THE NIGHTMARE OF DREAM ADVERTISING

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ABSTRACT

Advertisers are attempting to market to us while we dream. This is not science fiction, but rather a troubling new reality. Using a technique dubbed "targeted dream incubation" (TDI), companies have begun inserting commercial messages into people's dreams. Roughly, TDI works by: (1) creating an association during waking life using sensory cues (e.g., a pairing of sounds and visuals or scents); and (2) as the subject is drifting off to sleep, the association is again introduced with the goal of triggering dreams with related subject matter. Based on a 2021 American Marketing Association survey, 77% of 400 companies surveyed plan to experiment with dream advertising—or what this Article calls "branding dreams"—by 2025.

TDI is being found by sleep and dream researchers to have various therapeutic benefits such as improving sleep quality, stimulating creativity, and treating addiction. When TDI is hijacked by advertisers for commercial purposes, however, serious bioethical issues emerge. These harms are most obvious when branding dreams is done in connection with addictive products. But health, privacy, liberty, economic, and cultural concerns also exist more broadly. And dozens of sleep and dream researchers have published an open letter in protest of dream advertising, lest "dreams become just another playground for corporate advertisers."

The open letter calls for "new protective policies" around dream advertising. Such specifically tailored regulations would be welcome and helpful. This Article suggests, though, that branding dreams might *already be illegal* under existing subliminal, deceptive, and false advertising laws. That is, dream advertising appears to fit the broad definition of subliminal messaging put forth by the Federal Communications Commission (FCC)—"Any technique whereby an attempt is made to convey information to the viewer by transmitting messages *below the threshold level of normal awareness.*" And particularly if considered a form of subliminal advertising, dream advertising is ripe for enforcement as a "deceptive" and "false" advertising practice under Sections 5 and 12 of the Federal Trade Commission (FTC) Act.

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102 THE NIGHTMARE OF DREAM ADVERTISING

I. II.	INTRODUCTIONINCUBATING DREAMS
А. Г	Preams
B. D	Pream Incubation
C. T	argeted Dream Incubation (TDI)
III.	BRANDING DREAMS
А. Г	Pream Advertising
B. C	furrent Examples
	i. Molson Coors
	ii. XBox (Microsoft)
	iii. Burger King
C. H	Iypothetical Scenarios
D. F	Harms
	i. Health
	ii. Privacy
	iii. Liberty
	iv. Economic
	v. Cultural
IV.	THE DECEPTIVENESS OF BRANDING DREAMS
A. B	ackground on Subliminal Messaging
В. Г	Pream Advertising as Subliminal Advertising
C. D	Deceptive Advertising under the FTC Act
D. I	Dream Advertising as Deceptive Advertising
	i. Deceptiveness
	ii. Materiality
V.	CONCLUSION

2022] ROUGH DRAFT 103

I. INTRODUCTION

...the Marketplace . . . encumbers the whole movements of our mind, and over our noblest faculties is spreading a nightmare sleep.

Thomas Carlyle¹

Advertisers are attempting to market to us while we dream.² This is not the science fiction of the film *Inception*,³ the show *Black Mirror*,⁴ or a Philip K. Dick novel,⁵ but rather a troubling new commercial reality.⁶ To begin, consider

⁶ For examples of press the issue has received, see Caroline Delbert, "Advertisers are Hijacking Your Dreams, Scientists Say," POPULAR MECHANICS (Jul. 8, 2021), https://www.popularmechanics.com/technology/a36719140/sleep-ads-dream-implantation/; Adam Gabbatt, "Nightmare scenario: alarm as advertisers seek to plug into our dreams (Jul. 5. 2021), https://www.theguardian.com/media/2021/jul/05/advertisers-targeted-dream-incubation; Zachary Crockett, "Are Advertisers Going to Infiltrate Our Dreams?", THE HUSTLE (Mar. 18, 2022), https://thehustle.co/are-advertisers-going-to-infiltrate-our-dreams/; Ross Pomeroy, "Dream hacking: Is this the dystopian future of advertising," BIGTHINK.COM (May 2, 2022); Julia Orsini & David Rice, "Sweet Dreams or Nightmares: The Future of Advertising in Dreams," FUTURE OF MARKETING INSTITUTE; cf. Shoshana Wodinsky, "No, Brands Can't Target Ads at

1 7

¹ Thomas Carlyle, Signs of the Times, EDINBURGH REVIEW (1829).

² Robert Stickgold, Antonio Zadra & AJH Haar, Advertising in Dreams is Coming: Now What? DREAM ENGINEERING (2021), available at https://dxe.pubpub.org/pub/dreamadvertising/release/1 (hereafter "Now What?"); Robert Stickgold, Adam Haar Horowitz & Antonio Zadra, "Inside Your Dreamscape," AEON (Nov. 19, 2021) (hereafter "Dreamscape"); see also Sofia Moutinho, Advertisers could come for your dreams, researchers warn, 272 SCIENCEMAG.ORG 1380, 1380 (June 25, 2021), https://www.science.org/content/article/areadvertisers-coming-your-dreams.

³ Inception (Warner Brothers Pictures 2010).

⁴ Black Mirror (Netflix 2016).

⁵ Philip K. Dick's work often involves intrusive, manipulated realities typically touching on themes including artificial intelligence, personalized, targeted advertising, altered states of consciousness, and the nature of reality. *See, e.g.*, THE MINORITY REPORT (1956) (adapted into the 2022 Steven Spielberg directed movie, Minority Report); *Sales Pitch* (Future Science Fiction magazine, 1954), DO ANDROIDS DREAM OF ELECTRIC SHEEP? (1968) (adapted into the 1982 Ridley Scott directed movie Blade Runner).

104 THE NIGHTMARE OF DREAM ADVERTISING

three recent examples of dream advertising, or what the Article also refers to as "branding dreams".

- 1. Molson Coors ran an experiment in connection with its 2021 Superbowl advertising campaign—#CoorsBigGameDream.⁸ In a downtown Los Angeles building, 18 in-person participants (including celebrity singer Zayn Malik), along with thousands of social media users who participated online in exchange for free beer, were instructed to watch a dream "stimulus film that when paired with a curated eight-hour soundscape, induces relaxing, refreshing images including waterfalls, mountains, and of course, Coors." About 30% of the in-person participants (5 of 18) reported that their dreams were influenced by the dream advertisement. ¹⁰
- 2. For the 2020 launch of its Xbox Series X video game console, Microsoft partnered with dream scientists and the McCann Worldgroup marketing agency to create "Made From Dreams." The project involved participants (professional gamers) who were asked to play the video game console for the first time directly before going to sleep. When the participants entered *hynagogia*—the semi-lucid period between wake and sleep—marketing researchers successfully used a dream recording technology to induce participants to lucid dream about their Xbox video gaming experiences. ¹²
- 3. For its 2018 Halloween promotion, Burger King introduced a hamburger called the "Nightmare King." Featuring fried chicken, beef, bacon, cheese and a green bun, Burger King claimed that the

Your Dreams," GIZMODO (June 16, 2021), https://gizmodo.com/no-brands-cant-target-ads-at-your-dreams-1847113888

⁷ Dustin Marlan, "Branding Dreams," Petrie-Flom Center at Harvard Law School Bill of Health Blog (Oct. 4, 2022), https://blog.petrieflom.law.harvard.edu/2022/10/04/branding-dreams/

^{8 &}quot;Coors Light Big Game 2021 Dream Film," https://vimeo.com/513024541.

⁹ Molson Coors Beverage Company, "Spent Saturday Night Dreaming with Zayn Malik," Press Release (Feb. 4, 2021), https://www.businesswire.com/news/home/20210204005955/en/.

¹⁰ Coors Light, "Coors Big Game commercial of Your Dreams: Dream Study," YouTube (Jan. 27, 2021), https://www.youtube.com/watch?v=tU_0jU0mMLw

David Griner, "What Do You Dream After Playing the New Xbox? This Experiment Brings Them to Life," ADWEEK (Dec. 7, 2020), https://www.adweek.com/convergent-tv/what-do-you-dream-after-playing-the-new-xbox-this-lab-experiment-brought-the-results-to-life/

¹² Dave Williams, "BK 'Nightmare King' Burger," AP NEWS (Oct. 26, 2018), https://apnews.com/article/948ab83ef171493690cf7d13161aebc0

¹³ See, e.g., Lucy Handley, "Burger King creates 'nightmare burger with green bun—and says it will actually give people bad dreams," CNBC ((Oct. 18, 2018), https://www.cnbc.com/2018/10/18/burger-king-creates-nightmare-burger-with-green-bun.html

2022] ROUGH DRAFT 105

burger was "clinically proven to induce nightmares" in those who ate it. ¹⁴ To prove it, Burger King partnered with a sleep lab to run a clinical trial with 50 participants (half who ate the burger and half who did not). ¹⁵ Results indicated that those who ate the burger and then went to sleep had nightmares as a rate 3.5 times higher than those who did not. Burger King attributed this to the "unique combination of proteins and cheese" as disruptive of rapid eye movement (REM) sleep. ¹⁶

These nascent examples of dream advertising are based on a technique called *dream incubation*—"techniques employed during wakefulness to help a person dream about a specific topic."¹⁷ An as Indigenous practice, dream incubation has been utilized by myriad cultures for thousands of years for spiritual, creative, and practical purposes.¹⁸

Recently, science has produced a more measurable and precise version of dream incubation called Targeted Dream Incubation (TDI).¹⁹ TDI is a dream engineering technology that works to guide dreams toward certain themes and ideas by taking advantage of the hypnagogic (sleep onset) period.²⁰ Roughly, TDI works by: (1) creating a certain mental association during waking life (e.g., a pairing of video clips, audio tracks, or scents); and (2) then as the subject is drifting off to sleep, the association is again introduced in hopes of triggering related dreams.²¹

¹⁴ See, e.g., Amy Reiter, "Burger King Says New Burger is 'Clinically Proven to Induce Nightmares', FOOD NETWORK (Oct. 2018), https://www.foodnetwork.com/fn-dish/news/2018/10/burger-king-says-new-burger-is-clinically-proven-to-inducenight.

¹⁵ Stephanie Pappas, "Can Burger King's 'Nightmare King' Give You Bad Dreams, LIVESCIENCE (Oct. 17, 2018), https://www.livescience.com/63856-burger-king-nightmare-science.html (noting that 7 people who ate the sandwich had a nightmare compared to 2 people who did not).

¹⁶ Dave Williams, "BK 'Nightmare King' Burger," AP NEWS (Oct. 26, 2018), https://apnews.com/article/948ab83ef171493690cf7d13161aebc0;

¹⁷ Now What?, supra note 2 at 2.

¹⁸ E.g., Henry Reed, *Dream Incubation: A Reconstruction of a Ritual in Modern Form*, 16 J. HUMANISTIC PSYCHOLOGY 52, 53 (1976) ("Incubation rituals have existed in most older cultures and, having been employed for both guidance and healing, may be one source of the therapeutic arts.").

¹⁹ E.g., Michelle Carr et al., *Dream Engineering: Simulating Worlds Through Sensory Perception*, 83 CONSCIOUS COGN. 1, 5 (2020) ("Targeted Dream Incubation creatively combines components of targeted reactivation with intentional incubation at the hypnagogic border between sleep and wake.").

²⁰ "Dreamscape," *supra* note 2.

²¹ See id.

106 THE NIGHTMARE OF DREAM ADVERTISING

TDI originated as a therapeutic technique²² and has been found by sleep and dream experts to have various potential benefits, such as improving sleep quality, stimulating creativity, facilitating sleep related learning, and treating addiction.²³ However, when TDI is hijacked by advertisers for commercial purposes, serious bioethical issues emerge. These harms are most obvious when branding dreams is done in connection with addictive products—such as alcohol,²⁴ video games,²⁵ or fast food.²⁶ But as will be argued, privacy, cognitive liberty, economics, and cultural concerns exist more broadly, and from a health standpoint, branding dreams may interfere with the natural sleep cycle.²⁷

Dozens of sleep and dream researchers have signed an open letter in protest of dream advertising, lest "dreams become just another playground for corporate advertisers." The open letter, written by leading sleep and dream experts Robert Stickgold, Antonio Zadra, and Adam Haar, calls for "proactive action and new protective policies" around dream advertising. 29

Such policies, the researchers claim, "are urgently needed to keep advertisers from manipulating one of the last refuges of our already beleaguered conscious and unconscious minds: Our dreams." Indeed, it has been estimated that U.S. citizens encounter over 3,000 advertisements each waking day. And according to a 2021 American Marketing Association "Future of Marketing" survey, a shocking 77% of 400 companies surveyed plan to experiment with dream advertising by 2025.

²² See "Project Targeted Dream Incubation," MIT Media Lab, https://www.media.mit.edu/projects/targeted-dream-incubation/overview/
²³ Now What?, supra note 2 at 2.

²⁴ See generally Jennifer M. Mitchell et al, Alcohol Consumption Induces Endogenous Opioid Release in the Human Orbitofrontal Cortex and Nucleus Accumbens, 4 SCIENCE TRANSL. MED. 116 (2012).

²⁵ See Mark Zastrow, Is video game addiction a real addiction?, BIOLOGICAL SCIENCES, News Feature (April 25, 2017) (noting that "[a]dding video gaming to the list of recognized behavioral addictions could help millions [but] [i]t could also pathologize a normal behavior and create a new stigma.").

²⁶ See generally Andrea K Garber and Robert H. Lusting, Is Fast Food Addictive?, 4 CURR DRUG ABUSE REV. 146 (2011) (finding that fast food is a potentially addictive substance most likely to create dependence in vulnerable populations).

²⁷ Infra Part III.C.

²⁸ Now What?, supra note 2 at 4.

²⁹ *Id*.

³⁰ Id

 $^{^{\}rm 31}$ Mark Bartholomew, Adcreep: The Case Against Modern Marketing 2 (2017).

³² AMA New York Future of Marketing Study (2021), https://www.amanewyork.org/landing/techlash/ (surveying "506 consumers and 411 marketers around the United States to explore their attitudes toward trends in

2022] ROUGH DRAFT 107

The act of branding dreams represents a surreal form of "surveillance capitalism" and an unprecedented colonization of the unconscious mind.³³ While previous examples of dream advertising require active participation on the part of research subjects, in the future it is not hard to "envision a world in which smart speakers—40 million Americans currently have them in their bedrooms—become instruments of passive, unconscious advertising, with or without our permission."³⁴ Dream advertising, Stickgold, Zadra, and Haar argue, set[s] the stage for a corporate assault of our very sense of who we are."³⁵

Thus, specific regulations—or an outright prohibition—on dream advertising would be welcome and helpful. However, the practice of branding dreams—which can be defined as the intentional targeting of the consumer sleep cycle for commercial purposes—may already be illegal under existing subliminal, deceptive, and false advertising laws.

Given that it targets the unconscious mind below the threshold of awareness, dream advertising should be considered a form of subliminal advertising. For instance, consider the Federal Communication Commission's (FCC) broad definition of subliminal messaging: "Any technique whereby an attempt is made to convey information to the viewer by transmitting messages below the threshold of normal awareness." And as a policy matter, like other forms of subliminal advertising, dream advertising has the potential to manipulate consumer behavior—individuals subject to it are not able to make an autonomous, conscious choice in receiving, interpreting, and/or acting on the unconscious influences.³⁷

technology, marketing or otherwise."). This interest in dream advertising is more than in advertising with the Internet of Things or smart speakers. *Id.*

³³ SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER (2018) (defining surveillance capitalism as a capitalist colonization of our minds).

³⁴ Now What?, supra note 2 at 4.

³⁵ *Id*.

³⁶ Public Notice Concerning the Broadcast of Information by Means of 'Subliminal Perception' Techniques, 44 FCC 2d 1016, 1017 (1974); *see also* Television Code, Television Board of the National Association of Broadcasters (NAB) (2001) ("The use of the television medium to transmit information of any kind by the use of the process called "subliminal perception," or by the use of any similar technique whereby an attempt is made to convey information to the viewer by transmitting messages below the threshold of awareness is not permitted.").

³⁷ Compare Vance v. Judas Priest, NO. 86-5844, 1990 WL 130920 (Nev. Dist. Ct. Aug. 24, 1990 ("[Subliminals] do not convey ideas or information to be processed by the listener so that he or she can make an individual determination about its value. They do not enable an individual to further his personal autonomy. Instead, they are intended to influence and manipulate the behavior of the listener without his knowledge.") with "Are Advertisers Going to Infiltrate Our Dreams?," supra note 6 ("When you're awake, you have a whole collection of filters and mechanisms to evaluate information and filter out ads ... Your sleeping brain can't do that. It

108 THE NIGHTMARE OF DREAM ADVERTISING

Subliminal advertising is banned in several countries, including the United Kingdom and Australia.³⁸ In the United States, particularly if branding dreams is in fact considered subliminal advertising, dream advertising is ripe for enforcement by the Federal Trade Commission (FTC) as a "deceptive" and "false" advertising practice under Sections 5 and 12 of the FTC Act. Section 5 prohibits "unfair or deceptive acts or practices affecting commerce."³⁹ And Section 12 specifically prohibits false advertisements likely to induce the purchase of food, drugs, devices or cosmetics.⁴⁰

In fact, the FTC has noted in its Advertising FAQS: A Guide for Small Businesses: "It would be deceptive for marketers to embed ads with so-called subliminal messages that could affect consumer behavior. However, most consumer behavior experts have concluded that such methods aren't effective." Until now, perhaps. 42 Considering its potential for efficacy, the unethical practice of branding dreams provides a timely opportunity to revisit long dormant policies regarding subliminal messaging and their connection to deceptive and false advertising laws.

This Article proceeds in three Parts. Part I provides background on the nature of dreams, the art of dream incubation, and the science of targeted dream incubation (TDI). Part II discusses the dystopia of dream advertising, revisits the Molson Coors, Xbox, and Burger King examples, hypothesizes possible future illustrations of the practice, and then examines the resulting harms flowing from branding dreams based on health, privacy, liberty, economic, and cultural dimensions. Part III provides a historic overview of subliminal messaging. It then makes the case that branding dreams—given its targeting of the unconscious mind below the threshold of awareness—is subliminal advertising, and thus an inherently deceptive and false advertising practice under Sections 5 and 12 of the FTC Act.

assumes that whatever is activated during sleep is being activated internally, not by outside forces.") (quoting Robert Stickgold).

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³⁸ Thijs Verwijmeren, *The Working and Limits of Subliminal Advertising*, Radboud University Thesis 49 (2014).

³⁹ 15 USC § 45 (Section 5(a) of FTC Act).

⁴⁰ 15 USC § 55 (Section 12 of FTC Act).

⁴¹ Federal Trade Commission, "Advertising FAQ's: A Guide for Small Business," *available at* https://www.ftc.gov/business-guidance/resources/advertising-faqs-guide-small-business

⁴² The open letter, written by 3 prominent sleep and dream researchers and signed by an additional 35 signatories in the field—while not all "consumer behavior experts" per se—expresses serious concerns given that "the kind of dream incubation until recently assumed to be the pure science fiction of movies like *Inception* is now becoming reality." *Now What?*, *supra* note 2 at 1.

2022] ROUGH DRAFT 109

II. INCUBATING DREAMS

You know that place between sleep and awake? That place where you can still remember dreaming? . . . That's where I'll be waiting.

James V. Hart, Hook⁴³

This Part (1) discusses the bizarre nature of dreams, (2) the Indigenous practice of dream incubation, and (3) its precise, scientific incarnation, called targeted dream incubation (TDI). This background sets the stage for the next Part's analysis of dream advertising, or "branding dreams."

A. Dreams

Dreams are emotional, irrational, and often misleading experiences—altered states of unconsciousness.⁴⁵ The dictionary definition of a dream is akin to "a series of thoughts, images, or emotions occurring during sleep."⁴⁶ However, the concept of dreams can refer not just to what is experienced during sleep (sleep mentation), but also to mental activity recalled during awakening.⁴⁷

From the perspective of the subject, dreams are "bafflingly bizarre." Dreamscapes deliver "us to a different reality, a hallucinatory world that feels as real as any waking experience." Our mind creates an immersive experience of seeing, feeling, and hearing, yet this occurs in a private, internal, and imaginary plane of existence divorced from our perceptions of external reality.

Most, but perhaps not all, people dream.⁵⁰ Interestingly, those who ascribe more importance to their dreams tend to remember than more than those who

⁴³ Hook (Tristar Pictures 1991).

⁴⁴ Marlan, Branding Dreams, supra note ___.

