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ORIGINAL RESEARCH

AI hype, promotional culture, and affective capitalism

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Abstract
This article centres AI hype within promotional culture. It incorporates scholarship on hype, affect and emotion from media, communications and cultural studies, as well as from market studies, to pose the following questions: 'What role does promotional culture play in AI hype cycles?' 'What are the main promotional forms of emotion evident in the 2020s AI hype cycle?' And finally, 'What are the ethical implications of promoting emotion in AI hype cycles?' The article explores the growth of twenty-first century promotional culture, particularly in the global tech sector, before examining links between promotional culture, emotion, affect, media and capitalism. Drawing on interdisciplinary approaches, the article contends that AI hype has successfully persisted because now, more than ever, contemporary promotional culture strategically deploys emotions as part of affective capitalism, and the affective nature of a digital media infrastructure controlled by the tech sector. The ensuing analysis isolates different emotions circulated by AI hype, including doomsday hype, drawing on examples from the 2020s AI hype cycle. The article concludes by examining the ethics of promotional culture as part of the combined knowledge apparatus supporting value construction in AI.

Keywords Affective capitalism · Artificial intelligence · Emotion · Ethics · Promotional culture

1 Introduction

By any measure, the branding and promotion of 'AI' or artificial intelligence and automation technologies has been a triumph in twenty-first century market hype. AI's hype cycle entered a new phase in the 2020s thanks to investor ardour driven by 'generative AI' products such as ChatGPT, adding trillions to the value of major stock markets throughout 2023 and into 2024 [41, 77]. While academic research on hype makes passing mentions of public relations (PR), advertising or marketing as distinct fields, [See, for example, 15, 43, these promotional activities are rarely centred in scholarly examinations of technohype. This is an oversight that should be corrected. As Powers argues (drawing on Wernick's classic work on promotional culture): hype "is a child of the ever-expanding promotional culture, the state of affairs in which promotion emerges as the lingua franca of social, economic, and cultural life" [67]. To this end, hype needs better theorisation not only to provide clearer understanding of the processes used to drive hype cycles, but also to develop tactics for challenging hype cycles as they intensify in contemporary capitalism [67].

This article centres its discussion of AI hype in the field of promotional culture, with its interdisciplinary roots in media, communications and cultural studies—the term 'promotional culture' was coined by Andrew Wernick in his 1991 book of the same name [83]. I aim to broaden current interdisciplinary debates on AI and ethics by highlighting a different but vital relationship between promotional culture and AI hype–one in which the promotional industries act as AI cheerleaders, and are thus deeply implicated in generating AI hype. Indeed, the term 'hype cycle' is itself an artifact of promotional knowledge, developed by Gartner marketing consultants. Gartner's hype cycle graph is now deeply embedded in promotional knowledge through reproduction in client pitches, industry presentations and textbooks [11]. The article incorporates scholarship on hype, affect and emotion from media, communications and cultural studies, as well as from market studies including: Geiger and Gross's [31] perspectives on affective markets, Garde-Hansen and Gorton's [29] work on affective media, and Powers' [67] theorisation of promotional hype, to pose the following questions: 'What role does promotional culture play in AI

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hype cycles?' 'What are the main promotional forms of emotion evident in the 2020s AI hype cycle?' And finally, 'What are the ethical implications of promoting emotion in AI hype cycles?'.

I begin by exploring the growth of promotional culture, and its role in the growth of the global tech sector, before examining links between promotional culture, emotion, affect, media and capitalism. Drawing on interdisciplinary approaches, I argue that the 2020s AI hype cycle has persisted longer and more intensely than previous forms of technohype because now, more than ever, contemporary promotional culture strategically deploys emotions as part of affective capitalism, and the affective nature of a digital media infrastructure controlled by the tech sector. The ensuing sections isolate different emotions circulated by AI hype, including doomsday hype. I conclude by examining the ethics of promotional culture as part of the combined knowledge apparatus supporting value construction in AI.

2 Promotional industries and promotional culture

The promotional industries include advertising, PR, marketing and branding, along with a host of related occupations. Promotional activity is traditionally viewed as operating in the space between production and consumption of commodities and culture [21, 76]. This operational 'space' between production and consumption lends promotional activity its economic agency [76]. Within promotional culture, various intermediaries contribute to product creation, development, and the economic ideal of perfect markets [21]. In this figurative space between production and consumption, promotional intermediaries are positioned among legions of 'tastemakers' who influence culture, trends and fashions [58], including technology products and AI. As global markets became increasingly hailed as superior, efficient resource allocators, organisations have grown progressively marketing-driven. This has driven demand for promotional expertise, expanded the realm of promotional culture, and increased its influence [67, 76, 87]. Promotional culture's reach extends past global markets to nation states, including government and political communication. Thus promotional activity contributes to political ideas, values and trends, while enabling democratic processes such as the media to advance [21, 67].

Promotional culture's vast expanse has given rise to many critiques including longstanding views of promotional activity as a 'magic system' [86], creating false needs, imbuing products with false symbolism, fuelling an endless cycle of consumer dissatisfaction, while simultaneously restricting and distorting democracy in specific ways [21]. Writing in 1999, marketing scholars, Christopher Hackley and Philip Kitchen were already concerned with consumers' exposure to an "unprecedent barrage" or "leviathan" of promotional messages [40, p. 16]. They believe any ethical regulation of this communications leviathan remains hindered by the false assumption that promotional communication works like a face-to-face human relationship. Hackley and Kitchen contend this unidirectional view does not consider the moral effect of the "totality of marketing communications" and the impact this may have on people's autonomous decision making. Hackley and Kitchen's arguments are more crucial in the digital era, in which the promotional leviathan has grown exponentially. While regulators have made some adjustments for promotion's changing digital processes, regulators are not yet equipped to govern hype cycles since they focus primarily on ethical violations by individual organisations, groups, and campaigns.

