

The Twittering Machine

Chapter Two: We Are All Addicts

Richard Seymour • Accessible reflow excerpt

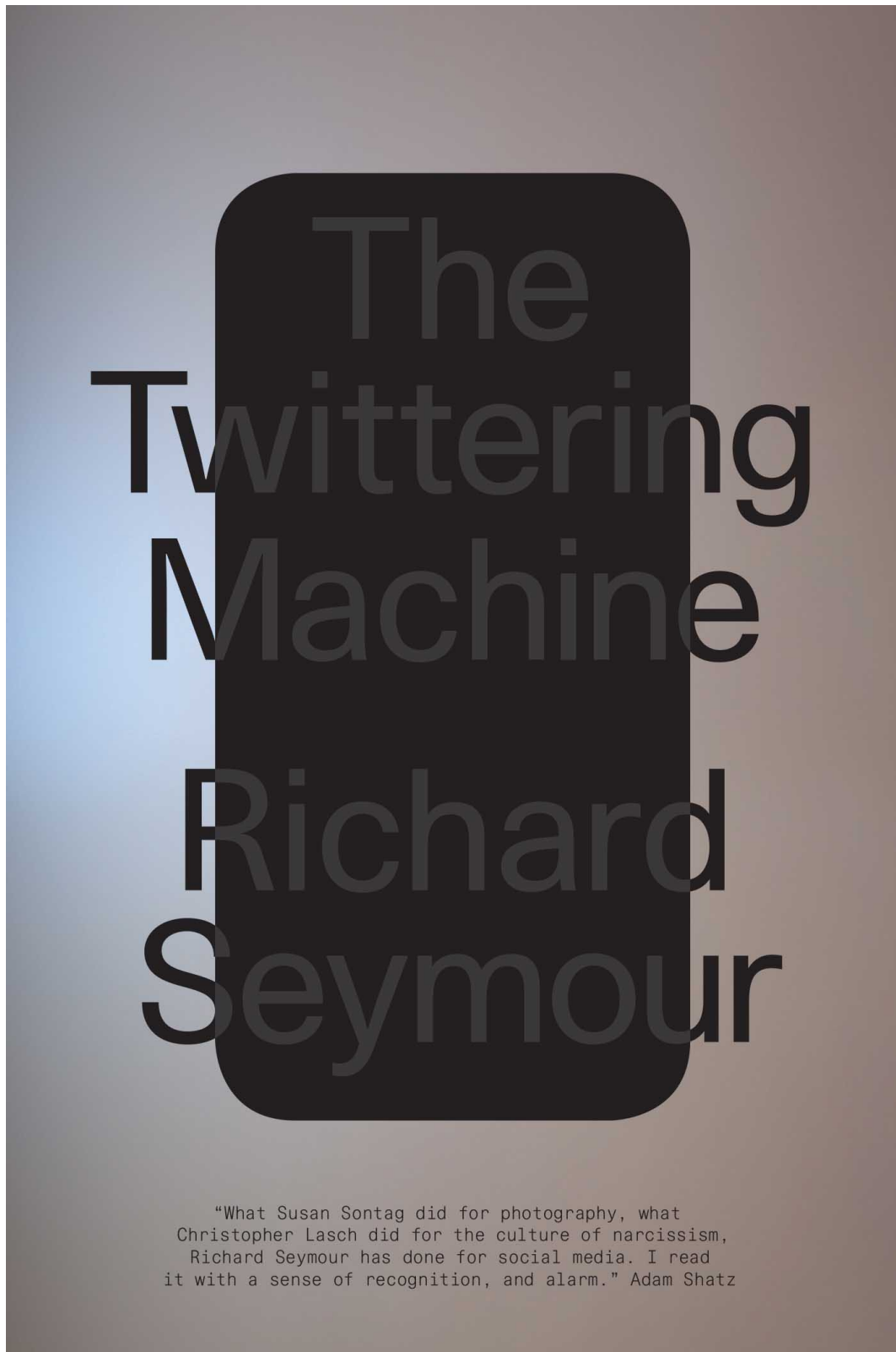
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Cover



Praise for *The Twittering Machine*

‘Clever, and alarming, *The Twittering Machine* begins with an emphatic reminder about the role of technology in our societies: it’s not inherently moral or immoral, but has the power to exploit and amplify already pervasive problems.’

– Daniel Hahn, *The Spectator*

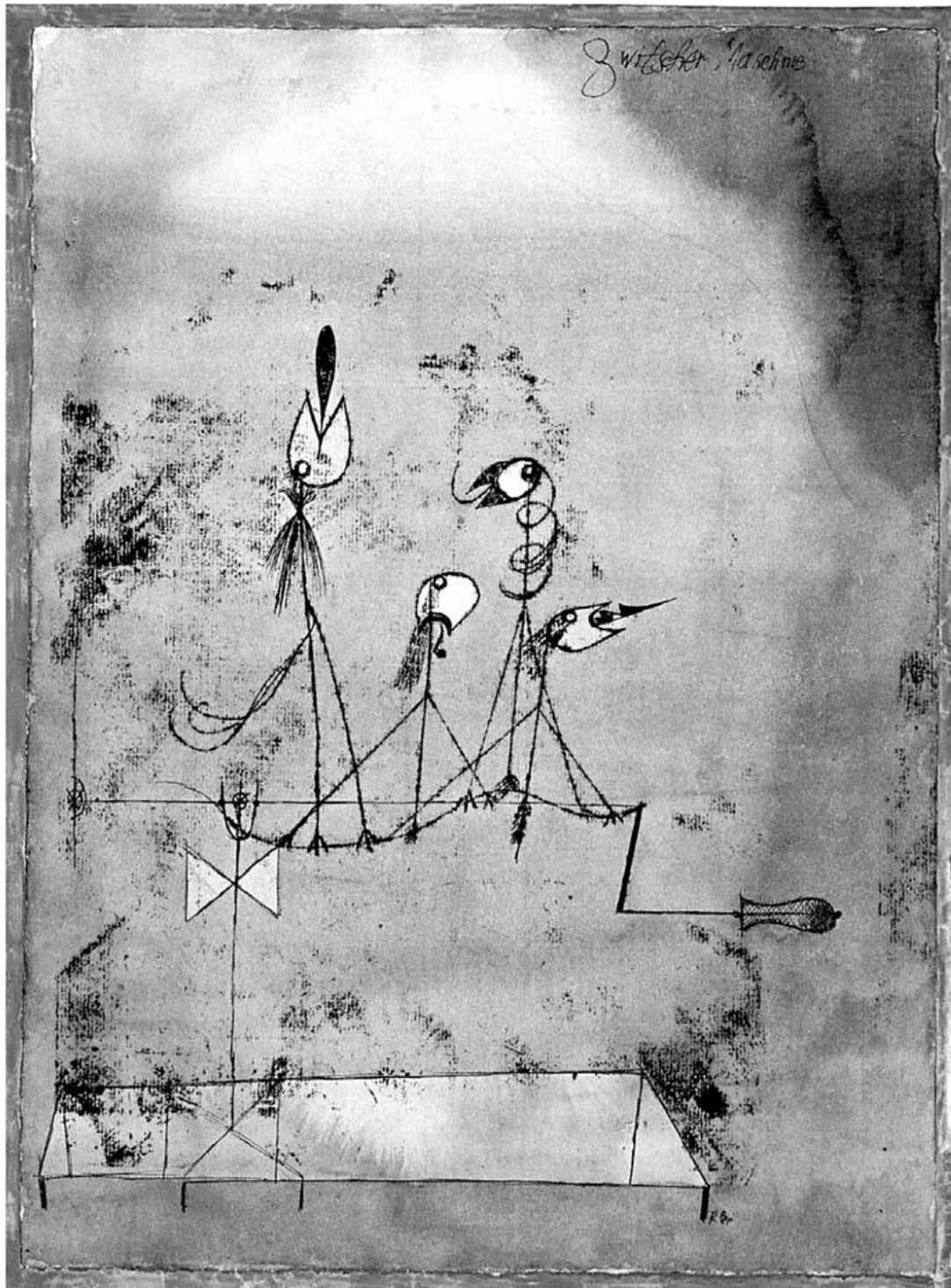
‘If one writer is to put the final nail in the technophilic coffin, there is perhaps no better candidate than Richard Seymour ... Unlike its techno-sceptic forerunners, *The Twittering Machine* does not shy away from confrontation. It views the psychological and sociological valences of online platforms as contiguous, asserting that the mental damage inflicted by Facebook and Twitter is inseparable from their parasitic role in a capitalist economy.’