⁴⁵ See Serena Scarpelli et al., The Functional Role of Dreaming in Emotional Processes, 10 FRONT. PSYCHOL. 10 (2019)

⁴⁶ ANTONIO ZADRA AND ROBERT STICKGOLD, WHEN BRAINS DREAM: EXPLORING THE SCIENCE AND MYSTERY OF SLEEP 1 (2021). However, it is important to point out that a single definition of dreaming is likely not possible "given the wide spectrum of fields engaged in the study of dreaming, and the diversity in currently applied definitions." J.F. Pagel et al., *Definitions of Dream: A Paradigm for Comparing Field Descriptive Specific Studies of Dream*, 11 DREAMING 1 (2001).

⁴⁷ *See id.* at 11.

⁴⁸ Linda Geddes, "Weird dreams train us for the unexpected, says new theory," THE GUARDIAN (May 14, 2021).

⁴⁹ Karen R. Konkoly et al., Real-time dialogue between experimenters and dreamers during REM sleep, 31 CURR BIOL. 1417, 1417 (2021).

⁵⁰ J.F. Pagel, *Non-dreamers*, 4 SLEEP MED. 235, 235 (2003) (concluding that "the experience of dreaming may not be as ubiquitous as generally accepted").

110 THE NIGHTMARE OF DREAM ADVERTISING

ignore or deny them.⁵¹ And while some become proficient in lucid dreaming—where the dreamer becomes aware that they are dreaming—most tend to uncritically accept their dream states, not realizing they are dreaming until waking.⁵²

Though the questions of what dreams are and why we dream remain metaphysical mysteries, ⁵³ recent research sheds light on their importance to physical and mental health. ⁵⁴ Dreams are not necessarily a symbolic psychic language (as the psychoanalysts theorized), or the result of random neural misfirings of the brain (as psychological behaviorists believed). Instead, dreams are now considered to be a meaningful and creative product of the imagination, and an important means of emotional outlet.

For the early psychoanalysts, dreams communicated hidden meanings disguised in a symbolic language. Sigmund Freud believed that dreams related to repression of psychic, typically sexual, desires.⁵⁵ Freud's colleague (and later rival), Carl Jung, by contrast, saw dreams as the mind's attempt to communicate important, even transcendental, ideas to the self through archetypal representations.⁵⁶

In stark contrast to these experience-based approaches, neuroscientists John Allan Hobson and Robert McCarley put forward the "activation synthesis" hypothesis in 1977. The theory holds that dreams derive from brain signals generated during rapid eye movement (REM) sleep.⁵⁷ From this material reductionist perspective, dreams are the result of the experiencer attempting

⁵¹ Stanley Krippner and William Hughes, *Dreams and Human Potential* 2 (1970) ("noting that "those who deny or ignore their world of private and subjective experience during wakefulness seem to recall fewer dreams than do those who accept and exploit this dimension of experience.").

⁵² Konkoly, *supra* note 58 (fascinating study finding that individuals undergoing lucid dreams can perceive and answer experimenters' questions, allowing for communications between those dreaming and those in the waking world).

⁵³ E.g., Perrine M. Ruby, Experimental Research on Dreaming, State of the Art and Neuropsychoanalytic Perspectives, 2 Front Psychol. 1, 1(2011) (remarking that "[d]reaming is still a mystery of human cognition, although it has been studied experimentally for more than a century."); Jessica D. Payne and Lynn Nadel, Sleep, dreams, and memory consolidation: The role of the stress hormone cortisol, 11(6) LEARN MEM. 671, 671 2004 ("There is currently no convincing explanation for why we dream or what we dream about."); cf. WHEN BRAINS DREAM, supra note __ at 2 (noting that there is "precious little on which dream researchers agree").

⁵⁴ Now What?, supra note 2 at 2.

⁵⁵ See generally SIGMUND FREUD, THE INTERPRETATION OF DREAMS (1919) (arguing that dreams should not be taken at face value).

⁵⁶ See generally C.G. JUNG, DREAMS (1974) (collecting writings from Jung's Collected Works 8, 12, and 16).

⁵⁷ See generally J.A. Hobson and R. W. McCarley, The brain as a dream state generator: an activation synthesis hypothesis of the dream process, 134 AM J. PSYCHIATRY 1335-48 (1977).

2022] ROUGH DRAFT 111

to make sense of chaotic neural output.⁵⁸ This approach renders subjective dream content largely meaningless and merely a byproduct of the physiological processes of the brain.

Yet it has since been found that dreams occur not just in REM sleep, but throughout other parts of the sleep cycle too.⁵⁹ And as odd as 'dream logic' seems upon waking,⁶⁰ dreams are not mere cognitive gibberish. Instead, dream content tends to relate to events from the prior day (or short term), as well as from older (long term) memories.⁶¹ According to sleep and dream researchers Erin Wamsley and Robert Stickgold:

During sleep, when attention to sensory input is at a minimum, the mind continues to process information, using memory fragments to create the images, thoughts, and narratives that we commonly call "dreaming." Far from being a random or meaningless distraction, spontaneous cognition during states of sleep and resting wakefulness appears to serve important functions related to processing past memories and planning for the future.⁶²

⁵⁸ *Id.* (suggesting that "dreaming sleep is physiologically determined and shaped by a brain stem neuronal mechanism that can be modeled physiologically and mathematically.").

⁵⁹ While focusing on *dreams*, an in-depth discussion of *sleep* and the *sleep cycle*, despite being foundational, is necessarily beyond the scope of this Article. Very roughly, there are two types of sleep, rapid eye movement (REM) and non-REM (NREM) sleep, the latter of which can be further divided into NREM 1, 2, and 3 subtypes. We cycle through 90-110 minute cycles—ultradian cycles—approximately 4-5 times every night. NREM type sleep tends to occur more frequently earlier in the sleep cycle, with REM sleep becoming more prominent later in the sleep cycle. For an excellent, in-depth overview of the subject matter, see Adam Jebediah Haar Horowitz, *Incubating Dreams: Awakening Creativity*, Master of Science in Media Arts and Sciences Thesis, Massachusetts Institute for Technology at 17-22 (August 2019). The focus of dream incubation, as will be apparent, is in the twilight zone between waking and sleep, called hypagogia (or NREM1). *Id.* at 23.

60 Referring to "[t]he nonsensical logic one possesses while dreaming that makes perfect sense until he or she wakes up." See John Cline, "Dream Logic", Sleepless in America Blog, PSYCHOLOGY TODAY (2020), https://www.psychologytoday.com/us/blog/sleepless-in-america/202009/dreamlogic#:~:text=The%20online%20Urban%20Dictionary%20defines,is%20used%20in%20film%20studies

⁶¹ See Erin J. Wamsley and Robert Stickgold, Dreaming and Offline Memory Processing, 20 Curr. Biol. 1010, 1010 (2010) ("There is now substantial empirical evidence to suggest that, during sleep, the neural-level 'replay' of recent experience plays a critical role in the consolidation and evolution of memory, helping us to process our past experiences and prepare for future events.").

⁶² Now What?, supra note 2 at 3.

112 THE NIGHTMARE OF DREAM ADVERTISING

Dreams are also important wellsprings of creativity. Sleep and dreams can "enhance our creativity, either directly—making creative discoveries more likely after we wake up—or directly, through the content of our dreams." The strange logic of dreams as well as their fantastic imagery and rich emotional content can provide a vivid refuge from the linearity of rational thought, our daily toils, and the restrictions of physical embodiment. Indeed, visionary thinkers, including Robert Lewis Stevenson, Sylvia Plath, David Lynch, Thomas Edison, and William Blake have accessed dreams for creative and intuitive inspiration. ⁶⁴

And, for many, dreams are of sacred, spiritual, and religious significance. To this end, various cultures have long engaged in dream incubation techniques. These are techniques used in the waking world to influence the content of dreams, based on the simple tenet that "dream content is very likely to reflect recent learning experiences."

B. Dream Incubation

Broadly, dream incubation refers "to the practices, rituals, techniques and efforts that an individual applies to *intentionally* evoke helpful dreams." Records of dream incubation date back nearly 5,000 years, having been used by Indigenous communities for millennia. In antiquity, dreams were thought to be the domain of supernatural entities who appeared to humans with divine messages. As an epistemological matter, "dream in the ancient world was something that happened, not mere imagination."

⁶³ Inside Your Dreamscape, supra note 2.

⁶⁴ Haar, Incubating Dreams, supra note __ at 12.; Dierdre Barrett, The "committee of sleep": A study of dream incubation for problem solving, 3 DREAMING 115, 117 (1993); DAVID LYNCH, CATCHING THE BIG FISH, MEDITATION, CONSCIOUSNESS, AND CREATIVITY 63 (2006).

⁶⁵ See generally Patrick McNamara and Kelly Bulkeley, *Dreams as a Source of Supernatural Agent*, FRONTIERS PSYCH. (2015); Mohamed O. Salem, *Spiritual and religious imagery in dreams: A cross cultural analysis*, 6 INTERNATIONAL JOURNAL OF DREAM RESEARCH (2013).

⁶⁶ Wamsley and Stickgold, *supra* note __ at __.

⁶⁷ T. Nielsen, *Dream incubation: ancient techniques of dream influence*, at 1 (2012), *available at* www.dreamscience.ca. (emphasis added). The term derives from the Greek "enkoimesi" (meaning a dream-like state of induced sleep) and the Latin "incubare" (to lie on a bed). *Id.*

⁶⁸ *Id.*; *supra* note ___.

⁶⁹ Henry Reed, *Dream incubation: A reconstruction of a ritual in contemporary form*, 16 J. HUMANISTIC PSYCHOLOGY 53, 53 (1976).

⁷⁰ PETER GREY, APOCALYPTIC WITCHCRAFT 26 (2013) (claiming also that dream "incubation is a magical healing art that has been forgotten by our culture").

2022] ROUGH DRAFT 113

Instances of dream incubation are numerous across cultures. In ancient Egyptian and Babylonian mysticism, sleepers would lay in sacred shrines to receive divine dreams.⁷¹ In ancient Greece, persons who were ill would go forth to dream in oracular temples, where the Greek god Asklepios would perform symbolic operations.⁷² Among Native American tribes, youths of the Ojibwa of the Great Lakes, for instance, would go into the wilderness and prepare "ritual nests," where they would stay, fasting, until receiving anticipated dreams."⁷³

More modern forms of dream incubation similarly focus on the intention to develop dreams for specific purposes, though not always in a sacred context.⁷⁴ In his 1948 book *50 Secrets of Magic Craftsmanship*, surrealist artist Salvador Dali described a technique where he would nap with a steel ball in his hand, which would fall to the floor when he drifted off to sleep.⁷⁵ The sound of the ball hitting the floor would startle Dali into wakefulness, where he could then capture the surreal imagery of his semi-lucid altered state.⁷⁶

More recently, a well-known 1993 study by prominent dream researcher Dierdre Barrett involved asking 76 college students—who were enrolled in Barrett's class on dreams—to choose a problem of personal or academic significance, write it down, and think about it each night for a week directly before going to sleep.⁷⁷ Nearly half of the students reported having dreams related to the problem.⁷⁸

[The spirit and I) looked into each others hearts, and guessed and gazed on our mutual thoughts and sensations. When he ordered me to follow him, I rose from my bed easily and of my own accord, like a spirit rising from the grave, and followed him through the air. The spirit floated through the air. I stepped as firmly as if I were on the ground, and it seemed to me as if we were ascending a lofty mountain, even higher and higher, eastword.

Nielsen, *supra* note ___ (2012).

⁷¹ Nielsen, *supra* note ___.

⁷² Reed, *supra* note ___.

⁷³ *Id.* at 54. As a prescient example, the following dream was recounted by an Ojibwa youth after a 5-day fast, undertaken to fill the body with "lightness." Such lightness (in the sense of weightlessness) was incorporated into the dream:

⁷⁴ See infra notes ___ and accompanying discussion.

⁷⁵ SALVADOR DALI, 50 SECRETS OF MAGIC CRAFTSMANSHIP (1948).

⁷⁶ I.d

⁷⁷ Dierdre Barrett, *The "Committee of Sleep": A Study of Dream Incubation for Problem Solving*, 3 DREAMING (1993)

⁷⁸ *Id*.

114 THE NIGHTMARE OF DREAM ADVERTISING

As these illustrations indicate, the first stage of sleep called *hypnogagia*—"where thoughts slip free of conscious control" is usually integral to dream incubation. The hypnagogic period is the twilight time before sleep. This sleep onset period typically "lasts several minutes, and occurs in stages of descent into unconsciousness, collectively called hypnagogia." During this time, we experience "hypnogogic imagery," perhaps distinct from true dreams, referring to the pictures and ideas flowing through our minds during this liminal state. As Adam Haar describes it subjectively:

Hypnagogia is a middle ground, an experience in between. It is a space where we step outside ourselves and begin to dream yet maintain capacity for mental surveillance, a doorway through which we bring the world into the dream and the dream into the world. Dropping off to sleep is often accompanied by imagery, sounds and narrative so surprising, confusing, and bizarre that many subjects describe them as coming from outside of them.⁸⁴

From an evolutionary perspective, hypnagogia "is a time of day that evolution has designated for reviewing the day's events in order to identify and tag those memories that require subsequent processing during sleep."⁸⁵ In other words, thoughts experienced during the hypnogogic period are given a sort of *preferencing* by the mind and brain over thoughts experienced during other cognitive periods.

Dream research studies support the recognition that the hypnogogic period is particularly correlated with dream content. In one notable study, participants were tasked with playing the puzzle video game Tetris for 7 hours over the course of a 3-day period. About two-thirds of participants reported at least one dream with clear Tetris-related imagery during the hypnogogic period on the nights following play, even in cases where they did not remember playing in the first place. 86 In another video game related dream study, after playing

⁷⁹ Michael W. Clune, *Night Shifts: Can technology shape our dreams?*, HARPERS MAGAZINE (April 2022), https://harpers.org/archive/2022/04/night-shifts-dream-incubation-technology-sleep-research/.

⁸⁰ Haar, thesis, *supra* note __ at 1 ("The dreaming experience at sleep onset, called hypnagogia, is the main focus of this thesis: these first minutes of sleep provide ideal conditions for incubating specific dream content and recalling it after awakening.").

⁸¹ *Id.* at 11.

⁸² *Id.* at 23.

⁸³ DIERDRE BARRETT, THE COMMITTEE ON SLEEP: HOW ARTISTS, SCIENTISTS, AND ATHLETES USE THEIR DREAMS FOR CREATIVE PROBLEM SOLVING—AND HOW YOU CAN TOO 2 (2010).

⁸⁴ Haar, thesis, *supra* note ___ at 24.

⁸⁵ Inside Your Dreamscape, supra note 2.

⁸⁶ See generally Robert Stickgold et al, Replaying the Game: Hypnagogic Images in Normals and Amnesiacs, 290 SCIENCE 350 (2000). The popular video game Tetris Effect is

2022] ROUGH DRAFT 115

the downhill skiing arcade game Alpine Racer II, a third of participants' hypnogogic dreams contained related imagery. A third study found that engaging in a virtual reality flying simulation before sleep increased hypnagogic dreams of that simulation's content among participants. Before the content among participants.

These examples illustrate that "experimentally inserting thoughts into this [hypnogogic] period can...give these thoughts priority in subsequent memory processing that night." The act of doing so with scientific precision serves as the basis of targeted dream incubation (TDI), a dream engineering technology designed by sleep and dream researchers in recent years.

C. TARGETED DREAM INCUBATION (TDI)

In Christopher Nolan's popular movie *Inception*, outer events influenced the dreams of Leonardo DiCaprio's character, Cobb. In one memorable scene, Cobb, who is asleep in the outer world, dreams of water gushing into the windows of the building in his dreamscape. Cobb then wakes up to realize he has been shoved into a full bathtub. While exaggerated, this plot point is true to life in the sense that curated external stimuli—such as sounds, lights, and smells—can in fact alter internal dream content. This fact provides the basis for targeted dream incubation, or TDI—a more exacting and reliable form of dream incubation. The provides the dream incubation.

literally named after this "phenomenon where players continue to see tetromino shapes in theirs dreams, even for players who have the kinds of memory loss that mean they don't *remember* playing Tetris in the first place." Ruth Cassidy, "Advertisers are after our dreams now, because we live in a nightmare world," PC GAMER (July 10, 2021), https://www.pcgamer.com/advertisers-are-after-our-dreams-now-because-we-live-in-a-nightmare-world/.

- ⁸⁷ Erin J. Wamsley et al., Cognitive Replay of Visuomotor Learning at Sleep Onset: Temporal Dynamics and Relationship to Task Performance, 33 SLEEP 59 (2010).
- ⁸⁸ Claudia Picard-Deland, Flying dreams stimulated by an immersive virtual reality task, 83 CONSCIOUS COGN. (2020).
- 89 *Inside Your Dreamscape*, *supra* note 2.
- ⁹⁰ Inception (Warner Brothers Pictures 2010).
- ⁹¹ Malavika Pradeep, "Meet dream hacking, the dystopian future of advertising where marketers hijack our sleep," SCREENSHOT (May 14, 2022) ("Dream hacking essentially refers to the concept where a change in your physical sleep environment has the potential of influencing your subconscious and interfering with your dreams.").
- ⁹² See, e.g., Michelle Carr et al., Towards Engineering Dreams, 83 CONSCIOUS COGN. (2020) ("Dream engineering inspires technological devices and protocols that go beyond design for daytime to interface across levels of consciousness and interact with the human mind as it truly exists—thinking on a 24 hour cycle"); Michelle Carr et al., Dream engineering: Simulating Worlds Through Sensory Stimulation, CONSCIOUS COGN. (2020) (compiling a theoretical review of novel dream engineering

116 THE NIGHTMARE OF DREAM ADVERTISING

TDI is a technique used by sleep and dream researchers "for reactivating memories during sleep in a manner that leads to incorporation of the targeted memory, or related memories, into dream content." TDI acts as a method for guiding dreams toward certain themes and ideas by taking "advantage of the privileged sleep-onset period to influence dream content during the first minutes of sleep." With technology, in other words, it is easier to gauge the sleep cycle and influence it at a particular targeted threshold below awareness.

TDI targets the hypnogogic period, or other parts of the sleep cycle, using scientific tools including "sensors to determine when an individual's sleeping brain is receptive to external stimuli and, at these times, introduce smells, sounds, flashing lights or even speech to influence the content of our dreams." To accomplish this goal, a team of sleep researchers have recently developed a wearable electronic TDI device called Dormio. The device's aim is to identify the subject's hypnogogic period using sensors, and then "successfully manipulate the hypnagogic dream report through pre-sleep verbal prompts."

As mentioned in the last part, the surrealist artist Dali slept with a heavy object in hand "to capture creative ideas generated in hypnagogic microdreams when it dropped to the floor," startling him into wakefulness. In a sense, Dormio modernizes Dali's steel ball technique by use of a hand-worn sleep tracking system instead of relying on the ball to drop to the floor and awaken the dreamer. 98

Specifically, the Dormio technology provides digitized feedback on sleep stage transitions, and thus allows researchers to record, analyze, and influence subjects' dream content. According to one description:

The device connects to a website where you can record a voice message to yourself—[e.g.] "think about trees"—that will play as you begin to fall asleep. Dormio detects when you enter hypnagogia, waits a short period, then awakens you and prompts you to describe what

technologies); Adam Haar Horowitz et al., *Dormio: A Targeted Dream Incubation Device*, 83 CONSCIOUS COGN. (2020) (describing a device used for "Targeted Dream Incubation," which is worn during the hypnagogic state to enable targeted direction of dream content).

⁹³ Adam Haar Horowitz et al., *Dormio: A Targeted Dream Incubation Device*, 83 CONSCIOUS COGN. 1, 7 (2020).

⁹⁴ Inside Your Dreamscape, supra note 2

⁹⁵ Now What?, supra note ___.

⁹⁶ Dormio, supra note __; see also Michael W. Clune, Night Shifts: Can technology shape our dreams?, HARPERS MAGAZINE (April 2022), https://harpers.org/archive/2022/04/night-shifts-dream-incubation-technology-sleep-research/.

⁹⁷ *Id*.

⁹⁸ *Id*.

2022] ROUGH DRAFT 117

you're experiencing, and sends the recording to your hard drive. You can also alter the parameters of awakening, which enables you to enter deeper or shallower levels of sleep.

Through these methods, the device provides sleep researchers with "substantial control over hypnagogic dream content, enabling more controlled experimentation on the relationship between dream mentation and post-sleep cognition."

