Who's Afraid of the Laugh Box

Note: Image generated using StableDiffusion Image Generator by Stable Diffusion AI from the prompt 'Visualize a machine with a mouth adorned with teeth and eyes replaced by cinematic camera lenses, merging elements of technology and organic features to create an intriguing and surreal image'.

Abstract

Chapter 6
Synthetic Laughter: Technologies of Humour Mediation and the Moral Issues of the Laugh Box

Synthetic Laughter examines the ethical implications of employing canned laughter, navigating the intersection of technology, human emotion, and morality. Informed by historical perspectives and contemporary concerns, the discussion is influenced by media and technology scholars like Günther Anders. It explores the commodification of human responses and the potential erosion of authenticity in the era of advanced laugh-generating technologies. Essential themes include the obsolescence of the private laugh, consent to have one's emotions recorded and preserved indefinitely, compensation for emotional labour, and the societal influence of artificial laughter on digital platforms. This is underscored by the need for a nuanced exploration of the ethical dimensions of laugh tech, which poses pivotal questions about mediation and the integrity of the individual experience. "Boxed-up" morality, where humans become both consumers and 'the consumed' in their interaction with laugh-generating technologies, is a key concept the discussion frames within the context of critical posthumanities. It proposes a nuanced understanding of synthetic laughter's role in shaping post-human subjectivities and offers a glimpse into the multifaceted issues surrounding the laugh box and similar technologies such as generative AI.

<div align="center">

6

Synthetic Laughter

Technologies of Humour Mediation and the Moral Issues of the Laugh Box

Benjamin Nickl

</div>

Like the face with its unmistakable cast of features, the voice is also a primal sounding board for expression for the human: their organ. In and with one's voice, the human stretches out and lays hold on the other, as oneself is attuned and held. If concealment from oneself and overtness toward the world are characteristic of the face, so that through their face the individual is completely exposed and delivered over to every counterreaction before it can protect itself by facial mime, the voice is the ideal medium of deployment from the internal to the external. It can be graduated according to strength, pitch, and emotional and persuasive force; it can be modulated and articulated, whether as sung or spoken sound, as "bearer" of musical or linguistic communication. (Helmuth Plessner)[1]

Technologies of Neoliberal Laugh Culture

The laugh track, a cornerstone of American television comedy and catalyst for a quickly growing broadcast entertainment industry, was pioneered by Charles Douglass' distinctive laugh-track device, the so-called 'laff box' (see Figure 1). Douglass invented and introduced a device he originally named the audience response duplicator in the late 1940s to counteract the unpredictability of studio audiences' laughter during live shows like *The Jack Benny Program* (1932–1955). His creation allowed for the control of audible laughter, enhancing comedic timing, and eliminating unwanted audience

---

[1] Plessner, *Laughing and Crying*, 131.

reactions[2]. However, the advent of canned laughter, an invention that *Time Magazine* in 1999 called "one of the hundred worst ideas of the twentieth century", also marked the onset of a culture of mediated manipulation. It essentially works by separating humans from the reactive capacity to laugh or not laugh at something they might or might not find funny and extracting the joy and morality inherent in the decision process leading up to an act of amusement.[3] This process was hidden, taking place off-screen behind studio sets and backstage barriers from the audience watching at home. Its concealment raises significant issues about our moral perception of humanity in a world where jokes or other content intended to elicit a humorous response, like physical slapstick of stand-up comedy routines or quit-witted repartee between several people on a stage or in a scene, no longer requires self-induced laughter.

Figure 1: The Inner Workings of the Mysterious Laff Box, Thebaronblog, 23 September 2013.

---

[2]   Kubey, *Creating Television*. See the introduction and especially the insightful interviews on comedy entertainment programming in the pioneering decades of US network television with Carroll Pratt, whose small company Sound One was placing over 80 per cent of the laugh tracks and audience effects on network programming in the 1980s. The interview details how Pratt, who had won three Emmys for his work, began his career as a sound technician at MG and learned his craft from the 'father of the laugh track', Charles Douglass. From the interview text with Pratt: "In 1950, CBS was having problems with shows where the audience had been rained out and the reactions had been too small. They were also doing a lot of audio work after an audience left because they didn't get enough reaction during the show. Charles Douglas(sic), who was a technical director at CBS, saw the need and developed a very basic, crude laugh machine which consisted of a large wheel. Douglas(sic) was the father of the laugh machine. [...] That was the beginning of the inuring of the American public with this beast of a laugh track".

[3]   Kenneth Brewer's extensive work on American humour and the laugh track is insightful here. He writes that the canned laugh reaction has often been treated as a problem of morality "either because it coerces viewers into laughing or makes them more receptive to ideological messages from the media". Brewer, *Don't Make Me Laugh!*, 10.

Figure 2: The Laff Box on Its Customised Trolley, Thebaronblog, 23 September 2013.

This chapter thus delves into matters within the American entertainment industry, emphasising its conceptual applicability to the specific context from which the canned laughter technology as invented by Douglass emerged. The intellectual contribution of this work is situated within the nexus of American cultural dynamics, offering insights into the intricate interplay between humour and morality. Rooted in a Western European knowledge framework of humour studies and issues of technological applications of popular technologies of mediation such as humour or laughter respectively, the analysis emerges from this scholarly lineage, contributing to the broader discourse on the subject. It is crucial to note, however, that the claims made herein do not purport universal applicability or assert indistinct truths across every cultural community. The analysis remains circumscribed within primarily the defined boundaries of the American socio-cultural milieu, recognising the nuanced nature of humour and morality across diverse global contexts that do not all follow, or are influenced by, a particular emphasis on Western perspectives on canned laughter. That said, the invention of the laugh machine begs the question about the purpose of comedy when laughter is automated, and we have rendered our interaction with humour effectively obsolete and handed over comedic timing and laugh triggers to automata. How does the experience of laughter change when there is a technological mediation interface between the person laughing and the laughter itself? And what moral consequences might arise from the employment of a human-machine system that behaves mechanically rigid and unyielding, as detailed by Henri Bergson?[4]

---

[4]   Henri Bergson, a French philosopher, addressed the topic of laughter in his work titled "Laughter: An Essay on the Meaning of the Comic" ("Le Rire: Essai sur la signification du comique"), published in 1900. In this essay, Bergson explores the nature and function of laughter, seeking to understand why humans find certain things funny. Bergson's central thesis is that laughter arises from the perception of something mechanical and

These questions become even more pertinent when considering the repercussions of the cultural technology of canned laughter for us and our laughing bodies in the third decade of the 21st century, as AI technologies and other online interface applications have improved measurably in a race to replicate human laughter in both virtual and physical ecologies[5]. The successors of the laugh box present themselves as artificial pixel-humans who smile reassuringly at us in online chat interactions when their interactive programming deems it useful to alleviate a user's anger or temper other negative emotions or stresses. ERICA the android was purposefully built by a team of roboticists to recognise and laugh at conversational jokes, so we instinctively feel more human-like about the manufactured assemblage before us. Meanwhile, trademarked chatbot applications such as Witscript promote their generative joke-writing systems to unleash the user's inner comedian. The uncanny and perhaps haunted sense of laugh synthesisation that comes with the use of canned laughter prompts us to question the authenticity of our responses to humour.