– Oliver Eagleton, *New Left Review*

Half title

THE TWITTERING MACHINE

Paul Klee: The Twittering Machine



The Twittering Machine, Paul Klee, 1922

The Museum of Modern Art © Photo SCALA, Florence.

Title page

THE TWITTERING MACHINE

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AUTHOR'S NOTE

In writing this book, I set out to avoid burdening it with references and scholarship. I want it to be read as an essay, rather than as a polemic or an academic work. But for anyone who wants to know more, or simply finds themselves asking, 'How does he know that?' there are bibliographical notes at the end. If you find yourself itching to research a quote, statistic, or fact, simply skip to the end and search under the page number for the relevant phrase.

FOREWORD

Everything on the computer is writing. Everything on the net is writing in sites, files and protocols.

Sandy Baldwin, *The Internet Unconscious*

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The Twittering Machine is a horror story, even though it is about technology that is in itself neither good nor bad. All technology, as the historian Melvin Kranzberg put it, is ‘neither good nor bad; nor neutral’.

We tend to ascribe magical powers to technologies: the smartphone is our golden ticket, the tablet our mystic writing pad. In technology, we find our own alienated powers in a moralized form: either a benevolent genie or a tormenting demon. These are paranoid fantasies, whether or not they seem malign, because in them we are at the mercy of the devices. So, if this is a horror story, the horror must partly lie in the user: a category that includes me, and probably most of the people reading this book.

If the *Twittering Machine* confronts us with a string of calamities – addiction, depression, ‘fake news’, trolls, online mobs, alt-right subcultures – it is only exploiting and magnifying problems that are already socially pervasive. If we’ve found ourselves addicted to social media, in spite or because of its frequent nastiness, as I have, then there is something in us that is waiting to be addicted. Something that social media potentiates. And if, with all these problems, we still inhabit the social media platforms – as over half the world’s population does – we must be getting something out of it. The dreary moral-panic literature excoriating ‘the shallows’ and the ‘post-truth’ society must be missing a vital truth about their subject.

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Those who enjoy the social media platforms tend to like the fact that they give them a shot at being heard. It weakens the monopoly on culture and meaning formerly enjoyed by media and entertainment companies. Access isn’t equal – reach is bought and paid for by corporate users, PR agencies, celebrities, and so on, who also have better-funded content – but it can still give marginalized voices a chance where previously they had none. And it rewards quickness, wit, cleverness, play, and certain types of creativity – even if it also rewards darker pleasures, such as sadism and spite.

And if the use of social media unsettles political systems, this isn’t entirely bad news for those traditionally excluded by those systems. The once-hyped idea of ‘Twitter revolutions’ vastly exaggerated the role of social media in popular uprisings, and these have since been overtaken by darker forces embedded in social media, from ISIS to Men’s Rights Activists (MRA) killers. But there are times when the flow of information between citizens makes all the difference; times when the traditional news media can’t be relied on; times when the possibilities of social media can be put to good use. Times, generally, of crisis.

Nonetheless, the crucial part of Kranzberg's observation is that technology is never neutral. And the crucial technology, in this story, is writing. A practice that binds humans and machines in a pattern of relationships, without which most of what we call civilization is impossible. Writing technologies, being foundational to our ways of life, are never socially or politically neutral in their effects. Anyone who has lived through the rise of the internet, the spread of the smartphone and the ascent of social media platforms will have seen a remarkable shift taking place. As writing has morphed from analogue to digital, it has become massively ubiquitous. Never before in human history have people written so much, so frantically: texting, tweeting, thumb-typing on public transport, updating statuses during work breaks, scrolling and clicking in front of glowing screens at 3 a.m. To some extent, this is an extension of changes in the workplace, where computer-

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mediated communication means that writing takes up an ever-larger share of production. And, indeed, there is an important sense in which the writing we're doing now is work, albeit unpaid. But it is also indicative of new, or unleashed, passions.

We are, abruptly, *scripturient* – possessed by a violent desire to write, incessantly. So, this is a story about desire and violence, as well as writing. It is also a story about what we might be writing ourselves into, culturally and politically. It is not an authoritative account: that is impossible this early in the evolution of a radically new techno-political system. This book is an attempt, as much as anything else, to work out a new language for thinking about what is coming into being. And finally, if we are all going to be writers, it is a story that asks the minimal utopian question: what else could we be doing with writing, if not this?

CHAPTER TWO

WE ARE ALL ADDICTS

The trouble with modern theories of behaviourism is not that they are wrong but that they could become true, that they actually are the best possible conceptualization of certain obvious trends in modern society.