What is the motivation of researchers seeking to usurp dreams in this way? As mentioned previously, dreaming has ties to well-being. As John Steinbeck expressed: "It is a common experience that a problem difficult at night is resolved in the morning after the *committee of sleep* has worked on it." ¹⁰⁰ More literally, through dreaming, "the brain shapes the memories that together create our autobiographical past, our sense of who we are now, and our understanding of how best to live our lives in the future." ¹⁰¹

To this end, TDI techniques have been found by sleep and dream researchers to have various non-commercial benefits. These include an improved understanding of what gives rise to dream experiences across the stages of sleep, improvement of sleep quality, stimulating creativity, facilitating sleep-related learning, understanding memory retention, and treating conditions such as posttraumatic stress disorder nightmares and addiction. ¹⁰²

In fact, one study involved exposing participants (cigarette smokers) to two odors simultaneously while they slept: rotten eggs and cigarettes. The participants reported smoking 30% fewer cigarettes the week following the study, even though they had no knowledge of having been exposed to the two smells simultaneously. The simultaneously.

Thus, TDI appears to have great promise therapeutically. But given its potential effectiveness, TDI is ripe to be manipulated by advertisers for profit. Consider the following "sleep cuing" studies as illustrative of the commercial appeal of TDI.

In one study, participants were better at remembering the locations of objects (e.g., a cat) that they had previously seen on their computer screens if the

⁹⁹ Dormio, supra note ___ at ___.

¹⁰⁰ DIERDRE BARRETT, THE COMMITTEE OF SLEEP: HOW ARTISTS, SCIENTISTS, AND ATHLETES USE THEIR DREAMS FOR CREATIVE PROBLEM SOLVING AND HOW YOU CAN TOO 1 (2001) (quoting JOHN STEINBECK, SWEET THURSDAY) (1954) (emphasis added).

¹⁰¹ Now What?, supra note 2 at 3.

¹⁰² Now What?, supra note 2 at 2.

¹⁰³ Anat Arzi et al., Olfactory Aversive Conditioning during Sleep Reduces Cigarette-Smoking Behavior, 34 J. NEUROSCI 15382 (2014).

¹⁰⁴ *Id*.

118 THE NIGHTMARE OF DREAM ADVERTISING

object's related sound (e.g., a meow) was played during their last sleep. ¹⁰⁵ Another study found that participants were willing to pay more for either M&M's or Skittles if that brand name was played repeatedly during their sleep time and the other was not (but not if it was played while they were waking). ¹⁰⁶ According to the study, "sleep likely represents a unique period during which preferences and choices that are otherwise stable can be selectively modified by external cues." ¹⁰⁷ The effectiveness of sleep cuing as a marketing mechanism sets the stage for the dystopia of dream advertising, which is the topic of the next Part.

III. BRANDING DREAMS

...now a visual ad was forming; he winced, closed his eyes, but it did no good.¹⁰⁸ Philip K. Dick, Sales Pitch

This Part first explores the practice of branding dreams—an intrusive commercial extension of targeted dream incubation (TDI). It then revisits the examples of dream advertising previewed in the Introduction, and later examines hypothetical illustrations of branding dreams if paired with other manipulative technologies or used by nefarious state actors. Lastly, this Part discusses several varied harms flowing from the practice of dream advertising in the form of health, privacy, liberty, economic, and cultural concerns.

A. Dream Advertising

In what now seems like an ominous bit of foreshadowing to corporate meddling in sleep, in 2016, Netflix declared a "war on sleep," which it viewed as its "biggest competitor." Netflix's CEO Reed Hastings told the crowd at the Summit LA17 festival that year: "You get a show or a movie you're really dying to watch and you end up staying up late at night, so we actually compete with sleep." 110

But now rather than compete with sleep, corporations are attempting to infiltrate it directly by branding dreams through use of the TDI techniques

¹⁰⁵ J.W. Antony et al., *Cued memory reactivation during sleep influences skill learning*, 15 Nature NEUROSCIENCE 1114 (2012).

¹⁰⁶ Sizhi Ai et al., *Promoting subjective preferences in simple economic choices during nap*, 7 eLife (2018), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6294547/.

¹⁰⁸ Dick, Sales Pitch, supra note ___.

¹⁰⁹ Emily Gaudette, "Netflix Declares War on Sleep, Its Biggest 'Competitor," NEWSWEEK (Nov. 6, 2017), *available at* https://www.newsweek.com/netflix-bingewatch-sleep-deprivation-703029.

¹¹⁰ *Id.* Hastings also remarked on an earnings call in May that Netflix is "competing with sleep on the margin." *Id.*

2022] ROUGH DRAFT 119

described in the previous subpart. This dream advertising can be defined as the intentional targeting of the consumer sleep cycle for commercial purposes.

This is not just a matter of the few isolated incidences thus far. Rather, the American Marketing Association's 2021 Future of Marketing study found that, of more than 400 advertisers from U.S. companies, 77% planned to use dreambased technologies by 2025 to influence consumer behavior. Moreover, sleep and dream researchers are now being contacted by large corporate advertising teams, "seeking help on commercially driven dream-incubation projects." Such experts may not even be needed for long. Indeed, the methods and principles underlying dream incubation, and even TDI, are not terribly difficult to comprehend and implement. 112

Further, it is not necessarily the case that dream advertising and its targeting of the hypnogogic period will always be explicit. According to one marketing strategist who is being persuaded simply to run her ads at night: "We are already beginning to see marketers and advertisers take advantage of consumers' sleep cycles by running ads and publishing content during later times in the evening . . . I am being suggested to post my ads and content between the hours of 10 p.m. and 1 a.m. which is right before a consumer goes to sleep." 113

Thus, while branding dreams is still in the experimental stage, sleep and dream researchers are thus "highly concerned by the current efforts to exploit people's sleep and dreams, as highlighted by Molson Coors's attempt to use TDI to sell an addictive substance." According to researchers, "TDI advertising is not some fun gimmick, but a slippery slope with real consequences. Planting dreams in people's minds for the purpose of selling products, not to mention addictive substances, raises important ethical questions." In the purpose of selling products, not to mention addictive substances, raises important ethical questions.

Troublingly, though, the public does not seem to be highly concerned by dream advertising, at least not yet. In the 2021 AMA Future of Marketing survey previously mentioned, of 500 consumers surveyed, 32% were opposed to the use of dream incubation advertising, about 30% were unsure, with the remainder—about 38%—in favor of it. This is perhaps reflective of a troubling reality where the public willingly accepts the exploitation of their dreams in exchange for cheap discounts. On this front, dream researchers Stickgold, Zadra, and Haar are "baffled by the lack of outcry":

¹¹¹ "Inside Your Dreamscape," supra note 2.

¹¹² *Id.* ("[T]he core principles and methods behind TDI and other techniques designed to influence dream content aren't that difficult to understand and implement. A time will come soon when the help of sleep scientists is not needed.").

¹¹³ Evan Santiago, "Companies want to put ads in your dreams. A Charlotte marketing strategist explains why," THE CHARLOTTE OBSERVER (July 12, 2022).

¹¹⁴ "Inside Your Dreamscape," supra note 2.

¹¹⁵ Now What?, supra note ___.

¹¹⁶ *Id*.

120 THE NIGHTMARE OF DREAM ADVERTISING

What have we lost when we become so collectively inured to invasions of our privacy and to exploitative economic practice that we would happily accept a 12-pack for the placement of beer advertising into our dreams?...[at least] a diminished awareness of just how important sleep and dreams are—how they play a crucial, constructive role in our wellbeing and daytime behavior.¹¹⁷

Certainly, the public's disenchantment with dreams contributes to the lack of outrage. He are a but it could also be that this intrusive technology is so nascent that the public does not know what to think about it yet. A dystopian metaphor for the branding of dreams might thus be helpful in swaying journalists, politicians, jurists, and legal academics opinions, as well as the public at large, on the matter. He

Other well-known privacy problems—e.g., surveillance, big data, targeted advertisements—have become deeply entrenched in our collective culture and consciousness through analogy to literary works like George Orwell's 1984, ¹²⁰ Franz Kafka's *The Trial*, ¹²¹ or Aldous Huxley's *Brave New World*. ¹²² 1984's "Big Brother" metaphor, particular, has been successful in alerting the public to the potential harms of these technologies. ¹²³ We understand excessive surveillance can be sinister because we relate it to the totalitarian Big Brother scenario from

¹¹⁷ *Id*.

¹¹⁸ Rubin Naiman, "In exile from the dreamscape," Aeon.co (Dec. 24, 2020), https://aeon.co/essays/we-live-in-a-wake-centric-world-losing-touch-with-our-dreams (noting that "[w]e live in a wake-centric world that devalues dreaming.").

¹¹⁹ See Daniel J. Solove, *Privacy and Power: Computer Databases and Metaphors for Information Privacy*, 53 STAN. L. REV. 1393, 1393 (2003) (noting that these professions tend to use the Big Brother metaphor to describe privacy problems).

¹²⁰ See, e.g., Margaret Hu, Orwell's 1984 and a Fourth Amendment Cybersurveillance Nonintrusion Test, WASH. L. REV. (2017) (examining the recurrence of judicial references to George Orwell's novel, 1984, in the context of modern surveillance methods).

¹²¹ Daniel J. Solove, *Privacy and Power: Computer Databases and Metaphors for Information Privacy*, 53 STAN. L. REV. 1393, 2001 (2003) (explaining that the database problem is more Kafkaesque than Orwellian given the mindless, rather than sinister, bureaucracy at the center of it).

¹²² Dustin Marlan, *The Dystopian Right of Publicity*, 37 BERKELEY TECH. L. J. ___ (forthcoming 2022) (likening the voluntary transfer of publicity (i.e., identity) rights on social media to the identity loss experienced by World State citizens in Brave New World).

¹²³ See Lora Kelley, "When 'Big Brother' is Not Scary Enough," NY TIMES (Nov. 4, 2019) ("Seven decades after the publication of George Orwell's '1984,' 'Big Brother' remains the go-to metaphor for surveillance, big and small.").

2022] ROUGH DRAFT 121

1984. That big data collection can lead to Kafkaesque outcomes, like getting put on a no-fly list and not understanding why. ¹²⁵ And targeted advertisements ring of the soma-fueled conspicuous consumption of Brave New World. ¹²⁶

We do not yet have an apt conceptual metaphor for dream advertising, however. To this end, the paranoid fiction of Philip K. Dick comes to mind. Branding dreams amounts to an intrusive manipulated reality along the lines of the science fiction that Dick conjured in such works as *Do Androids Dream of Electric Sheep?*, *Sales Pitch*, and *Minority Report*. In the Phildickian sense, reality (the dream, in this case) is replaced with a virtual or simulated image of it (here, the dream incubated advertisement).¹²⁷

Dick's work features relevant themes including artificial intelligence, personalized advertising, altered states of consciousness, and the nature of reality. As Mark Bartholomew explains in *AdCreep: The Case Against Modern Marketing*, Dick's work "predicted a world where advertising had become more personalized, more insistent, and more effective . . . a future where advertising doubles as a surveillance tool." 129

Dick's dystopian vision is echoed in a disturbing short film by Studio Smack, entitled "Branded Dreams: The Future of Advertising." The prophetic 2016

¹²⁴ See, e.g., Louise Matsakis, "At an Outback Steakhouse, Surveillance Blooms," WIRED (Oct. 19, 2019) (discussing surveillance cameras at an Outback franchise and using the headline "Fried onion meets 1984."), https://www.wired.com/story/outback-steakhouse-presto-vision-surveillance/.

¹²⁵ DANIEL J. SOLOVE, THE DIGITAL PERSON: TECHNOLOGY AND PRIVACY IN THE INFORMATION AGE 182 (2004).

¹²⁶ Marlan, *Dystopian*, *supra* note ___ at ___.

¹²⁷ See DARREN ALLEN, 33 MYTHS OF THE SYSTEM 28 (2021) (describing a Phildickian dystopia as "replacing reality with an abstract, ersatz virtual image of it (a.k.a. the spectacle).").

¹²⁸ See Marc J. Blitz, The Right to an Artificial Realitty? Freedom of Thought and the Fiction of Philip K. Dick. 27 MICH. TECH. L. REV. 377, 397 (2021) ("If Dick's stories emphasize how artificial realities might enrich and sustain life, they also illustrate how they can lead to nightmarish disorientation or subjugation.").

¹²⁹ Mark Bartholomew, Adcreep: The Case Against Modern Marketing 1 (2017).

¹³⁰ Vlad Savov, "Watch the beautiful nightmare of ads invading your dreams," THE VERGE (Jan. 20, 2016), https://www.theverge.com/2016/1/20/10796916/branded-dreams-by-studio-smack-animated-short-film.

122 THE NIGHTMARE OF DREAM ADVERTISING

film consists of a dreamscape intruded upon by the Coca Cola brand. What is perhaps most chilling about the branded dream is its organic nature and beauty (if slightly grotesque), leading to the positive impression of Coca Cola it would leave upon the private consciousness. And thus, dream advertising's presumed effectiveness as a tool for surreal manipulation.

B. RECENT EXAMPLES

In June 2021, nearly 40 sleep and dream researchers signed an open letter warning against dream advertising. The letter, titled "Advertising in Dreams is Coming: Now What?" points to several current and potential uses of dream advertising that raise strong concerns about the intrusive and deceptive nature of branding dreams. The main example the letter concentrates on is Molson Coors Superbowl ad—#CoorsBigGameDream. This subpart will discuss Molson Coors' ad was well as Microsoft Xbox's "Made from Dreams", and Burger King's "Nightmare King."

1. Molson Coors

In connection with the January 2021 Superbowl, Molson Coors pioneered "the world's largest dream study." The company took an unconventional approach to advertising its beer products—Coors Light and Coors Seltzer—because it



"Branded Dreams."

¹³¹ See generally Now What?, supra note 2.

2022] ROUGH DRAFT 123

was unable to get airtime during the actual televised game itself.¹³² This was due to a longstanding exclusivity pact the NFL has with Molson Coors' chief competitor, AB InBev (Anheiser Busch, particularly its Budweiser brand).¹³³ As Molson Coors put it, "we ran our commercial in the one place there are no rules—"your dreams."¹³⁴

To "implant[] dreams" into consumer minds, Molson Coors enlisted the help of Harvard psychologist and dream expert Diedre Barrett¹³⁵ as a consultant. In a promotional video, Coors asked Barrett if it was possible to incubate an ad in a dream, to which Barrett responded, "there is a way if you've got cooperative subjects to do dream incubation and influence their dream content."¹³⁶

Molson Coors applied what it referred to as "targeted dream incubation" with the goal that consumers would dream of Coors products in the days leading up to the Superbowl. Together with Barrett, Coors developed a short film that uses audio-visual stimuli during the hypnagogic sleep onset period to trigger related dreams. ¹³⁷ In doing so, Coors also partnered with creative studio Ghost Robot to create computer generated quasi-psychedelic imagery, and Caitlyn Auriela Smith to develop a soundtrack. ¹³⁸

The experiment took a two-tiered approach: 18 in-person participants would sleep in a laboratory, but the film was also available online for remote participation. According to in-person participant Bobbi Gould, a travel writer, she and her boyfriend were each paid \$1,000 to participate in the TDI-advertising experiment, which she responded to from an ad posted on Craigslist. Table 19 control of the control o

¹³² Superbowl 55 – Tampa Bay Buccaneers vs. Kansas City Chiefs (February 7, 2021). ¹³³ As Coors noted in its promotional materials: "Every year, Coors get locked out of the Super Bowl because of our competitor's exclusive contract with the NFL. So this year, we ran our commercial in the one place there are no rules—your dreams. And the most talked about Super Bowl ad was one you had to switch off the TV to watch." http://www.elaine.li/coors-dream.

¹³⁴ Tear Sheet, http://www.elaine.li/coors-dream.

¹³⁵ Dr. Barrett is a prominent Harvard sleep and dream researcher. Her books include PANDEMIC DREAMS (2020), SUPERNORMAL STIMULI (2010), THE COMMITTEE OF SLEEP (2001), and TRAUMA AND DREAMS (1996).

¹³⁶ Elaine Li, "Coors Big Game Dream – Case Study, VIMEO, http://www.elaine.li/coors-dream.

¹³⁷ Elaine Li, "Big Game Commercial of Your Dreams stimulus film," VIMEO, http://www.elaine.li/coors-dream.

¹³⁸ David Gianatasio, "Coors and DDB Want to Place a Super Bowl Ad in Your Dreams," MUSE BY CLIO (Jan. 27, 2021), https://musebycl.io/super-bowl/coors-and-ddb-want-place-super-bowl-ad-your-dreams

Noor Al-Sibai, "Woman Says Coors Paid Her \$1,000 to Successfully Inject Advertisements into Her Dreams, "Neoscope," (Mar. 23, 2022), https://futurism.com/neoscope/coors-dream-ads
 Id.

124 THE NIGHTMARE OF DREAM ADVERTISING

On the night of the experiment, Molson Coors escorted participants to a sleep lab and connected them to tracking devices to monitor their sleep. The company claimed that it "ran a legitimate sleep study." Directly before going to sleep, the participants watched and listened to the roughly 90 second film three times. The film featured a translucent avatar flying through surreal-looking Coors brand trademarks, as well as snow-capped mountains, tranquil streams, and a talking fish holding a Coors light can. 143

Participants then went to sleep. While sleeping, participants listened to an eight-hour overnight electronic "soundscape" which mirrored the audio from the 90-second film. Their sleep was tracked according to TDI protocols. Gould reported having Coors-branded dreams over the course of her sleep cycle: "I had one where I was on a pogo stick jumping around with Coors products. In another one, I was on a plane dropping Coors cans on people and they were cheering from me."¹⁴⁴

Among the in-person participants was celebrity singer songwriter Zayn Malik, who, as an influencer—he has over 46 million followers on Instagram—promoted the study widely on social media. In a press release for the project, Malik said, "When Coors asked me if they would induce a refreshing dream

¹⁴² Stills from the film. Coors Light Big Game Dream Film 2021 Dream, VIMEO, https://vimeo.com/513024541





¹⁴⁴ Crockett, THE HUSTLE, *supra* note ___

¹⁴¹ http://www.elaine.li/coors-dream.

2022] ROUGH DRAFT 125

while I sleep for you all to watch on Instagram Live, I thought . . . well that IS very strange. So of course, I said yes." Malik admitted that placing Coors advertisements into someone's dreams "is kind of messed up." However, he then added "It's supposed to make you wake up feeling refreshed so we're going to give that a go and see if it works!" Indeed, 5 out of 18 participants—about 30 percent—reported dreaming of Coors-related content. 146

And thousands of viewers participated online —in exchange for free or discounted Coors Light and Coors Seltzer—by watching the film and listening to the "soundscape" before going to sleep the night before the Superbowl. The film was widely available on CoorsBigGameDream.com as well as on social media platforms. According to its press release, participants were told to "watch the dream inducing film three times, play the soundscape, go to sleep," and then, rather than worrying about the Covid-19 pandemic, "have a refreshing dream using the science of guiding dreams." According to Molson Coors, the content was extraordinarily effective—having been displayed 1.4 billion times, and leading to a 3000% increase in social engagement and an 8% increase in sales. According to Molson Coors in sales.

2. Xbox (Microsoft)

In 2020, Microsoft Xbox also engaged in a dream advertising experiment with cooperative participants. Gamers played video games on the Xbox Series X console, where researchers used dream technology during the hypnagogic

¹⁴⁵ Emily Kirkpatrick, "Zayn Malik Has Invited Everyone to Watch Him Sleep This Weekend," VANITY FAIR (Feb. 5. 2021), https://www.vanityfair.com/style/2021/02/zayn-malik-sleeping-on-instagram-live-coors-beer-super-bowl-

ad#:~:text=In%20his%20Instagram%20video%20announcing,While%20the%20th ought%20experiment%20is

¹⁴⁶ Crockett, THE HUSTLE, *supra* note ___ ("Shockingly, it seemed to work. Around 30% of the participants reported that Coors products made an appearance in their dreams.").

¹⁴⁷ The website, no longer live, was CoorsBigGameDream.com. Remote participants could watch the brief video and listen to the eight hour soundscape while they slept in exchange for half off a twelve pack of Coors or a free twelve pack if they shared the link to the ad with a friend. Ruth Cassidy, "Advertisers are after our dreams now, because we live in a nightmare world," PC GAMER (July 10, 2021), https://www.pcgamer.com/advertisers-are-after-our-dreams-now-because-we-live-in-a-nightmare-world/.