The laugh box, while augmenting the comedic experience by providing consistent and controlled laughter, also distances us from our natural, spontaneous reactions to humour. It creates a disconnect between the audience and the comedic content, a widening gap, as the decision to laugh is no longer a personal one, but a pre-programmed response and a choice made by others. This raises ethical issues about manipulating human emotions and responses for entertainment purposes[6]. And not just that. The use of canned laughter also impacts the way we perceive and engage with comedy. In its starkly reduced essence, comedy in the Western tradition is a form of social commentary[7] that relies on the audience's ability to recognise and respond to humour. By automating laughter for the profit margins of neoliberal entertainment economies and deliberately removing human agency from production settings, we risk reducing comedy to a series of pre-determined cues designed to elicit a conditioned response, rather than a form of art that encourages critical thinking and social awareness.

Canned or synthetic laughter, a term I propose to better encapsulate the broadening impact of laugh technology in today's digital contexts, marks a significant shift in the

---

rigid in situations where flexibility and spontaneity are expected, arguing that laughter is a social phenomenon and has its roots in human social interactions. According to Bergson, laughter is a corrective response to the mechanical and repetitive aspects of behaviour, and it serves to highlight the absurdity of certain situations. One of Bergson's key concepts in this essay is the idea of "the comic", which he defines as any situation or behaviour that exhibits a lack of elasticity, a rigidity in the face of life's dynamic flow. He contrasts the mechanical and rigid with the living and flexible, suggesting that comedy arises when there is a clash between the two. While this work does not specifically address modern media practices like canned laughter, Bergson's ideas on the essence of comedy and laughter provide a conceptual framework to consider the impact of artificial laughter and recorded laugh tracks on our perception of (in)elastic humour in the context of television and other media.

[5] Nickl and Müller, *The Joke's On Us*, n.p. See this online article that appeared in The Conversation Australia for an overview of current applications of laugh tech, including digital AI characters, ERICA the laughing android, and humour chatbots such as Witscript.

[6] Vaughn, *Morality and Entertainment*, 39–41.

[7] Billig, *Laughter and Ridicule*, see the introduction.

way we consume media.[8] This process can be likened to a monster[9], for it transforms the natural human experience of humour into something eerily distanced and strangely mechanical, and seemingly controlled by an external entity. It is a curious transformation in comedy entertainment production, which took root in the 1940s during America's first television wave. However, the aim and argument here are not to indistinctly vilify the laugh box or its usage, but rather to probe the profound ethical implications tied to the use of humour mediation technologies, both historically and in the present day, and for applications yet to emerge.

The laugh box is indeed an unusual device, with its peculiarity extending beyond its ability to mimic human laughter. What sets it apart further is its capacity to replicate a cultural and bodily practice deeply embedded in our being, with roots that some researchers trace back to around ten million years of evolutionary lineage.[10] As the product of a neoliberal entertainment industry, this gadget is designed to imitate and impersonate the social laugh in its manifold variations: from spontaneous laughter in response to humour or shared experiences to laughter used intentionally to facilitate social interactions. It artificially induces positive emotions at the mere push of a single button or when someone plays the coordinated array of knobs that are arranged like a keyboard (see Figure 2). Douglass meticulously documented the laugh orchestration enabled by his contraption. His inventory ledgers (see Figure 3) contain detailed 'recipes' for the replication of various amusement behaviours. We can find the minutiae of laugh ingredients, and aural types sorted by show and genre, demonstrating the depth of thought behind this outwardly simple technology, which showcases the ability of the box to sonically evoke various amusement behaviours.

Figure 3: Still image from the Antiques Roadshow broadcast "Appraisal: 1953 Charlie Douglass 'Laff Box'", Public Broadcasting Service (PBS).

Figure 4: The Laff Box's Assorted Laugh Tapes, labelled among other things by age group 'TEEN' or location 'Nightclub', Thebaronblog, 23 September 2013.

To these behaviours belongs fake laughter, a long-standing part of our social interactions and often referred to as forced or simulated laughter. It occurs when an individual intentionally produces laughter without experiencing genuine amusement or joy. People may engage in fake laughter for various reasons, such as trying to fit into social situations, masking discomfort, or participating in social rituals where laughter is expected. This type of laughter is typically a conscious, deliberate act rather than a spontaneous expression of happiness or humour. Yet, its mechanical 'fakeness' is so deeply ingrained in our human behaviour that we perceive it as natural, despite its inauthentic genesis. The 'laff box', as it was colloquially known among industry insiders or 'laugh sweeteners' who worked their jobs with the box on blockbuster television shows well into the late 1990s and early 2000s[11], is a machine manifestation of a deeply human practice. Encased in a square-shaped metal container, the device that can 'fake the fake' exists as a testament to our relentless pursuit of consuming entertainment that makes us feel good or serves to trick others into believing that we do. This may prompt us to question the nature of our pleasure, humour, authenticity, and the evolving role of technology in our lives. The concept of canned laughter, generated by a manufactured device, can be unsettling. But is it the poignant revelation of our human nature's pre-existing mechanisation that causes discomfort? Does our unease stem from the realisation that our laughter, when canned, is no longer a spontaneous response, but a reaction in our brains triggered by an automated humour device[12]? Does artificial, mechanical laughter expose the synthetic elements inherent in the typical fake laughter that we have incorporated over millennia of sociality into our lives as camouflaged artifice already?

As I suggest here, perhaps our discomfort or a certain level of unease arises from the idea of being puppeteered, our emotions ventriloquised by remote-controlled

---

11   Parvulescu, *Even Laughter?*, 506–507.

12   Manninen et al, *Social Laughter Triggers*, 6125.

devices rather than societal norms and values instilled into us from birth. The laugh box's synthetic laughter exposes an uncomfortable truth: we have already, willingly, transformed ourselves into human laugh bots, guided by a culturally encoded form of social algorithmics. Our societies are part of a laugh AI that draws its source code from bio-social conventions so old we have forgotten that we acquired them at some point. This is where the wider history of American comedy entertainment and its mediation technologies, such as the introduction of sound during the era of silent movies[13], reveals that we embarked upon the path of laugh technologies well before the laugh box. Because, as one may posit based on the reception of the first so-called 'talkies', it seemed a natural progression to enhance and intensify the experience of mediated fun for audiences willing to invest in it. But besides profits, or more conceivably as an elegant narrative to support turning them, the use of canned laughter was also done and sanctioned by studio executives and a receptive audience in the name of the myth of social progress. However, as Joshua Gunn[14], as well as Frank Buckley[15], remind us in extensive overviews of humorous morality or moral humour through the lens of the human-machine binary and the manipulative effects of mediated emotion, it is crucial to consider the moral cost of this automatisation.