Hannah Arendt

Remember this: The house doesn't beat the player. It just gives him the opportunity to beat himself.

Nick 'The Greek' Dandolos

Oh this is going to be addictive.

First tweet of Dom Sagolla, software engineer and Twitter co-founder

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I.

In 2017, Jonathan Rosenstein, one of the developers of Facebook's 'like' button, deleted his Facebook app. He was worried about what he had helped birth. These 'bright dings of pseudo-pleasure' that the button provided, he told the *Guardian*, had 'unintended, negative consequences'. It was supposed to be a happy button, a way for friends to be nice to each other. Instead, it had created addicted, distracted, unhappy users. It was cyber-crack.

Leah Pearlman was a user. Having also helped design the 'like' button, she was drawn to its lure. But the promise of the red notification was never fulfilled. 'I check and I feel bad,' she explained. 'Whether there's a notification or not, it doesn't really feel that good. Whatever we're hoping to see, it never quite meets that bar.' For the sake of her own sanity, she delegated the management of her Facebook account to an employee.

Many social industry and tech executives resist their own technologies. Mark Zuckerberg's Facebook account is run by employees. Apple's Steve Jobs wouldn't let his children near an iPad, while his replacement, Tim Cook, doesn't allow his nephew to use social networking sites. Apple's design strategist Jony Ive warns that 'constant use' of tech is overuse. As always, tech is adept at producing profitable solutions to the problems it creates. Now smartphone users can trade in their addictive devices for a range of minimalist alternatives, with the limited texting and call-making functionality of a very old mobile phone. Indeed, some of them

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initially sold at a substantially higher price than the smartphones they sought to replace.

But how was the addiction machine invented? The social industry platforms appear, as much as anything, to have stumbled on the techniques, in much the same way that their venture-capitalist funders stumbled on the profit model. But the potential for addiction was always there. Facebook's creator, Mark Zuckerberg, was always attuned to social technologies exploiting the pleasures of prying and social competition. One of his earliest sites, Facemash, exploited Harvard's online facebooks, which displayed photos and information about students. Taking photographs from these sites, he invited users to rate their comparative 'hotness'. Similar to another website, Hot or Not, users were shown two photos at a time and invited to vote for the 'hottest'. The college forced him to take it down for using the photographs without permission. But the site collected 22,000 votes before it was removed.

Zuckerberg returned with thefacebook.com in 2004, which was billed as an 'online directory'. The site combined some of the affordances of Friendster.com with the format of the Harvard facebooks. Its bare user interface and minimalist design suggested that it was to be a community tool, not titillation. Yet, according to David Kirkpatrick's history of the platform, *The Facebook Effect*, early users reported a fascination with the site. 'I can't get off it.' 'I don't study. I'm addicted.' The site wasn't just a directory, but a riveting source of voyeurism and social comparison for the students. One of the site's earliest users, Julia Carrie Wong, wrote for the *Guardian* of the insidious way that it combined 'useful information and prurient entertainment' while transforming social interactions so that 'popularity was easily quantifiable'.

Today, most successful apps and platforms depend on our enthusiastic willingness to share information about ourselves. Zuckerberg initially professed to be mystified by the quantity and detail of data people were willing to give him. He told a friend at Harvard: 'People just submitted it. I don't know why. They "trust

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me". Dumb fucks.' He had unwittingly tapped into the complex pleasures of self-display. The most obvious and oft-scolded aspects are the narcissistic pleasure of exhibitionism and competitive pleasure of being compared to others. But one of Twitter's early founders, Noah Glass, put his finger on another dimension: people would use social networking to make them feel less alone. Whatever was happening to them – an earthquake, redundancy, divorce, a frightening news item or just boredom – there would always be someone to talk to. Where society was missing, the network would substitute.

These pleasures are redoubled by the 'network effect'. The more people use it, the more valuable it is to each user. Zuckerberg understood, early on, that this was how he would build his site. As he told the university newspaper *The Harvard Crimson*, 'The nature of the site is that each user's experience improves if they can get their friends to join it.' Other colleges quickly signed up. And it took just a year for it to attract the attention of advertisers, thanks to the brute scale and objectivity of its data. By 2005, when Interscope Records launched Gwen Stefani's single 'Hollaback Girl', they approached Facebook. Facebook, unlike advertisers using cookie data, could *guarantee* that Interscope's advertisements would be seen by a specific demographic: college cheerleaders. The result was that 'Hollaback Girl' resounded at football stadiums that autumn.

Facebook made two decisions. By the end of 2006, it had opened its service to all, accumulating a total of 12 million users. At the same time, its engineers set about developing algorithms to analyse patterns in their vast gold mine of data. Facebook piously claims that it doesn't sell user data, but the idea was to use the data to quantify, manipulate and sell user attention.

Facebook was catnip for advertisers, but it was also a large-scale public laboratory. By 2007, with 58 million active users on the site, teams of academics from Harvard and the University of California were studying profiles to gather information about the connection between users' tastes and values and how they interacted. Harvard sociology professor Nicholas Christakis, heralding a rebirth of the

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university's tradition of behavioural science, told the *New York Times* that the sheer scale of the data promised 'a new way of doing social science ... Our predecessors could only dream of the kind of data we now have.'

As William Davies points out, however, behaviourist analysis only works if 'those participating in experiments do so naively'. The more they know about what is going on, the less reliable the results. The most infamous expression of this was the publication, in 2014, of the results of an experiment conducted on Facebook users. Seven hundred thousand users had been the unwitting subjects of the manipulation of their newsfeeds to enable researchers to explore 'emotional contagion'. The damage to Facebook's reputation was relatively limited, and social industry companies continue to supply masses of data, at cost, to researchers.

The biggest step forward for Facebook also radicalized its 'Skinner Box' propensities: the 'like' button. Facebook did not invent this tool. Reddit already used an 'upvote' button, and Twitter had allowed users to 'favourite' tweets since 2006. In 2007, the social aggregator site, FriendFeed, used a 'like' button for the first time. FriendFeed was purchased by Facebook in 2009, just as it launched its own 'like' button. This was an example of the practices of 'knifing the baby' and 'stealing the oxygen' that Microsoft pioneered in the late 1990s. Facebook was appropriating the work of a smaller rival, a number of whose features it had already built into its own design, and then buying it up to snuff out a market that threatened it.