3 The tech sector in promotional culture

The technology or 'tech' sector plays an outsized role in contemporary promotional culture. Not only is technology one of the fastest growing areas of the global economy, it achieved this status through the canny use of promotional techniques. Technology markets evolve through shared narratives and discourses [31]. As technologies mature, social, political or cultural issues can complicate a technology's trajectory [7]. Promotion is therefore needed to legitimise technology narratives by privileging certain voices over others and promoting the tech sector as a place of scientific discovery and entrepreneurial acumen [8, 21, 76]. As with any narrative, the tech sector's various actors–innovators, research committees, investors, consumers and regulators–are scripted into the plot and must perform their part if tech stories are to be convincing.

Several factors make the promotional culture of technologies unique. First, tech experts have successfully forged a unique ethos around the public's cultural understanding of innovation, technology and capitalism [52]. This is symbolised by Silicon Valley, the sector's spiritual home, shorthand for more than just a collection of technology businesses in California's San Francisco Bay Area. The term 'spiritual home' is deliberate since Silicon Valley also symbolises the tech sector's quasi-religious blend of left-leaning counterculture, hyper-capitalist libertarianism, technological determinism, and 'iCapitalism' [25]. Second, Silicon Valley's promotional messages are intensively circulated through the industry's theatrical product launches; its dedicated media sphere of tech magazines, business news, podcasts; as well as industry conventions, developer days and other events.

At the helm of tech's promotional culture are the many Silicon Valley chief executives who have become global household names. Microsoft founder, Bill Gates and Apple founder, Steve Jobs, were regularly referred to as 'salesmen' and 'marketers' despite Gates's poor presentation skills and Jobs' scathing views of conventional marketing [21]. By making Apple an iconic brand, Jobs lent cachet to the entire tech sector by elevating hi-tech products from mere use-value to objects of desire [21]. OpenAI chief executive, Sam Altman, is arguably booster-in-chief for AI, conducting a one-man AI promotional world tour in summer 2023. Altman's self-promotion may have scuppered attempts to oust him from OpenAI in autumn 2023 [63]. Altman's reinstatement was framed as an exultant victory for AI's progress.

An endless stream of biographies recount tech leaders' promotional skills and narratives deployed to elevate new technologies, from the 'the frontier spirit' to 'the boy genius', 'the tech superhero', 'the postfeminist figure' and 'the posthuman'; each forensically examined by Ben Little and Alison Winch in their 2021 book, *The New Patriarchs of Digital Capitalism*. Finally, the tech sector regularly incorporates magic and mystique in its messaging, notably when promoting AI. Elish and boyd [26] cite examples of AI as 'magic' invoked in product marketing for AI personal assistants. Tech experts have even characterised AI algorithms as folklore, magic spells, or imbued with religious belief [15].

The global tech sector's rapid growth is due in no small part to successive technohype cycles. Admittedly, the term 'cycle' does little to convey persistent technology booms-and-busts since the late twentieth century. In her book, *The Techlash*, Weiss-Blatt [82] more accurately describes this incessant boom-and-bust as pendulum-shaped. However, the more widely-used term 'cycle' suffices for this article's discussion of hype. Twentieth century technohype included corporate lobbying to fund post-war development of space exploration and defence technologies [6], late 1980s efforts to promote neural computing [37], and the late 1990s dot.com boom. This was followed by twenty-first century hype cycles linked with biotech; including genetically modified foods, gene therapies and genomics testing [32]; and nanotechnologies hype linked with cosmetics, pharmaceuticals, and cleaning solutions. In financial technology, damaging technohype cycles drove sales in cryptocurrencies and digital borrowing. In media technologies, hype cycles accompanied the launch of cloud computing, internet TV [67], failed social network platforms (by both Amazon and Google), and more recently, augmented and virtual technologies to drive the 'metaverse'. Various forms of wearable tech have had their fair share of hype from gadgets that succeeded, e.g. FitBit and Bluetooth, to those that didn't, such as Google Glass, as well as ethically-questionable wearable tech products, such as body implants used to track health, or workplace movement.

4 Hype, markets and promotional culture

The term 'hype' is often treated inaccurately as a synonym for advertising, marketing and PR activity. For instance, Wind and Mahajan [88] define hype as a set of marketing practices targeting multiple stakeholders simultaneously: their model would be recognised by today's marketers as a standard marketing plan. Normative research on PR, advertising and marketing prefers to sidestep associations with hype, focusing instead on idealised promotional activity, such as providing contextual intelligence and ethical counsel to decision-makers [8]. Yet, markets are both symbolic and material spaces [31], so promotion does indeed play a prominent role in hype cycles, by exaggerating benefits (or risks) of a product, service or technology, or by generating excitement and enthusiasm in a way that violates communication norms [46].