What unfolds in the aftermath of dispersed subjecthood, when human agency is distributed across emotional-material frameworks and technologies such as boxes, speakers, and screens? By outsourcing the bodily integrity of our laughter to a machine capable of unravelling a sense of space-time cohesion, we distance ourselves from the joy and spontaneity inherent in humour. To navigate the intersection of technology and human emotion, it is crucial to examine the implications of such developments. The history of laugh tech itself informs our understanding and experience of humour alongside inherent moral principles and contributes to shaping the intellectual framework regarding sensorial wholeness and dispersion. This has become apparent in the works of scholars of mainstream entertainment technologies and the ethics of mass-mediated amusement.[16] They have raised those issues as pertinent questions about the nature of humour and its technologisation.[17] Ongoing interrogations of technological mediation will persist in shaping our comprehension and utilisation, not only of synthetic laughter and artificial emotion but also of our evolving relationship with advanced 'canning' systems and their impact on human experience.

---

13   Warshow, *More is Less*, 42.

14   Gunn, *Canned Laughter*, 437.

15   Buckley, *The Morality of Laughter*, 129–142; 143–154.

16   Lockyer and Pickering, *Ethics and Aesthetics of Humour and Comedy*, 1–15.

17   Manovich, *Everyday Media Life*, 319.

Laugh Tech Then and Now

As we move closer now to questions about the effects of technological advancements in content-to-user mediation and how to debate their moral dimensions, one may deem it prudent to consider the current ethical implications when laugh tech is applied and on what preceding grounds. Today, in the wake of the COVID-19 pandemic and the integration of long-distance communication and interaction spaces in educational, professional, and social spaces with Zoom, or popular online streaming apps like Instagram or TikTok, we rely heavily on digital interfaces that facilitate remote interactivity. Sometimes, this interactivity is recorded as live-like content for delayed consumption by students, for professional development purposes, or personal entertainment. Regardless of the end-user context, all these experience-at-at-distance platforms rely increasingly on laugh-box technologies. It is commonplace now for mediation software to offer a suite of laugh emojis as reaction buttons, so viewers who are watching live can express their emotional states with more digital nuance while their physical bodies are not present.[18] To better comprehend why developers so readily rely on laugh mediation technologies here means to revisit the trajectory of the laugh track's original application as I have already briefly sketched it out.

Then and now, the idea of canned laugh reactions was and is to ensure continuous engagement and to preserve the animacy of the original experience. With canned laughter in the television studio, this was done via targeted acoustic exaggeration and phonic manipulation, by adding a layer of emotional reaction to the humorous responses of the on-site audience that lived through the recorded event and was present. However, when it proved economically beneficial to television studio recordings and the technology rapidly evolved, the preservation of laugh reactions and their intentional rearrangement during post-production eliminated the immersive studio live experience, for there was no longer a need for the primordial audience to attend. At that point, the practice of laugh 'canning' essentially disconnected the emotional impact of the experience from the experience itself. This disconnection then extended to the person ultimately experiencing it, both after and finally even during the recording. The evolving use of the laugh box and canned laughter concealed the very act of mediation, creating an illusion of a direct experience unmediated and unguided by artifice. However, the most ingenious trick at play here, as one might argue, is that synthetic laughter evolved into something that takes by replacing, so no absence can be felt as there was always laughter. To the viewer at home, the audience was always there. The history of the laugh box, in essence, represents a shift towards this obscured mechanisation of human emotion. The device controls and manipulates laughter, turning a spontaneous, human reaction into a predictable, programmable response by intervening in our human involvement in the world and stealing its perceived immediacy from us. With the help of the box, operators could control and direct human emotions, moving them from their original, organic context of creation and

---

18   Nickl and Müller, *The Joke's On Us*, n.p.

perception into a new, artificial one. It is a development that raises further questions about the policies governing entertainment regulations, the veiled mass manipulation of human emotions, and the moral implications of using technology to remote control our responses.

These concerns are particularly relevant in the context of research contributions in the field of so-called psycho-technology[19], which makes it crucial to consider the wider implications of technologies like the laugh box on our understanding and experience of humour. The primary recipients of artificial mirth are enormous numbers of viewers who unknowingly listen to mechanically reproduced laughter, initially recorded from live audiences. It is a circumstance that also introduces the question of whether these viewers, responding to artificial laughter, consented to this form of manipulation by simply using their television sets, and turning them on to watch scheduled content programming. Did they agree to a device that could potentially alter their emotional responses, eliciting laughter where it might not naturally occur? Did comedy entertainment programmes make it a point to inform the viewers about the nature of the laugh sounds that it would expose audiences to? These questions reverberate in scholarship on mass-mediated entertainment. They underscore further issues around the relationship between media content producers and content consumers and aspects of legal significance such as informed consent.[20] The laugh box device is not merely a tool for enhancing comedic timing; it potentially manipulates the emotional responses of the beholder. Its technological workways essentially transform laughter and in the process create a novel terrain of emotional labour. A more detailed understanding of this conversion process will help us define another set of questions next, about the potentially monstrous nature of humorous entertainment, the manipulation of human emotions, and the ethical implications of using popular media technologies to control people's reactions on a scale of millions if not billions.

---

[19] *Psychotechnik*, or psycho-technology, a dominantly German research discipline that originated in the early 20th century, is fundamentally concerned with the optimisation of human-machine interfaces. This field seeks to enhance the understanding of human interactions with technological systems, with the ultimate objective of improving these interactions to maximise efficiency, safety, and user satisfaction. In a more academic context, psycho-technology employs a multidisciplinary approach, integrating principles from psychology, engineering, and design to develop systems that are not only functional but also intuitive and user-friendly. It is a critical field of study in an increasingly technologically driven world, where the interaction between humans and machines is commonplace. A specific application of psycho-technology can be seen in the design of modern aircraft cockpits. The layout, functionality, and interface of the cockpit are meticulously designed to ensure that pilots can effectively manage the complex systems of the aircraft. This involves careful consideration of human cognitive and physical capabilities and intuition for certain placements of device features and procedural workings, ensuring that critical controls are easily accessible, and that information is presented in a clear, understandable manner.

[20] Paravulescu, *Even Laughter?*, 521.