According to Pearlman, the 'like' button was introduced to change user behaviour. This is what drives many of the innovations on social networking sites. For example, when Instagram introduced an 'Archive' feature for old or unwanted photos, it was to disincentivize users from deleting them and depriving the platform of content. In this case, Facebook had been looking at a 'bomb' button, or an 'awesome' button, which would replace redundant expressions of sentiment in comments threads with low-

effort, quantifiable expressions of emotion. Instead of ten messages offering ‘congratulations’ for a wedding photo, there might be a hundred ‘likes’. This would then incentivize people to make more status updates. It also built on Facebook’s existing technique of quantifying popularity and allowing quick and objectively measurable social comparisons.

To say that it worked would be an understatement. The ‘like’ button changed everything on Facebook. User engagement exploded. By May 2012, with one billion active users, Facebook was so rich with profit potential it was able to make an Initial Public Offering for its stock. Other social industry platforms were unable to resist the advantages of the ‘like’ button. One after another, they followed suit: YouTube and Instagram in 2010, Google+ in 2011, Twitter in 2015. With the social industry platforms a new industrial model was being born, and the ‘like’ button was a decisive moment in its consolidation.

The ‘like’ button is the pivot of the ‘Skinner Box’ model – the administration of rewards and punishments – in the struggle for the attention economy. It is the economic organization of addiction.

II.

Whether or not we think we are addicted, the machine treats us as addicts. Addiction is, quite deliberately, the template for our relationship to the Twittering Machine. The problem is, no one knows what addiction is.

What is so addictive about a ‘like’? Until relatively recently, the medical and psychiatric establishment treated substance abuse as the paradigm for all addictions. Governments, led by the United States, have prosecuted a ‘war on drugs’ justified by the claim that users are chemical slaves, lacking control over their lives. This perspective was inherited from the temperance movements of the late nineteenth and early twentieth centuries, which saw alcohol as

a demon possessing the drinker. It was then expanded to all use of recreational drugs, whether addictive or not.

Drug use, though, accounts for only a fifth of all addictive practices. Over the last few decades, there has been a profusion of treatments for a variety of obsessions – Bloggers Anonymous, Debtors Anonymous, Gamblers Anonymous, and so on. And since the 1990s, there has been a growing concern with something called ‘internet addiction’, followed by ‘social media addiction’. The model for research into social media addiction is gambling addiction. Kimberly Young, a psychologist and founder of the Center for Internet Addiction, was an early pioneer in the field. An established expert in gambling addiction, she noticed similarities between the kinds of people who bet their house on a hand of poker, and the kinds of people betting their lives on a blinking screen. Neither involved a physical drug, yet both showed addictive patterns.

Young looked for a cluster of symptoms pointing to ‘excessive’ internet use. If users were preoccupied with the medium, if it took up increasing amounts of their time, if cutting down left them feeling restless, moody or irritable, or if they used it to escape from personal problems or feelings of dysphoria: that was addiction. Users were given a score, based on questionnaire answers, showing how severe their addiction was. Subsequent research into social media addiction has been similarly concerned with ‘excessive’ use of platforms for escapist purposes or mood management, adverse consequences and loss of control.

This has yet to congeal into a stable clinical category. *The Diagnostic and Statistical Manual of Mental Disorders* (DSM), the bible of psychiatrists in the US, has tended to see addiction through the prism of drug use. It has never recognized internet addiction. Even now, while it recognizes ‘gambling disorder’, it does not speak of gambling addiction. Even if the DSM were to change its approach, there would still be a problem, and it would be the same problem that afflicts most of the DSM’s clinical categories. To describe a cluster of behaviours doesn’t explain how these

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behaviours are related or what causes them. We can call something addiction because it resembles other phenomena that have been called addiction. But that still doesn’t mean we know *what addiction actually is*. Amid the prevailing conceptual confusion, we need a new language.

III.

Addiction is all about attention. For the social industry bosses, this is axiomatic. We attend to what feels good, to ‘rewards’. And, in an attention economy, the social industry platforms are waging a constant battle to manipulate our attention in real time.

Facebook’s founding president Sean Parker echoed a raft of research in claiming that social media platforms achieve this by exploiting the craving for a ‘dopamine hit’. Their machinery generates regular hits in the form of ‘likes’, with flashing red notifications administering the same high that a slot-machine addict gets when three bells line up. The anthropologist Natasha Dow Schüll argues, based on her study of gambling, that once these unnaturally large dopamine rewards flood into the brain, ‘we lose our willpower.’ Our brains, not prepared by evolution for such a flood, ‘become overwhelmed and screwed up’. Nora Volkow, director of the US National Institute on Drug Abuse, insists: ‘Addiction is all about the dopamine’.

And, whether or not the theory is true, techniques based on the dopamine theory seem to work. Adam Alter, a psychologist who studies online addiction, has sifted through the data collected by the app Moment, which tracks smartphone usage. Some 88 per cent of users spent ‘an average of a quarter of their waking lives on their phones’. His own data showed, to his astonishment, that he had spent three hours a day on his phone, picking it up an average of forty times a day. And his behaviour may be relatively moderate: a 2013 study found that the average user checks their phone 150 times a day, which other research suggests includes 2,617 touches,

taps or swipes. One recent survey even found that one in ten users has checked their phone during sex. But for Alter, as for most of us, the bait was so subtle and seductive that the catch didn't even notice his mouth clamping around the hook.

Not everyone accepts the dopamine consensus, however. Marc Lewis, a former heroin addict and neuroscientist, has written movingly about his own escape from addiction, and contributed enormously to the science of addiction. In his book, *The Biology of Desire*, he argues that addiction is not about taking this or that substance. It is the 'motivated repetition' of a thought or behaviour. The thought or behaviour might initially be motivated by the prospect of a high, or by the wish to avoid depression. But once it has been repeated often enough, it acquires its own motivation.

This is possible, Lewis says, because of the way the brain works. The billions upon billions of nerve cells that organize thoughts and emotions undergo constant change. Cells die, new cells are born. Some synapses become more efficient through practice, enabling better connections, others less so. By repeating a thought or a behaviour, we ensure the synapses and cells associated with it flourish, while underused cells die or become less effective. We change the 'brain's wiring', the 'neural circuitry' of wanting. The more we repeat an action, the more we train our brains for further repetition. We create an attention tunnel. As Lewis puts it, 'what fires together, wires together'.

At another level, that of meaning, one could say that addiction is a thwarted form of love. It is a passionate attachment to something that, slowly, occupies a larger and larger part of one's mind. It exercises a veto over other loves, aspirations and dreams. It occupies attention, when attention is subject to economic scarcity. It usurps our ingenuity, when the goal in life becomes maintaining access to the object, staying close to it. For the Twittering Machine, this is good: it keeps us writing. In an attention economy, addiction is not so much a scourge as a mode of production.

