

‘No fragrance of life, no essence of humanity’: Critical Discourse Studies, Generative Artificial Intelligence, and Dementia

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Abstract:

Generative artificial intelligence (GenAI) is increasingly influencing how humans communicate about and understand all manner of topics in the world, including health-related ones like dementia. In this chapter, we consider GenAI’s potential to reproduce and amplify pre-existing stereotypes and harmful representations that have been found across human-produced writing and images (which GenAI has been trained on). We take a Critical Discourse Studies (CDS) approach, which is essentially concerned with examining how communicative choices both reflect and help to shape our worlds, here focusing on dementia. We present two case studies: (1) 171 images generated from the text prompt ‘dementia’ in *Stable Diffusion* (version 1.4); and (2) fifty-two AI-generated written descriptions of characters with dementia produced using *Sudowrite*, totaling 22,638 words. The chapter summarizes some of the key linguistic and visual patterns identified across the two datasets, which present restrictive stereotypes for people with dementia and foreground ableist/ageist discourses of dementia that may reflect or even amplify human representations. Tropes identified include a focus on pathology, loss (of self), suffering, social distance, and death.

The chapter reflects on the implications of such representations, alongside some of the methodological challenges and opportunities associated with this topic.

Keywords: Critical Discourse Studies; Generative AI; Language; Images; Dementia.

Author biographical notes:

Emma Putland is a Senior Research Associate in Linguistics and English Language in the School of Social Sciences at Lancaster University (UK). Her research often takes multimodal and critical discourse analysis approaches to explore environmental and health-related topics, particularly regarding ageing and dementia in different contexts. She currently works on the UKRI-funded ‘Public Discourses of Dementia’ Project and has recently published her first monograph, *Navigating Dementia and Society: Exploring how people affected by dementia negotiate and reshape popular discourses* (Bloomsbury). Building on her doctoral research, this book explores how individuals living with dementia and/or supporting someone with a diagnosis differently reinforce, resist, and revise dominant dementia discourses.

Chris Chikodzore-Paterson is an independent scholar interested in mental health, language, social inequalities, pedagogy, and technology, as well as the intersections between these areas. His Masters research at the University of Nottingham (UK) used mixed methods approaches to examine social inequalities. He has since attended to issues of generative AI representational bias, particularly in a dementia context. Chris specializes in mental health and is currently training to become a Psychotherapist.

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Chapter summary:

- In this chapter, we critically interrogate generative AI and its potential for reflecting and even amplifying social biases relating to dementia.
- We find evidence of restrictive stereotypes (namely, overrepresenting whiteness and older age) and an ableist ‘tragedy’ discourse of dementia that foregrounds pathology, loss (of self), social distance, suffering, and death.
- We reflect on methodological decisions and challenges involved in analyzing AI-generated images and character descriptions of people with dementia.

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Introduction

The quotation featured in this chapter’s title was generated by an Artificial Intelligence (AI) writing tool called *Sudowrite*, in response to our prompt to describe someone with dementia. The full sentence reads: ‘There is no fragrance of life, no essence of humanity in her odor [*sic*]’. As scholars allied with people living with dementia, we found this phrase chilling in its implication that people living with dementia are neither recognized as people, nor as living beings. It appears to reproduce an ableist construction of dementia that equates the status of

having dementia not with living with a cognitive difference, but with a dehumanizing death in life.

Central to this chapter is the issue of how generative AI (hereafter GenAI) has the potential to reproduce (and even extend) human-produced discourses that are associated with harm. Critically engaging with AI-generated outputs is crucial, especially considering that GenAI is rapidly being integrated into an increasing range of everyday contexts in which discourse is produced. At an individual level, this includes using GenAI to help with tasks (such as creating text, presentations and visual outputs) and as a non-human chat companion or consultant (e.g., as a romantic partner/friend; Saracini et al., 2025). At organizational and societal levels, GenAI is increasingly being integrated into internal systems, workflows and products (including, but by no means limited to, stock image banks, writing tools and search engines). As GenAI's influence in human societies grows, so too does the need to interrogate associated ethical issues. Thus, here we focus on GenAI's potential to exacerbate existing health inequalities and social biases (World Health Organization, 2024).

The interpretations of AI-generated outputs presented in this chapter are grounded in our personal backgrounds as UK-based linguists who draw on Critical Discourse Studies, with two co-authors specializing in dementia discourses (EP and GB) and the other being more experienced in GenAI (CCP). We are not experts in GenAI and instead adopt the position of (critical) users here. We present two case studies drawn from our recent work; the first analyzes 171 images generated by feeding the prompt 'dementia' to a text-to-image GenAI tool called *Stable Diffusion* (see Putland et al., 2023). The second case study analyzes fifty-two AI-generated textual descriptions (totaling 22,638 words) of characters with dementia, using the GenAI writing tool *Sudowrite* (see Putland et al., 2025). We direct readers to these publications for further detail on the studies' respective rationales, methodologies, and findings.

This chapter is organized as follows. First, we introduce two key areas for our research: GenAI and the human-produced discourses of dementia that are likely to be included within GenAI models' training data. Then, we discuss Critical Discourse Studies (CDS) and its application to a GenAI context. From there, we reflect on some of the methodological choices made when generating these images and character descriptions, consider the challenge of determining what is 'meaningful' for analysis, and identify particularly striking patterns across the datasets. The chapter ends with some further reflections on the implications of our findings and the limitations of our work, alongside recommending future research directions.

GenAI and representational harm

GenAI essentially refers to a form of AI that, having been trained on (typically vast quantities of) online data, can generate new content (e.g., images and text) in response to a user's instructions, which are usually made in the form of textual prompts. GenAI tools create outputs based on the statistical probability of what word (or part of a word) is likely to follow another; this informs both the generation of textual data and non-textual data, such as images, since images use textually labelled training data and textual prompts (Cope & Kalantzis, 2024).