¹⁴⁸ Press Release, Business Wire, *supra* note ___.

¹⁴⁹ Tear Sheet, *available at* http://www.elaine.li/coors-dream. It is unclear in how many countries the ad was available in, and whether it might have thus run afoul of laws outside of the U.S.

¹⁵⁰ Xbox, "Xbox Series X – Made from Dreams," YouTube (Dec. 7, 2020), https://www.youtube.com/watch?v=dQldgaMtdNg.

14

126 THE NIGHTMARE OF DREAM ADVERTISING

period to see if participants would continue their gaming experiences as lucid dreams—the state where you become aware that you are dreaming.¹⁵¹

Dubbed "Made From Dreams," Xbox partnered with advertising agency McCann Worldwide and used a dream recording technology—a headband called Hypnodyne—to explore participants' dreams after playing the new video game console. The goal was to employ TDI techniques to embellish on the tagline that "the next generation of Xbox consoles is what dreams are made of—literally." ¹⁵³

According to a member of Xbox's marketing team:

Using the most advanced dream recording technology, dream scientists conducted lucid dreaming experiments, capturing and decoding the real dreams of gamers after they experienced Xbox Series X. We then partnered with world renowned artists and creators, who took inspiration from the dream data to bring these gamers' dreams to life through a content series we're calling, "Made from Dreams." 154

For many gamers, the experiment worked, and they did indeed experience lucid dreams related to the games. Participant dream mentations, as recalled, were then turned into video animations, serving as further advertisements for the Xbox console. ¹⁵⁵

To justify its advertising experiment, Microsoft defended against criticism by claiming, similarly to Molson Coors, that exposing people to dream advertising is a net positive when "so much already feels like a chaotic waking dream." Yet "[m]ounting neurological evidence suggest that video games may act like

¹⁵¹ "Xbox: Made from Dreams by McCann Worldgroup," THE DRUM (Dec 2020), https://www.thedrum.com/creative-works/project/mccann-worldgroup-xbox-made-dreams.

David Griner, "What Do You Dream About Playing the New Xbox? This Experiment Brings Them to Life," ADWEEK (Dec. 7, 2020), https://www.adweek.com/convergent-tv/what-do-you-dream-after-playing-the-new-xbox-this-lab-experiment-brought-the-results-to-life/.

¹⁵³ Josh Munsee, "Powering the Dreams of Gamers with Xbox," XBOX WIRE (Dec. 7, 2020), https://news.xbox.com/en-us/2020/12/07/powering-the-dreams-of-gamers-with-xbox/.

¹⁵⁴ *Id*.

¹⁵⁵ Xbox, "Xbox Series X – Made from Dreams," YouTube (Dec. 7, 2020), https://www.youtube.com/watch?v=dQldgaMtdNg.

¹⁵⁶ Angela Natividad, "Xbox Looks Deep Into Gamers' Lucid Dreams Right After They Play," MUSE BY CLIO (Dec. 9, 2020), https://musebycl.io/gaming/xbox-looks-deep-gamers-lucid-dreams-right-after-they-play

2022] ROUGH DRAFT 127

traditional substances of abuse," such as alcohol.¹⁵⁷ Lucid dreaming about video games may exacerbate such addictive tendencies. As one subjective report puts it: "Gaming to me is like being in a dream world. It takes you to a whole 'nother place.' Having lost whole days and nights to [infinite universe Xbox game] No Man's Sky, we know this to be true." ¹⁵⁸

3. Burger King

In 2018, Burger King, in partnering with Goldforest Branding, created a new burger for Halloween—featuring a green sesame seed bun, grilled beef, fried chicken, bacon, and American cheese—called the "Nightmare King." According to the company's press release, Burger King conducted its own "scientific study over 10 nights with 100 participants (or should we say victims?) who ate the Nightmare King before they went to bed." The "study" suggested that the green bun sandwich, when eaten before sleep, contributed to disruptions in participants' REM sleep, and thus to their

¹⁵⁷ Mark Zastrow, *Is video game addiction a real addiction?*, BIOLOGICAL SCIENCES, News Feature (April 25, 2017) (noting that "[a]dding video gaming to the list of recognized behavioral addictions could help millions [but] [i]t could also pathologize a normal behavior and create a new stigma.").

¹⁵⁸ Angela Natividad, "Xbox Looks Deep Into Gamers' Lucid Dreams Right After They Play," MUSE BY CLIO (Dec. 9, 2020), https://musebycl.io/gaming/xbox-looks-deep-gamers-lucid-dreams-right-after-they-play.

¹⁵⁹ See, e.g., Lucy Handley, "Burger King creates 'nightmare' burger with green bun—and says it will actually give people bad dreams, CSNBC (Oct. 18, 2018), https://www.cnbc.com/2018/10/18/burger-king-creates-nightmare-burger-with-



green-bun.html.

¹⁶⁰ Kelly Tyko, "Burger King says its new Halloween creation 'Nightmare King' can induce nightmares," USA Today (Oct. 17, 2018), https://www.usatoday.com/story/money/2018/10/17/burger-king-nightmare-king-halloween/1661125002/.

128 THE NIGHTMARE OF DREAM ADVERTISING

nightmares. 161 One participant recalled that "[s]omeone . . . transformed into the figure of a snake." 162 Another reported that "aliens attack[ed]" the boat he was on in the dreamscape. 163

Dr. Jose Gabriel Medina, a medical doctor at Florida Sleep & Neuro Diagnostics Services, Inc. oversaw the study, which found that subjects experienced a 3.5 times increase in nightmares during the ten-day period. Medina and other doctors and scientists tracked the participants dreams through various signals including heartrate, brain imaging, and breath. However, the findings have not been published in a peer reviewed journal.

While some have speculated that the bizarre nature of the burger—particularly its green bun—contributed to nightmares, Medina claims that the cause was the high carbohydrate and saturated fat content, which led to REM sleep interruptions. A 2016 study found that individuals who consumed high saturated fat and sugar diets tended to have more restless sleep cycles. And fast food, like alcohol and videogames, has been found to be addictive.

C. HYPOTHETICAL SCENARIOS

These examples, while nascent, are perhaps the tip of a dystopian iceberg where dream incubation is paired with other technology devices—wearable watches, smart speakers, etc.—to enhance surveillance capitalism. The National Law Review blog speculates on such a reality:

This blog has often discussed the intrusion of home technologies that insinuate companies deeper into our

¹⁶¹ "The BURGER KING Brand Creates a Halloween Sandwich Clinically Proven to Induce Nightmares," BUSINESS WIRE (Oct. 17, 2018), https://www.businesswire.com/news/home/20181017005208/en/The-BURGER-KING%C2%AE-Brand-Creates-a-Halloween-Sandwich-Clinically-Proven-to-Induce-Nightmares.

¹⁶² *Id*.

¹⁶³ *Id*.

¹⁶⁴ *Id*.

¹⁶⁵ *Id*.

¹⁶⁶ Stephanie Pappas, "Can Burger King's 'Nightmare King' Really Give You Bad Dreams," Live Science (Oct. 17, 2018), https://www.livescience.com/63856-burger-king-nightmare-science.html

^{167 &}quot;The BURGER KING Brand Creates a Halloween Sandwich Clinically Proven to Induce Nightmares," BUSINESS WIRE (Oct. 17, 2018), https://www.businesswire.com/news/home/20181017005208/en/The-BURGER-KING%C2%AE-Brand-Creates-a-Halloween-Sandwich-Clinically-Proven-to-Induce-Nightmares

¹⁶⁸ Marie-Pierre St-Onge et al., Fiber and Saturated Fat Are Associated with Sleep Arousals and Slow Wave Sleep, 12 J. CLIN. SLEEP MED. 19 (2016).

¹⁶⁹ See supra note ___.

2022] ROUGH DRAFT 129

lives, but dream tech makes this intrusion much more insidious. Imagine the Amazon Echo or Google Nest in your room purring a low level of dream inducing commercial messaging for eight hours while you sleep, or even building the messages into your white-noise rain pattern that you use to stay asleep. We know, for example, that advertisements on smart televisions emit noises in frequencies people can't hear to register connection with the other electronic devices like your phone, tablet or PC. Why couldn't those same devices send signals designed to drive you to Taco Bell in your dreams? The combination of dream tech and always-on home devices may define the future of advertising. 170

Sleep and dream researchers theorize similarly on such a fully realized commodification of the sleep cycle:

Tech giants such as Amazon, Apple and Google have all developed smart devices designed to monitor people's sleep (e.g., Amazon's upcoming radar sensor, Apple's iPhone and Apple Watch, Google's Fitbit and Nest Hub. While these technologies and the data they collect are ostensibly geared to improve people's sleep, it is not hard to envision a world in which our phones and smart speakers—now widely present in people's bedrooms—become instruments of overnight advertising, with or without our knowledge.¹⁷¹

Robert Stickgold, cognitive neuroscientist and professor of psychiatry at Harvard Medical School elaborates on this danger: "Something like 30 million people have these listening, Alexa-type devices in their bedroom. And those devices can play anything they want whenever they want and advertisers could buy advertising time, [for advertisements] they want played at 2:30 in the morning... You could have this sort of 1984 situation where advertisers buy advertising time on these devices, and nobody ever knows they're hearing them." 172

¹⁷⁰ National Law Review, *supra* note ___.

¹⁷¹ *Inside Your Dreamscape*, *supra* note ___.

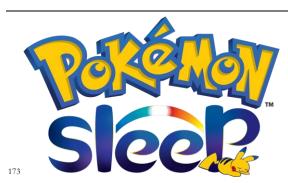
¹⁷² THE HUSTLE, *supra* note ___.

130 THE NIGHTMARE OF DREAM ADVERTISING

The upcoming mobile app game Pokemon Sleep could be an early instance.¹⁷³ It involves tracking the amount of time someone sleeps using an accelerator device accessory, and then communicating the data to the subject's mobile phone to affect gameplay. In this way, the game promises to "turn sleeping into entertainment." According to one reaction:

I'm still pretty excited about allowing a company to monetise my sleep. It feels very sci-fi, like something . . . in a Philip K. Dick adaption. I'm being partly ironic—I wouldn't let, say, Amazon or Google do this—but The Pokemon Company feels so behind the times that allowing it into my sleep feels harmless. Perhaps that's naivety, and in 15 years it will make my dreams into an NFT, but for now I don't care. 175

But scholars call attention to fast-paced neurotechnology developments like mind-reading devices and brain machine interfaces. The Elon Musk's "Neuralink" is a prominent example. Given such advances in neurotechnology, companies may someday have access to our dreams just as easily as they have access to our waking attention, if the unconscious mind is similarly neurologically mappable as compared to the conscious one. As one



174 See, e.g., Patrick Lum, "Pokemon Sleep: game unveiled that 'turns sleeping into entertainment.", THE GUARDIAN, May https://www.theguardian.com/games/2019/may/29/pokemon-sleep-gameunveiled-that-turns-sleeping-into-entertainment; Gareth Damian Martin, "How 'Pokemon Sleep' Promises to Commodify Our Dreams," Frieze (June 13, 2019), https://www.frieze.com/article/how-pokemon-sleep-promises-commodify-ourdreams (explaining that "what we will be producing, through our sleep cycles and opportunistic naps, is actual capital for the owners and shareholders of the game."). ¹⁷⁵ Ben Sledge, "Is Pokemon Sleep Finally Waking Up," THE GAMER (Jan. 5, 2022), https://www.thegamer.com/pokemon-sleep-waking-up/. Cf. Zuboff, supra note ____ (describing predecessor augmented reality game Pokemon Go as a deceptively dangerous example of surveillance capitalism given its seemingly innocent and colorful harvesting of consumer data leading to behavior modification for profit). ¹⁷⁶ Matthew Lawrence, Addiction and Liberty, CORNELL L. REV. (forthcoming 2023). 177 Neuralink, "Breakthrough Technology for the Brain," https://neuralink.com/.

2022] ROUGH DRAFT 131

journalist puts it, "[i]n the era of neurocapitalism, your brain needs new rights." ¹⁷⁸

Further, dream advertising could conceivably be employed by state—rather than private—actors for propagandic or mind control purposes. Authoritarian regimes are increasingly using artificial intelligence, deep fakes, and other technologies as forms of government control. Thus, it does not seem farfetched for certain governments to use the hypnagogic period to incubate symbols, mantras, and disinformation campaigns for citizens or prisoners, perhaps even, in the worst cases, mandating their use prior to sleep with threats of punishment.

Thus, in the future, when we sleep, the question remains, "who will we be sleeping for?" 180

D. HARMS

While it is tempting to write off the previous dream advertising examples as harmless fun, prominent sleep and dream researchers believe otherwise. Antonio Zadra writes that "using such techniques, even in half-jest, to ultimately increase corporate profits places us on a dangerous and very slippery slope." As Robert Stickgold puts it: "They're trying to push an addictive drug on people who are naïve to what's being done to them. I don't know if it can get much worse than that ... Anything you could imagine an advertising campaign for, at all, could arguably be enhanced by weaponizing sleep." And as sleep researcher Sara Mednick frames the issue, "Dreams are our last sacred space. We're super vulnerable during our sleep and we may not even know we're being exposed to these techniques." 183

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¹⁷⁸ Sigal Samuel, "Brain-reading tech is coming. The law is not ready to protect us," Vox (Dec. 20, 2019), https://www.vox.com/2019/8/30/20835137/facebook-zuckerberg-elon-musk-brain-mind-reading-neuroethics; *see* Daniel Van Boom, "Helmets that measure your emotional state? China is on it," CNet (April 30, 2018), https://www.cnet.com/culture/helmets-that-measure-your-emotional-state-china-brain-activity/ ("Companies in China use helmets that measure the brain signals of workers to gauge their emotional state, allowing managers to shift workload appropriately.").

¹⁷⁹ E.g., Senate Hearing 115-278, "Open Hearing on Worldwide Threats (Feb. 13, 2018), https://www.govinfo.gov/content/pkg/CHRG-115shrg28947/html/CHRG-115shrg28947.htm; Noor Ibrahim, "We are not prepared': Russia uses artificial intelligence, deep fakes in propaganda warfare," GLOBAL NEWS (March 30, 2022).

¹⁸⁰ Frieze, supra note ___.

¹⁸¹ https://www.youtube.com/watch?v=tU_0jU0mMLw (commenting on video).

¹⁸² THE HUSTLE, *supra* note ___.

¹⁸³ *Id*.

132 THE NIGHTMARE OF DREAM ADVERTISING

This subpart will identify several harms flowing from the practice of branding dreams. These include (1) health, (2) privacy, (3) liberty, (4) economics, (5) and cultural concerns. The main takeaway is that dream advertising—in any of its current or future forms—represents a disturbing commercial colonization of the unconscious mind.

1. Health

First, branding dreams are a potential health risk, as the practice exploits human biological processes—dreams and sleep—for industrial and commercial gain. To the extent addictive products are the subject of dream marketing, branding dreams could worsen addiction. Dream advertising also risks interfering with the natural sleep cycle.¹⁸⁴ Thus, "dream hacking [is] a potential threat to our memories and our very sense of self—a sense defined in large part by the autobiographical memories that we stabili[ze] and integrate during sleep."¹⁸⁵

As to the addiction issue, consider that in the cigarette study referenced earlier, participants exposed during their sleep to the odor of rotten eggs along with cigarettes smoked 30% fewer cigarettes during the next week. While still untested, it is not much of a leap to conclude that TDI techniques—when used unethically—could also worsen addiction. In the cigarette study, "not only was the intervention effective in sleep (yet ineffective when the smells were presented during wake), but participants reported no memory of being exposed to these smells in the morning." This lack of reported memory of exposure to the addictive stimulus is of particular concern in the dream advertising context. Is9

Indeed, the Molson Coors study operated much like the inverse of the cigarette study. Rather than pairing cigarettes with an odor, the company paired beer with tranquil organic imagery. In this way, Molson Coors' use of TDI could well harm abstinent alcoholics given that hypnogogic manipulation biases "the brain's decisions toward whatever information was presented in sleep." And research has demonstrated among those who are abstinent, but have used drugs in the past, that dreaming about drug-use was correlated with higher levels of craving than those who did not dream about drug-use. ¹⁹¹

¹⁸⁴ Now What?, supra note ___.

¹⁸⁵ *Id*.

¹⁸⁶ Arzi, *supra* note ___.

¹⁸⁷ Now What?, supra note ___ ("Researchers have not yet tested whether TDI can worsen addiction, but the Coors study, which paired images of beer cans not with odious smells but with images of clean mountain streams, may shine a disturbing light on this question.").

¹⁸⁸ *Id*.

 $^{^{189}}$ Id. ("The potential for misuse of these technologies is as ominous as it is obvious."). 190 Id.

¹⁹¹ Helene Tanguay et al., Relationship between drug dreams, affect, and craving during treatment for substance dependence, J. ADDICT. MED. 123 (2015).

2022] ROUGH DRAFT 133

Considering this potential for abuse, how many of the subjects participating in the "Big Game Commercial of Your Dreams" sleep study—either in-person or on social media—did Coors follow up with to find out if they had any issues relating to their participation? None that have been publicly documented.

But addictive products are not the only health-related issue relating to branding dreams. Dream researchers emphasize that dream marketing for profit may come at the expense of "interfering with our natural nocturnal memory processing." This fear would be enhanced if dream advertising becomes paired with other technological devices—particularly smart speakers and the Internet of Things—as theorized in the last subpart. Such hypothetical "tailored soundtracks would become background scenery for our sleep, as the unending billboards that litter American highways have become for our waking life." 193

How might this potentially work? Sleep data collected voluntarily or involuntarily could conceivably be sold to companies selling sleep aids or other pharmaceuticals. Imagine that after a restless night—perhaps after even being fed nighttime distractions—one awakens to find targeted advertisements on their internet searches for sleep medications such as Ambien or Lunesta. And, in such a scenario, because "sleep loss is known to increase risk-taking behavior, one might expect to be hit with targeted advertising for online gambling." Evidence links poor sleeping habits to sugar intake too, so advertisements for candy or sugary beverages might be triggered. Horowitz, Stickgold, and Zadra speculate as to this hypothetical situation:

[T]aking a cue from the research on changing candy preferences during naps [referenced in Part I.B], one can easily imagine a musician collaborating with the manufacturer of Skittles to offer an hour-long nap soundtrack that incubates psychedelic candy dreams. Consumers could get half-off on candy just for listening to a relaxing nap soundtrack, and there might be no legal requirement for clear informed consent about how the incubation could drive purchasing behavior.

Candy in hand, perhaps you would want to watch a show while you snack. A promotion with Netflix could mean your subscription comes with dream-incubation stimuli as well, enabling dreams related to a new show after you binge-watch until bedtime, all while measures of sleep quality—including changes in your breathing and heart rate during dreams—tell advertisers whether these stimuli were well received and how to target and tailor future advertisements.

¹⁹² Now What?, supra note ___.

¹⁹³ Now What?, supra note 2 at 4.

¹⁹⁴ Inside Your Dreamscape, supra note ___.

¹⁹⁵ *Id*.

134 THE NIGHTMARE OF DREAM ADVERTISING

This would almost certainly not be what you thought you were agreeing to when you gave your consent for the recording of your sleep. 196

2. Privacy

Sleep and dreams may be the last privacy frontier—a fallback refuge for privacy and autonomy in the age of informational capitalism.¹⁹⁷ The practice represents an unprecedented corporate entry into the mind of the consumer. It appears to be the first time the issue has been considered as to whether sleep and dreams should be legally capable of commodification—referring to the social practice of turning things into products that can be bought, sold, or rented in the market.¹⁹⁸

Indeed, branding dreams may in fact be the first corporate technology to explicitly engineer—to colonize—the mind's inner space during sleep, representing a uniquely troubling breach of privacy rights. In this way, dream advertising represents surreal forms of digital manipulation—"the ability of data collectors to use information about individuals to manipulate them" and surveillance capitalism—"claim[ing] human experience as free raw material for translation into behavioral data."

¹⁹⁶ *Id*.

