool for who?

In our study, we saw that in the hands of community members, text-to-image generation can foster community engagement in storytelling through empowering them to use the technology to tell their own stories from their perspectives. This allows the community to challenge the traditional photographer's gaze in documentary photography, something the interviewees called "a fly on the wall impartial observer". This view has been critiqued for its colonial roots, assuming that photographers, generally from Western backgrounds, are able to better carry the stories of people, generally from non-Western backgrounds. As P3 put it during the interview:

> "*But I think there is absolutely this growing understanding that journalism as a whole is deeply rooted in colonial philosophy of this notion that a small group of people, largely white male cishet journalists in the West are somehow better equipped to report on and tell stories of the other than those folks and communities are themselves. And obviously that is incorrect and leads to, you know, lost nuance, and context, and cultural understanding.*"

Mignolo critiques such a "pretension that the specific cosmic vision of a particular ethnie [Western Europe] should be taken as universal rationality. This is actually to impose universalism on provincialism" [50]. This is what Fanon also calls the "white gaze" [28]. In our findings, we illustrated the efforts that documentary photographers are making to go beyond a white gaze by drawing visible collaborations with communities. This requires them to cede narrative control and take on the roles of service provider or advocate rather than being the expert on others' stories. They saw AI generation tools (especially text-to-image tools) as having the potential to give technical agency to the community members by letting them produce the visuals themselves.

However, while image-generation tools are becoming more mainstream, they are far from being democratized for all and carry with them biases that negatively affect minorities and marginalized communities as shown in the works by Stephane Dinkins (generation of

black faces) [60], Linda Dounia Rebeiz (representation of her hometown in Senegal) [55] or Minne Atairu (generation of different black skin tones) [5]. These biases are partly due to the use of training data drawn heavily from the Western canon of art [55], accentuated by the English-language-centered nature of the tools. These may contribute to a sense of marginalization, as shown by Mim et al. [51], where participants expressed that the text-to-image tools exacerbated their sense of marginalization by consistently distorting, excluding, or entirely erasing local visual styles in the generated images. This exclusion of key cultural and social elements, such as regional architecture or the presence of marginalized groups, reinforces the concerns that these tools might undermine one's creative identity and perpetuate a form of digital colonialism where a dominant culture is propagated through a pervasive technology (see for instance [33, 65]).

Decolonial discourse originating in the social sciences is gaining growing interest in the field of HCI in order to link it to technological innovation. This discourse aims to expose how colonialism marginalized people in the Global South (across different dimensions of identity such as race, gender, sexuality, religion etc.) and how HCI systems perpetuate these colonial structures and values by impeding marginalized communities' expression of their identity [1, 3, 19, 20, 36, 39]. Our findings contribute to this literature by highlighting the potential of AI generation to strengthen communities by amplifying their voices. However, this potential needs to be considered with caution as AI systems can also inhibit the expression of communities or impose certain views, backgrounds, and cultural norms on them, as shown in previous work by Benjamin [7], Noble [53], or Cave [16].

> ***Research recommendation:*** Engage with text-to-image AI tools to explore how they could balance empowerment and misrepresentation, particularly in amplifying marginalized communities' voices while ensuring personally meaningful outcomes. This engagement could involve making the systems' failures visible, such as biases in training data or exclusion of local visual styles, and addressing these through decolonial and fairness-focused strategies. By centering self-expression and cultural specificity, the research could guide the development of tools that foster both creative identities and counteract digital colonialism.

5.3 Mistrust of AI technology

The photographers mentioned that they engage their own responsibility in creating visual stories and that using generative AI can obscure their credibility and taint their reputation. Even if generative AI can be a powerful tool for self-expression and community representation, as long as it is heavily attached to the culture of fakes and alt-truth, its use in critical contexts like documentary photography or photojournalism will impact photographers' credibility and reputation, where it is the most needed. Research has shown that Generative AI is not solely a tool but also a cultural vehicle [16, 32]. It comes with its share of cultural baggage linked, for example, to its contribution to the flourishing of fakes in social media or on the dead internet (an internet fed essentially by content generated by bots). Indeed, generative AI, and creative AI in particular, is associated with the dangers of 'deep fakes,' which have acquired a level of realism and simplicity of execution unequaled by advances in AI [17]. Thus, the proliferation of fake content, created autonomously or semi-autonomously, on social media to exert political, religious, or cultural influence is a phenomenon that necessitates caution when using AI. There is, therefore, a lack of trust stemming from the culture of AI, and photographers are very aware of it. The risk of tainting the artists' reputation was also pointed out by Thomson et al. [64] when investigating photo editors. However, their article does not go into more detail other than stating that AI should not be simply seen as a tool because it imposes a specific vision. In this paper, we explicitly show that the culture of AI plays a fundamental role in its acceptance in the field of documentary photography.

