

RESEARCH ARTICLE

Truth claims and trace: The autographic witness in the algorithm

Gareth Brookes 

Independent Scholar, London, UK
Email: garethbrookes02@gmail.com

(Received 28 February 2025; revised 08 August 2025; accepted 13 August 2025)

Abstract

Central to drawn representations of activism and memory are ideas of embodiment and trace. From DIY protest signs to craftivism, the articulation of protest and memory is connected to the handmade trace of a witnessing individual present in time and place. This is reflected in comics scholarship through the notion of the drawn line conveying subjective experience through the trace of the body.

This article will consider the relationship between witnessing, truth claims, autographic drawing, and memory at a moment when AI image-generation tools have called into question the connection of drawn traces to their origin in time, space, materiality, and the body.

Although a combination of critical AI theory and comics studies, this article will outline ways in which generative AI presents a challenge to these ideas. Through comparison of Joe Sacco's graphic reportage with recent AI images of conflict and history, the article considers the truth claims of images that are the products of computational and algorithmic processes considered broadly.

Comics scholarship has been slow to critically respond to these new conditions, and the task of disentangling the human/non-human in ontologies of trace is now compounded by generative drawings, which represent the outcome of archival reappropriation defined by opaque algorithmic parameters. This article will explore theoretical assumptions around authenticity and truth claims in analogue, computational, algorithmic, and generative drawing practice and ask what kinds of theory and practice are appropriate if activist graphic memoir is to endure as documents of political memory.

Keywords: comics activism; comics studies; generative AI; memory and war; technology and media; visual art theory

Introduction: Activism in comics

This article contrasts ontologies of the drawn trace in AI image-generation models with those of comics that combine activist aims with the truth claims of graphic memoir. It aims to clarify how these truth claims are affected by contemporary computational practice and in relation to recent generative diffusion models. Graphic memoir as a genre is underpinned by the theoretical connection of the drawn trace to a specifically located embodied performance, which gives the reader access to the subjective experience of the artist. I will argue that this idea is based on problematic ideologies of authenticity and is compromised by the computational, algorithmic, and collaborative nature of contemporary comics

practice. The implications of generative AI diffusion models further undermine this ideology, leading artists to situate themselves in opposition to this technology. By contrasting the activist graphic memoir of Joe Sacco with the critical AI practice of Nataliia Laba and the generative AI journalism comic *History Illustrated*, this article aims to critically unpack the ontologies of drawn trace embedded in graphic memoir. The article will then explore how drawn representations of subjective memory may be conveyed through activist graphic memoir in a post-generative AI environment. Before beginning, it is worth clarifying the terms used, outlining the theory involved, and acknowledging my perspective as both comics academic and practitioner.

The term ‘activist’ comic is defined by Rachel A. Davis as ‘a collective group’s championing of a political, social, economic, or environmental cause. Those who participate in activism, activists, are considered a social identity group’ (Davis, 2022, 5). While this relates activism to collective identity, a more individual, auteurial approach is often adopted in the production and publication models of activist comics. Often, these auteurial comics take advantage of self-publishing to spread their message. In *The Power of Comics and Graphic Novels*, the authors write that ‘Hundreds of small print-run, often self-published comic books have been created to support or oppose various causes’ (Duncan et al., 2023, 225). More recently, graphic memoir has been adopted as an approach in activist comics, often aiming for the cultural legitimacy represented by graphic novels.

A recent example is provided by Street Noise Books, a small independent Brooklyn-based publisher who describe their output as: ‘Non-fiction for young adults, authentic, unapologetic, politically relevant... Real books for people who give a damn’ (Street Noise Books, 2020). In Street Noise Books’ publishing output, graphic essays and comics journalism sit together with graphic memoir, often championing the same causes. ‘Our books have a radical, intersectional feminist, queer and inclusive vision, and seek to provide a platform for the voices of marginalised people’ (Street Noise Books, n.d.). Street Noise Books offer a useful example for our discussion by demonstrating how graphic activism and memoir are combined in an autobiographical mode of advocacy within a form that claims both the cultural legitimacy of the graphic novel and the non-mainstream status of alternative comics.

In Street Noise Books’ description of their books, words such as ‘authentic’ and ‘real’ are privileged terms. While it is clear that by no means all comics activism involves autobiographical approaches, graphic memoir can be seen as a widespread method of advocacy, activating comics’ appeal to subjectivity as a strategy to convey activist messaging and memory and communicating the marginalised stories that Street Noise Books aim to highlight. Titles such as *Brittle Joints* by Maria Sweeney, which describes the experience of living with a chronic illness in an ableist world, and *Power Born of Dreams: My Story Is Palestine*, which relates Mohammad Sabaanehare’s experiences inside an Israeli prison, are two powerful examples of graphic novels as activist memoir and are among Street Noise Books’ most critically acclaimed titles.

As I will show, graphic memoir communicates through the register of the autobiographical drawn trace framed as conveying subjective experience. This autobiographical tendency can be traced to autobiographical ‘alternative comics’ such as Justin Green’s 1972 comic *Binky Brown Meets the Holy Virgin Mary*. Alternative comics are particularly well suited to this autobiographic register. As Douglas Wolk observes, in alternative comics, the ‘creator is always an almost-tangible presence’ (Wolk, 2007, 110). This embodied tangibility, situating a specific human as embedded in drawing, is particularly important for graphic memoir. Alongside the care and labour of the body evident in the drawn trace is the idea that in observing these traces, readers can gain access to the author’s remembered experience. This shared memory is crucial to the cohesion of activist identity groups, and the recording and sharing of personal and collective memory are often central to the causes they champion.

A scroll through the ‘Resource List’ of alternative and small press comics website, Broken Frontier (2024), whose mission statement commits to promoting ‘social justice, social outreach, diversity, inclusivity, activism, and community’ (Broken Frontier, 2020), indicates an emerging alignment between comics activism, independent publishing approaches, and autobiography. Comics which aim to raise awareness of a particular issue, often adopt the first person position in both writing and drawing. In Broken Frontier’s mission statement, Andy Oliver writes that comics deploy a ‘remarkably empathetic language, (and) have a unique power to communicate and convey personal experience with a profound and intuitive eloquence’ (2020). This inclusive belief in the empathic power of comics comes with an equally exclusionary reflex against the use of AI. In a call for creators to contribute to a series of articles on the threat of AI art, Oliver explicitly prohibits contributions from those whose thoughts could be interpreted as pro-AI, writing ‘We’re not here to create “balance” on this issue... This isn’t a space for those already using it, or acting as apologists for it’ (Oliver, 2025).