¹⁹⁷ See, e.g., Ari Ezra Waldman, Privacy Law's False Promise, 97 WASH. U. L. REV. 773, 776 (2020) (explaining that despite increasing regulations, people's privacy is now in more danger than ever); Christopher Mims, "Privacy is Dead. Here's What Comes Next", WALL STREET JOURNAL https://www.wsj.com/articles/privacy-is-dead-heres-what-comes-next-1525608001 198 Commodification has been categorized into two forms: (1) complete commodification where there are no restrictions and (2) incomplete commodification where there are restrictions, often for "moral, social, economic, or political reasons." David B Resnik, "The commodification of human reproductive materials," JOURNAL OF MEDICAL ETHICS 388 (1998). A wide variety of things fall under this second form such as, on the more controversial end, the sale of human beings including body parts or sexuality and reproductive capacity including sex work, baby-selling, and surrogacy. Yet on the other end, there is also discussion over the commodification of cultures, holidays, well-being. See Margaret Jane Radin, Mkt.-Inalienability, 100 Harv. L. Rev. 1849, 1852 (1987); see also Adeline A. Allen, Sperm & Eggs in Consideration of Money: A Pound of Flesh for Three Thousand Ducats?, 19 Ind. Health L. Rev. 275, 276 (2022); Lauren Maloney, The Commodification of Human Beings, Northeastern U. L. Rev.

¹⁹⁹ Daniel Susser, Beate Roessler & Helen Nissenbaum, *Technology, Autonomy, and Manipulation*, 8 INTERNET POLICY REVIEW 1 (2019); *see* Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995, 995 (2014 (explaining how technology companies purposely exploit the cognitive limitations of consumers).

²⁰⁰ SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM 8 (2019).

2022] ROUGH DRAFT 135

Dream advertising is ostensibly a form of subliminal advertising—"the use of stimuli that are presented outside of awareness with the intention to influence consumer behavior."²⁰¹ Considering its unconscious transmission, dream advertising inevitably leads to the manipulation of consumer behavior. As with other forms of subliminal advertising, ²⁰² individuals subject to dream advertising are not able to make an autonomous, *conscious* choice in receiving, interpreting, and/or acting on the *unconscious* branded dreams.²⁰³

As an illustration of the potential for manipulation, let us return to the Skittles/M&Ms study mentioned in Part I.B. In that paper, a team of researchers demonstrated "that playing audio recordings of product names during sleep, but not during wakefulness, could shift snack preferences toward M&Ms or Skittles." The researchers thus concluded that "sleep likely represents a *unique period* during which preferences and choices that are otherwise stable can be selectively modified by external cues."²⁰⁴

In capitalizing (quite literally) on the vulnerability of sleep and especially the sleep onset period, the act of manipulating dreams is a distinctive invasion of mental autonomy. ²⁰⁵ The right to privacy is broad enough—or should be broad enough—to encompass mental privacy. Mental privacy protects *mentation*, including one's thoughts, perceptions, moods, and dreamscape. ²⁰⁶ Branding dreams, like other forms of subliminal messaging, breaches mental privacy safeguards because it affects individual's behavior without their conscious

²⁰¹ Verwigmeren, Thesis, note __ at 12.

²⁰² See infra Part III.A.

²⁰³ While there are some differences between the two, branding dreams can be thought of by analogy to neuromarketing—where advertisers attempt to understand how the brain makes purchasing decisions and then works to nudge those decisions along. Like the act branding dreams, neuromarketing nudges operate below the threshold of conscious awareness. However, neuromarketing relies on advanced neuroscientific breakthroughs, while dream incubation advertising is based on an ancient art that is quite simple. For a sampling of the neuromarketing and ethics literature, see, e.g., Andrew R. Thomas, Ethics and Neuromarketing: Implications for Market Research and Business Practice (2017); Jason Flores et al., *Is Neuromarketing Ethical? Consumers Say Yes. Consumers Say No.*, 17 J. LEGAL, ETHICAL AND REGULATORY ISSUES 77 (2017); Walter P. Sinnott-Armstrong et al., *Neuromarketing: Ethical Implications of its Use and Potential Misuse*, J. Bus. Ethics (2016); Mark Bartholomew, *Neuromarks*, 103 Minn. L. Rev. 521 (2018).

²⁰⁴ Sizhi Ai et al., *Promoting subjective preferences in simple economic choices during nap*, 7 ELIFE 1, 11 (2018) (emphasis added).

²⁰⁵ Vance, WL 130920 at 11 (holding subliminal communication to be a violation of an individual's right of privacy); see also Eric L. Locke, *The Vance Decision: The Future of Subliminal Communication*, 15 LAW & PSYCHOL. REV. 375, 391-92 (1991) ("Privacy is invaded when an individual no longer has the ability to avoid hearing or seeing the offending communication.").

²⁰⁶ Rennie v. Klein, 462 F. Supp. 1131, 1144 (D.N.J. 1978) ("The right of privacy is broad enough to include the right to protect one's mental processes from governmental interference.")

136 THE NIGHTMARE OF DREAM ADVERTISING

awareness, and subjects them to thoughts that are unwanted or which they lack autonomous control over.²⁰⁷

This is certainly the case regarding passive overnight dream advertising without cooperative subjects. But even in cases where a subject consents in the waking world to dream advertising (as in the Molson Coors study), that individual still has no control over their resulting dream content once in the hypnagogic or unconscious mental states.²⁰⁸

Consider that Bobbi Gould, the travel writer who was paid \$1,000 to participate in the Coors Superbowl dream ad, said the experiment made her feel like a "lab rat[]" and later felt, after acquiescing, that Molson Coors was "trying to implant Coors into our brains . . . It just didn't sit right." While Gould may have agreed to participate in the experiment, it is not clear that she was given proper informed consent or a follow up check in after doing so. And while Gould agreed to receive the dream advertisement, her conscious mind has little control in *interpreting* or acting upon the unconscious messaging.

In its unconsented form at least, intentionally branding dreams would appear to be a violation of the intrusion on seclusion privacy tort: "One who intentionally intrudes, *physically or otherwise*, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person." Indeed, dream advertising, to the extent employed as an effective form of subliminal advertising, is "the ultimate invasion of a person's privacy—[their] mind." 211

3. Liberty

Given its intent to manipulate the mind for capitalistic desires, branding dreams is a threat to liberty as well as to privacy. Cognitive liberty is the

²⁰⁷ See Vance, 1990 WL 130920, at *30 (Nev. Dist. Ct. Aug. 24, 1990); J.E. Gratz, The Ethics of Subliminal Communication, 3 J. Bus. ETHICS 181, 181 (1984) (referring to effective subliminal as "the ultimate invasion of a person's privacy—his mind.") ²⁰⁸ See Night Shifts, supra note ___ (noting that "hypnagogia, the first stage of sleep, [is] where thoughts slip free of conscious control.").

²⁰⁹ Neoscope, supra note ___.

²¹⁰ Restatement of the Law (Second) Torts, Section 652B Intrusion Upon Seclusion. (emphasis added); see *Vance v. Judas Priest*, No. 86-3939, 1990 WL 130920, at *10 (Nev. Dist. Ct. Aug. 24, 1990) (explaining that cause of action involving subliminal messaging "consists of the intentional interference with another's interest in solitude or seclusion."); Thomas Albert Bliss, *Subliminal Projection: History and Analysis*, 5 Hastings Comm. & Ent. L.J. 419, 427-429 (1983) (making out the elements of the privacy tort case for subliminals).

²¹¹ Gratz, *supra* note __ at 1.

2022] ROUGH DRAFT 137

theorized right to mental self-determination.²¹² This is the freedom of an individual to control their own mental processes, cognition, and consciousness. It is perhaps a "penumbra right" of the freedom of thought, which the Supreme Court has noted is axiomatic and fundamental on multiple occasions.²¹³

Cognitive liberty is defined by Wrye Sententia and Richard Glen Boire as "the right of each individual to think independently and autonomously, to use the full power of his or her mind, and to engage in multiple modes of thought."²¹⁴ It is based on underlying principles including that "…individuals should not be compelled against their will to use technologies that directly interact with the brain…"²¹⁵ As a matter of liberty, then, individuals should be able "to self-determine their own 'inner realm' and control their own mental functions."²¹⁶

While cognitive liberty is often thought to be a right of an individual to be free from *state* mental interference (such as unjust prohibitions on mind-altering substances²¹⁷), its principles have also been extended to dealing with mental intrusion by *private* actors. Legal scholars Jan Christopher Bublitz and Reinhard Merkel have proposed a criminal law punishing "interventions severely interfering with another's mental integrity by undermining mental control or exploiting pre-existing mental weakness."²¹⁸ And Matthew B.

²¹⁸ *Id*.

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²¹² See, e.g., Jan-Christoph Bublitz, My Mind is Mine!? Cognitive Liberty as a Legal Concept, in COGNITIVE ENHANCEMENT: AN INTERDISCIPLINARY PERSPECTIVE 236 (Elisabeth Hildt and Andreas Francke eds., 2013); Nita A. Farahany, The Costs of Changing Our Minds, 69 EMORY L. J. 75 (2019); see also Dustin Marlan, Beyond Cannabis: Psychedelic Decriminalization and Social Justice, LEWIS AND CLARK L. REV. (2019).

²¹³ Palko v Connecticut, 302 U.S. 319, 326-27 (1937) ("[F]reedom of thought and speech . . . is the matrix, the indispensable condition, of nearly every other form of freedom."); Stanley v. Georgia, 394 U.S. 557, 565 (1969) ("Our whole constitutional heritage rebels at the thought of giving government the power to control men's minds."); Ashcroft v. Free Speech Coalition, 525 U.S. 234, 253 (2002) ("The right to think is the beginning of freedom, and speech must be protected from the government because speech is the beginning of thought."); Lawrence v. Texas, 539 U.S. 558, 562 (2003) ("Liberty presumes an autonomy of self that includes freedom of thought, belief, expression, and certain intimate conduct.").

²¹⁴ Center for Cognitive Liberty and Ethics, "Keeping Freedom in Mind", available at https://web.archive.org/web/20120206215804/http://www.cognitiveliberty.org/mission.html

²¹⁵ Wrye Sententia, Cognitive Enhancement and Cognitive Liberty: Comments to the Presidential Council on Bioethics, in 21ST CENTURY OPPORTUNITIES AND CHALLENGES: AN AGE OF DESTRUCTION OR AN AGE OF TRANSFORMATION 236 (Howard F. Didsbury ed. 2003).

²¹⁶ Jan Christoph Bublitz & Reinhard Merkel, *Crimes Against Minds: On Mental Manipulations, Harms and a Human Right to Mental Self-Determination*, 8 CRIMINAL LAW & PHILOSOPHY 60 (2014).

²¹⁷ Marlan, Beyond Cannabis, supra note ___.

138 THE NIGHTMARE OF DREAM ADVERTISING

Lawrence proposes a "right to be free from addiction" as a facet of cognitive liberty, citing, among other illustrations, the addictive nature of private technologies like social media.²¹⁹

The colonization of dream states by private entities can be seen to represent a taking of the unconscious mind's cognitive liberty. ²²⁰ Certainly this is true if the practice is thrust on people involuntarily, through advances in neurotechnology. But even if "consented to," as with Molson Coors, Burger King, or Xbox, the practice is still problematic. To the extent that people are allowed to volunteer for the branding of their dreams in exchange for money or free products, those who do choose to do so would likely be overall less affluent, less educated, and more addicted to the related products or services than those who choose not to. ²²¹

In the context of technology that can decode brain activity, Nita Farahany notes, "I worry that we will voluntarily or involuntarily give up our last bastion of freedom, our mental privacy. That we will trade our brain activity for rebates or discounts on insurance, or free access to social media accounts, or even to keep our jobs." In much the same sense, we might choose to sacrifice our dreams to the extent we continue to allow for the commodification of the dreamscape.

Another issue is the level of informed consent that should be required for dream incubation advertising experiments like Coors, Xbox, and Burger King, were the commoditization of dreams to continue. Perhaps no adequate informed consent can ever be given to dream advertising because the true dream advertisement, as distinct from the dream stimulus, is created during the dream itself. The commercialized dream *output* (i.e., sleep mentation) bypasses the conscious processes of the brain, even if during waking hours the subject voluntarily consents to the *input* (i.e., the dream advertisement).

Can the *conscious* mind consent for the *unconscious* mind? The answer to that question does not appear obvious given that the awake subject is "not aware of what is happening in the recesses of his or her mind."²²³

https://www.ted.com/talks/nita_farahany_when_technology_can_read_minds_how_will_we_protect_our_privacy?language=en&subtitle=en (5:30-5:46).

²¹⁹ Eric B. Lawrence, *Liberty and Addiction*, 108 CORNELL L. REV. ___ (forthcoming 2023) ("We live in an era of psychological domination in which profound, pervasive threats to liberty work not through physical constraint but through mental compulsion.").

²²⁰ Harry Schiller, *First Amendment Dialogue and Subliminal Messages*, 11 N.Y.U. REV. L. & SOC. CHANGE 331, 346 (1983) ("Our autonomy is invaded as subliminals replace our norms and subjectivity of meaning with a mechanical substitute for the associative process.")

²²¹ See Daniel J. Solove, Privacy and the Consent Dilemma, HARV. L. REV. (2012).

²²² Nita A. Farahany, "When technology can read minds, how will we protect our privacy?", TED (Oct. 2018),

²²³ Jeff Richards, *Pictures: An Advertiser's Expressway Through FTC Regulation*, 16 GA. L. REV. 77, 113 (1981).

2022] ROUGH DRAFT 139

4. Economic

Branding dreams also poses a problem from the perspective of the marketplace. The application of economic principles to the analysis of law is based on the "unifying principle" of rationality as achieving economic efficiency.²²⁴ Under this view, "truthful advertising is not anticompetitive, but rather an important tool for enhancing the competitive market."²²⁵

Dreams, on the other hand, are inherently irrational. They lack logic, rationality, and coherence. The bizarre nature of dreams renders dream advertising incapable of, or at least highly unreliable as a vehicle for, making literal truthful claims for the purpose of advertising. Indeed, dreams are bound to deceive—a "dangerous combination of reality and randomness." According to one description:

Dreams unfold. We walk, run, fly and float through strange landscapes. Characters appear and turn into different people. Objects are transformed. A rope becomes a snake. Uncle Harry turns into a Tibetan monk and it all makes sense in some screwy, dreamlike way.²²⁷

The unreliability of dream advertising is wholly inefficient. It is never clear how the advertiser's hypnagogic prompt will translate to the subject's dreams (i.e., the true advertisement), and what type of (dis)information will be the subject of the consumer's sleep mentation. And while the dream advertisement itself may be tracked, its effect on hypnagogia and the unconscious mind is subjective and unpredictable.

Consumers may act on dreams without even realizing they are doing so, making precise measurement impossible. Like other forms of subliminal messaging, dream advertising "operate[s] on a level totally disconnected with the conscious message or perception of the advertisement. The rational marketplace . . . is intentionally undermined."²²⁸ It is for at least this reason that subliminal messaging is generally thought unentitled to First Amendment protection—as occurring below the threshold of awareness, the practice can further no rational dialogue.²²⁹

²²⁴ Ellen R. Jordan & Paul H. Rubin, *An Economic Analysis of the Law of False Advertising*, 8 J. Legal Stud. 527, 527 (1979).

²²⁵ Jean Wegman Burns, Confused Jurisprudence: False Advertising Under the Lanham Act, 79 B.U. L. REV. 807, 828 (1999)

²²⁶ https://www.elitedaily.com/life/culture/dreams-dont-really-mean-much-think/669394

https://www.nytimes.com/1994/07/12/science/clues-to-the-irrational-nature-of-dreams.html

²²⁸ Harry Schiller, First Amendment Dialogue and Subliminal Messages, 11 N.Y.U. REV. L. & SOC. CHANGE 331, 338 (1983).

²²⁹ *Id*.

140 THE NIGHTMARE OF DREAM ADVERTISING

5. Cultural

In adopting the technique of dream incubation, branding dreams commodifies the sacred. It is an afront to religious, spiritual, and sacred traditions, raises concerns regarding the appropriation of traditional knowledge, and, in its elimination of the sleep-commerce barrier, represents a theft of time by capitalism.

While modern Western society appears disenchanted with sleep and dreams, "[v]irtually every religious tradition throughout history has looked to dreams for revelations into the divine, for guidance from the gods, and for spiritual insights and values."²³⁰ For instance, members of various Native American tribes met guardian spirits in dreams.²³¹ In the Judeo-Christian tradition, both the Old and New Testaments contain several dream accounts and provide commentary on the nature and lessons of dreams.²³² Sufi mystics of Islam are sometimes initiated into their lives of religious devotion through a revelatory dream "of a special spiritual advisor."²³³

Not limited to organized religion, dreams can shape our conception of the cosmos, our understanding of death, and the intersection between the secular and divine.²³⁴ The images found in dreams transcend time and culture.²³⁵ These themes have been referred to as 'religious,' 'cosmic,' or 'archetypal' symbols, or perhaps "root metaphors."²³⁶ The act of branding dreams serves to commodify these sacred symbols, potentially leading to the further fetishization of brands and the dilution of culture.²³⁷

In this sense, dream advertising can be thought to represent a commercial taking of the symbols of the astral plane (i.e., dream state).²³⁸ Advertising

²³⁰ Kelly Bulkley, *Dreams, Spirituality, and Root Metaphors*, 31 JOURNAL OF RELIGION AND HEALTH 197, 197 (1992).

²³¹ *Id*.

²³² *Id*.

²³³ Id.

²³⁴ WHEN BRAINS DREAM, *supra* note ___ at 2.

²³⁵ LEONARD MLODINOW, SUBLIMINAL: HOW YOUR UNCONSCIOUS MIND RULES YOUR BEHAVIOR 8 (2012).

²³⁶ Id.

²³⁷ Katya Assaf-Zakharov has written extensively on this topic in regard to brands generally. See Katya Assaf, *Brand Fetishism*, 43 CONN. L. REV. 83, 147-48 (2010); Katya Assaf, *Magical Thinking in Trademark Law*, 37 L. & SOC. INQUIRY 595, 596 (2012); Katya Assaf, *The Dilution of Culture and the Law of Trademarks*, 49 IDEA 1 (2008).

²³⁸ Compare, for example, branding dreams to another recent appropriation of altered states of consciousness—psychedelic substances. Pharmaceutical commercialization of psychedelic therapies that were pioneered by Indigenous communities provides a close corollary to the potential of advertisers to appropriate indigenous dream incubation techniques. There, the issue involves *patents*—companies patenting psychedelic plant medicines and shamanistic techniques are accused of exploiting

2022] ROUGH DRAFT 141

symbols take the place of, or disfigure, naturally occurring symbols of the unconscious.²³⁹

Branding dreams also raises concerns regarding the exploitation of Indigenous communities through biopiracy. According to the World Intellectual Property Organization (WIPO), traditional knowledge "is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity."²⁴⁰ In a general sense, traditional knowledge encompasses "the content of knowledge itself as well as traditional cultural expressions, including distinctive signs and symbols."²⁴¹

Dream incubation dates back nearly 4,000 years, and is still utilized to this day by cultures including Native Americans, Aboriginal Australians, and by Indigenous peoples of Canada, and as part of spiritual and therapeutic practices including Mohave shamanism and yoga nidra. To this end, the use of TDI by scientists can be thought of as *bioprospecting*—the identification of

traditional knowledge used in religious and healing ceremonies. Mason Marks and I. Glenn Cohen, *Patents on Psychedelics: The Next Legal Battlefront of Drug Development*, 135 HARV. L. REV. FORUM 212, 218 (2022). Here, the issue is more like one of *trademarks* instead—branding dreams by use of advertising symbols.

²³⁹ "Branded Dreams," courtesy of https://medium.com/@gjmendes/branded-dreams-the-future-of-advertising-f9da39de7a57



²⁴⁰ WIPO (World Intellectual Property Organization), "Traditional Knowledge, available at https://www.wipo.int/tk/en/tk/

²⁴¹ More narrowly, it is seen to refer "knowledge as such, in particular the knowledge resulting from intellectual activity in a traditional context, and includes know-how, practices, skills, and innovations." It can be found in medicinal, agricultural, scientific, ecological, and technical forms.

142 THE NIGHTMARE OF DREAM ADVERTISING

useful techniques and resources that may be commercially valuable.²⁴² And branding dreams—inserting brands (i.e., a form of intellectual property) into dreams for commercial gain is plausibly a form of *biopiracy*—the unequitable taking and commodifying of Indigenous technologies without acknowledgement, permission, or compensation.²⁴³

Last, branding dreams suggests a commodification of time itself. Jonathan Crary writes in his powerful essay, 24/7: Late Capitalism and the Ends of Sleep:

Sleep is an uncompromising interruption of the theft of time from us by capitalism. Most of the seemingly irreducible necessities of human life—hunger, third, sexual desire and recently the need for friendship—have been remade into commodified or financialized forms. Sleep poses the idea of a human need and interval of time that cannot be colonized and harnessed to a massive engine of profitability...²⁴⁴

Until now, that is. Branding dreams represents the elimination of the last "natural barrier" to "24/7 capitalism"—replacing the natural state of sleep and dreams with its consumer-focused simulacrum.²⁴⁵ In any of its current or future forms, it is this elimination of the sleep commerce barrier and venture into around the clock commodification that is the nightmare of dream advertising.