Canned Laughter's Can of Miscellaneously Monstrous Moral Worms

Douglass' original laugh box housed 320 human laughs on 32 tape loops within its iron exterior. Locating these recorded voices as secondary objects within the larger hardware of the laugh box, and how both interrelate, as highlighted by William Lycan, is essential to contemplate more nuanced and configurative approaches to a human-machine relationship. "The ethics of humor has suffered from failure to distinguish objects of evaluation", writes Lycan, especially where the appraisal of ordinary humorous acts, everyday joking and laughing, assesses something as morally bad or good without much thought given to recombinant systems that host these acts.[21] This is the place from which the dubious ethics of the laugh box emerged. Who asked the human laughers, the primary subjects from whose vocal cords and bodies these sound objects emanated, to donate their laughter well beyond their lifespan? Were individuals offered financial compensation or recognition in name? Do the laughs, these sounds of amusement that haunt countless syndicated reruns of popular late-night shows and sitcoms[22] around the world, come with a legal form of intellectual property or voice copyright[23] that expires at some point in time, or will studios who operate in the United States or outside be legally allowed to use them in perpetuity for sonic productions that audiences are charged money for? Does this raise a compensation issue, as paid actors would normally receive residuals for reruns of works that their faces and voices appeared in?

The laugh box, sheltering recorded laughter in the voices of people who never consented to their storage (see Figure 4), thus mirrors a complex issue. Museum studies scholars, for instance, discuss it as well when talking about the appropriation and display of Indigenous artefacts without permission. Both situations involve the use of elements integral to a group's identity or elements of social import, all repurposed without consent, potentially leading to misrepresentation or exploitation. The automation of laughter, as embodied by Douglass' device, may understandably induce institutional unease when such questions arise from the practice of canning, of dissociating action from reaction, of ownership and laughter as waged emotional labour, particularly given the decreased visibility of this technology then and even more so today in its advanced digital forms.

There is no evidence that Douglass informed any of the individuals whose laughter he recorded of the intention to use their vocals as samples later. Nor did he have to obtain ethics clearance for attending mime shows at which he would record frequently, for the mimes' silent performance produced a more pure and easily editable resource pool of

---

[21] Lycan, *Humor and Morality*, 256–257.

[22] Butler, *The Sitcom*, 2–9.

[23] The United States Copyright Act defines a sound recording as "works that result from the fixation of a series of musical, spoken, or other sounds but not including sounds accompanying a motion picture or other audiovisual work. [...] Sound recordings captured by purely mechanical means without originality of any kind also lack a sufficient amount of authorship to warrant copyright protection".

funny audience reactions.[24] Researchers concerned with morality in popular media culture regard the advent of laughter in a can as potentially one of the most problematic acts of emotional manipulation in this field's history. The laugh box was designed with commercial interests in mind, with little consideration for future implications of use. Its manipulation of emotional response, while seemingly innocuous, points to ethical concerns about the autonomy of the audience and the authenticity of their reactions. The laugh box, in essence, commodified laughter, turning it into a tool for controlling audience response. To state once more the wider implications for usages of technologies of mediation without impact estimates, regulatory oversight, or pre-emptive measures of protection for the users, this has profound implications for our understanding of humour, emotion, and the role technology plays in all this. One may need only think of how many times per day our devices ask us for consent to action updates or install an app or software item that can access all our data, including photos of our faces and recordings of our voices, and how we may playfully shrug off the fact that fully grasping what is at stake eludes us.

Once again, however, this feat of user-mediation technology to hide the beast's true nature underneath the enjoyable feelings that come with operating a device like a laugh machine or smartphone and all the things it offers us rests on historic precedence. Given the profound appeal of the laugh box to mass comedy entertainment producers as well as to consumers[25], it may be unsurprising that its rise was swift and seemingly unstoppable. Initially used sparingly on live television shows only, it quickly became a regular feature and studio fixture. By the end of the 1950s, orchestrating human laughter for videotaped comedy shows had become an industry-wide standard in the United States. This shift in the entertainment industry led to a significant change in the role of live audiences. They were no longer the primary source of laughter during tapings but were gradually replaced by the box, which also meant production schedules could be staggered and actors made to work around the clock and on weekends despite strict union regulations. Laughter at the push of a button grew exponentially opportune to television production facilities that capitalised on the ability to produce more content more speedily, as more frequency bands were released for public broadcasts and the introduction of affordable television devices saw a dramatic decline in movie attendance and book sales. In 1946, only 7000 television sets were sold in the continental US, and only 172,000 in 1948, while the numbers climbed dramatically by 1950 with 5 million sets sold. Ten years later, nearly 90 per cent of homes in America contained a television device[26], and this home entertainment fixture needed programming.

By the early 1960s, a vastly changed American entertainment landscape had rendered live audiences effectively obsolete. They appeared only sporadically and exclusively as props over the next five decades, serving as real-life support performers

---

24   Giotta, *Sounding Live*, 331–332.

25   Manovich, *Everyday Media Life*, 319–322.

26   Abramson, *The History of Television*, 18–23.

who concealed the artificial nature of the pre-recorded laughter for the viewers watching from home. With that change in media production and consumption habits, the laugh box became more trusted as a scene partner than human laughter, both by the producers and by us. It was at this point that canned reactions replaced natural reactions, producing a sort of synthetic social interaction space. The laughs, as Douglass' meticulously kept inventory records illustrate, were deposited in a machine. They were categorised along a spectrum of vocal intensity and sorted according to geographical origins from different cultural communities in America. The result was increased savings for costly recording sessions that were easier to repeat, and raw footage that was cheaper to edit and to re-arrange and reuse for differently cut versions of the same episode for different audience types in America and abroad.

Within myriad discussions of the ethics of humour in mainstream entertainment and popular culture in the United States alone[27], the laugh box's technological advances and ethical implications thus loom large. Brewer's influential work on this topic illustrates that automation functions as a cultural tool of moral coercion, numbing, and deception[28]. However, the questions around this triptych have yet to be honed for their broader application to screen-based comedy entertainment and the kind of laugh-device morality that I pursue here as a post-institutional punchline about the hidden dangers of interface designs that humour renders deceptively unproblematic: both for a wider public and the national media regulator in the case of the United States at the time. As Pfaller observes with a certain degree of apprehension, mechanical laughter and popular media have long been assumed to be nonmoral and ethically neutral.[29] Put differently, only people could be deceitful, not their devices.

Boxed-up laughter seemed at best an innocent parlour trick to entertain and nothing more. Audiences and censors alike did not think much of the mediated interpassivity of the laugh box. After all, the common argument held that laugh tracks left a viewer with the option of laughing with, against, or not at all when viewing a programme with canned laugh prompts. However, the argument about the autonomy of the viewer to react freely would require fair fighting conditions for the individual consumer in one corner of the proverbial ring and an enormous entertainment industry sector in the other. For the financial investment in the development, improvement, refinement, and camouflage of canned laugh tracks and the mediation affordances of synthetic emotions is staggering. Notable industry actors, such as the Walt Disney Company, have poured billions of dollars into these technologies and they keep investing equally big to develop predictive AI models to determine how much audiences will enjoy every single moment of a film and the very minute a viewer will laugh.[30] This significant

---

[27]   Sternheimer, *Pop Culture Panics*, see the introduction and conclusion. Sternheimer's short text examines extreme reactions to American popular culture over the past century, including crusades against comic books, TV series, and other forms of popular culture content. This reveals much about the moral panics and their sociology in everyday life in the United States.