4.1 Hype in media and communications studies

Media, communications and cultural studies scholar, Devon Powers [67], argues that the prevalence of modern hype cycles is centred around an increasingly digitised promotional culture. Powers contends that media and communication research on hype falls into two camps. The first camp consists of studies specifically focused on *media hype*. These studies regard hype as a process within the news media, where something happens in response to a particular amount and style of news coverage, generating a wall-to-wall news wave triggered by a specific event [67, p. 859]. In the second camp of literature, says Powers, are studies focused on hype as a genre of promotional communication, aligning more closely with the everyday use of the term, and positioning advertising, marketing, branding, and PR efforts as a "vital aspect of hype's genome" [67, p. 860]. This second camp of literature includes those who contend that hype succeeds best when the object of hype becomes completely surrounded by promotional material, so that as many people as possible see, hear and learn about the object [35, 67].

Working with the second camp of media literature, Powers [67] broadens the notion of hype as meaning, to consider hype as social. She is thus concerned not only with how the meaning of and relationships around the object of hype object change, but also how hype, in turn, changes an object's value. Powers therefore defines hype as "*a state of anticipation generated through the circulation of promotion, resulting in a crisis of value*" [67, p. 863]. She arrives at this definition by identifying important elements of hype as a social process of communication: first that hype travels and circulates through communication systems via advertisements, news and feature stories, brand campaigns, etc.; that audiences read, consume and debate hype; that hype's existence depends on this circulation; but may subsequently shape-shift as circulation continues [67]. As part of this shape-shifting is the second characteristic of hype, where reactions to hype will often skew toward the negative, generating doubt, confusion, suspicion, annoyance, disappointment, even rejection [47, 67]. Powers [67, p. 868] suggests that public savviness about promotion makes us simultaneously able to believe in promotion yet be confident in our ability to ignore and discredit hype. Holding these countervailing ideas together—that we are at once too savvy and not savvy enough tends to produce hype in the crosshairs, so that swells of public attention morph from excitement to backlash, which can extend hype even further [67]. Finally, Powers contends that hype tends toward crisis, which is why we must think broadly about what counts as value–money and profit certainly, but also value forms such as reputation and credibility, visibility and attention [47, 67].

4.2 Hype in market studies

Over in the field of market studies, the central preoccupation is with understanding how markets come into being, together with "efforts and investments required to sustain them" [73, p. 217]. A major direction of market studies is its 'performativity thesis', which recognises that markets are shaped by knowledge "whether lay, practitioner or academic" [73, p. 217 14]. Thus market studies considers hype cycles to be performative [80]. As with media studies, market studies focuses on social communication processes involved with generating hype. Market studies often engage with the Gartner hype cycle; with several market studies scholars focused on technohype as a phenomenon. For instance, Geiger and Gross [31] maintain that hype happens when a new or unfamiliar technology field is

> "heatedly discussed in public spaces, when these discussions draw investments in research and development into the area, and when these investments in turn allow the technology to develop into more concrete market trajectories" [31, p. 437].

Market scholars contend that hype is *necessary* for new technologies to attract enough attention, funding, interest and allies to compete against other innovations [31]. The field of market studies has produced several studies on hype cycles where technologies are first evangelised, then vilified, in equal measures, before being absorbed into existing markets and practices. These include studies on digital health applications [31] biotech therapies [12], and nanotechnologies [75].

There is good reason for believing that hype is on the rise. The explanations above all play a part in understanding why hype may be intensifying, yet the global success of contemporary AI hype suggests we need a deeper explanation of how promotional culture employs and circulates affect and emotion in hype cycles [31] as a powerful tool for stirring up excitement, anticipation, even fear.

4.3 Knowledge capture: Big tech's control over promotional and media industries

An important update to hype theory in both media and market studies is the substantial shift in knowledge production that has occurred in the digital economy with the rise of Big Tech platforms, including Amazon, Google (which owns YouTube), and Meta (which owns Facebook, Instagram and WhatsApp). These Big Tech firms all monetise their platforms through advertising. They now represent the largest advertising real estate in the world, and are the largest players in the promotional industries [10]. Big Tech platforms also provide marketing services to brands including just-in-time market research services, product and creative development, digital marketing and design tools. Social media platforms like Facebook also operate directly in the PR space, positioning their platforms as the ideal way to build relationships and brand communities, promote causes, and amplify voice online. This infrastructure allows digital media owners to generate hype, and control how it is mediated.

While mainstream media should have the capacity to stem hype, traditional media has also been captured by Big Tech [28]. Already beleaguered by digital disruption, traditional media had one important utility for Big Tech platforms—they could produce content. Mainstream media in turn depend on Big Tech platforms to distribute that content [28]. Companies like Meta/Facebook have even been known to embed in top news organisations to 'help' news media produce content best-tailored to tech platforms' business models [28]. There are cases where tech companies have paid tabloid newspapers directly for favourable coverage, and bought up proxy voices in the not-for-profit sector, think tanks and academia to boost favourable public messaging for Big Tech [28].

The net result is that Big Tech now commands and controls a sprawling knowledge apparatus where the tech sector exercises editorial judgements on content and design, locking-in specific ideologies of how content should be produced [10]. Platforms determine proprietary tools, algorithmic rules, and protocols for how communication should be circulated effectively in digital spaces e.g. by 'likes', 'trending' and 'engagement'. Hence, platforms are gatekeepers of what content gets most attention [28]. AI's hype cycle is therefore recursive by design: platforms govern the strategic relationships between promotional industries, the media, and other content producers, and consumers, then control visibility of most digital content production. In other words, if Big Tech wants a technohype cycle it can create one and *sustain* it–perhaps indefinitely.