It is important to define what is meant by generative AI in this context. Frederike Kaltheuner argues that ‘As every computer scientist will be quick to point out, AI is an umbrella term that’s used for a set of related technologies’ which ‘in the public imagination... has taken on a meaning of its own’ (Kaltheuner, 2021, 11). As I will argue, the understanding of where the ‘authentic’ human is situated in relation to technology is entirely mobile, and contemporary computational practice – quite aside from the question of generative AI – compromises the claims of autobiographical alternative comics to convey authentic subjectivity. Moreover, locating the authentic individual in pre-digital 20th century comics drawing practice is no easy task, as copy-routines and intersubjective exchange define comics as an artform.

For the purposes of this article, I define generative AI images as images produced by diffusion models such as Midjourney, DALL·E, and Stable Diffusion. These models produce images that are algorithmic outcomes of data scraped from the internet, which produce new images through text-to-image diffusion models. Responding to text-based prompts, these models are trained to find patterns in random noise which they algorithmically hone, looking for forms which most closely fit the patterns of typification associated with the prompt that they have been trained to recognise in datasets. The resulting image can be a mimetic simulation of a photograph, drawing, or painting, and as such, can be seen as ontologically ambiguous. An AI ‘photograph’, for example, is indexically uncoupled from the apparatus of both camera and specific situation in place and time – the very conditions that define photography. Likewise, a drawing can appear to be made with pencil on paper, for example, without any indexical connection with the body or materials aside from those contained in datasets which the model has scraped. This technology not only unsettles the connection between subjectivity and the drawn trace but has the potential to generate new contexts of remembering, disconnected from actual historical events. The challenge generative AI poses in remaking collective memory is made clear by Andrew Hoskins, who writes ‘AI untethers the human past from the present. It produces a past that was never encoded into memory (never experienced) in the first place’ (Hoskins, 2024, 2). However, this fracture is not straightforward, as generative AI attempts a typification of memories informed by shared features of a dataset, just as graphic memoir emerges from a co-affecting drawing practice involving the trace of many bodies throughout its history.

As a practitioner, I have ambivalent feelings about these new technologies. There are many reasons to oppose the widespread use of generative AI, some of which I discuss later, but the unwillingness to discuss the question critically is accompanied by an equal reluctance to interrogate some of the assumptions around the procedures through which contemporary comics are made and how these procedures supposedly convey authentic subjectivity. My graphic novels adopt artisan approaches, using materials more usually

associated with fine art practice. These include embroidery, pyrography, and various printmaking techniques, the outcomes of which are scanned and digitally collaged, using computational procedures in remediating these materials into the printed surface of comics. While these books are neither graphic activism nor graphic memoir, they share a lineage with alternative comics in foregrounding materiality and the body as part of an appeal to authenticity and share an approach in which computational technology is essential in constructing and translating material traces. My readers often assume there is an 'original' book, of which the multiple represents a straightforward copy. This convinces me of the important role of digital computation in the construction of authenticity in alternative comics. While generative AI models are distinct from these computational and algorithmic practices, I argue that the human/machine learning entanglements involved are in fact comparable to generative AI procedures. Perhaps more importantly, I argue that examining these entanglements can indicate a way forward in defining a critical role for comics in future AI practices and AI literacy. This critical practice could contribute to future strategies for graphic activism. This article represents a tentative and, at times, speculative attempt to begin this discussion.

The article is structured in four parts. Firstly, I will survey theory around the drawn trace in alternative comics and analyse problems that arise from its underlying ideology relating to embodied authenticity. Secondly, I will focus this discussion through a consideration of the work of Joe Sacco, a graphic journalist emerging from alternative comics autobiographical traditions who is an important figure in the development of activist graphic memoir. Thirdly, I will contrast Sacco's comics with examples of critical AI practice and generative AI-assisted graphic journalism. I will introduce critical AI theory and practice to analyse the limitations and affordances of generative approaches. Finally, I will consider the broader relationship between comics activism and algorithms, in order to question how approaches characterised as 'using AI' can be separated from widespread practice. As I will show, the attempts of comics creating communities to prohibit or regulate AI have suffered from a lack of clarity on what constitutes AI use.

In my conclusion, I will argue for a more nuanced theory of drawn trace in graphic memoir that includes consideration of digital, algorithmic, and computational effect on the ontologies of drawn trace, alongside that of generative AI models. I will suggest that graphic memoir as a practice where these contrasting ontologies co-exist within the drawn trace indicates a potential to develop self-reflexively into a significant AI-critical practice, with potential applications for activist memoir.

The drawn trace, authenticity, capitalism, and cultural legitimacy

The connection between the drawn trace and subjectivity is well theorised in comics studies. Jared Gardner's much quoted argument that 'Graphic narrative... *cannot* erase the sign of the human hand' (Gardner, 2011, 65 emphasis in original) suggests a foregrounding of the 'laboured making' of drawing (64). The drawn line according to Eszter Szép 'is not simply the product of one's moving hand but is interwoven with thoughts and experience' (Szép, 2020, 59); as such, Szép argues, drawn narratives cannot be disassociated from the drawing subject: 'the line stems from deeply personal experience, and is expressive of autobiographical content in itself' (2020, 61). Szép connects drawing performance to 'authenticity', arguing that the drawn line can give access to 'autobiographical, subjective, and personal traits' (53) by conveying 'vulnerability' through the drawing's embodied presence. Szép sees vulnerability as 'the most fundamental consequence of our having a body' (3) offering a shared touching point of dynamic engagement between drawing and reading bodies. This echoes Gardner's argument that comics drawing produces 'an inevitable encounter with the labouring body of the graphiateur and the constrained body of the form itself' (Gardner,

2011, 66). These ideas, which foreground the individual body, its labour, and the specific conditions of drawing performance, can be related to the authenticating activities of witnessing and documenting which I will argue, underpin graphic memoir as activism.