These harms provide justifications for laws regulating—and ideally prohibiting—branding dreams. Indeed, even Anke Peters, Chief Client Officer at the leading advertising agency Wunderman Thompson, warns: "Dreamvertising sounds like a utopia [for advertisers]. But before marketers start to use it for their purposes and are applying dream tech to influence their audiences a deeper understanding is necessary or even regulations to avoid disruption in a very personal field." ²⁴⁶

Novel and specific regulations on dream advertising would indeed be welcome and helpful in taking notice of the harms that could result from continued

²⁴² See, e.g., Mason Marks and I. Glenn Cohen, Patents on Psychedelics: The Next Legal Battlefront of Drug Development, 135 HARV. L. REV. FORUM 212, 218 (2022).

²⁴³ See, e.g., id.; Tim K. Mackey & Bryan A. Liang, Integrating Biodiversity Management and Indigenous Biopiracy Protection to Promote Environmental Justice and Global Health, 102 AM. J. PUB. HEALTH 1091, 1091 (2012 (defining biopiracy broadly); cf. Aman Gebru, Patents, Disclosure, and Biopiracy, 96 DENVER L. REV. 535, 541 (2019) (defining biopiracy more narrowly, and in the context of appropriation via patent).

 $^{^{244}}$ Jonathan Crary, Late Capitalism and the Ends of Sleep 10-11 (2013). 245 $\emph{Id.}$ at 11.

²⁴⁶ See Wunderman Thompson's Future 100, 2022, Trend #39 Dreamvertising, https://www.wundermanthompson.com/de/campaign/trend-39-from-100-wunderman-thompsons-future-100-trends-2022.

2022] ROUGH DRAFT 143

exploitation of dreams by advertisers through use of targeted dream incubation. These could include, for example, a congressional bill, or policy prescription by the FTC, explicitly banning or mandating a certain, heightened degree of informed consumer consent for branding dreams. Or as part of a broader right to cognitive liberty designed to protect mental processes against neurotechnology and artificial intelligence being designed to read "correlates of mental states including hidden intentions, visual experiences or even dreams..."

However, leaving novel regulations to future works, the final Part argues that dream advertising could *already be illegal* under already existing laws. As a form of subliminal advertising, dream advertising—the intentional targeting of the sleep cycle for commercial purposes—constitutes a subliminal technique, and thus a deceptive and false advertising practice under Sections 5 and 12 of the FTC Act.

IV. THE DECEPTIVENESS OF BRANDING DREAMS

The real question is not: How many ads do we see? The real question is: What do we have to do to see no ads? And the answer is: go to sleep...

James B. Twitchell

Despite the increasing intrusive reach of commercial persuasion,²⁴⁸ most advertising in the United States is not subject to exacting regulations.²⁴⁹ But unfair, deceptive, and false advertising practices are an exception to the laissez-faire approach to advertising regulations. Laws and policies regulating such practices include the Federal Trade Commission's (FTC) deceptive and unfair advertising prohibitions under Sections 5 and 12 of the FTC Act²⁵⁰; the Lanham (Trademark) Act's false advertising provision, Section 43(a)²⁵¹; and the

²⁴⁷ E.g., Marcello Ienca, "Do We Have a Right to Mental Privacy and Cognitive Liberty," https://blogs.scientificamerican.com/observations/do-we-have-a-right-to-mental-privacy-and-cognitive-liberty/ (2017) (citing T. Horikawa et al., *Neural Decoding of Visual Imagery During Sleep*, 340 Science 639 (2013)).

²⁴⁸ See BARTHOLOMEW, supra note __ at 4 ("[T]he insistent creep of invasive advertising is taken as a given in most quarters, a tax that has to be paid for life in the modern world.").

²⁴⁹ See, e.g., id.; Jennifer L. Lemanski, Traditional and Emerging Ethical Concerns in Advertising, ANNALES. ETHICS IN ECONOMIC LIFE 21 (2018). This laissez-faire approach to advertising regulation has not long been the norm, however. See Ramsi Woodcock, The Obsolescence of Advertising in the Information Age, 127 YALE L.J. 2270, 2272 (2018) (explaining that "as late as the 1970s the [FTC] viewed [even] non-false, non-misleading advertising as anticompetitive conduct capable of violating the antitrust laws.").

²⁵⁰ Federal Trade Commission Act (FTC Act) Section 5 (15 U.S.C 45).

²⁵¹ 15 U.S.C. 1125 (Section 43 of the Lanham Act)

144 THE NIGHTMARE OF DREAM ADVERTISING

Federal Communication Commission's (FCC) 1974 policy statement regarding subliminal advertising.²⁵²

In their open letter, "Advertising in Dreams is Coming: Now What?," sleep and dream experts Stickgold, Zadra and Haar advocate for "proactive action and new protective policies" regarding branding dreams.²⁵³ The authors believe that the FTC "has indicated that subliminal ads during wake violate its statute requiring truth in advertising, [but] there is no similar indication regarding exposure to advertisements during sleep."²⁵⁴ But the question of whether an ad is subliminal or not does not hinge on whether the target is awake versus being asleep. Rather, what matters is whether the advertisement targets the subject below the normal threshold of awareness.²⁵⁵

Dierdre Barrett, who consulted as a dream expert for the "Molson Coors Big Game Commercial of Your Dreams" argues, without reference to subliminal messaging, that the FTC Act's general prohibition of "unfair or deceptive acts or practices in or affecting commerce" would be at least enough to prohibit a hypothetical future in which "ads designed for sleepers" would passively play back sounds designed to influence dreams. But Barrett believes that the Molson Coors ad is not deceptive and thus would not fall under the purview of the FTC Act. 257

Barrett is generally correct that the FTC Act would provide a sufficient legal basis for challenging hypothetical, highly intrusive dream advertising scenarios. However, this Part claims *any* dream advertising that targets the hypnogogic period or other parts of the sleep cycle—including the previous Coors, Xbox, and Burger King examples—is subliminal in nature, and is thus deceptive for purposes of the FTC Act.

The subliminal nature of branding dreams is legally relevant. Subliminals are banned in several countries.²⁵⁸ And because subliminal messaging has been found by courts and government agencies in the U.S. to be deceptive in nature, the FTC has the potential to prohibit dream advertising under the FTC Act, which prohibits "deceptive acts or practices," and particularly "false advertising."²⁵⁹

This Part first provides a brief historical and legal overview of subliminal messaging. It then makes the case that branding dreams is both (1) an effective form of subliminal advertising and (2) as such, a materially deceptive

²⁵² In Re Pub. Notice Concerning the Broad. Of Info. by Means of "Subliminal Perception' Techniques, 44 F.C.C.2d 1016 (1974).

²⁵³ Now What?, supra note __ at 4.

²⁵⁴ *Id*.

²⁵⁵ See infra Part III.A and III.B.

²⁵⁶ Barrett, blog, supra note ___.

²⁵⁷ **I**d

²⁵⁸ Thijs Verwijmeren, *The Working and Limits of Subliminal Advertising*, Radboud University Thesis 49 (2014).

²⁵⁹ Section 5, *supra* note ___.

2022] ROUGH DRAFT 145

advertising practice. Given its capacity for deception, instances of dream advertising should be actionable by the FTC under Sections 5 and 12 of the FTC Act. Importantly, the issue of whether dream advertising may be actionable by *private actors* under the Lanham Act's false advertising doctrine is an open question left to future works.²⁶⁰

A. BACKGROUND ON SUBLIMINAL MESSAGING

Subliminal advertising has long been one of advertising's most controversial issues. Subliminal messages are those designed to operate below the threshold of conscious awareness.²⁶¹ The word "subliminal" literally means "below threshold."²⁶² Subliminal advertising can be defined, for our purposes, by the dictionary definition: advertisements "existing or functioning below the threshold of consciousness."²⁶³

The prototypical methods of subliminal advertising have involved: (1) the *subvisual*—visual messages flashed by the subject so quickly or dimly that they are not noticed at the conscious level; (2) the *subaudible*—vocal messages played at sound levels too low to be heard at the threshold of consciousness; and (3) the *embedded or masked*—images hidden on the edges of drawings or photos.²⁶⁴ The efficacy of these traditional methods of implementing subliminals is still hotly debated.²⁶⁵

Yet subliminal advertising also has longstanding ties to dreams and even to dream incubation. Public outcry against subliminal advertising is usually traced to 1957, to James Vicary's infamous experiment where he claimed, falsely, that he had enticed moviegoers to purchase more of the products when they had been shown split second flashes of the phrases "Drink Coca Cola" and

²⁶⁰ For an excellent applied understanding of Lanham Act false advertising to another novel, technologically enabled form of advertisement, see generally Alexandra J. Roberts, *False Influencing*, 109 GEO. L. REV. 81 (2021).

²⁶¹ LEONARD MLODINOV, SUBLIMINAL: HOW YOUR UNCONSCIOUS MIND RULES YOUR BEHAVIOR 5 (2012) (explaining that "[p[sychologists employ the term to mean below the threshold of consciousness.").

²⁶² *Supra* note ___.

Merriam-Webster dictionary, "Subliminal," https://www.merriam-webster.com/dictionary/subliminal.

²⁶⁴ See, e.g., Thomas Albert Bliss, Subliminal Projection: History and Analysis, 5 HASTINGS COMM. & ENT. L.J. 419, 421 (1983) (discussed subaudible and subvisual methods); Thijs Verwijmeren, The Working and Limits of Subliminal Advertising, Radboud University Thesis 49 (2014) (discussing embedded/masked method).

²⁶⁵ Compare T. E. Moore, The case against subliminal manipulation, 5 PSYCHOLOGY & MARKETING, 297, 297 (1988); Pratkanis & Greenwald, Recent perspectives on unconscious processing: Still no marketing applications. Psychology & Marketing, 5(4) 339-355 (1988) with T. Verwijmeren et al., The workings and limits of subliminal advertising: The role of habits, JOURNAL OF CONSUMER PSYCHOLOGY, 21(2), 206-213, 2010; Schweigert, 2018.

146 THE NIGHTMARE OF DREAM ADVERTISING

"Hungry? Eat Popcorn" during films. 266 But forms of subliminal perception techniques have been documented as early as 400 B.C., 267 and the advent of subliminal *advertising* specifically can be traced to the early 1900s and the realm of psychoanalysis and of dreams. 268

It was during this time period that Sigmund Freud's contemporary, Otto Poetzle pioneered subliminal perception studies. Poetzle theorized that dream content was comprised of stimuli that were perceived subliminally or unconsciously. With a technique mixing dream incubation with subvisual and subaudible subliminal messaging techniques, Poetzle showed that when subjects were exposed to a certain stimulus (such as an image or sound) without conscious knowledge for a very brief period, that subliminal message tended to appear in the subject's dreams days or weeks after the initial exposure. Thus, terms or images shown subliminally might show up as dream imagery a brief time later.

Influenced by the Poetzle phenomenon, Freud's nephew, Edward Bernays, sought to apply it to the advertising industry. Bernays' most influential work, *Propaganda* (1928), marked the intersection of public relations, the social sciences, and psychoanalysis—in the form of dreams and the unconscious.²⁷² In *Propaganda*, Bernays wrote: "A single factory . . . cannot afford to wait until the public asks for its product; it must maintain constant touch, through *advertising and propaganda*, with the vast public in order to assure itself the continuous demand which alone will make its closely plant profitable." ²⁷³

To accomplish his aim, Bernays argued that the First Amendment protected subconscious advertising techniques. In a later article titled *Engineering Consent*, Bernays wrote self-servingly of a "right to persuade":

Freedom of speech and its democratic corollary, a free press, have tacitly expanded our Bill of Rights to include the right of persuasion. This development was an

²⁶⁶ See infra notes __ and accompanying discussion.

²⁶⁷ See Olivia Goodkin & Maureen Ann Phillips, The Subconscious Taken Captive: A Social, Ethical, and Legal Analysis of Subliminal Communication Technology, 54 S. CAL. L. REV. 1077, 1079 (1981) (citing NORMAN DIXON, SUBLIMINAL PERCEPTION—THE NATURE OF A CONTROVERSY (1971)).

²⁶⁸ See, e.g., Richards and Zakra, Pictures: An Advertiser's Expressway Through FTC Regulation, 16 GA. L. REv. 77, 97 (1981).

²⁶⁹ Howard Shevrin, *Subliminal Perception and Dreaming*, 7 J. Mind & Behavior 379, 380 (1986).

²⁷⁰ See A. Westin, supra note ___, at 288.

²⁷¹ See, e.g., Sydney Pulver and Bennett Eppes, The Poetzl Phenomenon: Some Further Evidence, 136 J. NERVOUS AND MENTAL DISEASE 527, 527 (1963).

²⁷² EDWARD L. BERNAYS, PROPAGANDA (1928). Bernays' other well-known works include CRYSTALIZING PUBLIC OPINION (1923) and A PUBLIC RELATIONS COUNSEL (1927)

²⁷³ EDWARD L. BERNAYS, PROPAGANDA 57 (1928).

2022] ROUGH DRAFT 147

inevitable result of the expansion of the media of free speech and persuasion . . . All these media provide open doors to the public mind. Any one of us through these media may influence the attitudes and actions of our fellow citizens.²⁷⁴

To accomplish such "mass persuasion," Bernays demanded that "subconscious and conscious motivations in public thought" be researched and utilized.²⁷⁵ In support of this goal, Bernays claimed that "engineering consent" from the public involved the use of not just the conscious rational mind, but also the irrational, unconscious forces driving human behavior.²⁷⁶ Bernays' theories paved the way for unconscious advertising.

In the decades following Bernays' work, marketing researchers became increasingly interested in the idea that consumers are not always aware of their own motivations and sought to "uncover and redirect the unconscious desires of consumers." Psychoanalytic techniques were utilized in the advertising industry increasingly in the 1930s depression era, considering that limited purchasing power required advertisers to "consider seriously, in the name of fierce competition, what makes people buy and how to motivate them to choose a specific product." And according to a seminal advertising text:

[B]y 1940 a major goal of those who feared the possibility of increasing public skepticism was to develop advertising to the point where, according to advertising theorists, it could circumvent conscious reasoning processes by seizing hold directly on the [subject's] emotions. To arouse one's reason or to stimulate one's intellectual comprehension of the appeal was to risk the possibility of resistance to it and resentment of it.²⁷⁹

Psychoanalytic theories, in this way, provided the advertising industry with the tools necessary to sell by associating aesthetics with goods and services²⁸⁰—for instance Molson Coors linkage of beer with refreshing imagery, Burger King's use of horror themes in advertising its Nightmare King burger, or Xbox's association of video games with dreams. Dream advertising, then, is a natural evolution—perhaps the full-fledged realization—of advertising's longtime

²⁷⁴ Edward L. Bernays, *The Engineering of Consent*, THE ANNALS OF THE AMERICAN ACADEMY 113 (1947).

²⁷⁵ *Id.* at 118.

²⁷⁶ See id.

²⁷⁷ Inside your dreamscape, supra note ___

²⁷⁸ Richards and Zakia, supra note ___ (citing O. PEASE, THE RESPONSIBILITIES OF AMERICAN ADVERTISERS 169 (1958)).

²⁷⁹ O. PEASE, THE RESPONSIBILITIES OF AMERICAN ADVERTISERS 169 (1958).

²⁸⁰ See Frederic Forest, *Psychoanalysis of Advertising*, Int. J. Appl. Psychoanal. Studies (2015).

148 THE NIGHTMARE OF DREAM ADVERTISING

goal of bypassing conscious rationality through irrational and emotional appeals.²⁸¹

With this background, James Vicary's subliminal marketing invention is set in context. As alluded to earlier in this section, at a press conference in 1957, Vicary pioneered a method of unconscious advertising that came to be known as subliminal advertising. Vicary claimed that his company Subliminal Projection Co. had successfully conducted an experiment where moviegoers at a New Jersey theater were shown split second flashing of the phrases "Drink Coca Cola" and "Hungry? Eat Popcorn" on a movie screen at 1/3000th of a second every five seconds during the film. According to Vicary, flashing the phrases on the screen increased the sales of popcorn by 58% and Coke by 18% on the days the subliminal messages were shown on the screen.

Vicary's method was later proven to be fraudulent, but it caused quite a stir.²⁸⁴ The public and legislators were outraged, leading to responses even including by the Central Intelligence Agency (CIA).²⁸⁵ As one scathing write-up puts it: "The subconscious mind is the most delicate part of the most delicate apparatus in the entire universe. It is not to be smudged, sullied or twisted in order to boost the sales of popcorn or anything else."²⁸⁶

As a result, the Television Board of the National Association of Broadcasters (NAB) amended the Television Code in 1958 to include the following representation:

The use of the television medium to transmit information of any kind by the use of the process called "subliminal perception," or by the use of any similar technique whereby an attempt is made to convey information to the viewer by transmitting messages below the threshold of awareness is not permitted.²⁸⁷

Legislation aimed at prohibiting subliminal messaging was introduced in Congress during the late 1950s and early 1960s, though the bill was ultimately never passed. For instance, Congressman James Wright of Texas sponsored a bill forbidding any device "designed to advertise to the public by means of

²⁸¹ See generally LAWRENCE R. SAMUEL, FREUD ON MADISON AVENUE: MOTIVATION RESEARCH AND SUBLIMINAL ADVERTISING IN AMERICA (2010) (discussing psychoanalytic ideas in U.S. advertising).

²⁸² Harry Schiller, Note, *First Amendment Dialogue and Subliminal Messages*, 11 N.Y.U. REV. L. & SOC. CHANGE 331, 332 (1982-83).

²⁸³ A Westin. at 279.

²⁸⁴ Vance

²⁸⁵ See, e.g., "Subliminal" Advertising and its Relationship to Section 317 of the Communications Act, 40 F.C.C. 7 (1957).

²⁸⁶ "Smudging the Subsconscious," SATURDAY REV., Oct. 5, 1957, at 40, 20.

²⁸⁷ NAB Television Code.

2022] ROUGH DRAFT 149

making an impression on the subconscious mind."²⁸⁸ And the FCC and federal courts issued pivotal rulings regarding subliminal advertising during this period, distinguishing subliminal advertising as manipulative speech "relatively unprotected by the [F]irst [A]mendment when the public health is threatened."²⁹⁰

In 1973, citizens complained to the FCC and FTC about the subliminal advertising message "Get It" directed at children in a commercial for the game "Husker Du." As a result, the FCC issued a public warning, noting the practice to be deceptive and warning broadcasters not to employ it. 292 In that policy statement, the FCC defined subliminal advertising broadly as: "Any technique whereby an attempt is made to convey information to the viewer by the transmitting of messages below the threshold of awareness." 293

While some have argued that the FCC's notice is unclear or amounts to a mere policy statement "without teeth,"²⁹⁴ the Commission's Enforcement Bureau has enforced its rule on multiple occasions. In 1987, a radio station in Dallas, Texas, received a warning by the FCC for repeated transmission of subliminal messages during an American Cancer Society anti-smoking broadcast.²⁹⁵ And during the 2000 presidential campaign, the Republican National Committee used subliminals during a televised political ad when it displayed the word 'RATS' (as in, focusing on the last four letters of the word "bureaucrats") in

²⁸⁸ H.R. 10802, 85th Cong., 2d Sess. (1958) (bill sponsored by Congressman Wright of Texas). Similar bills included H.R. 11363, 85th Cong., 2d Sess. (1958) (bill sponsored by Congressman Hosmer of California); H.R. 1998, 86th Cong., 1st Sess. (1959) (bill sponsored by Congressman Wright of Texas).

²⁸⁹ Banzhaf v. F.C.C., 405 F.2d 1082 (D.C. Cir. 1968) (explaining that "subliminal impact" of broadcasting—that it can be passively heard if not actively listened to—warrants different treatment under First Amendment as compared to less passive media); Capital Broadcasting Co. v. Mitchell, 333 F. Supp. 582 (D.D.C. 1971), aff'd 405 U.S. 1000 (1972) (upholding ban on broadcast cigarette advertising based on Banzhaf reasoning).