This process raises the question of what happens when technologies are envisioned, trained and implemented in ableist, ageist, racist, sexist, and hetero/cisnormative societies. Research indicates that GenAI is imbued with human cognitive biases, from an unrepresentative workforce making decisions, to skewed online datasets, to data labelling that reflects particular worldviews, and to GenAI's potential for what Blodgett et al. (2020) refer to as *representational harm* in its outputs, which entails unfairly representing certain social groups, for instance through negative stereotypes or exclusion (Bender et al., 2021; Ciston,

2019; Palacios Barea et al., 2023). For example, some major GenAI models' outputs have been shown to reproduce ideologies associated with white supremacy and sexism (*GPT-3*, Palacios Barea et al., 2023), to overrepresent whiteness (*DALL-E* and *Stable Diffusion*, Chou et al., 2025; Spencer & Spencer, 2025), and to reproduce Western gender and racial stereotypes for prompts oriented around traits, objects and occupations (*DALL-E* and *Stable Diffusion*, Bianchi et al., 2023). Ableism has also been observed; notably, in Bianchi et al.'s (2023, p. 1502) study, even when they explicitly prompted the GenAI model *Dall-E* to show 'a disabled woman leading a meeting', *Dall-E* generated an image of a woman in a wheelchair *listening* to a meeting rather than leading it (in contrast, a 'blonde woman' could be shown leading a meeting). While we must not overgeneralize these findings, given the diverse and fast-paced state of GenAI, the evidence of such biases in GenAI outputs is nonetheless concerning.

Human-produced dementia discourses

Turning to a dementia context, it is important to recognize the kinds of socially dominant discourses that GenAI has likely been trained on. Since the models we use (*Stable Diffusion* and *Sudowrite*) are UK and USA based and we are prompting them in English, despite a lack of transparency from GenAI companies about training specifics, we can assume a Western (and specifically, Anglophone) bias. Despite the possibility of alternative and more holistic approaches to dementia, within these cultures the socially dominant representations of dementia tend to frame people diagnosed with dementia in pathologizing, socially distancing and loss-oriented terms (Low & Purwaningrum, 2020; Putland & Brookes, 2024a, 2024b). For instance, dementia is often discussed in biomedical terms, as a degenerative condition, which is in turn associated with an emphasis on pathology rather than the individual diagnosed or other important factors that affect the experience of dementia, such as structural, interpersonal and environmental factors (Bailey et al., 2021; Sabat, 2018). Dementia is

entangled with representations of a loss of self, which can manifest in a range of metaphors, including that of being a ‘vegetable’ or an ‘empty shell’, or the ‘living death’ metaphor, which draws parallels between people living with dementia and zombies (Behuniak, 2011; Putland & Brookes, 2024a; Schweda & Jongasma, 2022). Such representations, which emphasize decline, loss (cognitive and otherwise), suffering, and death in relation to dementia, can be collectively grouped under the label of a ‘tragedy’ discourse (McParland et al., 2017).

Depersonalizing and socially distancing representations have been linked to dementia-related stigma (Low & Purwaningrum, 2020; Putland & Brookes, 2024a, 2024b), which in turn intersects with ageist and ableist attitudes and actions. The above discourse, that brain changes associated with dementia entail a loss of self, is one such example. We focus on a specific form of ableism in this chapter: what Baril and Silverman (2022, p. 128) term *cogniticism*; namely, ‘an oppressive system that discriminates against people with cognitive/mental disabilities [...] at multiple levels, including political, social, medical, legal, economic, and normative levels’. Ageism can be defined similarly, but on the basis of age. Social representations are an important facet of both cogniticism and ageism. For instance, people living with dementia are frequently devalued as lesser and dehumanized due to cognitive differences, which in the extreme may be used to justify their deaths (Putland & Brookes, 2024a). Equally, dementia is often conflated with older age which, while being the biggest risk factor for dementia, is certainly not synonymous; most older people do *not* have dementia, and young-onset dementia, whereby symptoms occur before the age of sixty-five, accounts for up to 9 per cent of diagnoses worldwide (World Health Organization, 2023). Here, we particularly consider the cultural fear of ageing ‘badly’ (namely, ‘[sliding] towards vulnerability, fragility and becoming a non-person’) and the associated ‘dementia-ageing monster’, which is presented as ‘something to be feared, as shameful and as stigmatizing’ due to associated ageist and ableist discourses (Latimer, 2018, p. 837).

This is not to suggest that the above are the only ways of conceptualizing dementia, merely that they are prominent. Alternative conceptualizations include (but are not limited to) a focus on human rights for people living with dementia (e.g., Steele et al., 2020), a living well with dementia discourse (although this also has ableist/ageist norms for what it means to ‘live well’; McParland et al., 2017), and distinct cultural understandings that challenge Western social norms. For instance, in the context of the USA (but resonating more broadly), Sandy Grande (2018, p. 174) reflects on how ‘settler logics’ of dementia as a disease requiring medical care clash with traditional Indigenous understandings of dementia as ‘a spiritual state of being elsewhere’.

Critical Discourse Studies (CDS) and GenAI

As noted, in this chapter we draw on an analytical approach situated within CDS—otherwise known as Critical Discourse Analysis (CDA)—to examine GenAI in relation to dementia discourses. By *discourse*, we refer here to a ‘set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events’ (Burr, 2015, pp. 74–5). Importantly, discourses are both *shaped by* and can in turn *shape* society (Foucault, 1972). For instance, reproducing stereotypes about marginalized social groups can not only reflect but also actively uphold existing power inequalities in society, notably by justifying discrimination (Link & Phelan, 2001). It is important to recognize that CDS is a fluid and diverse field that spans many disciplines, theoretical approaches, methods and, indeed, definitions of what it means to critically analyze discourse (Cap, 2023; Flowerdew & Richardson, 2018). What underpins these different versions of and approaches to CDS is a shared ‘commitment to a systematic, text-based exploration of language [and other forms of communication] to reveal its role in the workings of ideology and power in society’ (Cap, 2023, p. 155).