Hilary Chute argues that drawing can appeal to an eye-witness register. Chute's *Disaster Drawn* (Chute, 2016) is a comprehensive study of 'graphic witnessing', a practice that she traces back to Jacques Collot and Goya. Chute quotes anthropologist Michael Taussig's account of producing fieldwork drawings as an act of veracity asserting not only that the drawn events did happen but that 'Doubling the image through drawing, stroke by stroke, erasure by erasure' amount(s) to an act of 'laborious seeing' in which 'history is repeated in slow motion' (2016, 30). Chute argues that comics have a 'peculiar connection to expressing trauma – that there are potent reasons acts of witnessing and testimony are created and find shape in this form' (2016, 33). This idea is significant to the following discussion as it forms the basis of theorising the paradoxical truth claims of comics. Nina Mickwitz has explored these truth claims in relation to the 'documentary register' of non-fiction comics. Mickwitz writes that because comics told through the drawn trace cannot help but call attention to their own making 'the illusion of a neutral or transparent representation cannot be upheld, even at the level of the image itself, (and this) paradoxically perhaps, opens up a different register of authenticity' (Mickwitz, 2015, 34).

While these ideas are valuable in accounting for the empathic reception of graphic memoir and defining how drawing functions as a non-fiction register, the idea of subjective authenticity is undoubtedly a construct and emerges as such when critically approached from a perspective of intersubjectivity and, as I will later argue, computational practice. For example, Simon Grennan approaches the question of narrative drawing in terms of complicated 'ecologies' of subjectivity (2017). Grennan argues that drawing style is the outcome of an intersubjective process arrived at through the self-observation of the artists comparing and adapting their trace to social convention. Intersubjectivity in the sense that Grennan uses it means that rather than representing a single subjectivity, a drawing must be considered as the outcome of a complex ecology of subjectivity which includes, for example, other drawing subjects that have informed or influenced the production of that drawing, but which, crucially, exist within a power structure based on value and convention, which is the outcome of many subjective contributions within that structure. Grennan's practice-based methodology involved making drawings through procedures not unlike those through which an AI image generator operates. Drawing Demonstration 2 attempts a Romance or Romance/Adventure genre comic in a style typical of those genres as manifested in the '50s, '60s, and '70s. Grennan selected a dataset to inform these drawings which included typical artists of the period; for the '50s drawing demonstration, these included 'Johnny Craig, Will Eisner, Milton Caniff, Harvey Kurtzman, Wallace Wood and Frank Hampson' (Grennan, 2017, 241).

Elisabeth El Refaie highlights the construction of authenticity in drawing, framing it in terms of a 'performance' appealing to Western society's 'deep yearning for the genuinely authentic' (El Refaie, 2012, 139). In broader visual theory, Hal Foster argues that expressionist authenticity is itself a constructed performance privileging the idea of a 'lost' primitive creativity, which is more authentic to the felt experience of human beings than the modern 'unnatural' encoded conventions we have built around us (Foster, 1983, 81). These ideas problematise claims that the line in drawing represents either individual style, or gives access to the subjectivity of an individual artist, and highlights the role of both reader and collective society in constructing the authenticity of graphic memoir.

None-the-less, the idea of the authenticity of the drawn trace and its connection to subjectivity is well established in the theory, ideology, and marketing strategies of alternative comics and graphic novels, positioning the sovereign auteurial presence in a central and privileged role. Alternative comics creators often insist on their embodied trace

extending to structural elements such as panel borders, the drawing of these by hand represents 'a way of declaring that everything on the page was the work of their hand, and that its borders were of a piece with the drawings surrounded by them' (Wolk, 2007, 41). This foregrounding of drawn trace furthers the claims of alternative comics to represent the experience of subjectivity and memory of an unmediated individual.

The foregrounding of the embodied trace is evident in activist art practice more broadly, which is generally more conversant with concepts of history and more engaged with the critique of systems of exchange. For example, Craftivism practice seeks to undermine spectacular capitalism by hand-making something imperfect, often in order to share the stories of those not generally included in its discourses (Werker, 2014). 'Guerilla giving' and the exchange cultures of zine communities undermine the value attribution of labour in capitalism (Lothian, 2014). In fine art practice, the repetitive embodied performance of craft can be hauntologically related to memory, an example being the uncovering of multigenerational colonialist memory through the embodied making of Sera Waters (Waters, 2021). These embodied practices are inextricable from systems involving other bodies and subjectivities active in constructing history, memory, and exchange. Rather than claiming to enable access to the authentic self of the auteur, they self-reflexively critique the contexts of their delivery. This self-reflexivity is often absent from alternative graphic memoir which, through the necessity of foregrounding its authenticity, is obliged to background the computational procedures of its production. Conversations around subjectivity, authenticity, and the rise of autobiographical comics and activist memoir often overlook how profoundly these auteurial forms have been enabled by technology and benefited from the cultural legitimisation conferred by capitalist ideologies of value. For example, the advent of the photocopier led to an explosion of mini comics and zines, often articulating a creator, or a small number of creator's personal stories or political position. Whereas in zine culture, the spreading of countercultural messages and the critique of capitalist models of exchange are generally the shared aim of the community, mini comics developed into an alternative comics industry, giving rise to the graphic novel form, privileging individual auteurs and marketed through ideologies of authenticity and the cultural legitimacy conferred by autobiographical drawing.

The outcome of this has been that autobiographical comics produced by individual auteurs have become a dominant form of production in graphic novel publishing and a culturally privileged form of remembering. As Paddy Johnston observes, this is founded on a somewhat contradictory sense of DIY kudos in which an anti-capitalist sense of authenticity conferred by the imperfection of the embodied trace leads to cultural legitimacy and value, establishing 'the lone alternative cartoonist as a figure worthy of critical acclaim and cultural merit' (Johnston, 2016, 146). Johnston argues that cultural acceptance in alternative comics, among many other art forms, means navigating 'autonomy's inherent tension – between its roots in mercantile individualism and its reaction against late capitalism's drive toward utilitarian exploitation' (2016, 154). Johnston is quick to point out that successful navigation of this, which accrues cultural capital, is dependent on a certain level of privilege not accessible to all.

Redressing this imbalance is the stated aim of activist publishers such as Street Noise Books. However, it is clear that underpinning notions of embodied trace, memory, and witnessing is an uneasy tension between basing claims for comics' undeniable effectiveness in conveying subjective experience, with slippery concepts such as authenticity. Such notions appeal to popular but outdated ideologies of 19th century Romanticism associating creativity with human uniqueness, which as Manovich argues, have been subsumed into capitalist notions such as the 'creative industries' and the 'creative class' (Manovich and Arielli, 2022).