²⁹⁰ Schiller, supra note __ at 342; see also Yusef Al-Jarani, All Fun and (Mind) Games? Protecting Consumers from the Manipulative Harms of Interactive Virtual Reality, U. ILL. J.L. TECH. & POL'Y 299, 330 (2019).

²⁹¹ Nicole Grattan Pearson, <u>Subliminal Speech: Is It Worthy of First Amendment Protection?</u>, 4 S. CAL. INTERDISC. L.J. 775, 778 (1995) (noting that this incident led to the public's becoming more aware of subliminal advertising during this time period).

²⁹² 16 F.C.C.R. 7644, 7644, 2001 WL 332798, 1

²⁹³ Supra note ___.

²⁹⁴ See Commissioner Gloria Tristani, Press Statement, Federal Communications Commission (Mar. 9, 2001), available at https://transition.fcc.gov/Speeches/Tristani/Statements/2001/stgt123.html.

²⁹⁵ Harold Furchtgott-Roth, "The FCC's Investigation of 'Subliminal Techniques: From the Sublime to the Absurd," Press Statement (Sept. 19, 2000), https://transition.fcc.gov/Speeches/Furchtgott_Roth/2000/sphfr011.html.

150 THE NIGHTMARE OF DREAM ADVERTISING

attacking Vice President Al Gore's prescription drug proposal. The word 'RATS' appears for only one-thirtieth of a second, and in capital letters larger than the other words in the commercial.²⁹⁶

In response, the FCC Enforcement Bureau sent inquiries to 217 television stations asking: (1) whether they aired the advertisement; (2) on what dates; (3) how many times; (4) whether anyone affiliated with the station knew it contained the word RATS used subliminally; and (5) the facts and circumstances surrounding the decision to air the ad. Ultimately, the FCC Enforcement Bureau concluded that "no further action is warranted," though the example speaks to the 1974 policy statement as "explicitly proscrib[ing] the broadcast of material that constitutes subliminal advertising." ²⁹⁷

Beyond advertising, subliminal messaging has been employed in various contexts such as to promote safe driving and weight control, prevent shoplifting, increase workplace productivity induce hypnosis, and as part of artwork like movies and music, ²⁹⁸ often in darker works such as horror and heavy metal. ²⁹⁹ As to this last point, the use of subliminal lyrics in heavy metal music has spawned multiple litigations. ³⁰⁰



²⁹⁷ Federal Communications Commission, "Press Statement of Commissioner Gloria Tristani," FCC News (Mar. 9, 2001), available at https://transition.fcc.gov/Speeches/Tristani/Statements/2001/stgt123.html ²⁹⁸ Nicole Grattan Pearson, Subliminal Speech: Is It Worthy of First Amendment Protection?, 4 S. CAL. INTERDISC. L.J. 775, 778 (1995).

²⁹⁹ Harry Schiller, *First Amendment Dialogue and Subliminal Messages*, 11 N.Y.U. REV. L. & SOC. CHANGE 331, 333 (1983) ("It is in horror films . . . that subliminals have thus far found their niche.").

300 Vance, 763 F. Supp. 144 (involving subliminal lyrics by Judas Priest allegedly influencing plaintiff to commit suicide); Waller v. Osbourne, 763 F. Supp. 1144, 1145 (M.D. Ga. 1991), aff'd, 958 F.2d 1084 (11th Cir. 1992) (involving similar facts accusing Ozzy Osbourne). For an analysis of the privacy and free speech implications, see generally Matthew W. Daus, Subliminal Messages in Music: Free Speech or Invasion of Privacy?, 9 U. Miami Ent. & Sports L. Rev. 241 (1992); Eric L. Locke, The Vance Decision: The Future of Subliminal Communication, 15 LAW & PSYCHOL. REV. 375 (1991).

2022] ROUGH DRAFT 151

The most prominent litigation involving subliminal messaging is *Vance v. Judas Priest* (1990) at the Nevada District Court. ³⁰¹ The disturbing facts involve two teenagers, James Vance, who attempted, and Raymond Belknap, who died by, suicide after listening to British Heavy metal band Judas Priest's album "Stained Class." ³⁰² In particular, the song "Better by You, Better than Me" contained the subliminal phrase, "do it." ³⁰³ Plaintiffs claimed that "do it" referred to suicide and, in considering the teenagers already had suicidal tendencies, "constituted one of the factors which caused the deaths of' Vance (who, disfigured, later died of a methadone overdose) and of Belknap. ³⁰⁴

Among other issues, the judge, Justice Jerry Carr Whitehead, ruled in a pretrial motion that subliminal messages—even ones constituting artistic, rather than commercial, expression—are incapable of being protected speech under the First Amendment. This is because, by definition, subliminals are unnoticeable and thus cannot contribute to a dialogue, personal autonomy, the marketplace of ideas, or the pursuit of truth.³⁰⁵

In holding that even artistic subliminal messaging is comfortably outside the scope of free speech protection, the *Vance* reasoning supports the conclusion that regulations regarding dream advertising or other forms of subliminal advertising should not encounter successful First Amendment challenges.³⁰⁶ A documentary about the *Vance v. Judas Priest* case was released in 1992, titled aptly, *Dream Deceivers*.³⁰⁷

B. Branding Dreams as Subliminal Messaging

³⁰¹ Vance, 763 F. Supp. 144.

³⁰² Vance, 763 F. Supp. 144.

³⁰³ Judas Priest, "Better by You, Better Than Me," YouTube (Feb. 8, 2015), https://www.youtube.com/watch?v=I3UOkxdsh-8 (containing subliminal "do it" at timestamp 1:30).

³⁰⁴ Vance, 763 F. Supp. 144.

³⁰⁵ Whitehead justified this conclusion on three grounds: "(A) subliminal communication does not advance any of the purposes of free speech; (B) an individual has a First Amendment right to be free from unwanted speech; and (C) the listener's right of privacy outweighs the speaker's right of free speech when subliminal speech is used." Judge Whitehead also noted that people have a right to be free from unwanted subliminal speech. *Id*.

³⁰⁶ The court ultimately ruled for Judas Priest, however, on grounds that, "The scientific research presented does not establish that subliminal stimuli, even if perceived, may precipitate conduct of this magnitude." Rather, "the strongest evidence presented at the trial showed no behavioral effects other than anxiety, distress or tension." Id.

³⁰⁷ Dream Deceivers: The Story Behind James Vance v. Judas Priest (1992).

152 THE NIGHTMARE OF DREAM ADVERTISING

As the advertising agency Wunderson Thompson puts it, there is a strong case for dream advertising as "the next wave of subliminal marketing." The issue is relevant because subliminal advertising is banned in several countries, including the United Kingdom and Australia. In the U.S., while not banned legislatively, the term carries heavy legal weight having long "provoked legal responses" by courts and government agencies. Subliminal messaging is considered *deceptive* in nature, and, given its occurrence below the threshold of awareness, speech unprotected under the First Amendment. Thus, especially if dream advertising is held to be subliminal advertising, the practice may be met with legal consequences, including under Section 5 of the FTC Act.

The definition of subliminal messaging varies, though, with some sources defining it broadly and others narrowly. Broad definitions, which ostensibly encompass dream advertising, include the following:

- Merriam Webster dictionary defines "subliminal" in part as "existing or functioning below the threshold of consciousness"—the Latin word limen meaning threshold.³¹⁰
- Richards and Zakia define subliminal as including "some element of persuasion designed to bypass the conscious perception of the viewer and be received only by the subconscious."³¹¹
- Thijs Verwijmeren defines subliminal advertising, specifically "as the use of stimuli that are presented outside of awareness with the intention to influence consumer behavior."³¹²
- The Cambridge Dictionary defines subliminal advertising as "advertising that uses images and sounds that the conscious mind is not aware of, in order to influence people and make them attracted to a product."³¹³
- The FCC defined subliminal messaging in its 1974 Policy Statement as "[a]ny technique whereby an attempt is made to convey information to the viewer by transmitting messages below the threshold level of normal awareness." 314

These definitions get at the fact that the specific techniques historically used to target the unconscious—e.g., subvisual, subaudible, embedded—are not central to the crux of what subliminal messaging is. That is, the key to something being subliminal (below threshold) is not the short duration of the messages—which represent a primitive, pseudo-scientific attempt at unconscious influence. Rather, what should matter is that the transmission of

³⁰⁸ Trend #39 Wunderman Thompson's Future 100 Trends 2022, "Dreamvertising," https://www.wundermanthompson.com/campaign/trend-39-from-100-wunderman-thompsons-future-100-trends-2022
309 Supra note ___.
310 https://www.merriam-webster.com/dictionary/subliminal (the other definition listed is "inadequate to produce a sensation or a perception.").
311 Richards and Zakia, supra note ___.
312 Verwijmeren, Thesis, supra note ___.
313 https://dictionary.cambridge.org/us/dictionary/english/subliminal-advertising
314 Supra note

2022] ROUGH DRAFT 153

the advertisement is designed and intended to be perceived unconsciously instead of consciously. Consider a possible interpretation of the FCC's definition, broken into elements: (1) "Any technique" (2) "whereby an attempt is made to convey information" (3) "by transmitting messages" (4) "below the threshold of normal awareness." 315

First, the "any technique" element references that sublimination is not limited to the employment of a single technique (e.g., subvisual or subaudible or embedded). Rather *any* potential subliminal technique will be considered as running afoul of the FCC's policy statement if the other elements are met. The act of branding dreams, via TDI methods, serves as the subliminal technique at issue regarding dream advertising.

Second, the "whereby an attempt is made to convey information" element serves as an intent requirement. The FCC is looking for an intentional, rather than a negligent or accidental, effort on the part of the advertiser. Of course, any advertisement (say, a jingle) could be so catchy as to find its way into consumer dreams. By contrast, it is the explicit targeting of the hypnagogic period (or other parts of the sleep cycle) to get consumers to dream about an advertiser's products or services that serves as the intentional prerequisite in the context of branding dreams.

Third, the "by transmitting messages" element infers that the intent requirement must manifest as some sort of a communication that impinges on the senses. In the context of branding dreams, the communication is the advertisement itself through targeting of the hypnagogic period or other parts of the sleep cycle. This may manifest, for instance, through Molson Coors' use of tranquil imagery before the onset of sleep combined with its use of a soundscape throughout the night, Burger King's having participants ingest a greasy burger at bedtime, or Xbox's use of Hypnodyne technology to trigger lucid dreams in connection with its video game products.

Finally, the "below the threshold of normal awareness" element is integral to the determination. The message must reach the subject outside the scope of awareness. "Awareness" refers to the conscious state of wakefulness and where our attention is focused. Thus, the unconscious can be reached during states of wakefulness. However, through TDI, the unconscious can also be reached during sleep and dreams. Hypnagogia, as the first stage of sleep cycle, is where "thoughts slip free from conscious control." Sleep is definitionally a state where consciousness is lost or suspended. And cognition psychology

³¹⁵ Supra note .

³¹⁶ Night Shifts, *supra* note ___.

Merriam-Webster, "Sleep," https://www.merriam-webster.com/dictionary/sleep ("The natural, easily reversible periodic state of many living things that is marked by the absence of wakefulness and by the loss of consciousness of one's surroundings....")

154 THE NIGHTMARE OF DREAM ADVERTISING

research has found, even prior to the advent of TDI, that "a subliminal stimulus registers and is recovered in dreams." ³¹⁸

To be sure, some definitions of subliminal messaging are narrow, and would seem to exclude dream advertising as alluding to the bypassing of consciousness purely during wakeful states. Some definitions along these lines include:

- Judge Whitehead in *Vance v. Judas Priest* defined subliminal advertising narrowly "as the projection of messages by light or sound so quickly or faintly that they are received by the listener below the level of conscious awareness." This definition alluded to the immediate subject matter at hand—heavy metal lyrics that were recorded so faintly that they evaded conscious awareness.³¹⁹
- The Bureau of Alcohol, Tobacco and Firearms (ATF) in adopting restrictions on subliminal advertisements for alcohol, define subliminals narrowly: "Subliminal or similar techniques, as used in this subpart, refers to any device or technique that is used to convey, or attempts to convey, a message to a person by means of images or sounds of a very brief nature that cannot be perceived at a normal level of awareness." ³²⁰

Where subliminal advertising has been defined according strictly to prior subvisual, subaudible, and embedded techniques, it is likely that these authorities simply could not have foreseen the future method of TDI as a vehicle for subliminality, rather than intentionally cabining the practice to a narrow range of techniques on principle. Due to these limitations on foreseeability, subliminal advertising came to refer to the primitive, ineffective practice of displaying words or images on a visual advertisement (or some sound-based equivalent) so briefly that the subject could not consciously perceive them, but is, at least theoretically, unconsciously affected. But this is no longer the entirety of subliminal advertising.

From a policy lens, it makes sense to define subliminal advertising broadly enough to encapsulate dream advertising. As discussed more fully in the last Part, there are serious bioethical issues with dream adverting including from the perspectives of health, privacy, liberty, economic, and cultural. While previous forms of subliminal advertising either do not work, or do not work well, 321 dream advertising shows great potential to manipulate as a new form of advertising. According to sleep and dream researchers:

The use of our dreamscape as advertising space is essentially what people feared [prior methods of] subliminal marketing might be. Stimuli delivered during

³¹⁸ Howard Shevrin, *Subliminal Perception and Dreaming*, 7 J. MIND & BEHAVIOR 379, 393 (1986).

³¹⁹ Vance, 763 F. Supp. 144.

^{320 27} C.F.R. § 5.235

³²¹ Cf. Simon Ruch et al., Subliminal messages exert long-term effects on decision-making, NEUROSCIENCE OF CONSCIOUSNESS (2016).

2022] ROUGH DRAFT 155

sleep can influence people without their being able to assess those stimuli. And it is far easier to deliver such information during sleep than during the millisecondslong windows that [subvisual and subaudible] subliminal stimuli must fit into. 322

Indeed, branding dreams is the natural evolution of subliminal advertising. As its psychoanalytic roots support, dream advertising is not conceptually separate from other forms of subliminal advertising—it is simply a new technique spun from the same depth psychology fabric as predecessor subliminal methods. Like other subliminals, dream advertising bypasses the conscious level through "manipulation of the threshold of consciousness itself." Here, the threshold of consciousness is explicitly targeted not by subvisual, subaudible or embedded means, but through exploitation of the hypnagogic period or other parts of the sleep cycle.

C. DECEPTIVE ADVERTISING UNDER THE FTC ACT

The FTC was established in 1914 through the Federal Trade Commission Act of 1914 (the "FTC Act") as a vehicle for combating unfair competition and acts or practices affecting commerce.³²⁴ Its twin aims are to protect consumers and promote competition.³²⁵ The original text of Section 5 of the FTC Act provided that "unfair methods of competition in commerce are hereby declared unlawful."³²⁶ Pursuant to Section 5, the FTC became responsible for regulating claims of unfair or deceptive advertising.³²⁷

The 1938 Wheeler-Lee Amendment to Section 5 modified its language to the current articulation: "Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices affecting commerce, are declared unlawful." This amendment was intended to prohibit "false

^{322 &}quot;Inside Your Dreamscape," supra note ___.

³²³ Harry Schiller, First Amendment Dialogue and Subliminal Messages, 11 N.Y.U. REV. L. & SOC. CHANGE 331, 338 (1983).

³²⁴ Federal Trade Commission Act of 1914, Pub.L. No. 203, 38 Stat. 717 (1914).

³²⁵ See, e.g., FTC v. Raladem Co., 283 U.S. 643 (1931) (explaining the competition rationale); FTC v. Sperry & Hutchinson Co., 405 U.S. 233 (1972) (explaining the consumer protection rationale).)

³²⁶ *Id*.

³²⁷ E.g., Sears, Roebuck & Co. v. F.T.C., 258 F. 307, 311 (7th Cir. 1919) ("The commissioners, representing the government as parens patriae, are to exercise their common sense... and stop all those trade practices that have a capacity or a tendency to injure competitors directly or through deception of purchasers...").

³²⁸ Act of March 21, 1938, Pub.L. No. 447, § 3, 52 Stat. 111 (amending 15 U.S.C. § 45 (a)(1934)).

156 THE NIGHTMARE OF DREAM ADVERTISING

advertising"—advertisements which are deceptive or false or misleading in material respects, apart from the general law of unfair competition. 329

Also relevant, the Wheeler-Lee Act added several new sections to ensure the Commission could extend a "definite and specific" power to regulate the advertisement of food, drugs, devices, and cosmetics.³³⁰ Most relevantly, Section 12 was added,³³¹ stating that it shall be unlawful to disseminate any false advertisement "for the purpose of inducing, or which is likely to induce, directly or indirectly, the purchase of food, drugs, devices, services, or cosmetics."³³²

These false advertisements shall be deemed "unfair or deceptive" within the meaning of Section 5 of the Wheeler-Lee Act.³³³ Under the Act, false advertisement is defined as "an advertisement, other than labelling, which is misleading in a material respect," and notes that "in determining whether an advertisement is misleading", the Commission must consider, the "net impression" of the advertisement.³³⁴

The FTC, as the primary federal consumer protection agency responsible for regulating deceptive and unfair advertising, has the power to order a business engaging in deceptive advertising to cease and desist from doing so, and to issue penalties of over \$40,000 per violation.³³⁵ What makes the threat of FTC enforcement such a powerful deterrent, though, is not the rather modest fines (for large corporations) the agency can levy, but rather the audit process it can trigger. FTC audits require very precise administrative responses and can

³²⁹ 15 U.S.C. § 45(a). ('Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are declared unlawful.'); Jeff I. Richards Richard, *Pictures: An Advertiser's Expressway Through Ftc Regulation*, 16 GA. L. REV. 77, 86 (1981) (citing Sci. Mfg. Co. v. Fed. Trade Comm'n, 124 F.2d 640, 643 (3d Cir. 1941)).

³³⁰ Address of Hon. R. E. Freer, Commissioner, Federal Trade Commission, Before the Annual Convention of the Proprietary Association, May 17, 1938, *available at* https://www.ftc.gov/system/files/documents/public_statements/676351/1938051 7_freer_whe_wheeler-lea_act.pdf [Pge 2] ³³¹ *Id.*

http://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title15-chapter2-subchapter1&edition=prelim

^{333 15} USCA § 52(b)

^{334 15} USC § 55(a)(1) ("[N]ot only representations made or suggested by statement, word, design, device, sound, or any combination thereof, but also the extent to which the advertisement fails to reveal facts material in the light of such representations or material with respect to consequences which may result from the use of the commodity to which the advertisement relates under the conditions prescribed in such advertisement, or under such conditions as are customary or usual.").

https://www.natlawreview.com/article/ftc-goes-penalty-offense-warns-hefty-fines-deceptive-advertising

2022] ROUGH DRAFT 157

continue for decades.³³⁶ To this end, were the FTC to make known its desire to enforce against companies who engage in branding dreams, such abstract possibility of enforcement might itself be enough to curb the practice.

Practices previously found by the FTC to be deceptive include misleading price claims, sales of hazardous or defective products, false representations, failing to live up to warranties, failure to performed promised services, and failure to disclose information about pyramid sales. 337 While it has yet to do so, the FTC similarly has the power to regulate subliminal advertisements—including branding dreams—as deceptive and penalize those who engage in it. 338

D. Dream Advertising as Deceptive Advertising

At the April 2022 FTC Open Commission meeting, Ashley Votaw, a concerned citizen, raised the issue of dream advertising, arguing "that the FTC should add targeted dream incubation to deceptive advertising rules and ad examples. Companies want to increase sales exponentially, so advertising culture takes a scale at all cost mindset . . . If there is proof of a working technique, it will be used and optimized . . ."³³⁹ As this final subpart will argue, the FTC should indeed enforce instances of dream advertising as a materially effective form of deceptive and false advertising under Sections 5 and 12 of the FTC Act.

Congress has never successfully passed a law restricting subliminal messages.³⁴⁰ However, multiple government agencies, including the FCC and FTC, have stated that the practice is inherently deceptive and could result in enforcement. The FCC has limited jurisdiction over modern forms of communication, such as social media, though conceivably could enforce against some instances of dream advertising.³⁴¹ But especially if dream advertising is a form of subliminal

³³⁶ Solove and Hartzog, *supra* note ___.

³³⁷ Daniel J. Solove & Woodrow Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583, 628 (2014).