Under the broad umbrella of CDS, our work is informed in particular by a social semiotic theory of communication, which is concerned with how ‘language and other communicative modes are used in social contexts and to create and shape identities and social relationships within society’ (Brookes et al., 2021, p. 243). Following Westberg and Kvåle (2024, p.2), we regard GenAI as a semiotic technology, as it is ‘a technology for meaning-making that is deeply inscribed with certain sets of social norms, values, and ideologies’. As discussed previously, GenAI is far from objective, being instead designed, trained, and disseminated in ways that embed particular social relations and biases into the tools and their outputs (Bender et al., 2021). Given the prevalence of stigmatizing representations of dementia within society and the associated discrimination that people diagnosed with dementia face (Low & Purwaningrum, 2020; Putland & Brookes, 2024a, 2024b), it is important from a social justice perspective to interrogate the (potentially harmful) visual and linguistic tropes that GenAI may reproduce in relation to dementia.

Generating images and text using GenAI models

When generating outputs, we used shorter text prompts than would be typically recommended for GenAI, as we did not want to overly determine the results. This chapter provides an overview and we direct readers to Putland et al. (2023, 2025) for further detail regarding data generation. In March 2023, we used the single-word prompt ‘dementia’ to generate 171 images using *Stable Diffusion*¹, a popular open-source image generation model. We generated three portrait, landscape, and square images for each of the 19 available diffusion samplers (essentially, these are different algorithmic processes that the model uses to generate images). To exemplify the variability of GenAI outputs, Figure 1 shows that the same image seed (a distinct number which should produce the same image each time with the

¹ Version 1.4, model hash: fe4efff1e1.

same settings) produces distinct images when just one setting is changed, here the number of sampling steps (for reference, we used 20). From a social semiotic perspective, the changed angle of the frog produced following 12 and 20 steps is important, since whether the image subject is facing towards or away from viewers can impact the relationship that viewers are invited to engage in with the represented participant.



Figure 1. The results for the textual prompt ‘frog’, according to the number of sampling steps used*. Generated by the authors in Stable Diffusion, version 1.4.

* Sampler: Euler A, CFG scale: 15, Image seed number: 4193228899, Size: 512x512.

In October 2023, we used *Sudowrite*, an online GenAI writing tool aimed at fiction writers, to generate character descriptions. We specifically used *Sudowrite*’s ‘describe’ function, which produces descriptive text in relation to the five senses (sight, smell, taste, sound, touch) and metaphor. Four textual prompts were given, two of which took the perspective of the person diagnosed with dementia (‘I am a man with dementia’ [IAM] and ‘I am a woman with dementia’ [IAW]), while the other two took the perspective of someone observing a person with dementia (‘I saw a man with dementia’ [ISM] and ‘I saw a woman with dementia’

[ISW]).² We considered the term ‘(wo)man with dementia’ to be more neutral than alternative terms, such as ‘(wo)man living (well) with dementia’ or ‘(wo)man suffering with dementia’ (for more on terminology, see DEEP, 2014). In total, we generated 22,638 words via thirteen ‘describe’ texts per prompt (totaling fifty-two texts).

While we recognize that the character description prompts have an additional gendered component, it is worth noting that we found dementia to be far more influential to characters’ identities than gender in the AI-generated descriptions. This finding further supports the notion that the label of ‘dementia’ can subsume other facets of identity, including gender, with the ‘de-gendering’ of people living with dementia having been critiqued elsewhere for (human) representations (Sandberg, 2018; Wiersma et al., 2023). Nonetheless, we did still observe some gendered distinctions as minority discourses, such as gendered expectations of bodies with dementia (of strength for men and beauty for women) and the feminization of caring roles, with wives and daughters (but not husbands and sons) undertaking caring responsibilities. We direct readers to Putland et al. (2025) for further discussion of our rationale for studying gender, the gendered aspects of the outputs and why the prompts only reflect a binary approach to gender (while limited, it facilitated comparing the GenAI dataset with much of the existing research and dementia statistics).

Finding ‘meaning’ in GenAI outputs

Our analysis of the GenAI character descriptions was broadly inspired by van Leeuwen’s (2008) work on the representation of social actors and actions, since we examined what attributes, actions, and relationships were associated with characters with dementia. For images, we were similarly concerned with social actors and how these were positioned.

² For further discussion of our rationale for studying gender, the gendered aspects of the outputs and why the prompts only reflect a binary approach to gender, please see Putland et al. (2025).

Drawing on the work of Harvey and Brookes (2019) and Kress and van Leeuwen (2021), we focused on:

- i. Participants: who is depicted?
- ii. Settings: where are the participants?
- iii. Gaze: where is the participant(s)' eye gaze directed? Do they engage the viewer or other represented participants, or look elsewhere?
- iv. Angle of interaction: from what angle or perspective do we view the participant(s)?
- v. Color: what choices are made regarding brightness, saturation, purity, differentiation, and hue?

Following Barthes (1977), we considered both denotation (what is depicted?) and connotation (what is implied?). For both studies, we referred to the wider literature on visual and linguistic representations of dementia to help us interpret the discourses that these GenAI outputs were likely to be drawing on from their training data and potentially reflecting, amplifying, or challenging (e.g., see Putland & Brookes, 2024a, 2024b).

Usually, semiotic studies such as these assume that communicators are working within a rule-based system (although the nature of these rules can vary greatly) and that they are aware of at least some of the potential meanings (i.e., the 'affordances') of their communicative choices; for instance, differences between 'living well' versus 'suffering' with dementia (Machin & Mayr, 2023). However, such an assumption is more problematic for GenAI, considering that it produces outputs based on *statistical probability* rather than a 'grammar' of meaning. As such, Cope and Kalantzis (2024) argue that if GenAI outputs are 'meaningful, this is circumstantial and no more, because the mechanisms of statistical analysis eschew any theory of meaning' (p. 124). This posed a unique problem for us, as analysts, regarding negotiating the line between nonsensical outputs and outputs that could/should be subjected to analysis.

Sometimes, texts or images obviously made no sense in the context of dementia; these were straightforward to exclude from analysis. For example, the colorful abstract image (Image 1 in Figure 2) lacks clear shapes and only potentially—not definitively—resembles a human head. Equally, text such as ‘it was the leash in a comet's beard’ (ISM) and ‘She was a woman in a wardrobe and she had a tiny dog that snored and would run in woman-heels’ (IAW) are clearly unrelated to dementia.



Figure 2. Two examples of ambiguous images generated by the authors in Stable Diffusion.