These tensions shape responses to AI image-generation technology, which unsettle the ontologies of drawing, memory, and the body and threaten the position of graphic memoir as a culturally privileged form. Before I continue with this discussion, however, I will look closely at the work of Joe Sacco – an artist foundational to graphic journalism and the development of activist graphic memoir. Sacco’s highly crosshatched and laboured linework exemplifies the appeal to the drawn line as indexing embodied labour theorised by Gardner and Szép, and to the idea of an embodied drawing authenticating first-hand witnessing theorised by Chute. Sacco’s graphic journalism provides a useful contrast with generative AI procedures of image-making and will prepare for a discussion of what the use of generative AI to produce images of conflict reveals about this recent technology.

Graphic witnessing in Joe Sacco’s graphic journalism

Joe Sacco is best known for his comics about conflicts; these include critically acclaimed works such as *Palestine*, *The Fixer*, and *Footnotes in Gaza*. Sacco is a key figure for graphic activists and was foundationally important in developing comics journalism from autobiographical alternative comics practice. As Sacco says, ‘I came out of that sort of autobiographical tradition that was very prevalent in the middle of the ’80s... But I’d also studied journalism’ (Worden, 2015, p. 4).

Katalin Orbán relates the emergence of this new form of reportage to the improved cultural prestige of the graphic novel and argues that this form of journalism comes with its own temporality. Orbán notes that the slowness of Sacco’s laborious drawing process, combined with the ‘permanence enshrined in the book as a cultural form’ (Orbán, 2015, 124), produces a temporal relationship not typically associated with fast-paced journalism in other media. Orbán argues that Sacco’s drawing appeals to an ‘embodied experience to which the reporter has access, thanks to being physically present at the scene’ (2015, 124) and notes that this appeal emerged from the space created by the ontological impact that digital photography had on photographic reportage (2015, 125). Developing Orbán’s previous work (Orbán, 2014), Szép theorises the embodied appeal of Sacco’s work through a kind of attention she calls ‘dwelling’ in which the body of the drawer and reader dwell together in an empathic space of shared vulnerability and the ‘physical space between the reader and the comic becomes the site of a dynamic engagement’ (Szép, 2020, 130). Again, these models foreground the importance of a situated body conveying embodied experience through drawing. Without this connection, the work loses its ‘authenticity’ and persuasiveness.

In discussing Sacco’s work, Rebecca Scherr cites Jared Gardner’s argument that the drawn line is bound to the difficult labour of the body. Like Szép, Scherr connects drawing with embodied suffering, noting that this suffering often ‘competes’ with the suffering that Sacco depicts (Scherr, 2015, 186). Sacco himself recognises this in a graphic interview by Jeff Wilson and Jay Jacot. Elaborating on the emotional toll of drawing *Footnotes on Gaza* and questioning his ability to repeat the process of spending years drawing death and suffering, Sacco states that ‘Drawing is a weird thing... you sort of have to appreciate holding up a bat to hit someone over the head... you have to appreciate holding up your arm to stop the bat’ (Wilson and Jaycot, 2013, 152).

This embodied performance connects drawing with the violence it depicts, but in responding to this statement, Orbán is precise in defining its limitations: ‘It is a methodologically intimate reconstruction that is “weird” precisely because it stops short of over-identification’ (Orbán, 2015, 129). The ethics and empathy of these drawn performances are always ambiguous, problematised by the distance between the drawing performance and the act of witnessing, the reproduced drawing and the reader.

This difficulty is compounded by the fact that Sacco's work is often framed as witnessing and recording the suffering of other people. In *Sacco with Badiou: On the Political Ontology of Comics*, Alexander Dunst presents a reading of Sacco's comics through Alain Badiou's cultural and political philosophy. Dunst adds a note of critique to scholarship too quick to characterise Sacco's ethical witnessing as preserving the stories of the voiceless or as a humanitarian testimony, writing that such interpretations:

adopt a perspective that privileges the transfer of memory to a Western audience via a Western interpreter. But do Gazans depend on American or European visitors or academics to remember and communicate their suffering? As Sacco's literary alter ego discovers in *Footnotes*, most of his subjects have already been interviewed about their experiences and a history of the Rafah massacre has already been written by local historians (Dunst, 2015, 173).

This issue is navigated by Sacco through drawn autobiography. By foregrounding his subjective memory in the narrative, Sacco is able to self-reflexively critique his own position and methodology as a privileged agent in the mediation of the memory of others. It is understood by the reader that this subjectivity is inscribed in, and ontologically inseparable from, the drawings we are presented with.

As this brief summary of scholarly responses to Sacco indicates, entangled in his practice are a number of complex issues related to autobiography, advocacy, temporality, cultural legitimacy, suffering, empathy, history, and the distancing effect of the privileged western gaze. All of these issues are deeply incorporated within the idea of the testimony of a situated embodied drawing performance – a practice which also underpins comics as memory and activism.

In the following, I will expand this discussion by considering examples of generative AI practice which is thematically similar to the work of Sacco. Specifically, I will explore how the ontology of the dataset compares with the subjective, embodied appeal to truth-claims considered above.

AI images of conflict and history

In the last few years, there has been a rapid increase in the availability and usage of generative text-to-image technologies including DALL.E, Stable Diffusion, and Midjourney. These systems generate new images from large datasets based on parameters defined by text-based prompts imputed by the user.

Nataliia Laba has used Midjourney to explore generative AI representations of conflict. Laba's aim is to 'examine their potential trajectory, particularly because there is a looming prospect for AI images to mediate public perceptions of real-world events, including political developments, conflicts, and wars' (Laba, 2024, 1600–1601). Laba's critical AI practice offers a reflective exploration revealing tendencies and biases of generative AI models in composing images of conflict. Laba's experiments aim to counter prevalent AI mythologies often promoted by tech companies, that the apparent disembodiment of these systems 'reflect(s) a pervasive assumption that AI yields authenticity and epistemic objectivity' (2024, 1603). This assumption could be seen as the reverse of the truth claims of graphic journalism, in which disembodied computational objectivity is valued as more authentically truthful than embodied witnessing. These claims to objectivity are ill founded; work by Beatty (2022) shows that generative AI systems, when combined with digital imaging technology, produce results that are biased and exclusionary, reflecting the pre-existing societal prejudices present in the datasets on which they were trained. This problem is compounded by ignorance around AI technology, which allows corporations

to present applications as objective and equitable. This dataset bias compounds the problem highlighted by Sengupta (2022) that the development of algorithms also contain biases reflecting those of the programmers. Additionally, dataset biases are defined as much by absence as presence. Artist and critical generative AI practitioner Eryk Salvaggio offers a troubling example: 'Victorian-era portraits of white girls are prevalent in the training data for generative AI systems such as stable diffusion. Black girls are absent, with highly sexualised images of adult women taking their place' (Salvaggio, 2024, n.p.). What produces bias in generative outcomes is about who is left out of the dataset, reproducing historical exclusions emerging from, amongst other factors, access to technology. The effect of all this is, as Laba writes, that 'AI-generated images can reinforce dominant hegemonic narratives in representing collective memory' (2024, 1602) serving to maintain the capitalist, colonialist, and patriarchal order.