³³⁸ Bliss, *supra* note __ at 433 ("Deception . . . as defined by case law related to the Federal Trade Commission Act, does appear to encompass subliminal projection.") (citing Bockenstette v. FTC, 134 F.2d 369, 371 (10th Cir. 1943) ("[I]t is sufficient to find that the natural and probable result of the challenged practices is to cause one ot do that which he would not otherwise do."); General Motors Corp. v. FTC, 114 F.2d 33, 36 (2d Cir. 1940) ("The Comission . . . thinks it best to insist upon a form of advertising clear enough so that, in the words of the prophet Isaiah, 'Wayfaring men, though fools, shall not err therein.").

Transcript, FTC Open Commission Meeting – April 28, 2022 https://www.ftc.gov/system/files/ftc_gov/pdf/FTC%20Open%20Commission% 20Meeting%20-%20April%2028th%2C%202022%20-%20Transcript.pdf

³⁴⁰ Supra notes ___ and accompanying discussion.

³⁴¹ If branding dreams is seen as subliminal and deceptive, certain instances of dream advertising may be enforceable by other government agencies as well, including the FCC and Alcohol and Tobacco Tax and Trade Bureau (TTB). Subliminal

158 THE NIGHTMARE OF DREAM ADVERTISING

advertising, it likely runs afoul of the FTC Act's Section 5 to the extent that the practice is "material," or effective.

The products advertised in recent dream advertisements fall directly into the categories outlined in Section 12 and regulated by the FTC—Molson Coors' alcohol (drugs), Burger King's hamburgers (food), and Xbox's video games (devices). It is worth noting, though, that advertisements which do not fall into the Section 12 categories of food, drugs, devices, or cosmetics may be found deceptive purely under Section 5.³⁴² Conversely, advertisements that fit the Section 12 categories also fall under Section 5, as the dissemination of "any false advertisement" in relation to the purchase of food, drugs, devices, or cosmetics is seen as an "unfair or deceptive act or practice." ³⁴³

It is worth noting that Section 5 prohibits both "unfair *or* deceptive acts or practices in or effecting commerce." As most relevant here, the FTC prohibits "deceptive" ads, which include those containing subliminal messages. ³⁴⁴ While subliminal advertising might also be seen as "unfair" under the FTC's standard, this Part will focus on the deceptiveness inquiry given broad precedent finding subliminals to be deceptive, ³⁴⁵ and to avoid additional doctrinal hurdles necessary to show "unfair practices." ³⁴⁶

Under the FTC Act, two types of false advertising are actionable: "(1) advertising which makes claims which are literally false on their face, and (2) advertising which, although literally true on its face, is perceived by a significant proportion of the relevant market as making 'subliminal' or 'implicit' claims

communications are prohibited as "deceptive" in the advertising of distilled spirits, although the code defines subliminal techniques according to the "brief nature" definition. The FCC's jurisdiction is ostensibly limited to "interstate and international communications by radio, television, wire, satellite and cable." In contrast, dream advertising seems to be occurring largely in connection, though, with the internet and social media.

³⁴² E.g., Beneficial Corp. v. F.T.C., 542 F.2d 611 (3d Cir. 1976) (bringing FTC action against false and misleading "Instant Tax Refund" advertising campaign under Section 5 despite it not involving food, drug, device, or cosmetic under Section 12). ³⁴³ E.g., F. T. C. v. Sterling Drug, Inc., 317 F.2d 669, 671 (2d Cir. 1963) (bringing FTC action for dissemination of false and misleading aspirin advertisement and noting case falls under both Sections 5 and 12 because it involved an unfair or deceptive practice affecting commerce (under Section 5) and specifically to drugs (under Section 12). ³⁴⁴ Federal Trade Commission, Advertising FAQ's: A Guide for Small Business, https://www.ftc.gov/business-guidance/resources/advertising-faqs-guide-small-business

³⁴⁵ See infra Part III.C.i.

³⁴⁶ E.g., American Financial Services Ass'n v. F.T.C., 767 F.2d 957, 971 (D.C. Cir. 1985) ("To justify a finding of unfairness the injury must satisfy three tests. It must be substantial; it must not be outweighed by any countervailing benefits to consumers or competition that the practice produces; and it must be an injury that consumers themselves could not reasonably have avoided.")

2022] ROUGH DRAFT 159

which are provably false."³⁴⁷ This second type involves advertising having "a tendency to mislead, confuse, or deceive." Given dream advertising's surreal subliminal nature, instances of branding dreams would likely not involve a literally false claim. However, dream ads would be a good candidate for falling under the second category considering its manipulative targeting of the unconscious by subliminal means.

But the FTC has yet to enforce against instances subliminal advertising, apparently because the agency does not believe previous methods work well. As the FTC has stated in its Advertising FAQ's: A Guide for Small Businesses: "It would be deceptive for marketers to embed ads with so-called subliminal messages that could affect consumer behavior. However, most consumer behavior experts have concluded that such methods aren't effective." 348

What this wording suggests is the FTC appears convinced that subliminal advertising is an inherently deceptive practice, but not that the practice is "material" to consumer purchasing decisions (i.e., capable of causing real injury). The commercial exploitation of dreams and resulting concern from the scientific community, though, may shift this calculus such that the FTC would decide to enforce.

The deceptiveness standard requires a representation that tends to mislead the public, including acts or practices—often advertisements—in the form of omissions of fact, implied statements, or affirmative conduct. Here, the representations at issue are dream incubation advertisements—the deliberate targeting of the hypnagogic period or other parts of the consumer sleep cycle for commercial gain. In order to enforce under Section 5, the Commission must find the legal action to be in the public interest. However, actual deception or injury to the public need not be shown if the act or omission tends to deceive a "substantial" portion of consumers. The substantial of the public need not be shown if the act or omission tends to deceive a "substantial" portion of consumers.

According to the FTC, an ad is deceptive if it contains a statement or omission that (1) "is likely to mislead consumers acting reasonably under the circumstances"; and (2) "is 'material'—that is, important to a consumer's

³⁴⁷ FTC Policy Statement on Deception, *supra* note ___.

https://www.ftc.gov/business-guidance/resources/advertising-faqs-guide-small-business; see also Amy Pauli et al., "In brief: prohibited and controlled advertising in USA,"

Crowell & Moring LLP, https://www.lexology.com/library/detail.aspx?g=be04fd64-b899-49a0-987e-

⁴¹²³¹c842c61 (March 25, 2022) ("Although subliminal advertising is considered ineffective, it would be prohibited as deceptive.").

³⁴⁹ Federal Deposit Insurance Corporation, "Unfair or Deceptive Acts or Practices by State-Chartered Banks" (March 11, 2004), https://www.fdic.gov/news/financial-institution-letters/2004/fil2604a.html

³⁵⁰ Federal Trade Commission, "FTC Policy Statement on Deception," October 14, 1983, available at https://www.ftc.gov/legal-library/browse/ftc-policy-statement-deception.

160 THE NIGHTMARE OF DREAM ADVERTISING

decision to buy or use the product."³⁵¹ Both elements—deception and materiality—will now be analyzed in the context of branding dreams.

1. Deceptiveness

What makes branding dreams deceptive—as with other forms of subliminal advertising—is that the effect is not recognizable to the conscious mind and thus capable of manipulation. Worse still, people are highly susceptible to images and thoughts introduced while asleep. As Stickgold puts it: "When you're awake you have a whole collection of filters and mechanisms to evaluate information and filter out ads. Your sleeping brain can't do that. It assumes that whatever is activated during sleep is being activated internally, not by outside forces."

As the last subpart demonstrated, dream advertising can convincingly be considered a subliminal practice. Other federal agencies, including the FCC, the Bureau of Alcohol, Tobacco, and Firearms (ATF), Tobacco, Tax, and Trade Bureau (TBB), and the trade association National Association of Broadcasters, have each described subliminal advertising as deceptive.

In 2001, following the Al Gore/RATS controversy, the FCC added the following to its Manual for Broadcasters in noting the inherent deceptiveness of subliminals: "Subliminal programming is designed to be perceived on a subconscious level only. Regardless of whether it is effective, the use of subliminal perception is inconsistent with a station's obligation to serve the public interest *because the broadcast is intended to be deceptive.*" ⁸⁵³

The TTB prohibits an advertisement of malt beverages (i.e., beer) that contains "any *subliminal or similarly deceptive* advertising techniques." Molson Coors might have run afoul of this regulation through its use of targeted dream advertising in connection with its #CoorsBigGameDream promotion.

³⁵¹ Federal Trade Commission, "Advertising FAQ's: A Guide for Small Business," https://www.ftc.gov/business-guidance/resources/advertising-faqs-guide-small-business. Sometimes, the inquiry is broken out into three elements: (1) there is a representation, omission, or practice that (2) is likely to mislead consumers acting reasonably under the circumstances; and (3) the representation, omission, or practice is material. See, e.g., F.T.C. v. Verity Int'l, Ltd., 443 F.3d 48 (2d Cir. 2006) (quoting In re Cliffdale Assocs., Inc., 103 F.T.C. 110, 165 (1984). The analysis presumes the existence of a "representation, omission, or practice," described throughout the article as dream advertising/branding dreams.

³⁵² The Hustle, *supra* note ___.

³⁵³ FCC Manual for Broadcasters (2001).

³⁵⁴ 27 C.F.R. § 7.54.

2022] ROUGH DRAFT 161

The ATF has also adopted regulations on alcohol advertisements in which it labels subliminal advertising as deceptive: "Deceptive advertising techniques. Subliminal or similar techniques are prohibited."³⁵⁵

Judge Whitehead, in the *Vance* case, also described subliminal messaging as being deceptive (though not using the *d*-word itself) in holding the practice undeserving of First Amendment protection:

[Subliminals] do not convey ideas or information to be processed by the listener so that he or she can make an individual determination about its value. They do not enable an individual to further his personal autonomy. instead, they are intended to influence and manipulate the behavior of the listener without his knowledge.³⁵⁶

These examples show that the inherently deceptive nature of subliminal advertising is widely known and articulated among regulators. Even if dream advertising were excluded from the definition of subliminal advertising, however, it is a deceptive advertising practice on its own merits. Indeed, dreams are bound to deceive given their random, emotional, and bizarre nature.³⁵⁷

Given this illogical nature, dreams are inherently false and misleading. According to one dream report from Burger King's Nightmare King sleep study, for example, "Someone in my dream turned into the burger. The burger then transformed into the figure of a snake." Bobbi Gould, the participant in the Molson Coors study who remarked that she felt like a "lab rat," had a series of "weird Coors dreams." "I had one where I was on a pogo stick jumping around with Coors products," she told a journalist. "In another one, I was on a plane dropping Coors cans on people and they were cheering for me." "558

These misleading dream descriptions are unsurprising. The real commercial is not the dream advertisement, but the dream itself. David Lawson, a visual artist on the Molson Coors ad, stated that "the idea was that we would try to place a surreal Coors ad into people's subconscious."³⁵⁹ Recall too that TDI pioneer Adam Haar describes "[d]ropping off to sleep [a]s often accompanied by imagery, sounds and narrative so surprising, confusing, and bizarre that many subjects describe them as coming from outside of them."³⁶⁰

There is no product information that can be usefully conveyed to consumers through this sort 'dream logic'—"[t]he nonsensical logic one possesses while

³⁵⁵ 27 C.F.R. § 4.64.

³⁵⁶ Vance, 763 F. Supp. 144.

³⁵⁷ Supra Part I.A.

³⁵⁸ Noor Al-Sibai, "Woman Says Coors Paid Her \$1,000 to Successfully Inject Advertisements in Her Dreams," Neoscope (Mar. 23, 2022), https://futurism.com/neoscope/coors-dream-ads.

³⁵⁹ *Id*.

³⁶⁰ Haar, thesis, *supra* note ___ at 24.

162 THE NIGHTMARE OF DREAM ADVERTISING

dreaming that makes perfect sense until he or she wakes up."³⁶¹ Dream advertisements are thus deceptive in that they are "likely to mislead consumers" even if they are "acting reasonably under the circumstances."³⁶² That is, considering the irrational and misleading nature of dreams, there is no "reasonable dreamer."³⁶³

2. Materiality

In addition to the deceptiveness inquiry, it must be shown that a given deceptive dream advertisement is also "material," i.e., "important to a consumer's decision to buy or use the product." As to this element, "[a] claim is considered material if it 'involves information important to consumers and, hence, [is] likely to affect their choice of, or conduct regarding a product."

While it is possible that materiality can be presumed from the nature of certain deceptive practices, including ones jeopardizing health and safety, there is direct evidence of the materiality of branding dreams. Thus, for dream advertising-related FTC actions, "the probable effect the advertiser's handiwork will have upon the eye and mind of the [consumer]" may be relevant to the determination. The second many determination of the second many determination.

As sleep and dream experts Stickgold, Zadra, and Haar put it: "It's very likely that advertising in dreams *would change behavior*, even in unknowing listeners and those who remember only some of their dreams." ³⁶⁷ Dierdre Barrett, who consulted for Molson Coors as a dream incubation expert, explained that "I

³⁶¹John Cline, "Dream Logic," PSYCHOLOGY TODAY (Sept. 27, 2020), https://www.psychologytoday.com/us/blog/sleepless-in-america/202009/dreamlogic

³⁶² FTC Small Business FAQ.

³⁶³ Those who lucid dream, and are thus aware of their dreaming, are perhaps an exception.

³⁶⁴ FTC Policy Statement on Deception. Materiality is shown to exist certainly if a consumer would likely have chosen differently but for the deceptive practice. But even where the consumer would have purchased the product regardless, materiality may be said to occur given that the focus of the inquiry is on the capacity or likelihood of an ad to deceive, not whether actual deception occurred. FTC Policy Statement on Deception *citing In Beneficial Corp. v. FTC*, 542 F.2d 611, 617 (3d Cir. 1976).

³⁶⁵ Materiality can be presumed from the "nature of the practice," such as (1) express claims, (2) necessary information being omitted, (3) implied claims, and (4) claims that significantly involve health, safety or other areas that would be concerning to consumers. FTC Policy Statement on Deception. When claims do not fall into these buckets, the FTC and courts have required evidence to support the claim, such as consumer surveys, credible testimony, and subject matter expertise. *Id.* Here, dream advertising may fall under health and safety given the concerns expressed in Part II.D.I.

³⁶⁶ FTC v. Sterling Drug, Inc., 317 F.2d 669, 675 (2d. Cir. 1963).

³⁶⁷ "Inside Your Dreamscape," *supra* note ___.

2022] ROUGH DRAFT 163

have no idea if other advertisers will choose to ask people to dream their ads in their dreams, but it *certainly seems to work*."³⁶⁸

More broadly, in the *Advertising in Dreams is Coming: Now What?* open letter, over 40 sleep and dream experts signed on to the letter and are "deeply concerned" about branding dreams given that "[TDI] clearly influence[s] the choices our sleeping and dreaming brain make" and bias[es] the brain's decisions toward whatever information was presented during sleep."³⁶⁹ This level of concern and condemnation of the practice by psychologists and other sleep and dream experts clearly contrasts with the FTC's citing of consumer behavior expert apathy toward prior forms of subliminal advertising.

Moreover, the dream advertisement studies by Coors, Burger King, and X-Box, tout how effective (i.e., material) they are at conveying the products in consumer dreams, and in selling their products. With Molson Coors, we see a roughly 30% success rate (5 of 18) in Coors related dreams among the inperson participants who entered the "world's largest sleep study." Burger King says nightmares were increased by 3.5 times among its 100 test subjects, with certain participants dreaming about a deceptively transforming Nightmare King burger itself. And Xbox lucid dream participants have described their video game-related lucid dream experiences, with Microsoft having turned them into animated montages as a further aspect of its "Made From Dreams" promotion.

While dreaming about the experience does not mean that consumers will necessarily choose to purchase or use products as a result, it appears more likely they would do so considering "[p]eople are particularly vulnerable [to suggestion] when asleep." For example, remember the Skittles/M&M's ad—where unconscious (but not conscious) suggestion succeeded in getting participants to favor one brand or the other. And, the cigarette study, where participants who were exposed to the smell of cigarettes and rotten eggs smoked far fewer cigarettes the next week. ³⁷¹

Further, there is precedent for dream advertising based on the effectiveness of both historical dream incubation techniques—utilized for thousands of years all over the world—as well as TDI being effective in modern day research settings. Numerous studies tout the efficacy of TDI for various therapeutic reasons— improved understanding of what gives rise to dream experiences across the stages of sleep, improvement of sleep quality, stimulating creativity, facilitating sleep-related learning, understanding memory retention, and treating conditions such as posttraumatic stress disorder nightmares and addiction.³⁷² The myriad therapeutic uses of TDI lend credence to its materiality to persuade the consumer.

³⁶⁸ https://www.youtube.com/watch?v=tU_0jU0mMLw

³⁶⁹ Now What?, supra note ___.

³⁷⁰ Now What?, supra note ___.

³⁷¹ See supra notes __ and accompanying discussion.

³⁷² See supra notes __ and accompanying discussion.

164 THE NIGHTMARE OF DREAM ADVERTISING

Finally, the Molson Coors, Microsoft Xbox, and Burger King dream studies received a great deal of attention from consumers. In particular, the Molson Coors dream advertisement was touted as having been displayed 1.4 billion times and leading to a 3000% increase in social engagement and an 8% increase in sales. The widespread success of the advertisement should serve as evidence of its materiality.

Overall, unlike more anachronistic modes of subliminal advertising, dream advertising could very well affect consumer behavior. Branding dreams should therefore be considered by the FTC as not just deceptive, but material to consumer purchasing decisions as well, given the technique's demonstrated efficacy.

V. CONCLUSION

Welcome my son
Welcome to the machine
What did you dream?
It's alright we told you what to dream

Pink Floyd, Welcome to the Machine³⁷⁴

Though it may feel like science fiction, a new reality has dawned where advertisements are targeted to the dreamscape. While 77% of 400 advertisers surveyed stated they would seek to employ dream advertising techniques, the public remains largely indifferent to this fact. This way, dream advertising represents a surreal commercial colonization of the dream state analogous to a Philip K. Dick dystopia. In a Phildickian sense, the real (the dream) is passively replaced by a corrupted, intrusive, and synthetic version of itself (the branded dream). The description of the dream of itself (the branded dream).

This Article has explored the art and science of dream incubation, the practice and harms of dream advertising, and its potential illegality as a form of subliminal, deceptive, and false advertising. Providing legal protection for the dreamscape might be viewed as a fallback refuge for privacy advocates, as it appears too late to prevent the intrusiveness of targeted advertising and other invasive forms of data collection as they take place in the waking world. There is still time, though, to prevent advertisers from branding dreams through the hijacking of long proven techniques of dream incubation.

Novel regulations in this area would thus be welcome and helpful, but perhaps unnecessary. There are multiple already existing legal avenues to explore. While

³⁷³ Tear Sheet, *available at* http://www.elaine.li/coors-dream. It is unclear in how many countries the ad was available in, and whether it might have thus run afoul of laws outside of the U.S.

³⁷⁴ Pink Floyd, "Wish You Were Here" (Columbia/CBS 1975),

³⁷⁵ See AMA Future of Marketing Survey, supra note ___.

³⁷⁶ See supra notes __ and accompanying discussion.

12/29/2022 10:08 AM DRAFT

2022] ROUGH DRAFT 165

the Article has focused on subliminal advertising policies and the FTC Act's deceptive and false advertising guidelines as a mechanism to tame the practice of dream advertising, other possibilities that beg further research include the false advertising cause of action under the Lanham Act (Section 43(a)), and the privacy tort— intrusion on seclusion. Moreover, private ordering may be helpful. Strong public backlash in the form of protests and other civil disobedience has recently proven effective in persuading large corporations to change their disparaging branding practices.³⁷⁷ To this end, dreamers, *awaken*.

³⁷⁷ See Deborah R. Gerhardt, The Last Breakfast with Aunt Jemima and its Impact on Trademark Law Theory, 45 COLUM. J. L. & THE ARTS 231 (2022) (understanding the shift away from racist imagery through the lens of consumer investment); Dustin Marlan, Is the Word "Consumer" Biasing Trademark Law?, 8 TEX. A&M L. REV 367, 395 (2021) (explaining that since the Matel v. Tam Supreme Court ruling, the "the cancellation of racist and demeaning trademarks [is] by way of movement, not law."); Sonia Katyal, "Aunt Jemima is Gone, Can We Finally End All Racist Branding?," NY TIMES (June 19, 2020) (arguing that brands can no longer stand apart from social movements).