[28]   Brewer, *Don't Make Me Laugh!*, 10.

[29]   Pfaller, *Interpassivity*, see the introduction.

[30]   Gross and Kevenson, *Emotion Elicitation Using Film*, 87; Brown, *Disney Building Facial Recognition*, n.p.

financial commitment underscores the perceived value and proven potential of these tools in shaping audience engagement and emotional response, which matters for advertisement deals and securing customer loyalty by keeping the levels of emotional engagement through the entertainment products at the highest level possible.

Scholars have increasingly voiced ethical concerns about the use of canned laughter, with their worries intensifying in recent years.[31] The unease may be due to the core mechanics of the laugh box, which uses a synthesised form of human communication to stimulate specific, intentional, and predictable mood changes. These principles intersect with current discussions about our virtual presence in cyberspace, where we exist as disembodied voices, replicable faces, and even entire (s)canned bodies as envisioned by the American science fiction comedy-drama television series *Upload* (2020–present).[32] All thanks to advanced sonic and visual AI capture and (re)generation technologies that can produce deceptively realistic versions of our voices and visages and imitate an excellently counterfeit corporeal presence in live streams with the latest sound and image technologies. In the context of this remarkable shift towards digital interactions, especially during the COVID-19 pandemic that boosted the production of newer and more life-like mediations of our human presence, a growing number of researchers are re-evaluating what it means to record and replay laughter.[33]

This discussion is particularly relevant given our increased access to comedy content available via streaming services and tablets and smartphone apps like Facebook and X/Twitter, all media giants that employ their versions of canned laugh tech based on costly, proprietary algorithms[34] that are not accessible to the public nor governments for oversight. In his recent work on laughter and entertainment media consumption, Robert Pfaller thus makes it a point to revisit his and Slavoj Žižek's original concept of passive laughter[35], which is laughter that is detached from the physical self and body: effectively, it is canned.[36] What reverberates throughout my discussion is a concern I share with him about the implications of the act of canning, especially as technology continues to evolve rapidly while our sense of urgency is soothingly placated in direct relation to the advances that make laugh tech appear all the smoother for it.

---

[31]   Raney and Jennings, *Entertainment and Enjoyment*, 325–326.

[32]   *Upload* was created by Greg Daniels. The series is set in a future where humans can 'upload' themselves into a virtual afterlife of their choosing. When computer programmer Nathan dies prematurely, he is uploaded to a luxurious digital afterlife location called Lakeview. However, he remains connected to the living or offline world through Nora, his living customer service 'Angel'. The series explores various themes such as love, mortality, technology, and ethical dilemmas in a world where death is not the end, but the beginning of a new digital, a synthetic or 'canned' existence.

[33]   Millière, *Deep Learning and Synthetic Media*, 231.

[34]   Nickl and Müller, *The Joke's On Us*, n.p.

[35]   Žižek, *The Interpassive Subject*, n.p.

[36]   Pfaller, *Interpassivity*, 56–60.

The Obsolescence of the Private Laugh

While we may readily accept the notion of being human and having a rehearsed capacity for humour and laughter as suggested in the epigraph that features Helmuth Plessner's anthropological viewpoint on the matter, we must also acknowledge that the ethical and moral implications of this reality are not fully understood.[37] Our lack of understanding becomes particularly evident when considering technologies like the laugh box, which manipulate and commodify these inherently human responses and confront us with complex questions about consent, compensation, and the potential for exploitation or misrepresentation. Moreover, there is also a lack of knowledge about how synthetic laughter interacts with digital spaces. Even less is known about how technology that generates laughter interacts with us. Should we start considering the impact of artificial laughter on our social networks and our disembodied selves? There are unpredictable consequences associated with the 'beast' of canned laughter and its effects on the sole person, the individual, which is why it is important to revisit the work of thinkers who have already explored this topic close to the time that the phenomenon appeared.

Günther Anders, a pioneer thinker and critical theorist in the field of media technologies, described the use of mediation and replication devices such as canned laughter as a transactional condition of entertainment culture in his 1958 text *The Obsolescence of Privacy*. Reflecting then on the impact of television on the individual, he suggests that we are being consumed by our media box as we consume it. And that we do not think much of it at all. We often favour what we perceive as the superior quality of the mediated artifice over our imperfect reality, striving to imitate the refined design and absorbing the facsimile's flawlessness in the process. As Anders explains it, we engage with this exchange in the form of 'phantom cannibalism', which means simultaneously consuming and being consumed by the devices that bring a 'content world' replica into our homes and living rooms. This makes the canned product seem more appealing than the unprocessed original, rendering physical live-action events and the laughs they elicit obsolete as inferior products. The allure of canning is that it allows audiences to consume a form of remote amusement, laughs harvested from a crop of pure fun, devoid of any sonic taint such as a cough or other unpleasant auditory disturbances.

In this scenario, as Anders suggests, we transform ourselves into monstrous, self-devouring consumers of 'truer-than-true' human emotional expressions. Mediation technologies have trained us to crave these expressions, creating a cycle of consumption that continually feeds our desire for this enhanced, mediated reality. The phenomenon raises acute queries about the nature of our engagement with these technologies and the ethical implications of mediated anthropophagy. It challenges us to reconsider our understanding of authenticity and the value we place on 'perfected' content-mediation experiences as consumable entertainment goods and

---

[37]   Prusak, *Helmuth Plessner's Laughing and Crying Revisited*, 43.

industrially produced feelings. This, Anders writes, becomes exceedingly apparent in the case of television, where 'reality TV' based on live-reaction recordings of regular people's emotional responses succeeds when it replaces the semblance of artifice with recorded realness:

> Today – because progress must be – *"true life" is produced*; the non-simulated scream, the real tear and actual faint are *the choreographed reality produced to provide a story*, offered and consumed in its phantom-form. One has transformed the viewer into a *phantom-cannibal*, who devours fellow humans who are ensnared by recording devices, a cannibal who is nervous, even feels betrayed, if the meal is not served at the usual hour or is taken off-the-air completely.
>
> Put otherwise: the social situations 'to encounter' and 'to visit' are transformed into modes of consumption in which one human being is 'surrendered' to *another* who 'is supplied with' him or her. The goods on offer now include our fellow humans, yes, primarily these: we have all become virtual eaters and a meal for others and as such the situation is *cannibalistic*. A complete view of our existence today is not possible without considering the cannibalistic practices of eating and being eaten.[38]

Considering Anders' thought-provoking perspective on what it means to mediate humanness and artificial feeling highlights the opportunity to connect different kinds of scholarship and fields of critical thought on mass media entertainment with each other. As I suggest here, canning is not, and for that matter never has been, merely an issue siloed restrictively into such areas of academic thought as popular culture studies or scholarship on (American) television and humour. The mediation principles of canning affect as much today the digital humanities as they do a host of other fields, like spoken word and audio production, sonic design, psychology, studies of commercial law and neural integrity rights of users, as well as the vast and quickly-changing field of screen cultures, especially when considering the widespread consumption of laugh-based media on various content-consumer devices. We must consider the role all this plays in the evolution of our media cultures and online technologies to better assess the 'cannibalistic situation' that Anders describes.