5 Affective capitalism: the value of emotions

In this next section, I draw on both media and markets literature to examine the intensification of affective capitalism, and with it, affective media. The two terms 'affect' and 'emotion' are regularly juxtaposed in this area of scholarship, with lively debates about how to define them. Whereas emotions are constantly in circulation; never quite fixed or inherent in a sign or body, affect represents emotion's clustering effects, surrounding bodies, and generating embodied responses that reflect our ideas, thoughts and feelings [16, 19]. Hence, affect is a conceptually richer term than emotion because affect suggests relations practised between individuals rather than experiences borne by individuals [71].

According to Dembek [23], the interdependence between emotions and neoliberal capitalist markets seems obvious and natural today. Emotions are pervasive in economic thought, decisive in shaping individual preferences and utility levels drawn from consumption, thus shaping market relations [34]. Emotions in economic processes are generally framed in terms of the emotions experienced before, at, and after the moment consumption takes place, influencing how we attribute value to our consumption experiences [34, p. 44]. For instance, we regularly encounter emotions such as panic in the stock markets, self-fulfilment or frustration at work, yearnings and desires associated with goods and services [23]. Yet there is no unifying theory of emotion-based economics because of the admitted difficulty in defining, classifying and setting boundaries on emotions, and accounting for the different realities emotions represent [34].

That said, it took some time for the field of economics to come around to emotion's supposed 'utility'. So, it is unsurprising that the more recent notion of 'affective capitalism' is more closely associated with theorists such as Brian Massumi [57], whose work spans art and cultural studies, political theory and philosophy. Massumi argues that neoliberalism is grounded in complex interactions between the rational and the emotional. He offers affective capitalism as a new theory of political economy in which the

> "ability of affect to produce an economic effect more swiftly and surely than economics itself means that affect is itself a real condition, an intrinsic variable of the late-capitalist system, as infrastructural as a factory" [57, p. 45].

Ilouz [45, p. 5] posits a similar idea with the term 'emotional capitalism', which she uses to describe "emotional and economic discourses and practices" mutually shaping each other. Emotional capitalism, according to Ilouz, produces a broad, sweeping movement in which affect is made an essential aspect of economic behaviour and in which emotional life follows the logic of economic relations and exchange [45].

6 Affective media: the circulation of emotions

Traditional media theory acknowledges that media are affective tools, and that emotion is linked to media images, ideas and discourses produced across different media forms by media workers and audiences [29]. The affective nature of media was always evident in content and format, such as the affective nature of tabloid and sensationalist news, reality TV shows, docudramas, influencer posts and celebrity blogs [49]. However, there is a growing interest in the affective nature of media, particularly since the rise of digital platforms and the immediacy of smartphones and mobile devices. "As a medium gets faster" argues Clay Shirky [74], "we feel faster than we think." Each medium fosters its own affective culture [24], and social media platforms are emotional by design [2]. Hence, the affective nature of media applies also to user processes such as sharing content on social media. Facebook has always been intentional about exploiting emotions to create value, as evidenced by its emotional contagion experiment, where Facebook increased or reduced emotional content in news feeds to gauge what levels would cause users to post more updates [48].

As social networks become primary media platforms, personalisation, connection and emotion have become crucial organising principles across media and promotional activity. Even the long-standing logic of impartiality and objectivity of news production must adapt to achieve visibility in social media's emotional ecosystem [2]. Social media gains currency through sharing information and generating knowledge around things that matter in individual lives. Hence, the professional outputs of today's journalists–serious and newsworthy though they might be–now merge with people's digital mobile lives "alongside kittens, shopping, sport, music, online dating and mating rituals, pornography, and games" [2, p. 2].

Further evidence of an evolving role for emotion in media networks can be seen in the rivalry amongst key actors on social media platforms [70]. A hyper-fluxed media landscape has facilitated different organisational structures, including blogs, vlogs and other forms of online reporting [89]. Bloggers, for instance, publicise the 'self' by foregrounding their persona as a form of personal branding. They often engage in emotionality through 'sloppiness' and rawness in their blogs as a means of building trust with potentially alienated audiences seeking an alternative to mainstream media [18, p.10]. Today, many challenger actors such as social media influencers, brands, NGOs and activist groups, actively support emotion as their dominant logic. Meanwhile, more working journalists are adopting a subjective voice (at least on social media) to share commentary, opinions, humour, quips, memes, gifs, even sarcasm, as they seek to connect with audiences [65]. This has implications for modern hype cycles, argues Powers, because the increasing speed and evolving avenues of media technology intensify hype's essential character [67]. She adds that hype has therefore "become the emotional life of capitalism" [67, p. 864].

7 Promotional culture's affective value

In its formative years, the promotional industries treated consumers and other stakeholders as rational beings. The emotional dimension we have come to expect of promotional culture is uniquely associated with the late twentieth century, when media technologies evolved to offer audio-visual techniques rather than verbal propositions.[1] The promotional industries' growing use of emotion picked up in the 1980s [39, 59], when a movement in consumer research revived perspectives of consumption as something stemming not from 'cold reason', but from the need for "feelings, fantasies and fun" [39, p. 59, 44]. From the late twentieth century onward, people's emotions become an object of promotional expertise, and a resource for realising business goals [23, p. 116]. Promotional intermediaries mobilised their knowledge of emotions to influence tastes and preferences, inscripting emotions onto objects and technologies, thus rendering local habits and emotions productive to global markets [23].