Laba's prompting experiments explored how Midjourney responds to prompts about the Russia Ukraine conflict. Using minimal prompts such as 'Day 1, Russia's invasion of Ukraine, 24th February 2022' and 'Day 500, Ukraine's counteroffensive, 8th July 2023', Laba produced a series of strikingly similar images shown in Figure 1. Laba writes that in these images, 'soldiers and fighters and destruction and aftermath contribute to the depiction of a generalised war, removed from the viewer's world and, for large part, devoid of potential for emotional connection' (2024, 1616). The visual themes in these images 'appear to echo dominant visual themes found in studies of news representations of war in the Persian Gulf, Iraq, and Afghanistan' (2024, 1616).

The third prompt in Laba's investigation was 'Ukraine, the end of the war with Russia, future.' This prompt returned images of male onlookers with their back to the viewer surveying ruins, or female subjects facing the onlooker and commanding their attention (Figure 2). The prominence of these young women, their faces clearly visible, forms a stark contrast to the depiction of soldiers at oblique angles, viewed from behind and at a distance generated by previous prompts. Laba observes: 'These choices result in a particular construction of war scenes emphasizing "the follow me" visual narrative and positioning the viewer as a detached voyeur.' (2024, 1611). The unspecified nature of the represented



Figure 1. Laba and Midjourney – 'Day 1, Russia's invasion of Ukraine, 24th February 2022' and 'Day 500, Ukraine's counteroffensive, 8th July 2023.'



Figure 2. Laba and Midjourney – ‘Ukraine, the end of the war with Russia, future.’

conflict is therefore compounded by potential lack of categorical distinction in the form of media from which these images are scraped. The ‘follow me’ visual trope, which characterises the point of view of the spectator, for example, is common to computer games and suggests the presence of these images in the dataset. The graphic witness in Laba’s images suggests a witness without a link to a specific body, witnessing a war without a specific link to history. Introducing the word ‘future’ changes the terms of the image completely, reframing the image in relation to viewer, subject, gender, and content. Laba argues that these ‘future’ images are characterised by ‘female subjects making a visual “demand” through gaze’ (2024, 1613).

These prompting experiments reveal fundamental ontological distinctions between generative AI images of war and those made by Joe Sacco. The Midjourney algorithm in searching the dataset for images in the ‘style’ of war identifies patterns of typification common to ‘war’ images and produces a new image based on these features. The truth claims underpinning the graphic activist memoir of Sacco, cementing a relationship to geographical, historical, and embodied specificity through the drawn trace, are in contrast to the non-specificity of these images generated from datasets where little distinction is made between fact and fiction.

This is significant in contrasting the contexts of image-making privileged in embodied drawing productions with the generation of images from patterns identified as styles through their textual tags or visual features. As Roland Meyer observes, in generative AI images, everything becomes a ‘style’:

and while, in name, all these different ‘styles’ are still associated with people, media, genres, techniques, formats, places, or historical periods, in the production logic of the AI model they are nothing more than typical visual patterns extracted from a latent space of possible images accessed through generative (and often iterative) search queries (Meyer, 2023, 107).

The embodied, geographical, and technological contexts which index image production are merged and backgrounded by the AI model in the process of generating novel images approximating ‘war’ or ‘future’ as a stylistic category. These categories are established

through patterns recognised in the billions of images uploaded to the internet and tagged as images of wars or futures. They are the outcomes of a western-centric capitalist dataset and opaque corporate coding practices. The code itself is the private property of corporations who can place guardrails and limitations on the images AI algorithms generate based on corporate policy.

Fabian Offert writes about ways in which this manifests itself in generative AI images of the past. In the generative model DALL·E 2, Offert writes, ‘the recent past is literally black and white, and the distant past is actually made of marble’ (Offert, 2023, 122). Offert’s prompting experiments established that DALL·E 2 would not comply with the prompt ‘a colour photo of a fascist parade, 1935’ (2023, 128).

Offert goes on to explain that it is however possible to make such an image if you misspell ‘fascist’ as ‘facist’. The resulting image has the look of an early Kodachrome photograph. Offert writes: ‘it is difficult to impossible to produce colour photographs of fascist parades, ca.1935, that do *not* have the appearance of early Kodachrome, colourised black-and-white, or otherwise historically more or less accurate photographic techniques’ (2023, 129). This demonstrates how a combination of corporate constraints and reliance on the identification and reappropriation of stylistic patterns limits the presentation and representation of historical events.

Offert points out that while DALL·E 2 has no problem producing highly speculative photographic images based on semantic propositions such as a cat driving a car, ‘syntactic’ speculation such as reimagining a fascist rally in 1935 is hard. However, as we have seen, producing speculative images of the current Ukraine conflict, or its ‘future’ in a way which decouples the image from any particular indexical apparatus, and mixes it up with all manner of other relatively recent conflicts (both fictional and factual) is well within the capacity of generative AI. Hoskins raises the potential of a ‘automated poisoning of the past’ as these speculative images are reintroduced into datasets. Quoting Shumailov et al., Hoskins warns of a ‘model collapse’ involving a ‘degenerative learning process where models start forgetting improbable events over time, as the model becomes poisoned with its own projection of reality’ (Hoskins, 2024, 5).

This highlights factors undermining generative AI’s ability and usefulness in representing a witnessing perspective and the potential dangers of these images as representations of collective remembering. While it is important to point out that the software used by Laba and Offert is different, these two prompting experiments show that generative AI models are by their nature, fundamentally constrained by corporate decisions and limited by a reductive model based on the recognition of ‘stylistic’ features.