As we continue to advance technologically, the use of devices like the laugh box may become even more prevalent, thus heightening the stakes as laid out here. Understanding the implications of this trend of 'eat and being eaten' is vital, as it could fundamentally alter our interactions with media and radically change our understanding of humour. After all, the mediated phantom cannibalism that Anders defines, where we consume mere shadows of the emotional expressions of others as if they were the 'real' thing, suggests that we have already become uncannily passive participants in the mediated give-and-take of human emotion. We are mere extras in

---

[38] Anders, *The Obsolescence of Privacy*, 21.

the way that we experience feeling, living through synthetic scenarios of a sense of humour every day on our screens and through our mediation devices as we consume canned laughter. And yet, looking at today's runaway impact of the established genre of reality television, we seem to accept this passive role without much resistance. In line with Anders, it is this acceptance that one may argue should prompt us to interrogate our individual, our private relationship with comedy entertainment media, our understanding of the human capacity to sense and enact humour, and the ethical implications of our increasing reliance on 'the can'.

Taming Tech Monsters

The idea that laughter can be fed to us upon command, instructed from afar, reiterates the stimulating possibility of long-distance and asynchronous enactments of human emotion: if laughter can be involuntary, can our morality or lack thereof be as well? This leads us to consider other trends where mass media entertainment technologies employ comedy not merely for amusement, but to influence our sense of internal values. If such is the case, we must contemplate the implications for us as a society. This is particularly pertinent considering our consumption of such media if a pleasurable state of being human, laughter and a sense of humour, is weaponised by an industrial entertainment complex for its financial gains. Put bluntly, we are at a pivotal point where we must critically evaluate the ethical implications of our engagement with humorous media products, particularly those that manipulate our emotional responses for commercial interests.

One could argue further that laughter, as an authentic, intellectual response, should be protected, maintained, and preserved. Some might even suggest that all forms of canned laughter should be banned or made illegal, advocating for engagement with content devoid of artificial laughter. This would enable us to independently determine if an idea or behaviour is humorous or distasteful. However, the reality is that many of us opt for the path of least resistance. The popularity of social media platforms like WhatsApp or WeChat, which connect billions of users and increasingly feature content inclusive of pre-recorded laughter and laugh emojis to indicate one's merriment, suggests a tendency to evade genuine laughter if it necessitates substantial effort. Being a self-aware human, one might contend, is demanding. Apps based on the affordances of the laugh box and its mediation principles offer a convenient alternative. The mere fact that they exist suggests that we have devised a method to circumvent the intellectual and emotional labour connected to morality and reacting authentically in a hundred different ways with reflective nuance. We have developed mechanisms to comfortably outsource our laughter, suitably choosing pre-recorded laughs over our own. In doing so, we dodge confrontation with our humanity and the moral implications of our humour artefacts. This skirting, however, while seemingly

easy, poses problems, like verifying the continued authenticity of our emotional responses and the long-term implications of outsourcing our laughter at increasingly larger scales online.

The intersection of laughter and morality presents an ever more complex phenomenon the further we investigate its inner makings and connections to current popular mediation technologies. Engaging with humour humanly necessitates both intellectual and emotional labour. Yet, we seldom consider what underpins such laughter and how that form of humour transpires. Humour has ethical implications that warrant further examination. Much of the social critique surrounding humour has focused on its capacity to foster social cohesion. However, these perspectives frequently overlook the negative aspects and ethical implications of humour, as well as the devices that facilitate the perpetuation of human laughter without human involvement. As well, humour operates within intricate systems that we have yet to fully comprehend. There is a dearth of comprehensive studies that consider the ideological implications of the laugh box and the cybernetic human-laugh-device-assemblages. What does the laugh box demand from us, with us, as us? There is, as Ariadna Matamoros Fernández, Aleesha Rodriguez, and Patrik Wikstrom point out[39], a certain cognitive disregard for our poor grasp of popular culture and media consumer ethics that allows synthetic laughter to persist in various contexts, some of them deemed immoral or improper, or even harmful to vulnerable user groups like minors, depending on the content that the canned laughs are paired with. This, then, shifts the focus from what we 'laugh at' to how we 'laugh as' and under which conditions our technologies are letting us do so.

The understudied intellectual complexities that canned laughter presents underscore the often-overlooked intersection of ethics and humour in our scholarly consciousness. The mechanics of humour, once a subject of interrogation, have become so integrated and well-hidden within our media-technology landscape that they often go unnoticed. They have become so seamlessly human that we no longer question their presence, hence my efforts here to 'un-hide' them from historical and cultural oblivion. Unlike other forms of popular cultural technologies of mediation like film, canned laughter did not incite the same level of heated argument when it was first introduced. This is likely because it was perceived as context-based instead of content-driven, different as a 'thing' entirely to the Hays or Motion Picture Production Film Code regulations of the 1903s, which may serve us as an illustrative case in point. The Hays Code was the result of a prolonged public interest and intellectual debate over explicit depictions of censored content items or lines of dialogue in films, as they were artificial objects rather than neutral human capabilities to perceive amusement and react to it. Laughter as a thing itself, in contrast, managed to fly under the regulatory radar due to its perceived innocuousness as a mere vehicle for content things. It appeared as a neutral tool only, presumably a natural thing that was free of meanings or deliberate intentions. This highlights in repeat reference to Lycan the

---

[39]   Matamoros Fernández et al., *Humor that Harms?*, 182–184.

need for a more critical examination of the role of laughter and humour in our society as a human-thing assemblage, particularly in the context of what exactly constitutes an object or process of technological mediation and that object's or process's ethical infrastructure and affective configuration.

The Box as Warning Sign

Building on the complexities of humour and its ethical implications as indicated by the laugh box, one may find in the concept of 'boxed-up', canned, or synthetic device morality a most revealing and intellectually productive aspect of modern culture. This monster phenomenon, where we are both the consumed and the consumer, is a complex process that has been explored by thinkers such as Anders. In his philosophical writings on the technology of fabricated feelings and human affect, he details how this process unfolds and highlights the paradoxical nature of this relationship. As users of media content via technologies of mediation, we create and enable the very devices that eventually exert control over us. This dynamic is particularly evident in the context of laugh tech, where the human act of laughter is outsourced to a device. This device dictates when and how laughter should occur, effectively controlling a fundamental aspect of human expression. The surrender to the monsters of laugh tech, as Anders would explain it, is then a form of self-sacrifice.