However, other outputs could, in the right context, be meaningfully interpreted, as with ‘I taste bile in the back of my throat. I taste like a rotten egg. I taste like a wicked witch’ (IAM). Even if it cannot be meaningfully interpreted alone, aspects of this example *do* align with a broader pattern observed in the character descriptions of associating characters with dementia with sickness, social disgust and decay (see Table 1). Similarly, Image 2 in Figure 2 seems to show a face on a brain which, alone, could be dismissed. However, interpreting this image becomes more viable when it is contextualized within a broader pattern that we identified of images that focus on the brain, which we discuss further in the subsequent section.

Key GenAI tropes

There are multiple patterns across the two GenAI datasets that reflect (and sometimes amplify) human-produced social texts. Continuing with the trope of focusing on the brain, GenAI images show people's heads in a way that foregrounds the brain (26 images were coded as such, e.g., Images 3 and 5 in Figure 3). The images also show the brain at either a micro level (e.g., 14 images resembled cells/neurons) or metaphorically (9 images appeared metaphorical, e.g., Image 6 showing the bare tree). Human images have similarly been observed to frequently represent people diagnosed with dementia in terms of their (dysfunctional) brain. Relevant visual tropes include images of brain scans, metaphorical images that show cognitive changes as brain degeneration (e.g., falling leaves, disintegrating heads), and 'head clutcher' images in which people indicate distress while touching the area of the head in which the brain is located (also see Image 4, Figure 3, where a woman touches her head while looking down) (Putland & Brookes, 2024b). Linguistically, people diagnosed with dementia are often represented by foregrounding their cognitive losses (particularly regarding memory) and changing brain/mind (Low & Purwaningrum, 2020; Putland & Brookes, 2024a). This can also be seen in the AI-generated character descriptions, exemplified by 'His mind is lost, memories have faded away' (ISM) and 'Time has withered the strength of my body and my mind' (IAM; also see Table 1). If overused and overextended, such a focus on brain pathology risks suggesting that 'everything a person with dementia does and feels is the outcome of brain damage and is abnormal in one way or another' (Sabat, 2014, p. 108).

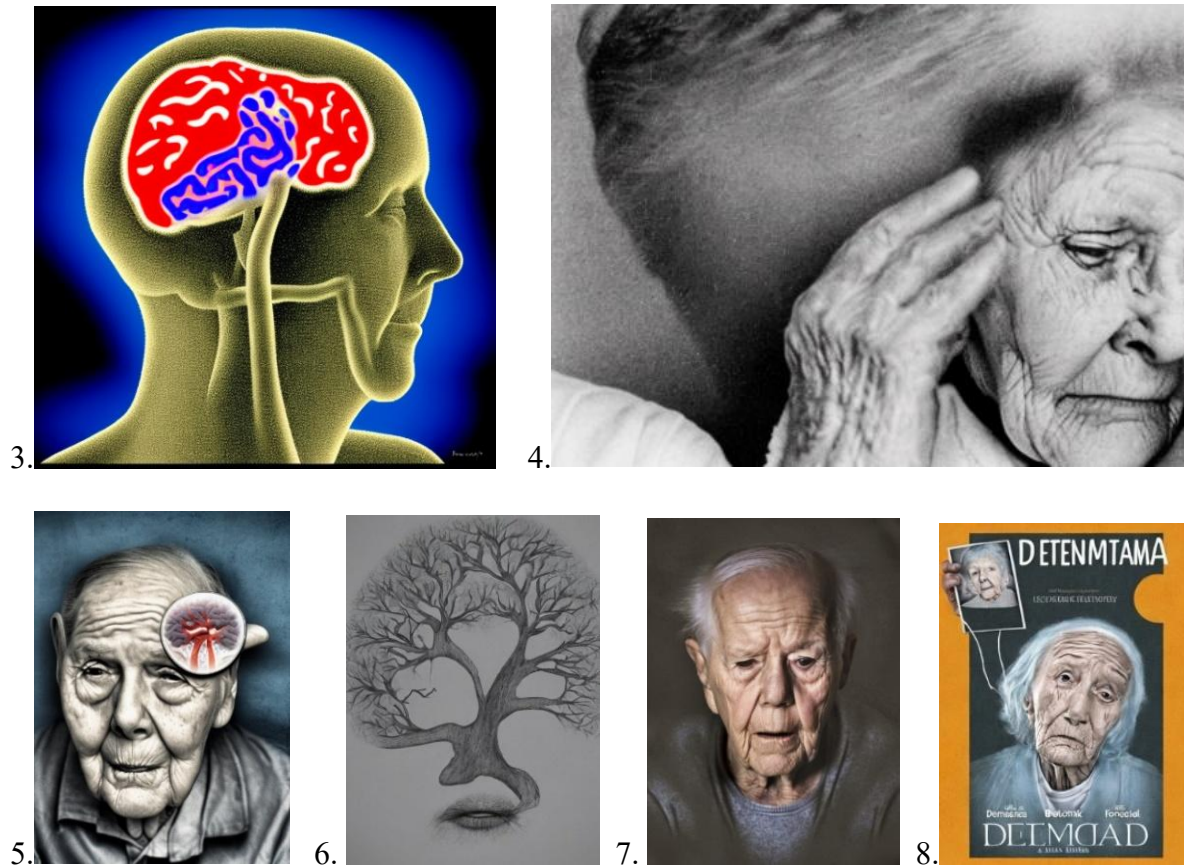


Figure 3. Six images generated by the authors in Stable Diffusion that exemplify some of the key visual tropes.

Indeed, bringing together these two previously distinct datasets shows various overlaps between the visual and linguistic patterns which, overall, present a rather narrow stereotype of someone with dementia and reproduce the ‘tragedy’ discourse described earlier, which entails a focus on decline, loss, suffering, and death (McParland et al., 2017). Table 1 summarizes some key visual and linguistic tropes that we identified across the two AI-generated datasets (we direct readers to our accompanying publications for more in-depth analyses; see Putland et al., 2023, 2025). Overall, the two AI-generated datasets discourage a sense of social connection with the people represented as having dementia, including through a distinct lack of eye contact and observers’ expressions of repulsion (e.g., they ‘do not want to touch’ characters with dementia [ISW]). An overly restrictive stereotype of people living

with dementia emerges; namely, one that foregrounds whiteness, older age, deficiency, suffering, isolation, and death. These GenAI tropes reflect existing representations (in newspapers, stock images, books, public health campaigns, etc.) that have been criticized for being overly restrictive and for contributing to dementia stigma (Putland & Brookes, 2024a, 2024b; Putland, Brookes, & Harvey, Forthcoming).