Despite these issues and limitations, there are examples of comics that use generative AI to convey information on world events including conflicts. Al Jazeera’s *History Illustrated* represents a recent example. Described by Al Jazeera as ‘Explaining a moment of historical significance and using AI-generated imagery to illustrate the topic’ (Al Jazeera, n.d.), *History Illustrated* covers historical subjects such as ‘Why storming of the Bastille still matters’ alongside more recent news stories such as ‘Netanyahu, the ICC and the new world disorder’ (Al Jazeera, 2024). In a piece written on the website of the Shorty Awards, an annual prize in which Al Jazeera digital was awarded Impact Award Winner in Generative AI, the design team behind *History Illustrated* describe how they ‘developed a film-noir, graphic-novel aesthetic to give the impact our readers demand of our stories’ (Nabi et al., 2016, np.).

The style of artwork in *History Illustrated* has changed over time. Earlier examples such as 2016’s ‘How the Iraq war was sold’ (Al Jazeera, 2016) seems far more informed by drawn images which, as Mickwitz notes (2024), are similar to Frank Miller’s artwork in *Sin City* (Miller, 2005). In more recent examples, images have a high contrast digital and photographic look, which at times is indistinguishable from photography. In other panels, the artwork looks painted and drawn, but in a vague, ambiguous way, which does not disclose a

particular material process. Whether these visual differences represent editorial decision-making or a change in the outcome of more recent Midjourney versions is difficult to say.

The ambiguity of these images, which mix up the indices of materiality, embodied drawing, and photography, can be explained through Miriam Kent's notion of 'ontological vagueness'. This develops Daniel Brodén's idea of 'ontological strangeness', which accounts for digital artwork's mimetic remediation of analogue materials while remaining ontologically distinct. As Kent argues 'while digital tools offer artists precise control... The hidden creation process and lack of actual drawing results in a form and content characterised instead by ontological vagueness' (Kent, 2024). This vagueness would undermine claims to the authenticity of subjective witnessing in drawings appearing in graphic memoir. Perhaps because of this, *History Illustrated* withdraws from claims to represent any subjective point of view. Indeed, the way these pieces are written attempts a more objective fact-based tone, even if the imagery is often emotive.

It is worth taking a moment to consider that comics have also mixed up the indices of drawn and photographic images in a comparable way, leading to their own ontological vagueness, which has implications for collective remembering. In *Comics Trauma and the New Art of War* (Earle, 2017), Harriet E. H. Earle discusses the referencing of the famous photograph *Saigon Execution* by Eddie Adams in the war comic *The 'Nam Volume 3*. This image became one of the most important photographs for the anti-war movement, and Earle argues that the appropriation of this photograph helps situate the narrative in a historical context. Earle writes that due to photography's ability to 'capture an event, a person, or a place, crystallizing it into a single, consumable image... certain images of conflicts become "the image" of that particular event' (2017, 137). Earle quotes Susan Sontag as writing that this process of selection is 'part of what a society chooses to think about, or declares it has chosen to think about. It calls these ideas "memories"... What is called collective memory is not a remembering but a stipulating' (2017, 137). This frames photographic images in a reception ecology, where they accumulate historical significance and come to exemplify collective remembering.

Sacco's work is as implicated in this process as any other form of media. Sacco appropriates and references well-known photographs. As Banita notes, Bernd and Hilda Becher's photographs of mining sites are referenced in Sacco's *Days of Destruction, Days of Revolt* (Banita, 114) as are historical photographs in *The Great War*. This indicates the enduring appeal of photography as a site of collective memory and the act of drawing as an act of citation or remixing. Significantly, this embodied form of remixing does not compromise the truth claims of Sacco's work in the same way as the more disembodied mixing of indices in *History Illustrated*. Drawing subsumes the photographic artefact in Sacco's subjective experience in a way that does not compromise the perceived authenticity of either register, despite them being the outcomes of not dissimilar processes of collective stipulating.

It is worth introducing Benoit Crucifix's recent study of the history of remixing in comics into this discussion (Crucifix, 2023). Crucifix considers the widespread practice among 20th century artists of 'swiping' involving the copying or tracing from comprehensive collections of 'swipe files' of other artists' work cut out of newspapers or comics, which the artist could copy into their own work. Crucifix echoes the work of Grennan in arguing for the recognition of the intersubjective development of drawing style, with the practice of swiping representing an important procedure. Crucifix argues that such copy routines are in fact intrinsic to the comics form. This further problematises claims of the drawn trace to convey unique subjectivity. Instead, comics drawing is conceived of as a framework involving embodied exchanges of drawing and redrawing.

This concept is comparable to the ecologies of image exchange involved in the processes of stipulating collective memory. Aleida Assmann highlights the inter-subjective affect of the symbolic exchange of representations of memory within different media frameworks

(Assmann, 2010) and quotes Maurice Halbwach's argument that without these social frameworks, no memory is possible (2010, 37). The collective memory, which emerges from media representations (which Assman notes, can also be framed as ideologies), effects individual remembering. This exchange between embodiment and mediation 'is a process of continuous re-inscription and reconstruction in an ever changing present' (2010, 39). Applied to comics, these ideas reveal drawing as a site of reiteration, stipulation, and intersubjective ideology, thinly concealed by the human agency guaranteed by the trace of the auteur.

By contrast, in using Midjourney, it is unclear what level of agency the producers of *History Illustrated* had on the images included. The creators describe a frustrating episode:

In one memorably baffling instance, we tried to generate the image of a journalist as seen from behind. She needed to be wearing a flak jacket, walking away from the camera. Inexplicably, the generative AI insisted on rendering her wearing a backpack that obliterated any hint of a flak jacket – despite no mention of said backpack in the command copy (Nabi et al., 2016 np).

This illustrates the tension between human and algorithmic agency in generating these images. Far from these images being traces indexing the subjectivity of the individual, the extent to which the human can influence the AI model to produce images resembling basic factual content is called into question.

Hoskins writes, it is 'increasingly AI that *generates* the context in which memory is produced' in a way that '*both enable and endanger human agency in the making and the remixing of individual and collective memory*' (Hoskins, 2024, 2 emphasis in original). While it is beyond the scope of this article to fully disentangle the effect of generative AI images on human agency in stipulating collective memory, the harvesting of vast personal memory archives and their re-expression through algorithmic procedures represent both a new kind of symbol and a new kind of exchange in which ideology is embedded both in dataset bias and algorithmic constraint.

The act of disseminating generative AI images is also increasingly led by social media algorithms. The circulation of these images, marked by human engagement with machine learning algorithms, represents an accelerated process of stipulation as a factor in mediating memory. Returning to the argument that our ontological understanding of drawing is affected by the introduction of algorithmic and computational practices considered broadly, I will examine the machine learning algorithms embedded in the practices of alternative comics production and distribution, discuss how these have been conflated with generative AI, and consider the implications for activism and graphic memoir.