This observation produces in the final instance of my case study of synthetic laughter and the laugh box some closing topics for consideration here, such as the past and ongoing nature of our relationship with humour mediation devices and the potential implications for our understanding of human morality and how, and if, we can still enact it. Again, in Anders' reflections on the impact of the television box that lived in nearly every single home across America in the 1960s, he provides a detailed analysis of the self-sacrificial submission of humans to the monsters of laugh tech. He astutely describes the complex dynamics at play and the potential consequences of this outsourced device morality, writing:

> Every machine is already its use. I already tried to prove this unpleasant thesis in Volume 1 of The Obsolescence of Human Beings, whilst discussing television. What reaches humans through the television set is inconsequential, a nuclear explosion, a queen's coronation or a beauty contest. Who sits in front of it is inconsequential, a farmer in a Siberian kolkhoz, a tailor in London or the owner of a petrol station in Colorado. What matters alone, is the circumstance that these events arrive in a de-realised phantom-state and that **the consumption of phantoms replaces experience of world** [...]

> This circumstance shapes and disfigures humans, this prejudices the way humans relate to the world and vice versa.[40]

Anders' perspective on the 'de-realised' world of television indeed prompts contemplation. As we interact with devices that generate artificial laughter, we are, in a way, entrusting a fundamental aspect of our human expression to them and their mediated version of reality. However, this exchange is not a total surrender, but rather a nuanced interaction that shapes our experiences and responses. It presents a dynamic exchange that calls for thoughtful consideration and ongoing dialogue. In return for the amusement these devices offer, we do pay a price, even if it is not immediately evident. This situation echoes the cautionary tale of Dorian Gray, whose true self morphed into something monstrous as he became detached from his humanity, which had been outsourced to exist within a picture frame. His life was more vividly depicted, even lived, on canvas than in off-canvas-screen reality. It represents the moral decay of an individual who lived more authentically as a strangely mediated entity than as a member of human society.

The increasing prevalence of these mediation matters that turn on the technological principles of Douglass' laugh box technology can be found in various places in our everyday culture, implying a potentially concerning trend. The devices work by replacing aspects of our humanity, yet we perceive them as harmless extensions of ourselves rather than potential threats. Despite warnings written by critical media thinkers such as Anders more than eight decades ago, we continue to embrace the devices without fully considering the implications of their use. On the issue of televised mediation as our primary source of experiencing the world and our feelings, he says: "This circumstance shapes and disfigures humans, this prejudices the way humans relate to the world and vice versa".[41] A critical examination of the role of popular media devices in our lives and a consideration of the potential ethical implications of their widespread use could thus be highly beneficial. This knowledge could help us navigate future challenges that will inevitably arise from our continued engagement with humorous media products that mainly are happening online these days. As these products are increasingly created and produced by AI and algorithms, they can easily and invisibly 'phantomise' a world of reaction data that we offer up to them.

Synthetic Laughter in Posthuman Cultures

As this discussion draws to a close, it has become evident that the intersection of technology and human emotion, particularly the mediation of laughter, is a complex and significant field of study. As our engagement with technologies that mimic and

---

40   Anders, *The Obsolescence of Privacy*, 25.

41   Anders, *The Obsolescence of Privacy*, 25.

even control human emotional responses increases, it becomes necessary to critically examine the implications of this phenomenon in newer and emerging fields of thought. This is especially pertinent in the context of laugh tech, where laughter, an essential human expression and reaction, is outsourced in a state of 'cannedness'[42] to devices, both mechanical and by now digital, as a mediation technology that rarely registers as such. The insights provided by critical thinkers on media technologies and the ethics of mediation in popular culture offer a valuable framework for understanding this phenomenon.

One key finding from a deeper and sustained engagement with this topic also suggests that our interaction with these 'box' technologies is altering our human essence, or at the very least, our experience of it. It necessitates the creation of new knowledge frameworks to keep pace with and to accurately describe synthetic laughter's role in the emerging forms of post-human subjectivity. This assessment aligns with the work of Rosi Braidotti, who has developed a productive theoretical framework for critical posthumanities in response to rapid cultural change and significant historical events across the globe.[43] Braidotti's work provides a crucial context for understanding our current existence and anticipating future realities, whose benefit to progressive scholarship I would subscribe to here with my case study of synthetic laughter as she asks: What are the parameters that define a posthuman knowing subject, scientific credibility, and ethical accountability? As Braidotti envisions it, the posthuman, knowing subject must be understood as a relational, embodied, and embedded entity, capable of affect and accountable to their actions in the world, rather than merely a transcendental consciousness. From this claim emerges the mind-body continuum, or the 'embrainment' of the body and the embodiment of the mind, which crucially would help us navigate the complexities of our rapidly evolving technological landscape and phenomena like canning. For canning, like other technologies of popular mediation, seeks to sever and distance elements placed along the mind-body-brain continuum, trying to disjoint and separate them.

As concerns the shorthand of the monstrous as a cultural metaphor, while some view the laugh box and other popular devices and mediation technologies as benign expressions of commercial comedy, there are indeed potential risks. We may be compromising more of our human essence than we realise. The ontology of our human monstrosity is intertwined with the ontology of our technological progress. Monsters as cultural metaphors of warning and anxiety have throughout history served as cautions of the potential horrors unleashed by human creation without foresight and thought given to potential harm and hurt. In this context, visions of future box technologies may paint a distinctly unsettling picture. What we may want to remember though is that these visions already emerged decades ago when the idea of networked humanness and a vast human nonconscious that existed in online

---

42 McGurl, *The Posthuman Comedy*, 533–540.

43 Braidotti, *Critical Posthumanities*, 31–35.

spaces was still in its infancy. How we continue them and carry on their legacies is up to us.

One last thing to express here, in summary, is that the mechanisms of humour and laughter, despite their significant role in human interaction and communication, remain surprisingly underexplored. Studies that probe popular comedy as cultural interface technology, and the moral implications this entails for viewers, are few and far between. Historically, this lack of focus can be attributed to academia's dismissal of popular culture and humorous entertainment humour studies as inconsequential. The examination of laughter has traditionally been confined to the domains of philosophy departments, leaving a gap in our understanding of its broader implications. In this context, however, it may be beneficial to broaden the conversation and seek further dialogue and trade insights with academic colleagues in areas like computer science and programming, or sound engineers and sonic architects working to produce different forms and applications for synthetic laughter. The science of comedy could benefit from examining the cultural technology of humour as a somewhat precarious interface, shifting focus from the internal state of being amused to what enables this state outside the human. If one may put it in terms of an ongoing odyssey of moral humour and its unknown next port of call: where is laughter headed outside and past the institution of the human?