Anything that so captures our attention must be the object of intense fantasies. In the history of junkie literature, for example,

drugs are magical, fairy-tale objects, summoning abundance from nothing, defying the laws of physics. Or so it seems at first. Thomas De Quincey's famous *Confessions of an English Opium-Eater*, for example, stands out for its utopian air. With the first hit, he had discovered 'the secret of happiness', 'a resurrection, from the lowest depth', an 'abyss of divine enjoyment', 'an apocalypse of the world within', 'portable ecstasies ... corked up in a pint bottle'. He had discovered the magic beans, the goose that laid the golden egg, the flax spun into gold: emotional plenitude. A bounty comparable only to the oceanic bliss in pursuit of which mystics of all faiths have undergone extraordinary physical and mental rigours.

As the high diminishes, however, the fantasies become darker. When the Catholic mystic and poet Francis Thompson sang of 'The Poppy', the source of his 'withered dreams', it was as though he had become a hapless husk for the magical substance:

The sleep-flower sways in the wheat its head, Heavy with dreams, as that with bread. [...] I hang 'mid men my needless head, And my fruit is dreams, as theirs is bread. [...] Love! fall into the claws of Time: But lasts within a leavèd rhyme All that the world of me esteems – My wither'd dreams, my wither'd dreams.

His head, the actual source of his dreams, was, just like the flower, a 'needless' drooping cocoon for the opium. He credited his remaining creative power to the drug. Addicts tend to *fetishize* the object of their addiction. They attribute to it their own agency and imagine that it holds great powers that it really doesn't. At the same time, they suffer a profound subjective impoverishment: the addict is as poor as the object is rich.

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The Twittering Machine appears to have a similar magical quality. Technology has never been just technology. It is always a world of intense emotional attachments. The Twittering Machine promises to give us access to everything, limitlessly, allowing us to transcend the limitations of mere flesh. This is how the telecommunications firm, MCI, sold the internet two decades ago. People could communicate 'mind to mind'. No race, no gender, no age, no infirmity. 'There are only minds,' the advertising breathlessly suggested. 'Utopia? No ... The internet. Where minds, doors and lives open up.' This was digital Clintonism, a kind of thin liberal utopianism. Standing in a weak shadow of the opiate sublime, it promised an abundance of being, ageless immortality, protean plasticity beyond the bedrock of the body. The name of this abundance was *connectivity*, a truly magical substance.

The social platforms give concentrated expression to this idea, turning it into a business model and *raison d'être*. Facebook's first video advertisement reminded us that the universe 'is vast and dark and makes us wonder if we are alone'. We build connections, it said, to 'remind ourselves that we are not'. Connection was the basis for 'a great nation', 'something people build so they can have a place where they belong'. By implication, the platforms would be nation-builders, through the power of connectivity. At the outset of the 'Twitter revolutions', this same magical substance was supposed to outflank the old regimes and engender democratic upheaval.

But as the cyberpunk writer Bruce Sterling points out, connectivity is not necessarily a symbol of affluence and plenty. It is, in a sense, the poor who most prize connectivity. Not in the sense of the old classist stereotype that 'the poor love their cellphones': no powerful group would turn down the opportunities that smartphones and social media offer. The powerful simply engage differently with the machine. But any culture that values connectivity so highly must be as impoverished in its social life as a culture obsessed with happiness is bitterly depressed. What Bruce Alexander calls the state of permanent 'psychosocial dislocation' in late capitalism, with life overrun by the law of markets and

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competition, is the context for soaring addiction rates. It is as if the addictive relationship stands in for the social relationships that have been upended by the turbulence of capitalism.

The nature of this social poverty can be recognized in a situation typical of a social industry addict. We often use our smartphones to take us away from a social situation, *without actually leaving that situation*. It is as though we are both lonely and threatened by intimacy. We develop ways of simulating conversational awareness while attending to our phones, a technique known as ‘phubbing’. We experience this weirdly detached ‘uniform distancelessness’, as Christopher Bollas calls it. We become nodes in the network, equivalent to ‘smart’ devices, mere points of relay for fragments of information; as much extensions of the tablet or smartphone as they are of us. We prefer the machine when human relationships have become disappointing.

IV.

Over the last twenty years, a number of apparently discrete social changes have taken place in the richer countries, above all in Europe and North America. First, a sharp decline in all forms of violence, including sexual violence, has been found in most of these societies. Almost simultaneously, these societies have seen a decline, almost a crash, in rates of alcohol and nicotine consumption, which historically have tended to be consumed socially. Finally, young people are having far less sex, something that has been subject to a great deal of mocking prurience. It seems odd, after all, that young people are more sexually liberal than their forebears, while at the same time more likely to avoid sex itself.

One thing that these tendencies have in common, though, is that they all show a decline in sociality. Other data confirms this. Analysis of American post-Millennials by psychologist Jean Twenge finds that they are far less likely than their predecessors to go out,

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go on dates or have sex. This is one of the reasons for the plummeting teen pregnancy rate. The trend, she says, is strongly correlated with the ubiquity of smartphones prevalent since 2011–12. Cigarettes and alcohol, like the proverbial coffee, have been used as props for social interaction. It is no accident, says the psychoanalyst Darian Leader, that as soon as we abandoned cigarettes, the mobile phone appeared in our hands – as though we can’t face one another without some sort of medium. But the smartphone is not a prop for social interaction. It is an escape route, a way to connect with someone who isn’t there; or is only there as a written trace, a ghost in the machine.

The fantasy of plenitude, the superabundance of online shit, may allow us to experience our social poverty as affluence, as in the fantasy that the internet and the social industry are ‘post-scarcity’. Like many fantasies, this has some basis in reality when not just ‘free stuff’, but even affection and romantic excitement can be accumulated in an objectified form as ‘likes’ and ‘matches’. But as with so many fairy tales, it is the fantasy, the wish fulfilment, of the poor. Social media are not the *cause* of this social impoverishment, any more than drugs are. They are just a more sophisticated remedy than booze and fags.

But the Twittering Machine is a techno-political regime which in its own way absorbs any nascent desire to challenge these painful conditions. The literary critic Raymond Williams once wrote of certain technologies which promoted ‘mobile privatization’. While electrification and

railway-building were public affairs, cars and personal stereos were simultaneously mobile and bound to the self-sufficient individual or family home. Silicon Valley has taken this logic much further, extending privatization into the most public of spaces, soliciting our participation on a solitary basis. At the same time, it has taken the place of previous forms of self-medication. Just as the pharmaceutical giants are losing ground with their ‘one weird trick’ pill-shaped remedies for social distress, tech says ‘there’s an app for that’. The psychoanalyst Colette Soler has written of ‘the unprecedented development of techniques of

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listening targeting solitary voices in distress rather than really finding help for them’. The Twittering Machine is a technique for listening to solitary voices on a giant scale – shout at a politician, denounce a celebrity, rant at a CEO – the possibilities are endless.