Tropes	AI-generated images in <i>Stable Diffusion</i>	AI-generated character descriptions in <i>Sudowrite</i>
Narrow stereotype of people with dementia	<ul style="list-style-type: none"> • People overwhelmingly shown with visual markers of older age (e.g., wrinkles, grey/white hair). Appear to be in their seventies/eighties or older. • Overwhelmingly light-skinned, white, or white-presenting individuals. • E.g., images 4, 5, 7, 8. • As shown in this table, overall emphasis on isolated, passive individuals who are lost, sad, or suffering. 	<ul style="list-style-type: none"> • 32 texts explicitly reference older age, disability, and/or fragility, e.g., an ‘old man, balding, stooped over in a wheelchair, eyes unseeing, mind unspeaking, lips unmoving’ (ISM). Characters are often depicted as ‘withered’ (IAM), ‘weak’, ‘wasted’ and ‘fragile’ (ISM). • As shown in this table, there is an overall emphasis on suffering individuals who are losing/have lost their memories and/or self, including through fragmentation and physical decay.
Emphasis on the (dysfunctional) mind/brain	<ul style="list-style-type: none"> • Visual emphasis on brains (diagrams, metaphors, microstructures such as neurons, touching location of brain), e.g., images 2, 3, 5, 6. 	<ul style="list-style-type: none"> • Emphasis on cognitive changes/losses, e.g., ‘I begin to forget what I did or where I was. My mind, unable to handle the day’s events, fragments and shatters’ (IAW).
Social distance	<ul style="list-style-type: none"> • Of 130 images coded as showing people, 107 showed an individual person, usually decontextualized (e.g., with blank backgrounds) and in passive poses. • Participants tend to look away from viewers or have their eyes closed, 	<ul style="list-style-type: none"> • Lack of eye contact (and often understanding) with characters with dementia, e.g., ‘She didn’t look at you when you spoke, didn’t hear your words’ (ISW) and ‘my eyes are closed to the world’ (IAM). • Observers express disgust, e.g., they ‘do not want to touch’

	<p>encouraging observation, not connection.</p> <ul style="list-style-type: none"> • E.g., images 4, 5, 7, 8. 	<p>characters with dementia (ISW).</p>
<p>Suffering and loss (and an associated lack of color)</p>	<ul style="list-style-type: none"> • People often shown looking lost, sad, or suffering. • Often use muted blues (and sometimes browns) or black and white, which are color tones associated with depression, lethargy, and ghostliness. • E.g., images 4, 5, 7, 8. 	<ul style="list-style-type: none"> • Characters experience a ‘horrible ordeal’, e.g., ‘the tears of a man in the darkest place imaginable’ (ISM). • Characters experience foggy or greyscale vision, e.g., ‘My eyes are dimmed with fog. [...] My surroundings are grey, colors have long since left me’ (IAM). • Loss of self, e.g., ‘he is a shell of his former self.’ (ISM) and ‘Her spirit was lost’ (ISW).
<p>Deathly associations</p>	<ul style="list-style-type: none"> • Visual metaphor of trees to represent the brain: these trees tend to be bare, evoking winter (the season associated with death), e.g., image 6. • Muted/monochrome color tones. 	<ul style="list-style-type: none"> • Characters ‘feel my life slipping away, one memory at a time’ (IAM). • 19 texts indicate a loss of self and 24 reference decay and/or death. Characters are associated with decay, rotting, ghosts, and corpses, e.g., ‘The woman is a ghost of her former self’ (ISW), ‘The man smells of decay and rot. His pants are stained with urine and faeces, his shirt covered in vomit.’ (ISM), ‘she smells like a corpse that hasn’t been buried yet’ (ISW).

Table 1. A summary of some of the key shared tropes for people living with dementia in the AI-generated datasets.

Alongside *reproducing* a broad ‘tragedy’ discourse, we also found evidence that the AI-generated character descriptions could actually *amplify* facets of this discourse further. For instance, while human-made texts may associate dementia with incontinence, GenAI outputs broaden this to sickness more broadly (‘vomit’ and ‘sick/sickness’ are referred to 9 times) alongside adding a physical component to the representation of dementia as a ‘living death’

('rot/rotting' is referred to 26 times). The association of people living with dementia with death, and specifically with zombies, is a longstanding and multifaceted one that Behuniak (2011) argues 'has infused stigma with disgust and terror' (p. 74). When representing people living with dementia through the zombie metaphor, human-produced literature often focuses on aspects such as loss of self, loss of recognition of others, the toll on caregivers (which can be likened to zombie-like cannibalism), people's 'slow shuffle' and their 'dishevelled appearance' (Behuniak, 2011, p. 79). By comparison, while also reproducing similar aspects, such as a loss of self (e.g., 'Her spirit was lost' [ISW]), the AI-generated descriptions additionally explicitly represent people diagnosed with dementia as physically rotting and as corpse-like. Notably, people are described as physically decaying (e.g., 'my own body rotting from the inside out'; IAW) or even as already dead, including through descriptions of being 'without warmth, without life, as cold and dead as the grave' (IAM). People smell like 'a corpse' (ISW), 'rotting flesh' (IAM), and 'death and decay, like old manure and spoiled flesh' (ISM), with 'no fragrance of life, no essence of humanity' (ISW).

These associations with rot, decay, and physical death (rather than a metaphorical social or cognitive death) arguably amplify not only the physical association of people with dementia with zombies, but the accompanying stigma, disgust, and fear. Such a trope dehumanizes people living with dementia through associating them with 'waste and death' (Steele et al., 2020, p. 322) and reinforces ableist conceptualizations of people living with cognitive difference (here, dementia) as less than human. Indeed, one example explicitly states, about a character with dementia, that, 'We no longer recognized her as a human being' (ISW).