There are contrasting views on *how* promotional activity circulates emotions. Certainly, industry practitioners regard their work as an inside-out process where emotions are assumed to come from within discrete individuals, circulated thereafter [1], captured through promotional activity and moved outwards. Affect theorists instead argue for an outside-in process in which emotions are not 'in' either the individual or the social [1]. From this perspective, promotional intermediaries use affective management techniques to produce the very market boundaries that in turn delineate consumers, investors and other stakeholders [1, 71]. Dembek's [23] market studies approach falls somewhere in between, contending that promotion *detaches* emotions from an individual subject and from the actual relation in which they take place, commodifying those emotions and engaging them into constructing economic value, then reattaching emotions into artefacts and symbols representing products, services, ideas, etc. According to Dembek, only 'reattached' emotions can be used to motivate or influence people, hence it is the process of reattaching emotions that helps to generate hype cycles.

Two specific twenty-first century developments have improved the promotional industries' ability to detach, commodify, and reattach emotions as part of constructing market value. First, the rise of social media platforms has led to a fundamental shift in *where* we expect to encounter promotional communication [67]. Through social media, brands can rely on a host of affective labourers to 'perform' their brand within digital social spaces, to channel and modulate social connections, ideas and feelings [16], and to detach, commodify and reattach emotions [23]. Brands will not necessarily seek to control the content produced by affective labourers (e.g. journalists, celebrities, social media influencers and consumers), but promotional workers will be required to manage the circulation of meanings and affect, and modulate affective response in real time [16]. For instance, Tellis et al. [78] highlight the importance of imbuing online advertisements with emotion to drive virality through sharing. In their study, Tellis et al. explore emotional techniques such as dramatisation and surprise, finding that using celebrities, babies and animals all increase advertising effectiveness. Since shareability is social media's primary currency, and a major ingredient for creating hype, the more intense the emotion used in promotional activity, the better [72, 78].

The second development of twenty-first century promotional communication–and arguably its greatest leap forward–has been the technological ability to 'read' emotional life. Ironically, for the current discussion, this ability has been enabled through the use of AI-based media technologies programmed to categorise machine interpretations of people's feelings, emotions, moods, attention and intention in private and public places by 'capturing' emotions as computer data [60]. The promotional industries proved an eager market for these AI technologies. While the functionality of sentiment analysis software and other empathic AI products remain dubious, these technologies create affective attachment, engaging the user's emotions into work that is economically efficient for brands using these technologies [23].

8 Analysing emotions in hype cycles

The following section examines instances of mediatised emotions attached to the 2020s AI hype cycle. In reading and interpreting connections between manufactured emotion and AI hype, I acknowledge the inevitable challenges of

[1] McFall [58] however, points to evidence of emotional appeals in promotion as far back far as the Victorian era.

categorising emotions in media discourses [34]. First, while categorising different types of emotions reflects promotional industries' efforts to detach, commodify and reattach emotions, these discrete categories do not quite represent the fluid nature, the ebb and flow, of emotion in everyday life. Furthermore, categorising emotions also requires interpreting emotions as universal, rather than affective responses learned in different cultural milieus [22]. The following discussion should be understood in that context.

8.1 Venture capital: Future emotions–faith, belief, trust

First, I examine emotions linked with AI hype in investment markets. Much of this hype is driven by the venture capital (VC) sector, companies that provide private investment funding to start-up companies. Emotions are inextricably linked with investing, since faith and belief underscore investment markets where returns are uncertain and the future unknown. Pixley [66, p. 3] describes emotions generated in investment markets as "future-oriented", where the only way to face uncertainty is with emotions and values [66]. Eager AI entrepreneurs desire capital, but know they are selling an uncertain category. Since VCs provide an efficient way to finance uncertain new ventures, exchange relationships between AI start-ups and venture capital begin on an emotional footing almost immediately. For the VC firm, the relationship begins with the emotion of vigilance. In response, AI start-ups aim to promote competence and reliability in the hope of building trust, as the affective component between parties [81].

VC firms must engage in promotional activity too. The VC business model involves buying start-up companies, whipping them into shape, then cashing out of their company investments, or 'exiting', typically after 5 years or more. This timeframe places urgent tensions on VC investors. There is also mounting expectation from the wider investment community, given that Silicon Valley has gone two decades without a true technological breakthrough [33]. Earlier decades had successfully delivered a 'next big thing' in tech: the 1980s gave us the personal computer, the 1990s had the worldwide web, the 2000s had the smartphone and the suite of apps built on it [33]. Since then, VC investors awaited the next big invention. Ideas such as driverless cars or the metaverse had not yet panned out; AI and automation technologies remained chief contender. But by 2023, VC funds were achieving fewer exits[2] for their AI start-ups than in previous years [17]. This puts VC firms under greater pressure to make AI start-ups look good to prospective investors. Here, promotion plays a vital role in 'pump-priming' the market by drumming up excitement and aggression in the prospect of 'hidden treasures' waiting to be extracted through investing in AI companies. Promotional techniques used by VC firms vary, but emotive conferences and industry events charged with optimism and excitement are a popular choice [33].

In line with Pixley's view of 'future emotions' in investment markets, Logue and Grimes [54] suggest that technohype generates *future* emotions for AI investing, but ethical concerns with technohype are myriad. AI companies and their financial backers have stirred up media excitement in everything from drones to driverless cars, from travel to dating apps, as well as supposedly unassailable benefits from AI health applications in fighting cancer and saving lives. AI start-ups rely on hype "as a profound cultural resource" to attract VC backing, and build a collective financial vision amidst uncertainty [54, p. 1056]. Equally, VC firms bank on hype at a structural level, and face few consequences when hype fizzles with little proof of concept [84]. Meanwhile, even when expectations for AI innovations do not pan out, technohype can drive other financial backers to invest later at an even greater valuation [42].