Rather than reducing addiction to a chemical experience, then, we have to look at what problems addiction might be solving. In an arresting image, Marcus Gilroy-Ware compares social media to a fridge which has something new in it every time we look. It might only be a half-empty tube of tomato paste, an out-of-date yoghurt or last night’s scraps. And we might not really be hungry. But at least we understand hunger, in a way that we don’t necessarily understand the obscure feelings of dissatisfaction that sent us to the fridge in the first place. We have the option of treating this opaque wanting as if it *were* hunger, to be satisfied with a feed. But what is it that we’re eating?

V.

Why is addiction such a useful economic model for social industry giants – indeed, for so many businesses? How does it work with the informational politics of the machine? And what does it say about the relationship of this machine to its users? Part of the answer lies in the mid-twentieth-century behaviourist revolt against free will. A revolt with a strange utopian dimension.

This is paradoxical, since the idea of free will is central to the liberal market-based system we inhabit. We’re supposed to be able to decide what we prefer within the rules – rules which English philosopher Thomas Hobbes, in a pregnant metaphor, compared to the ‘laws of gaming’. We may not decide the rules, but we decide where to place our bets and when to ante up. And on the face of it, that surely is what we do on the social industry. No one forces us to be there, and no one tells us what to post, ‘like’ or click. And yet our interactions with the machine are *conditioned*. Critics of social media like Jaron Lanier argue that the user experience is designed

much like the famous ‘Skinner Box’ or ‘operant conditioning chamber’ invented by the pioneering behaviourist B. F. Skinner. In this chamber, the behaviour of laboratory rats was conditioned by stimuli – lights, noises and food. Each of these stimuli constituted a ‘reinforcement’, either positive or negative, which would reward some forms of behaviour and discourage others. In the Skinner Box, test subjects are *taught how to behave* through conditioning. And if this model has found its way into the mobile apps, gaming and social industries, it might reflect the way that behaviourist ideas have achieved a surprising renaissance among businessmen and policymakers in recent decades.

B. F. Skinner was not just a behavioural scientist, alongside peers, such as Pavlov, Thorndike and Watson. He was also a radical social reformer. For him, abandoning the myth of free will, and reorganizing society as an elaborate laboratory in which behaviour was carefully moulded by stimuli, was a utopian pursuit. This made him slightly different from the policymakers and academics of his era, for whom behavioural science was supposed to secure the social order and help the US win the Cold War against Russia. The behavioural scientists at Harvard were closely linked to the US Military, and Skinner himself had cooperated with the military during the Second World War. One of his major experiments was Project Pelican, where he deployed his theory of ‘operant conditioning’ to train pigeons to fly planes and drop lethal missiles while keeping pilots out of harm’s way. The programme was surprisingly successful, but was never implemented. In the Cold War years, however, Skinner was sceptical about the widespread anti-communism of the time, and was suspected by the authorities because he opposed nuclear testing. He was far more interested in reforming American society than Russian society.

To reform American society, Skinner had to destroy what he thought were its ruinous myths of ‘freedom’ and ‘will’. These concepts, he claimed, were literally nonsense: they described no observable reality. The same was true for other terms used to define mental states. In *Science and Human Behavior*, Skinner

insisted that emotions were ‘fictional causes’ of, and an unscientific way of describing, behaviour. All of these states could be redescribed as behaviour produced by a good stimulus or a bad stimulus: a ‘positive’ or ‘negative’ reinforcement. Frustration, for example, was the behaviour emitted by a test subject not receiving an accustomed reinforcement. Loneliness was just a special form of frustration. It was not that Skinner didn’t believe in mental states. He was, like most behaviourists, agnostic about them. As long as he had the means to observe behaviour up close, he didn’t need to infer anything about mental states.

The utopian undercurrent of this approach was the belief that human behaviour could be regulated to avoid unnecessary harm. This was first fully outlined in Skinner’s bestselling science-fiction utopian novel, *Walden Two*. The title evoked the libertine philosophy of Henry David Thoreau, and Skinner even expressed some interest in nineteenth-century anarchism. But the utopian community of the book is closer to the ‘Bensalem’ of Francis Bacon’s *New Atlantis*, a New World colony ruled

by a scientific caste dedicated to enlightenment. Rather than being run by scientists directly, however, Walden Two is ruled by behavioural engineering: a sort of algorithm, manipulating the environment to produce good citizens. The algorithm could go on being updated to account for the latest scientific research, and it would be free of the moralism and bullying associated with doctrines of 'free will'. Since choices were determined by reinforcements, bad behaviour reflected a failure in the system. Punishment was abandoned, restrictions on sexual love dropped and the workload radically reduced to give workers more time for creativity.

Skinner tried, repeatedly, to develop technologies that would implement his ideas. For example, in the post-war era he developed and marketed a teaching machine to eliminate failure in the classroom. The machine would pose quick questions or supply sentences with blanks to be filled in. The students would mark the answer on a strip of paper that the machine would read and assess. This was a perfect behaviourist technology, because it treated its

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users as learning machines. It varied the pace and pattern of stimuli to keep users attentive, much as Facebook algorithms engage users, effectively 'teaching' them how to behave on the machine by varying the content of their feed. For Skinner, the machine would remove the arbitrariness and inefficiencies of human teachers. And it would change student behaviour by *teaching them to be right*.

One obvious problem with this is that quite a lot of what there is to teach can't be quickly tested. You can test knowledge of historical dates, mathematical equations and capital cities. Anything more complex, like critical analysis, is beyond the ken of a machine. When there is no right answer, *students have to learn how to be wrong*. They have to give up and mourn their mistaken belief that they know everything. Another problem is that we are not learning machines. So what can a teaching machine do with the part of us that never learns anything? How to educate the part of us that stubbornly entertains unrealistic fantasies and unreasonable passions, regardless of reality, cleaving to self-destruction in the face of all warning? Behaviourism blithely overlooks this everyday reality, or treats it as an inconvenience to work around. Yet arguably it is this irrational kernel, this human oddity, that gives us the desire to learn anything in the first place.