Algorithms and activism

The alternative comics community's response to the widespread availability of generative AI has been negative, ranging from discomfort to hostility and expressions of resistance. Objections centre on tech companies' practice of training generative AI models on copyrighted material without consent, leading to the charge that generative AI models 'steal' copyrighted artwork. Generative AI outcomes are often framed by comics artists as unskilled cultural labour producing images that lack humanity and authenticity.

Many comics festivals such as Thought Bubble prohibit their exhibitors from selling work made using generative AI, stating in their FAQs should an exhibitor 'withhold this kind of information and be found to be using AI in their work, we hold the right to cancel their appearance' (Thought Bubble, 2024). This is echoed by Broken Frontier's 'one strike

and you are out' policy for those 'using' or 'normalising' AI in their comics practice (Broken Frontier, 2024).

While this position has become widespread (PCAF, 2024; Silver Sprocket, 2023), there is little clarification around what 'normalising' or even 'using' AI means. Recalling Frederike Kaltheuner's argument cited in the introduction that AI is an umbrella term that has taken on a meaning of its own in the public imagination makes it unclear what kinds of 'AI Art' practices are being prohibited in the guidelines I quote above. Artificial intelligence is often characterised as an external threat which it is possible to separate oneself from, an idea which is becoming increasingly difficult to uphold as social networks and digital tools become integrated with generative AI. The framing of 'human' drawing practice positioned as resistance to this outside threat glosses over the reality of contemporary comics practice in which machine learning algorithms are increasingly involved.

In the following section, I will consider how activist graphic memoir as a practice has undergone radical shifts brought about by machine learning technology considered broadly. This includes social media algorithms and digital tools, which predate generative AI image technology as defined in the introduction of this article. Social media algorithms are designed to curate content and drive engagement, whilst generative AI algorithms are designed to create new content from prompts by scraping a dataset. My argument is that contemporary computational drawing practice, combined with distribution of images through algorithmic curation, produce comics that are fundamentally distinct from comics produced in the 20th century. These practices have much in common with generative AI models in terms of their ontological effect on drawing's relationship with memory and witnessing as framed by algorithmic logics of shareability and tagging. As John May writes 'the specific conception of time embedded in a technical system is inseparable from the forms of thought and imagination the system makes possible or impossible' (May, 2019, 36–39), meaning that ideas around what is 'human' and 'authentic' are mobile in these systems and quickly change as new, unfamiliar technology, which unsettles agential relationships in human/technological entanglement, makes previous technology seem 'natural'.

As I argued earlier, digital technology has enabled the auteurial practice of alternative comics creators and increased the cultural legitimacy of the form, rendering the labour of other cultural workers obsolete. Alternative comics creators act as their own printer, distributor, publicist, and fundraiser. Programmes such as photoshop have replaced traditional drawing tools. Poser and Google Image search provide reference images to copy when drawing. The availability of webshops, offering the ability to sell and distribute both PDFs and material comics, alongside crowd-funding platforms such as Kickstarter, allows comics creators to practice without the need for comics shops, booksellers, or publishers. This is significant, as these digital tools do not simply increase the agency of the auteur, but replace other human agents with computation and submit cultural products to algorithmic procedures.

Leading digital image software such as Adobe Photoshop is increasingly generative AI integrated. Its rival Procreate has begun marketing itself as being against generative AI and pledging to support 'human creativity' (Procreate, 2024). In fact, Procreate uses machine learning in its QuickShape feature, in which predictive algorithms detect hand-drawn shapes made by the user, offering immediate adjustment into perfect shapes. Both programs form part of a broader digital practice comprised of computational, reversible operations in which materiality is simulated. Such approaches according to Manovich 'externalises (a) person's thinking and creative process turning it into a sequence of discrete operations with numerical parameters defining their details' (Manovich and Arielli, 2022, 8). Despite contributing to the transformation of the performance of drawing beyond recognition, Procreate successfully market themselves on social media as a 'human' product privileging the romantic figure of the artist auteur. The 'human' in the human trace is therefore a

mobile notion. Practices recently considered highly inauthentic are soon to be marketed as tools at the service of authentic expression.

Social media platforms such as Instagram have become a dominant platform to post graphic memoir and are indispensable to graphic activists in spreading their messages. Sharing on social media submits the image to all manners of decontextualisation, recontextualisation, adaptation, manipulation, and remixing. These procedures reiterate Cruicifix's description of copy routines and Grennan's model of intersubjective image ecology, introducing algorithmic curation into a circulating archive of images, which AI image-generation models both contribute to and scrape. While these procedures are distinct from those of generative AI, their effect is related, in estranging the trace of drawing in graphic memoir from specifically situated embodied performances and claims to authentic witnessing.

This reappropriation is becoming increasingly integrated with AI as user posts are added to generative AI datasets by default. Like many others, Broken Frontier regularly reiterates their anti-AI position on social media, employing the #NoAI hashtag and urging people not to engage with this technology. Typically, such posts generate a great deal of likes and engagement. In this way anti-AI activism has itself been subsumed into the algorithmic attention economy. As Anthony Downey comments, in a situation where our sense of reality is increasingly mediated by algorithms, political activism can increasingly be thought of as algorithmic outcomes 'as if there is an increasingly ubiquitous algorithmic "command" – both overt and, indeed, covert – that produces reactions to certain political issues, but we still lack the literacy to push back against such techniques or navigate our way through their habitually opaque machinations' (2024, 134).

This subsummation of activism to the algorithm emerges from a fraught history of activism and social media. Emiliano Treré emphasises the role of early social media in the Occupy movement and the Arab Spring but argues that 'Contemporary activism is characterised by a "complicated marriage" with social media platforms and their algorithms... whose cyber-materiality needs to be critically unveiled' (Treré, 2019, 172). As Treré writes:

if we want to understand the social, cultural, and political implications of algorithms, we have to take into account that they do not exist in isolation, as separate and neutral technical entities, but are instead embedded in multifaceted ecologies of social, cultural, and political interactions, and therefore reflect particular ways of conceiving the world (2019, 166).

Treré cites the example of the 15M movement in Spain as an early cyberactivist movement defined by their activity on social media platforms. 15M and other movements were able to organise users to effectively 'hack' Twitter algorithms to produce trending topics. The methodology for this was trial and error, 'trying to understand how the Twitter algorithm worked and how it could be exploited for boosting the movements' popularity and influence the mainstream media' (2019, 197).