Ethical concerns with the VC sector's role in driving emotions in AI markets continue further. The primary objective of any VC firm is to secure profit; and the VC sector plays a crucial role in constructing AI's value [43]. To this end, VCs will stimulate emotions such as awe and excitement to pump prime the *entire* category of AI and automation, driving up the value and size of AI and the wider tech sector. Driving up value in this way propagates boom-and-bust; posing further ethical concerns over tech markets, and raising the prospect that AI could remain hyped indefinitely as investors seek new profits by using 'future' emotions such as belief and trust to banish uncertainty [66].

8.2 Consumers: Joys of technological seduction

Hype cycles are at their most successful once consumers are brought onside. AI consumer products are a big part of the "layers and symbols that surround us", relating to our personal happiness and social success [51, p. 170]. The idea that consumption produces emotions such as joy and happiness is a longstanding one in promotional culture. Things we buy provide a convenient yardstick to measure our standard of living [51], and promotion works to produce "an endless series of suggestions about possible routes to happiness and success" [51, p. 172]. A large portion of emotional messaging from producers to consumers is the seduction of fun, entertainment and humour [39]. Rationality plays little part in consumer behaviour, which is why many people use shopping as therapy or an antidote when feeling down [39].

[2] Venture capital exits usually happen by striking a deal to sell a company (M&A) or floating the company on the stock exchange (IPO).

The design and promotion of AI and automation retail products taps into people's need for happiness and fun in consumption. In software, for instance, the tech sector encourages consumers to see AI chatbots as cute, friendly, helpful and servile, thus normalising AI and automation as part of everyday life. 'Cute' AI applications (both voice and visual) build affective relationships with customers through humour or empathy in various promotional encounters, from customer service and personal assistance to companionship and therapy [55]. In hardware, AI-related consumer gadgets are often receptacles for entertainment and play. The hype surrounding the 2024 launch of Apple's Vision Pro illustrates this well, ramping up quickly before dying down after a few weeks. Apple promoted VisionPro as "the new user interface for Artificial Intelligence" [56]; a device transforming everything–from answering emails, to browsing the internet and watching films–into an immersive experience. Vision Pro hype circulated emotions of surprise and humour via social media. TikTok hosted scores of videos featuring influencers 'unboxing' Vision Pro, 'walking down the street', 'driving down the street', 'getting pulled over by police' all while wearing Vision Pro. Videos were uploaded from around the world, with some viewed hundreds of millions of times [79]. The excitement was further circulated by influencers, industry pundits and technology reporters gushing over product demos, and hyping Vision Pro as a transformative, 'killer productivity device' [50].

Freedom and empowerment are further emotions invoked through AI consumer promotion. These affective states are achieved through market narratives of consumer sovereignty in which tech industry proponents promise a consumer-led revolution with technologies poised to liberate consumers from some retrograde process [32]. AI's empowerment message is vividly illustrated by the launch of DALL-E and ChatGPT, two hyped products developed by OpenAI, the San Francisco-based high-tech firm. Both products are built on GPT, OpenAI's large language model, and marketed as 'generative AI'. In this market category, machine learning guides the creation of content or, in some cases, creates content–e.g. images, text, audio–without (or with little) human intervention [69]. Since the launch of OpenAI's ChatGPT chatbot in late 2022, many rushed to invest in AI start-ups, sending AI company valuations soaring [42].

DALL-E,[3] first made international news in January 2021, after being trained to generate images based on a text prompt to design an 'avocado chair' [68]. The images were rough around the edges, but mainstream media lapped up the story, and avocado chair images were shared widely on social media [9]. Consumers piled in to use the free version of DALL-E thus providing OpenAI with massively expanded training data. By 2023, OpenAI shared more sophisticated DALL-E images on Instagram, including one representing the text prompt 'The Hanging Gardens of Babylon in the middle of a city, in the style of Dali'.

OpenAI's other product, ChatGPT, yielded more hype, and even greater controversy [27], raising further ethical issues from a promotional perspective. OpenAI's training data was subsequently identified as flawed, biased and discriminatory; its GPT model was repeatedly found to fabricate information, while outputs from ChatGPT and other large language models led to litigation over plagiarism and copyright [27]. There are broader ethical concerns with employing positive emotions when promoting AI. Emotions such as excitement, anticipation and fun often foreground products while masking their producer's power [51], labour and sustainability issues, even masking inherent issues with AI products themselves, particularly when launched in 'beta' as discussed in the next section.

8.3 Beta-related hype

Many consumer tech products, including AI, are launched in 'beta' or unfinished form, allowing organisations and brands to take an idea that isn't fully-formed, and 'throw it out there' to get people using it. Constant iterations of the product and successive launches help to feed technohype. Hype is the lifeblood of machine learning AI products, in particular, because this form of AI learns from massive data sets over time in order to meet market expectations. Contemporary AI hype cycles therefore differ from other product hype because machine-learning AI products must launch in 'beta' to test proof-of-concept, crowdsourcing millions of users to enlarge machine-learning data sets.