The most important problem with teaching machines, though, is political. In *Walden Two*, the community is overseen by a benign tyrant, Frazier. In defending his techniques, Frazier argues that the alternative is to leave them in the hands of wicked movements like the Nazis. This comparison only serves to illustrate his authoritarianism. The fantasy is that it is possible to know, through scientific research, what is good and how people ought to live. It is a fantasy in which meaning is replaced by technique, and all that is contrary, disputatious and unpleasant in social life is replaced by a smooth surface and flow. (Perhaps it is no coincidence that the aesthetic of late capitalism, and particularly of smartphones and apps, is so obsessed with smoothness and flow.) This requires relentless intrusive surveillance and laboratory-like manipulation of the entire population. But the secret of the good life is not

something that *can* be known, it being different for everyone. So, behind the rule of science and technology, there has to be a tyranny somewhere making these decisions. A small number of real-world communities attempted to emulate Walden Two, with varying degrees of success, one of the main drawbacks being that leaders often identified with the benevolent authoritarianism of Frazier.

Radical behaviourism produced bad utopias and bad theory. Beginning in the 1970s, it was overtaken in the field of psychology by cognitive approaches which were more interested in analysing mental states. Nonetheless, bad theory sometimes produces useful techniques. For example, a teaching machine might not know anything about human desires, but a highly sophisticated machine with enough data could learn to manipulate them. By picking up on regular behavioural patterns, it could learn how to ‘teach’ minds, to train the brain’s attention in particular ways. Sure enough, behaviourist ideas have gained traction. Having lost ground in psychology, they filtered into neuroscience, which was taking an aggressively reductive turn. By the early 1990s, brain scientists had come to believe that mental states could be explained by the physical structure of the brain, which in turn could be explained by genetics and environment. Rather than wrestle with the complexities of mind, meaning and motivation, it was sufficient to study the brain as an organism. This belief was not only congruent with behaviourist ideas about conditioning, but was strongly influenced by behaviourism. And it was extremely useful for the pharmaceutical giants. For example, if mental states like depression or anxiety could be understood as chemical states, they could be treated with ‘happy’ pills.

Behaviourism also inspired the enormously influential discipline of behavioural economics, which extends its reach into the heart of government as well into highly profitable industries such as amusement, gambling and tech. Nir Eyal, a businessman and behavioural economist, argues that successful businesses use these techniques to get customers addicted: the ‘Hook Model’ of business. The idea is to use ‘rewards’ to plant an ‘internal trigger’ in

the customer’s mind. If, for example, the slightest pang of loneliness, boredom or frustration makes us pick up our phones without thinking, that is an internal trigger: we’re hooked. Strikingly, Eyal’s theory rests on the radical contention that ‘there is no such thing as a “self”. You are just a collection of your past experiences and habits.’ The best way for a company to make a continuous profit is to be first in the queue in defining those experiences and habits.

Skinner’s utopia shadows the Twittering Machine. Although, like all corporations, the social industry giants claim to be giving people what they want, their techniques assume that we can’t know what we want. Nor, even if they thought we did know, would they have any reason to give it to us. The machine is not a democracy, and it isn’t even a market; we are neither customers nor voters. We are digital ‘serfs’, says Jaron Lanier, the ‘livestock of a feudal demesne’, according to Bruce Sterling. We inhabit a laboratory, a real-life operant conditioning chamber, into which we have been lured by the promise of democratized luxury. In the early days of the internet, the

promise was that we could ‘Ask Jeeves’; now we are offered ‘tools’ and ‘virtual assistants’. On that basis, millions of us have entered a web of surveillance in which we are the servants, providing endless hours of free labour. We are even subtly assigned ‘microtasks’ without noticing. Every time we fill in a Captcha, where we are asked to transcribe some letters and numbers to ‘prove we are human’ and get access to our emails, we may be helping a commercial firm digitize an archive. In the emerging world, free labour is extracted from customers under the guise of ‘participation’ and ‘feedback’.

From the point of view of freedom, says Shoshana Zuboff, this new ‘surveillance capitalism’ is worse than the panopticon. The panopticon teaches us to conform with dominant norms. But that sort of power at least acknowledges that we might not conform. In surveillance capitalism, by contrast, the mechanisms of observation and manipulation are designed without any assumption of

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psychological self-determination. Conformity disappears into the machinery, an order of stimulus–response, cause and effect.

Skinner’s techniques, coupled with the post-Cold War scientific world view, armed corporations and governments with a form of subtle, microlevel social engineering, backed up with decades of scientific research and, now, big data. In the social industry, the teaching machine became an addiction machine. And, as it transpires, it is not the classroom for which operant conditioning is best suited, but the casino.

VI.

What if one were to store up all the energy and passion ... which every year is squandered ... at the gaming tables of Europe?

Ludwig Börne

The analogy between the gambler and the social media junkie is hard to avoid. Tristan Harris, Google’s former design ethicist, calls your smartphone ‘The Slot Machine in Your Pocket’. Most smartphone apps use ‘intermittent variable rewards’ to keep users hooked. Because rewards are variable, they are uncertain: you have to pull the lever to see what you’re going to get. Adam Alter adds that with the invention of the ‘like’ button, users are gambling every time they post. Natasha Schüll, based on her work on machine-gambling, agrees.

Today’s casinos are very different from the macho dice and card play organized by old-school crime bosses. At the roulette table, the gambler could justify his perverse pleasure in risk-taking as a matter of honour in competition with peers. In recent decades, however, the favoured form has moved from the table to the slot machine. And the slot machines, digital and complex, have come a long way from the days of the one-armed bandit. Now the gambler experiences no macho showdowns, just an interactive screen

offering multiple permutations of odds and stakes, deploying user-experience design techniques similar to video-gaming to induce pleasure. The machines have a range of devices to give users the appearance of regular wins to keep them playing. These are often ‘losses disguised as wins’, insofar as the pay-off is less than the cost of playing. But the wins are not even the goal of playing. When we’re on the machine, Schüll finds, our goal is to stay connected. As one addict explains, she is not playing to win but to ‘stay in that machine zone where nothing else matters’. The gambling industry recognizes this desire to avoid social reality. It is called ‘time on device’, and everything about the machine is designed to cultivate it.

‘Time on device’ pinpoints something crucial about addiction. Traditionally, casinos have blocked out daylight and banned anything that conveys the sense of time passing: no windows, no clocks, and a constant supply of refreshments rather than timed meals. Some gambling-machine addicts today prefer to urinate in a paper cup rather than leave the device. Pubs and opium dens also have a history of blotting out daylight to allow users to enjoy themselves without the intrusion of time. The sense of dropping out of time is common to many addictions. As one former gambling addict puts it, ‘All I can remember is living in a trance for four years.’ Schüll calls it the ‘machine zone’ where ordinary reality is ‘suspended in the mechanical rhythm of a repeating process’. For many addicts, the idea of facing the normal flow of time is unbearably depressing. Marc Lewis describes how even after kicking junk he couldn’t face ‘a day without a change of state’.