Concluding thoughts

While brief, we hope that the discussion presented in this chapter demonstrates both the utility and necessity of taking critical approaches to the study of GenAI-produced discourse. Notably, we have charted how two distinct visual and textual GenAI datasets display strikingly similar patterns when prompted to represent either dementia (GenAI images) or people with dementia (GenAI character descriptions). These overlaps reflect dominant (Western) discourses likely found in the GenAI training data, including a biomedical conceptualization of dementia and a narrow stereotype of a ‘person with dementia’, such as conflating dementia with older age and thus ignoring that nearly one in ten diagnoses are for young onset dementia (World Health Organization, 2023). Our findings align with other research that finds biases regarding ethnicity/race and disability in GenAI image and text generation models relevant to this study, such as *Stable Diffusion*, *Dall-E*, and *GPT-3*, with the latter being a large language model used for *ChatGPT*, *Sudowrite*, etc. (Bianchi et al., 2023; Palacios Barea et al., 2023; Spencer & Spencer, 2025). Here, as well as overrepresenting whiteness and older age, the GenAI outputs reproduce distinctly ableist (and, relatedly, often ageist) discourses of dementia.

It is concerning that these AI-generated images and character descriptions are prone to reinforce—and at times, amplify—an ableist/ageist ‘tragedy’ discourse of dementia. Such a discourse involves foregrounding loss with dementia (reflecting the wider conflation of cognitive changes with a loss of self) and an associated sense of suffering, isolation, dehumanization, death, and social stigma. Audiences are distanced from people living with cognitive difference (here, dementia) through a range of strategies, including a lack of eye contact and fear/disgust inducing portrayals that draw upon horror tropes to associate dementia with rotting flesh, ghosts and corpses. While in human-produced texts, dementia is associated with loss, illness and a metaphorical/social death, the GenAI written texts extend the notion of being ‘ill’ to being *physically* (not metaphorically) sick, alongside extending

metaphorical human representations of living death to the physical realm of death and decay (rotting bodies, corpses, etc.). In many ways, the GenAI datasets (particularly the character descriptions) ‘parade’ what Latimer (2018, p. 387) refers to as a ‘dementia-ageing monster’. Considering the important role of discourses in both reflecting and shaping social practices, the prominence of representations of dementia that depict people living with dementia as lesser (and even inhuman/monstrous) risks further normalizing ableism and justifying harmful social practices that alienate and even deny the human rights of people living with cognitive differences – here, of people with dementia (Cahill, 2018; Putland & Brookes, 2024a, 2024b; Schweda & Jongsma, 2022; Steele et al., 2020).

It is, of course, important not to over-extrapolate our findings, which are grounded in these two datasets and our specific research context. Regarding data, the generated outputs could vary greatly given different models, versions, prompts, and contexts. For instance, Elizabeth Spencer and Tristan Spencer (2025) have recently discussed discrepancies across GenAI images relating to experiences of dementia and caregiving that they generated with one model (*Dall-E*) across two time periods (March and September 2024). Of particular interest here is that later images apparently showed ‘darker, lonelier, and colder scenes’ (p. 75), alongside differences in who is shown in a supporting role (spouses, younger adults, health professionals, etc.). While a lack of information about their study methodology (including the dataset size, specific prompt phrasing and analytical approach) makes a more comprehensive comparison with our datasets difficult, their images offer a compelling alternative to ours and, importantly, are compared to a human-produced sample of photos taken by human participants (intriguingly, an empty bench occurs in all GenAI and human datasets).

Turning to the issue of interpretation, a key challenge both for us here and for CDS scholars more broadly is determining how to analyze images and texts generated using

randomized statistical processes, rather than the shared rules for meaning-making that human communicators navigate (even if such rules vary according to factors such as time and place) (Cope & Kalantzis, 2024). We argue that with GenAI, it is even more important to analyze patterns across sufficiently large datasets, rather than analyzing singular examples as one can for human-produced social texts (e.g., for a detailed analysis of three posters for a dementia public health campaign, see Brookes et al., 2021). In this chapter, we have focused on more dominant patterns shared across the two datasets. While useful for focusing on similarities, this is also necessarily reductive, and we direct readers to our other publications for a more comprehensive discussion of each dataset (Putland et al., 2023, 2025).

It is also important to recognize that although we tried to ground our analyses in explicit textual and linguistic features (such as color, gaze and adjectives) our interpretations of their implied meanings and the wider discourses to which they contribute are inevitably somewhat subjective and may not necessarily be shared by others, since there always exists ‘a plurality of possible interpretations’ (Widdowson, 1998, p. 150). For instance, research with employees of a dementia non-profit and participants with direct personal experience of dementia (through a diagnosis or supporting role) have found that individuals can interpret images and language use differently relative to others, including Critical Discourse Analysts (Ang et al., 2023; Putland, 2025). It is thus important to explore how people with alternative types of experience, including lived and professional experience, might generate, interpret, and evaluate GenAI outputs. Equally, we should acknowledge that our own cultural context and that of the two models we use is Western-oriented (and conducted entirely in English), prompting the need for further research that engages with a more diverse range of cultural contexts and languages, where there can be considerable variation in how dementia is conceptualized and, thus, rendered in discourse (Grande, 2018; Koncul et al., 2024).

This chapter does not intend to deny the potential opportunities and benefits of using GenAI in a dementia context (e.g., Zhu & Luximon, 2025). Indeed, considering the criticisms of existing stock images (Harvey & Brookes, 2019) and the need to consider informed consent and privacy when using naturalistic photos of real people (Ang et al., 2023), an argument could be made that GenAI images facilitate making customized visual representations that avoid issues with determining capacity to give consent, as well as avoiding infringing upon people's privacy. Prompts could, for instance, be used to provide more affirming portrayals of people with dementia, or to capture a specific, meaningful emotion or moment for a person living with dementia that may be more difficult to convey through photography (although admittedly, human-made art is a compelling alternative here). However, such arguments must be weighed against the ethical issues associated with GenAI use, including its reliance upon copyrighted works, which it may reproduce without permission (Teilmann-Lock & Savin, 2025), as well as the broader systemic inequalities and concerns about exploitative practices, including environmental exploitation, that surround GenAI companies and their technologies (Bender et al., 2021; Palacios Barea et al., 2023; Perrigo, 2023). Thus, researchers must similarly consider the ethical issues associated with using GenAI to create datasets, even those that are intended for critical analysis (see Curry et al. (2025) for further discussion of such ethical considerations).