Consumers contribute to hype around beta AI products by sharing thoughts and, of course, *feelings* about how AI products do and don't function. For instance, OpenAI's earlier GPT-3 tool launched in 2020 to a media hype of short duration because only a few people had access to the tool. Consequently, GPT-3 hype was mostly generated by people speculating about what GPT-3 could do "because they had seen it or heard reports" [5]. By contrast, when ChatGPT was launched in 2022, OpenAI "just put it out there for everybody to generate their hype from" [5]. Meanwhile, when Apple's Vision Pro launched in 2024 it was accompanied by 600 new apps (i.e. 600 new software products) made by app designers keen to see hyped visibility for Vision Pro's interface. The many problems with Apple's headset – its high price, weight and discomfort – suggest Vision Pro was launched in beta as a 'developer kit', around which consumers and social media influencers could create excitement, awe and surprise, in support of market interests. Silicon Valley's reliance on iterative product design processes to

[3] DALL-E is a portmanteau of artist Salvador Dali and Pixar robot hero, WALL-E.

drum up interest makes technohype a permanent marker of affective capitalism.

8.4 State capture: Fearmongering and doomsday hype

While ChatGPT may have delivered the biggest spike of the 2020s AI hype cycle, the consumer is not the only target of AI hype. The emerging AI economy is being aggressively naturalised as the common-sense way of life and a public good through persuasive doctrines enabled through promotional culture [8]. States play a vital role in enabling the AI sector–funding it, driving its expansion, opening up potential markets, while also restraining calls for tech sector regulation. National and regional governments alike are keenly competing in the AI 'space race'. Through persuasive public sector doctrines, governments are closely involved in promoting the supposed vital importance of AI competitiveness. Much of this promotional messaging invokes fear as one of the most intense emotions of all: AI is humanity's inevitable future–or so we are told [8].

A key 'fear' deployed in Western promotional communication is a fear of China [36]. Amidst the decline of a Western liberal order, China has been forging a new world order, involving not just geographic expansion but an economic offensive, dominating goods and services that other countries cannot live without, becoming a dominant dispenser of overseas loans, and subsidising major industries to gain monopoly [3]. Under then President Trump, the USA began making noises about losing the technological race to China, and America's Frontier Fund was launched with a mission to help Washington 'win the twenty-first century global technology competition' [61]. The fund is led by Eric Schmidt, the venture capitalist and former Google chief executive. Schmidt's role in influencing state affairs illustrates a degree of state capture by tech sector interests.

AI's hype cycle entered a new phase in mid-2023, raising further concerns about the adverse effects of modern promotional culture. After years of stirring up unabashed excitement about AI, the tech sector changed its narrative to a campaign of fear. Such doomsday hype is not unusual in the current era of neoliberal capitalism, where narratives of national competitiveness are just as likely to frighten as they are to enthuse[4] [20, p. 141]. The UK government's 2023 AI safety summit can be seen as part of doomsday hype; the highly-mediatised event focused on a range of harmful scenarios including new bioweapons and 'killer AI' [36].

The notion of doomsday hype is not new, as detailed in James Bennett's [6] book, *The Doomsday Lobby.* Yet it is worth examining how market developments led to the doomsday phase of the 2020s AI hype cycle. For many years, ultra-low interest rates drove global investors to seek returns in risky, early stage tech investments. Then interest rates began rising in large markets in 2021 reigniting other investment options, even as some tech companies failed to meet investor expectations. Against this backdrop, AI venture capital funding peaked in 2020, experiencing a steep fall in the first quarter of 2023[5] [17]. In the wake of this decline, the tech industry published two open letters, prophesying AI doom and destruction. The first letter, entitled '*Pause Giant AI Experiments',* published in March 2023 by the Future of Life Institute, called for the AI industry to step back from its "dangerous race".[6] The second open letter published in May 2023 consisted of just one sentence: *"Mitigating the risk of extinction from AI should be a global priority alongside other societal-scale risks, such as pandemics and nuclear war"* [13]. In the weeks following the publication of both open letters, tech stocks rallied in US markets, with more than US$4 trillion added to the value of the NASDAQ 100, while the S&P 500 surged 159%. Doomsday hype proved itself once again to be a classic inflater of market bubbles because of investors' "fear of missing out" — or in the case of AI, "FOBR, fear of being replaced" [41]. According to one market analyst, if investors think AI is going to take over all jobs, and take over the world, the only way to hedge that risk "is by owning the damn robots" [41].

Silicon Valley's substantial reach in world affairs is a growing ethical concern because of the extent of the tech sector's capture of global knowledge apparatuses. This capture now incorporates control over digital media infrastructure and over promotional culture which funds that infrastructure, on into investment markets where, currently, tech companies dominate private equity investment portfolios as well as many of the world's major stock exchanges. Finally, tech capture extends behind the closed doors of state decision-making, with inadequate counterbalances from other private, public or civic interests [28].

[4] As early as 2018, Alibaba founder, Jack Ma declared that AI and robots would 'kill our jobs'. See also Judy Motion and Kay Weaver's [62] study of PR fearmongering between pro- and anti-GM food groups.

[5] AI deal-making slipped even further by the third quarter of 2023, declining by 18%, the lowest quarterly level since 2017 [17].

[6] At the time of writing, the March Open Letter had amassed more than 33,000 signatures, while the May Open Letter was signed by more than 350 AI scientists and tech executives.

9 Conclusion: Unveiling AI's knowledge apparatus

I began this article by posing three questions. The first asked: 'What role does promotional culture play in AI hype cycles?' To answer this question, I drew on media, communications and cultural studies, together with market studies to argue that an entire AI value chain is being constructed across investment markets, consumer markets and state circles by a powerful global tech sector that has largely captured the infrastructure of contemporary media and promotional culture, as well as influential state mechanisms. This value is not achieved smoothly or without consequences. Rather, the state of anticipation generated through the circulation of promotion in hype cycles results in "a crisis of value" [67, p. 863], in which technologies (or other products) are first evangelised, then vilified, in equal measures, before being absorbed into existing markets and practices [31].