Furthermore, our findings indicate that while generative AI holds significant potential for community engagement, self-expression, speculation, and futuring, a key barrier to its application in documentary photography is the lack of trust stemming from concerns about its integrity. Beyond the aesthetic or representational qualities of the images, which can appear "fake" to professionals due to perceptible flaws, a critical issue lies in the opacity of their origins. The uncertainty surrounding the source and creation process of AI-generated images undermines trust in their narrative accuracy. Our results show how the photographers see these images as incomplete, as important contextual information, such as the methods of generation and the involvement of individuals or institutions, is absent. While the link between trust in the artifact produced by AI and trust in the people (or institutions) behind (or around) the technology has been highlighted in recent research [68], it seems to take on a different dimension when challenging the duty of integrity in storytelling in journalistic practices. This seems to go beyond simply adding a source to an image but is part of a demand for social transparency as presented by Stuart et al. [62]. The absence of such transparency in photographs can go as far as breaking trust in the whole institution that promotes them. In documentary photography, there is a need for transparency about the identity of the actors, the process, and the interactions.

The lack of credibility due to the possible visible fakeness of AI-generated images, in addition to their lack of integrity due to the opacity of their origins, calls for a set of design guidelines for practitioners and researchers working on the design of applications and features of AI technologies and interested in their further applications in concrete domains such as documentary photography. Recent studies in HCI have shown that strategies to explain the predictions of AI-powered systems ameliorate trust [45], especially if the systems would ensure the experience is delivered in a way that users would expect, given their social and cultural background, while avoiding reinforcing undesirable and unfair stereotypes and biases [18, 42, 67]. While we encourage the use of explanations to make AI more trustable (answering the second concern mentioned above), our findings showed how photographers practice a cautious enthusiasm towards AI-generated images (first concern mentioned above). We echo Ferrario and Loi [29] in arguing that AI needs not to be trusted more but doubted more to constantly fall under the watch of the practitioners and the communities it needs to serve. As Ferrario puts it: "Our account can explain the apparent paradox that in order to trust AI, we must trust AI users not to trust AI completely" [29]. Eventually, there is a need to improve the literacy in

data-driven technology and AI, where creative and artistic practice can be instrumental [31].

> ***Research recommendation:*** Promote the literacy of AI in the field of documentary photography to help decide whether or not to use it in practice. AI literacy can be facilitated by transparency in the tools and data used, particularly through methods of explicability and interpretability.

6 Conclusion

In this paper, we interviewed documentary photographers to better understand their perceptions of text-to-image generative AI and its potential role in visual storytelling. Our objective was to understand how this technology might fit into their practice, particularly in relation to their engagement with communities. Our study highlights three main insights. First, we found a decolonial approach in documentary photography that involves rethinking the position of photographers in relation to the communities with which they work, leading to more collaborations and engagement. To this end, generative AI is seen as a promising tool for community members to gain agency in storytelling through more visible collaborations with photographers. Second, we found that in trying to represent reality faithfully, documentary photography tries to go beyond a simple literal transmission of information. Instead, it aims to represent the lived experiences of those whose stories are being told. To this end, generative AI appears to have several limitations that prevent it from being used. However, generative AI shows the potential to speculate on possible alternatives and imaginary fictions that cannot be represented otherwise. Third, we found that photographers harbor significant mistrust of generative AI, primarily due to concerns about how it decontextualizes images and undermines their integrity and responsibility in storytelling. This mistrust stems from fears that AI compromises the authenticity of their work and jeopardizes their credibility. As a result, photographers emphasized the crucial need for visual literacy, urging audiences to critically engage with AI-generated content to better assess its context and meaning.

By exploring the potential of text-to-image generative AI in the context of documentary photography and community-engaged work, this study constitutes a step towards adapting AI technologies for more critical tasks like visual storytelling in documentary photography. Future research should explore two main areas: how we can deepen community involvement in collaborative documentary practices and develop tools sensitive to the needs of documentary photographers and the communities they work with. Engaging community members in specific instances and projects through participatory and speculative design activities could reveal how generative AI can be leveraged as a tool for safe and fair self-expression in visual narratives. Moreover, the development of generative AI tools that are better suited to documentary photography practices should be guided by principles of transparency, ethical responsibility, and co-design with photographers and community members. These tools should prioritize the accurate representation of lived experiences, respect for cultural and contextual nuances, and ensure that AI-generated images enhance the authenticity and integrity of the documentary process. By aligning these developments with the needs of both photographers and communities, this line of research can offer new insights to HCI researchers working on designing and developing AI tools for artistic contexts into how AI systems can be designed to be used and incorporated into existing and possible future documentary photography practices.

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