As part of broader attempts to grapple with the rapidly developing GenAI sphere, critically engaging with the ethical implications of GenAI development and use is essential, then. Within this, the capacity of such models to reproduce stigmatizing, dehumanizing, and ableist understandings and attitudes around dementia is a cause for concern, as this chapter has demonstrated. It is therefore important to reflect on the role of research in influencing GenAI practices, including how researchers can move beyond critiquing existing practices to

also contribute to more ethical approaches to GenAI, as this technology becomes integrated, seemingly ever more deeply, into society.

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References

- Ang, P.S., Yeo, S.L., & Koran, L. (2023). Advocating for a dementia-inclusive visual communication. *Dementia*, 22(3), 628–645.
<https://doi.org/10.1177/14713012231155979>.
- Bailey, A., Denning, T., & Harvey, K. (2021). Battles and breakthroughs: representations of dementia in the British press. *Ageing and Society*, 41(2), 362-376.
<https://doi:10.1017/S0144686X19001120>.
- Baril, A., & Silverman, M. (2022). Forgotten lives: Trans older adults living with dementia at the intersection of cisgenderism, ableism/cogniticism and ageism. *Sexualities*, 25(1-2), 117–131. <https://doi.org/10.1177/1363460719876835>.
- Barthes, R. (1977). *Image, music, text*. (S. Heath, Ed. & Translator). Fontana Press.
- Behuniak, S.M. (2011). The living dead? The construction of people with Alzheimer’s disease as zombies. *Ageing & Society*, 31(1), 70–92.
<https://doi.org/10.1017/S0144686X10000693>.
- Bender, E.M., Gebu, T., McMillan-Major, A., & Shmitchell, S. (2021). On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🦜. *Proceedings of the 2021*

ACM Conference on Fairness, Accountability, and Transparency, 610–623.

<https://doi.org/10.1145/3442188.3445922>.

Bianchi, F., Kalluri, P., Durmus, E., Ladhak, F., Cheng, M., Nozza, D., Hashimoto, T., Jurafsky, D., Zou, J., & Caliskan, A. (2023). Easily Accessible Text-to-Image Generation Amplifies Demographic Stereotypes at Large Scale. *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency*, 1493–1504.

<https://doi.org/10.1145/3593013.3594095>.

Blodgett, S.L., Barocas, S., Daumé III, H., & Wallach, H. (2020). Language (Technology) is Power: A Critical Survey of “Bias” in NLP. *arXiv*.

<https://doi.org/10.48550/arXiv.2005.14050>.

Brookes, G., Putland, E. & Harvey, K. (2021). Multimodality: Examining Visual Representations of Dementia in Public Health Discourse. In G. Brookes & D. Hunt (Eds.) *Analysing Health Communication: Discourse Approaches* (pp. 241–269). Palgrave Macmillan.

Burr, V. (2015). *Social Constructionism*. Taylor & Francis Group.

Cahill, S. (2018). *Dementia and human rights*. Policy Press.

Cap, P. (2023). Taking stock of critical discourse research – current work and new directions.

Heteroglossia, 14, 155–178. <https://doi.org/10.34864/heteroglossia.issn.2084-1302.nr14.art9>.

Chou, W-Y. S., Gaysynsky, A., Senft Everson, N., Muro, A., Schrader, K., & Iles, I. (2025). Portrayal of Cancer Patients in the Era of AI: A Content Analysis of Images Produced

- by Generative AI Tools. *Health Communication*, (online first), 1–11.
<https://doi.org/10.1080/10410236.2025.2537807>.
- Ciston, S. (2019). Intersectional AI is essential: Polyvocal, multimodal, experimental methods to save artificial intelligence. *Journal of Science and Technology of the Arts*, 11(2). <https://doi.org/10.7559/citarj.v11i2.665>.
- Clarke, V. & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*, 12(3), 297–298. <https://doi.org/10.1080/17439760.2016.1262613>.
- Cope, B. & Kalantzis, M. (2024). A multimodal grammar of artificial intelligence: Measuring the gains and losses in generative AI. *Multimodality & Society*, 4(2), 123–152.
<https://doi.org/10.1177/26349795231221699>.
- Curry, N., McEnery, T. & Brookes, G. (2025). A question of alignment—AI, GenAI and applied linguistics. *Annual Review of Applied Linguistics*, 45, 315–336.
- DEEP (2014). *Dementia words matter: Guidelines on language about dementia*. The Dementia Engagement and Empowerment Project. <https://dementivoices.org.uk/wp-content/uploads/2015/03/DEEP-Guide-Language.pdf>.
- Flowerdew, J. & Richardson, J.E. (Eds.) (2018). *The Routledge Handbook of Critical Discourse Studies*. Taylor & Francis Group.
- Foucault, M. (1972). *Archaeology of Knowledge*. Translated by A.M. Sheridan Smith. Routledge.
- Grande, S. (2018) Aging, precarity, and the struggle for Indigenous elsewhere. *International Journal of Qualitative Studies in Education*, 31(3), 168-176.
<https://doi.org/10.1080/09518398.2017.1401145>