Douglass' work on the intersection of technology and human emotion provides a valuable perspective in this regard. His use of technology to mediate humans and their emotions shows how the act of technological mediation and a culture that celebrates this as a sign of progress can both augment and lessen our human experience. Here, in this chapter, this ambiguity offers a nuanced understanding of the potential trajectory of laugh tech and its past, present, and future applications. The trajectory towards a form of mediated human devolution is a concern, but it is not a foregone conclusion. While there are potential risks associated with the increasing mediation of our emotional responses, there are also opportunities for understanding and growth.

References

Abramson, Albert. *The History of Television, 1942 to 2000*. Jefferson, North Carolina: McFarland, 2003.

Anders, Günther. "The Obsolescence of Privacy". *CounterText* 3, no. 1 (2017): 20–46. https://doi.org/10.3366/count.2017.0073.

Bergson, Henri. *Laughter: An Essay on the Meaning of the Comic*. United States: Dover Publications, 2005 (org. 1900).

Billig, Michael. *Laughter and Ridicule: Towards a Social Critique of Humour*. London, UK: Sage, 2005.

Braidotti, Rosi. "A Theoretical Framework for the Critical Posthumanities". *Theory, Culture & Society* 36, no. 6 (2019): 31–61. https://doi.org/10.1177/0263276418771486.

Brewer, Kenneth L. "Don't Make Me Laugh! Morality, Ethics, and The Laugh Track". *Studies in American Humor* 4, no. 1 (2018): 10–36. https://doi.org/10.5325/studamerhumor.4.1.0010.

Brown, Jennings. *Disney building facial recognition to figure out when you'll laugh during Toy Story 5*. Technology / Innovation, 2017. http://www.smh.com.au/technology/disney-building-facial-recognition-to-figure-out-when-youll-laugh-during-toy-story-5-20170728-gxkf2w.html.

Buckley, Frank. *The Morality of Laughter*. University of Michigan Press, 2003. https://doi.org/10.3998/mpub.12004.

Butler, Jeremy G. *The Sitcom*. New York, New York, USA: Routledge, 2020.

Gervais, Matthew, and David Sloan Wilson. "The evolution and functions of laughter and humor: a synthetic approach". *The Quarterly Review of Biology* 80, no. 4 (2005): 395–430. https://doi:10.1086/498281.

Giotta, Gina. "Sounding Live". *Journal of Communication Inquiry* 41, no. 4 (2017): 331–48. https://doi.org/10.1177/0196859917713760.

Gross, James J., and Robert W. Levenson. "Emotion elicitation using films". *Cognition & emotion* 9, no. 1 (1995): 87–108. https://doi.org/10.1080/02699939508408966.

Gunn, Joshua. "Canned Laughter". *Philosophy & Rhetoric* 47, no. 4 (2014): 434–54. https://doi.org/10.5325/philrhet.47.4.0434.

Kubey, Robert William. *Creating Television: Conversations with the People behind 50 Years of American TV*. Mahwah, New Jersey, USA: Routledge, Tailor and Francis group, 2004.

Lockyer, Sharon, and Michael Pickering. "Introduction: The Ethics and Aesthetics of Humour and Comedy". In *Beyond a Joke: The Limits of Humour*, 1–24. Basingstoke, Hampshire, UK: Palgrave Macmillan, 2009.

Lycan, William G. "Humor and Morality". *American Philosophical Quarterly* 57, no. 3 (2020): 253–68. https://doi.org/10.2307/48574437.

Manninen, Sandra, Lauri Tuominen, Robin I. Dunbar, Tomi Karjalainen, Jussi Hirvonen, Eveliina Arponen, Riitta Hari, Iiro P. Jääskeläinen, Mikko Sams, and Lauri Nummenmaa. "Social Laughter Triggers Endogenous Opioid Release in Humans". *The Journal of Neuroscience* 37, no. 25 (2017): 6125–31. https://doi.org/10.1523/jneurosci.0688-16.2017.

Manovich, Lev. "The Practice of Everyday (Media) Life: From Mass Consumption to Mass Cultural Production?" *Critical Inquiry* 35, no. 2 (2009): 319–331. https://doi.org/10.1086/59 6645.

Matamoros Fernandez, Ariadna, Aleesha Rodriguez, and Patrik Wikstrom. "Humor that harms? Examining racist audio-visual memetic media on TikTok during COVID-19". *Media and Communication* 10, no. 2 (2022): 180–191. https://doi.org/10.17645/mac.v10i2.5154.

McGurl, Mark. "The Posthuman Comedy". *Critical Inquiry* 38, no. 3 (2012): 533–53. https://doi.org/10.1086/664550.

Millière, Raphaël. "Deep learning and synthetic media". *Synthese* 200, no. 3 (2022): 1–27. https://doi.org/10.1007/s11229-022-03739-2.

Nickl, Benjamin, and Christopher John Müller. "The Joke's On Us – How Big Tech Is Replicating Our Laughter Online". *The Conversation*, 2023. theconversation.com/the -jokes-on-us-how-big-tech-is-replicating-our-laughter-online-206191.

Parvulescu, Anca. "Even Laughter? From Laughter in the Magic Theater to the Laughter Assembly Line". *Critical Inquiry* 43, no. 2 (2017): 506–27. https://doi:10.1086/689673.

Pfaller, Robert. *Interpassivity: The Aesthetics of Delegated Enjoyment*. Edinburgh, UK: Edinburgh University Press, 2017.

Plessner, Helmuth. *Laughing and Crying: a Study of the Limits of Human Behavior*. Evanston, Illinois, USA: Northwestern University Press, 1970. Translated by James Spencer Churchill & Marjorie Grene from the original *Lachen und Weinen*.

Prusak, Bernard. "The Science of Laughter: Helmuth Plessner's Laughing and Crying Revisited". *Continental Philosophy Review* 38, no. 1–2 (2006): 41–69. https://doi.org/10.1007/ s11007-005-9003-0.

Raney, Arthur A., and Jennings Bryant. "Entertainment and enjoyment as media effect". In *Media Effects: Advances in Theory and Research*, 324–341. New York, Routledge, 2019.

Sternheimer, Karen. *Pop Culture Panics: How Moral Crusaders Construct Meanings of Deviance and Delinquency*. Routledge, 2014.

Vaughn, Stephen. "Morality and Entertainment: The Origins of the Motion Picture Production Code". *The Journal of American History* 77, no. 1 (1990): 39. https://doi.org/10. 2307/2078638.

Warshow, Paul. "More Is Less: Comedy and Sound". *Film Quarterly* 31, no. 1 (1977): 38–45.

Žižek, Slavoj. "The Interpassive Subject". Slavoj Zizek-bibliography/the interpassive subject/ lacan dot com, 1998. https://www.lacan.com/zizek-pompidou.htm.