One cannot attribute AI hype solely to promotional activity, since many actors play a vital role in spreading hyped messages about AI. Yet Silicon Valley's rapid growth has shifted power dynamics in global promotional culture. Many tech companies have large, well-resourced promotional teams, able to invest hundreds of millions in sustained promotional activity including AI branding, display advertising, sponsorship, industry events, thought leadership material, lobbying and public relations. The rapid acceptance of AI and automation is also part of a broader promotional culture, encompassing investment promotion of Silicon Valley innovation, consumer and business promotion of AI tools and products, and state promotion of international competitiveness.

The combined lens of media studies and market studies focuses our attention on the *knowledge apparatus* used to produce AI hype, and legitimize AI narratives, privileging certain voices over others, while promoting the tech sector as a place of scientific discovery and entrepreneurial acumen. Whereas media hype reveals how single stories or triggering events can produce hype [e.g. 85], market studies examines the specific practices used with market sectors to *sustain* hype [e.g. 31]. Both fields acknowledge the affective nature of media and markets in knowledge production. The article shows how hype cycles represent the ultimate conjoining of affect and capitalism. Emotions yielded through AI hype assuage scores of investors into trusting Silicon Valley's capacity to produce 'the next big thing'. Emotions persuade millions of consumers to *enjoy* giving up their data for free to 'train' AI, models. Emotions trigger anxiety on the part of world governments so intensely as to extend AI's hype cycle. The range of emotions used to construct value in AI markets is vast, but perhaps the most intense, and the hardest to combat, is fear–fear of missing out on innovation, on profits–and most of all, fear of losing power and the AI 'space race'.

The second question posed was 'What are the main promotional forms of emotion evident in the current AI hype cycle?' I showed how VC investors lean heavily on 'future-oriented' emotions such as trust [66], hence AI start-ups treat hype "as a profound cultural resource" to assuage investor uncertainty. AI hype 'pump-primes' investment markets, drumming up excitement and aggression in the prospect of 'hidden treasures' waiting to be extracted through investing in AI companies. In consumer markets, a large portion of emotional messaging by AI companies is the seduction of fun, entertainment and humour to be had in consuming AI tools, both hardware and software. Furthermore, as AI products such as ChatGPT are often launched in beta, consumers contribute to AI hype by sharing thoughts and *feelings* about how products do and don't function. Finally, and of more concern, are the emotions mobilised through state competitiveness, where fear–one of the most intense emotions—is invoked to help drive the global AI 'space race.

The article's third question asked 'What are the ethical implications of promoting emotion in AI hype cycles?' The answer is complex, since advertising, marketing and PR are governed separately, and in very different ways worldwide; and sometimes not at all. Existing regulation remains hindered by the false assumption that promotional texts are unidirectional [38] rather than part of a complex discourse driven by different plans, intentions and meaning-making on the part of brands, promotional intermediaries, and audiences [38]. Furthermore, the barrage of promotional messaging described by Hackley and Kitchen in 1999 is today an exponentially larger promotional leviathan due to social media. Hence, hype cycles further test the futility of existing ethical guidelines for promotional activity to breaking point.

AI ethics is a multifaceted problem that must now include further examination of promotional ethics, because promotional culture is an integral part of the giant knowledge apparatus constructing value in AI. As the article has shown, constructing value in AI by detaching and reattaching emotions to products through AI hype is problematic. First, hyped value construction builds trust in unproven AI concepts inflates prices and drives up profits in both consumer and investment markets. Emotion-led hype cycles also create a climate of fear and antagonism between states and other powerful stakeholders focused on specific forms of AI (e.g. workplace automation and military applications) shifting public attention, policy support, and investor funding *away* from developing AI-related products and services designed for social and humane purposes, including investigative work aiming to expose AI harms, and grassroots organising and resistance against those immediate harms [4, 30]. As

Ahmed [1, p. 12] argues "emotions can attach us to the very conditions of our subordination".

If we are to successfully combat or transform AI's problematic value construction, then our moral judgments cannot stand outside the meaning-making of the relevant AI communicative parties [38]. A precondition for emancipatory forms of ethical regulation, per Hackley [38, p. 41] is to ask: "Where are the subjects here, and what is the basis for presupposing a relation between them?" This suggests the need for greater transparency around the opaque knowledge apparatus underpinning AI value construction, involving the state, the media and the market. This apparatus has been carefully assembled by the tech industry through its ownership of digital media platforms, its capture of both mainstream media and promotional content production, and its increased ideological and technological influence over nation states. Silicon Valley's growing control over this combined knowledge apparatus positions Silicon Valley rather than AI as the ultimate existential risk [64]. Professionals in the promotional industries have a collective, ethical obligation to acknowledge their role in this apparatus, and to begin an industry debate over how hype cycles can be governed. Weiss-Blatt [82] identifies a cohort of media and promotional workers who seem astute enough to recognise the political power currently driving Big Tech, and may be courageous enough to speak truth to power. Future work on AI in promotional culture should determine how to strengthen this capacity, whether through improved promotional industry regulation, increased professional standards, and increased transparency of power structures driving the construction of value in AI and automation.

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Declarations

Conflict of interest The author has no competing interests to declare that are relevant to the content of this article.

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