- Harvey, K. & Brookes, G. (2019). Looking Through Dementia: What Do Commercial Stock Images Tell Us About Aging and Cognitive Decline? *Qualitative Health Research*, 29(7), 987–1003. <https://doi.org/10.1177/1049732318814542>.
- Koncul, A., George Onyedikachi, E., & Bartlett, R. (2024). A semiotic analysis of meanings of dementia around the world. In J.R. Fletcher & A. Capstick (Eds.) *A Critical History of Dementia Studies*. Routledge.
- Kress, G. & van Leeuwen, T. (2021). *Reading Images: The Grammar of Visual Design* (3rd ed.). Routledge.
- van Leeuwen, T. (2008). *Discourse and Practice: New Tools for Critical Analysis*. Oxford University Press.
- Link, B.G. & Phelan, J.C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27(1), 363–385.
- Low, L.-F. & Purwaningrum, F. (2020). Negative stereotypes, fear and social distance: a systematic review of depictions of dementia in popular culture in the context of stigma. *BMC Geriatrics*, 20, 1–16. <https://doi.org/10.1186/s12877-020-01754-x>.
- Machin, D. & Mayr, A. (2023). *How to do critical discourse analysis: a multimodal introduction* (2nd ed.). Sage.
- McParland, P., Kelly, F., & Innes, A. (2017). Dichotomising dementia: is there another way? In P. Higgs & C. Gilleard (Eds.) *Ageing, Dementia and the Social Mind* (pp. 83–94). John Wiley & Sons,.
- Palacios Barea, M.A., Boeren, D., & Ferreira Goncalves, J.F. (2023). At the intersection of humanity and technology: a technofeminist intersectional critical discourse analysis of

- gender and race biases in the natural language processing model GPT-3. *AI & Society*, 40, 461–479. <https://doi.org/10.1007/s00146-023-01804-z>.
- Perrigo, B. (2023, January 18). Exclusive: The \$2 Per Hour Workers Who Made ChatGPT Safer, *TIME*. <https://time.com/6247678/openai-chatgpt-kenya-workers/>
- Putland, E. (2025). *Navigating dementia and society: Exploring how people affected by dementia negotiate and reshape popular discourses*. Bloomsbury.
- Putland, E. & Brookes, G. (2024a). Dementia stigma: representation and language use. *Journal of Language and Aging Research*, 2(1), 5–46. <https://doi.org/10.15460/jlar.2024.2.1.1266>.
- Putland, E. & Brookes, G. (2024b). Visualizing dementia and stigma: a scoping review of the literature. *Visual Communication*, 14703572241245587. <https://doi.org/10.1177/14703572241245587>.
- Putland, E., Brookes, G., & Harvey, K. (Forthcoming). Representations of dementia in public discourse. In A. Hillman & J. Swallow (Eds.) *Handbook on Dementia & Society*. Edward Elgar Publishing.
- Putland, E., Chikodzore-Paterson, C., & Brookes, G. (2023). Artificial intelligence and visual discourse: a multimodal critical discourse analysis of AI-generated images of “Dementia”. *Social Semiotics*, 35(2), 228–253. <https://doi.org/10.1080/10350330.2023.2290555>.
- Putland, E., Chikodzore-Paterson, C., & Brookes, G. (2025). ‘We no longer recognized her as a human being’: A Critical Discourse Analysis of AI-generated character descriptions

- of men and women with dementia. *Journal of Language and Discrimination* 9(2), 1-26. <https://doi.org/10.3138/jld-2025-1002>.
- Sabat, S.R. (2014). A bio-psycho-social approach to dementia. In M. Downs & B. Bowers (Eds.) *Excellence in Dementia Care: Research into Practice* (pp. 107–121). Open University Press.
- Sabat, S. R. (2018). *Alzheimer's Disease and Dementia: What Everyone Needs to Know*. Oxford University Press.
- Saracini, C., Cornejo-Plaza, M.I., & Cippitani, R. (2025). Techno-emotional projection in human–GenAI relationships: a psychological and ethical conceptual perspective. *Frontiers in Psychology*, 16, 1-16. <https://doi.org/10.3389/fpsyg.2025.1662206>.
- Schweda, M. & Jongsma, K. (2022). Death in Advance? A critique of the “Zombification” of people with dementia. *History and Philosophy of the Life Sciences*, 44(37), 1-13. <https://doi.org/10.1007/s40656-022-00512-z>.
- Spencer, E. A. & Spencer, T. A. (2025). From Hope to Despair: The Chilling Evolution of AI-Generated Images of Dementia. *Visual Communication Quarterly*, 32(1), 72-80. <https://doi.org/10.1080/15551393.2025.2453385>.
- Sandberg, L. J. (2018). Dementia and the gender trouble? Theorising dementia, gendered subjectivity and embodiment. *Journal of Aging Studies*, 45, 25–31.
- Stability AI. (2024, October 22). *Introducing Stable Diffusion 3.5*. <https://stability.ai/news/introducing-stable-diffusion-3-5>
- Steele, L., Swaffer, K., Carr, R., Phillipson, L., & Fleming, R. (2020). Ending confinement and segregation: barriers to realising human rights in the everyday lives of people

- living with dementia in residential aged care. *Australian Journal of Human Rights*, 26(2), 308–328. <https://doi.org/10.1080/1323238X.2020.1773671>.
- Teilmann-Lock, S. & Savin, A. (2025). Beyond the AI-copyright wars: towards European dataset law? *Computer Law & Security Review: The International Journal of Technology Law and Practice*, 58, 1-8. <https://doi.org/10.1016/j.clsr.2025.106190>.
- Westberg, G. & Kvåle, G. (2024). The generic uniqueness of AI imagery: A critical approach to Dall-E as semiotic technology. *Discourse & Society*, 36(4), 575-598. <https://doi.org/10.1177/09579265241274788>.
- Widdowson, H.G. (1998). Review Article: The Theory and Practice of Critical Discourse Analysis. *Applied Linguistics*, 19(1), 136–151. <https://doi.org/10.1093/applin/19.1.136>.
- Wiersma, E.C., Harvey, D. & Caffery, P. (2023). “I’m Still the Queen and I’m Still on My Throne...”: Women’s Reflections on Gender and Living with Dementia. *Journal of Women & Aging*, 35(1), 113–27. <https://doi.org/10.1080/08952841.2022.2054656>.
- World Health Organization (2023, March 31). *Dementia, Fact sheets*. <https://www.who.int/news-room/fact-sheets/detail/dementia>.
- World Health Organization (2024). *Ethics and governance of artificial intelligence for health: large multi-modal models*. <https://www.who.int/publications/i/item/9789240084759>.
- Zhu, A. & Luximon, Y. (2025). Rethinking Dementia in Aging with Generative AI Technologies: A Preliminary Conceptual Framework. *Proceedings of the Human*

Factors and Ergonomics Society Annual Meeting, 1-6.

<https://journals.sagepub.com/doi/full/10.1177/10711813251358781>.