Treré quotes Jackson and Welles' 2015 study of the hashtag #myNYPD as an example of networked counter public's reframing of dominant discourses around law and order on Twitter. The authors identify Twitter as 'a new and rapidly evolving space for counterpublic protest and discourse, a space that offers unique possibilities for public debate among activists, citizens, and media-makers seeking to define and redefine the role of the state in civil society' (173–174). This quote makes clear how, in less than 10 years, social media platforms once framed as politically neutral 'town squares' have come to be understood as homogenous filter bubbles. Algorithms designed toward driving engagement lead to a curated view of the world, which limits the user's attention to certain topics. Citing author and activist Eli Pariser, Stefka Hristova describes the effect of these corporate-driven filter

bubbles. 'First, he argues, "you're alone in it." Second, he suggests, "the filter bubble is invisible" as "from within the bubble, it's nearly impossible to see how biased it is"' (Hristova 2022, 114–115).

This leaves activist comics in an uneasy relationship with social media. The constantly changing nature, ownership, and algorithmic organisation of social networks render the memory of the activist groups that use them precarious. The sheer speed in which the technology that recently empowered activist groups has come to control the visibility and reach of their messages has changed the dynamic against activist messaging. A Steet Noise Books post on Instagram dated 26th November 2024 claims that 'Instagram is prohibiting promotion of our book, *Eyes on Gaza*, as "political content"' (Street Noise Books, 2024). This suggests a detrimental effect of machine learning algorithms on the visibility of activist comics.

In the final concluding section, I will take this idea of hacking the algorithm forward to consider the possibility of using generative AI self-reflexively in activist graphic memoir. I will suggest that despite this mixed experience of the effectiveness of hijacking algorithms on social media, critical practice using generative AI may indicate new models of practice for comics activists.

Conclusion: Should comics activists use generative AI?

Alternative comics, given their foregrounding of the body, the act of witnessing, and the expression of subjectivity, could represent a powerful tool in critiquing generative AI algorithms, revealing knowledge about their procedures, and fostering generative AI literacy. Given how both generative and non-generative technology problematises these notions, this task would require some self-reflexivity in foregrounding the complex distinctions between current and past drawing practice and the algorithmic technologies they utilise.

As I indicated in the introduction, there are many good reasons for alternative comics creators to avoid generative AI tools on ethical grounds. There are legitimate concerns around the environmental impact of their energy and water consumption (Naughton, 2024), alongside the question of copyright infringement in the training of datasets. AI systems are established by tens of thousands of unseen, underpaid human workers. The tendency of AI-related technologies to reflect pre-existing societal prejudices, and as I have outlined, the potential of their application to further institutionalise inequality and oppression is well documented.

Given the problematic nature of AI systems described in this brief and far from comprehensive summary, it is difficult to see how comics activism could meaningfully engage with generative AI to progressive ends. However, it is worth reflecting that the discussion so far has relied on AI image-generation practice to produce insights into how generative AI operates. AI critical practice is becoming an established approach in fine art. Jake Elwes' 2019 work *Zizi – Queering the Dataset* attempts to disrupt the inflexible gender binaries of facial recognition systems by re-training them with 1000 images of gender-fluid faces. Trevor Paglen's recent work is another example. Paglen trains AI on 'irrational' datasets based on literature, philosophy, folk-wisdom, and history. He then encourages the AI to 'hallucinate' by exploiting the 'general adversarial network' model of some kinds of generative AI. As Anthony Downey writes in introducing Trevor Paglen's AI critical generative practice

Given the accumulative and ascendent influence of AI on our lives and how we live, there is a strong argument here for developing research methods... that are designed to encourage a critical range of thinking from *within* these structures rather than merely reflecting upon their impact (Downey, 2024, 63).

These approaches could usefully be applied by comics, not only in developing critical thinking around the algorithms and datasets representing generative AI diffusion models, but developing critical thinking about the effect of broader computational practice and algorithmic dissemination on ontologies of embodied drawing in graphic memoir. This could amount to a new kind of activist comic, self-reflexively exploring the technologically constructed nature of subjectivity and authenticity, exposing the ideologies of dataset and algorithmic procedures, and the constraints of typification in generative AI models.

Assmann writes that a problematic effect arising from the interplay of embodied individual memory and collective mediated memory is the 'high potential for manipulation by the media which may restage the past according to marketing strategies or the demands of specific groups' (Assmann, 2010, 39). This warning could stand as much for the ideologies embedded in the truth claims, marketing strategies, and technologies of the graphic novels of Sacco as it could for the potential effects of generative AI. The thoughtfulness and self-reflexiveness of Sacco's work do not efface the difficulties of his positionality as a western author bearing witness to the trauma of non-western people, particularly when it comes to matters of marketing and reception. Sacco seems aware of these issues, and by foregrounding them, includes them in autobiographical graphic activist discourse. While graphic memoir has absorbed certain kinds of self-reflexivity into its discourse, this rarely extends to a foregrounding of the computational and algorithmic technology that facilitates its production, particularly where its practice takes on an alternative comics approach appealing to authenticity, and/or a rarefied graphic novel form.

The attachment of activist graphic memoir to the cultural legitimacy conferred by auteurial graphic novels potentially constrains their effectiveness in reflecting the contemporary moment. Ideologies of autobiographical drawn trace are founded on concepts of 'uniqueness' and 'authenticity', which repeat ideologies of 19th century Romanticism historically privileging the heroic white male artist. In my view, these ideas require updating. To do so means to accept and self-reflexively critique the human/nonhuman algorithmically integrated nature of the post digital drawn trace and to encourage critical AI practice and AI literacy in readership. This is a necessary step if comics are to remain an effective form of activism.

Data availability statement. The author has nothing to declare regarding advice from associates and colleagues or data availability.

Acknowledgements. The substance of the content presented has not been published previously and is not currently being considered for publication elsewhere.

Funding statement. This work received no specific grant from any funding agency, commercial, or not-for-profit sectors.

Competing interests. The author has no competing interests to declare.

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Dr Gareth Brookes is a comics creator and academic. He holds a PhD from the University of the Arts London. His research interests include materiality, embodiment, and technology in the making and reading of comics, practice-based research, and the intersections between critical AI theory and drawing theory. He is the author of four commercially available graphic novels.