The Twittering Machine, as a wholly designed operant conditioning chamber, needs none of the expedients of the casino or opium den. The user has already dropped out of work, a boring lunch, an anxious social situation or bad sex, to enter into a different, timeless, time zone. What we do on the Twittering Machine has as much to do with what we’re *avoiding* as what we find when we log in – which, after all, is often not that exciting.

There is no need to block out the windows because that is what the screen is already doing: screening out daylight.

And it manages time differently. For gamblers, the only temporal rhythm that matters is the sequence of encounters with destiny, the run of luck. For drug users, what matters is the rhythms of the high, whether it is the ‘stationary’ effect of opium or the build, crescendo and crash of alcohol. The experience of platform users, on the other hand, is organized in a trance-like flow. The user is plunged into a stream of real-time information and disciplined to stay constantly ahead of it. Twitter highlights not the time and date of posts, but their age and thus currency: 4m, or 12h, as the case may be.

The ensuing trance-like state, according to digital theorist David Berry, is remarkably similar to what in early stock markets was called the ‘ticker trance’. Financial speculators would become absorbed in watching the signals conveyed on stock market ticker tape, vigilant to every minute variation in a real-time flow. That is to say the timestamp, like the coded information on the ticker tape, is information about the state of the game. It enables users to place an informed bet.

If social industry platforms are like casinos, then they build on the existing extension of gambling in the neo-liberal era. Whereas gambling was controlled in a paternalistic way in the post-war era, laws have been increasingly liberalized over the past forty years. In the UK, this change was heralded by Lord Rothschild's Royal Commission on Gambling, and culminated in nearly wholesale liberalization with the Gambling Review Body's recommendations in 2001. Today, the majority of Britons gamble in some form, most commonly through the National Lottery. Similar transformations have taken place in the United States and Canada, and the European Commission has pressured holdouts like Italy, Austria and France to liberalize.

All of this has taken place concurrently with waves of *financial* liberalization, wherein capitalist dynamism was increasingly dependent on the bets and derivative bets of the stock market.

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And there is a logical convergence between financialization and tech. The financial sector is the most computerized sector of capitalism, and the use of software for trading has resulted in numerous efforts to 'game the system' – as in May 2010, when a trader's use of algorithms to repeatedly 'spoofer' bets against the market some nineteen thousand times, briefly caused a trillion-dollar crash.

Culturally, the idea of life as a lottery, which only a few magical adepts know how to 'work', has gained widespread traction both as a folk social theory and as an explanation for human misfortune. This links gambling to destiny and divine judgement in a way that reaches back to its earliest expressions. As the late literary scholar Bettina Knapp explained, the use of gambling as a divinatory device, as a way to work out what the Supreme Being wants of us, has been found in Shintoism, Hinduism, Christianity and the *I Ching*. At several points in the Bible, the drawing or casting of lots is used to discern divine will. In essence, the lot or die is a question about fate, posed to a superpower. Something similar happens when we post a tweet or a status or an image, where we have little control over the context in which it will be seen and understood. It's a gamble.

The cliché holds that the social industry platforms administer 'social approval' in metrically precise doses. But that's like treating gambling as though it were only about the pay-offs. Every post is a lot cast for the contemporary equivalent of the God of Everything. What we're really asking for when we post a status is a verdict. In telling the machine something about ourselves, whatever else we're trying to achieve, we are asking for *judgement*. And everyone who places a bet expects to lose.

VII.

Losing, and anteing up until you lose everything, is a normal part of addiction. Yet this self-destructive aspect is strangely foreclosed by

the prevalent 'dopamine' model of addiction. In that theory, behaviourism is fused with the fruits of neuroscience to argue that addiction is a result of behaviour followed by positive reinforcement: a rush of dopamine and adrenaline, for example, causing the behaviour to be repeated. Repetition is then further negatively reinforced by physically unpleasant withdrawal symptoms.

It is true that addiction has definite physiological effects. A study of 'internet addiction' found that withdrawal symptoms are very similar to those for drug addiction: elevated heart rate, blood pressure and anxiety. But dopamine doesn't work quite the way it was assumed to work. According to the neuroscientist Robert Sapolsky, the latest research finds that it is linked not to pleasure, but to *appetite and anticipation*. It makes us hanker for something but doesn't give us a high. Dopamine, as the anthropologist Helen Fisher puts it, travels down the 'neurochemical pathways for wanting'. It is not about pleasure, but desire. Addiction is something that is done with wanting, by those who are done with wanting.

So far, though, even this is perfectly congruent with behaviourist assumptions. But physiological patterns are not an explanation for addiction; they are what needs to be explained. The chemical pathways created by the motivated repetition of behaviour are not, at the same time, its sufficient cause. If addiction is a passion, a form of love gone awry, then the medical model of addiction misses the point as surely as does the medical model of love. All experience has a biochemical signature, so it is legitimate to describe it at that level. To *reduce* experience to chemistry, however, is to bypass what is essential to it: its meaning.

The psychologist Stanton Peele and psychiatrist Archie Brodsky argue that to be addicted is to form an emotional dependency where another emotional relationship has failed. And whether you become dependent on another person, a set of beliefs or a substance is an accident of circumstance. Social class, culture and childhood experiences dispose you to different types of

dependence. Your route out of a damaging addiction might be to discover a better dependence, a new consuming passion. This is to treat recovery not so much as a lucky escape from a disease, but as a creative act. Addicts who quit, says Marc Lewis, do so 'uniquely and inventively'. They don't merely plot a path to abstinence; they learn an entirely new way of being.

It is not an accident that so many recovering from a drug addiction make their way to religion, the ultimate consuming passion. (And for the gambler, as Pascal suggested, the ultimate wager.) The Latin root word, *addicere*, has its origins as a technical term in Roman law. To be addicted was to be given over, delivered. But by the early modern period, it had come to mean something else: to addict was to devote, consecrate or sacrifice. To be addicted was to be dedicated, usually to a vocation or calling. Paradoxically, it involved the free surrender of choice, just as any calling does. This is far from the image of the addict as a pathetic, chemically enslaved wreck, their moral autonomy in tatters. And it suggests that the psychologist Jeffrey Schaler is right to argue that the problem is we have chosen the wrong addictions. What we call addictions are misplaced devotions:

we love the wrong things. But what sort of *vocation* could the Twittering Machine be? How can we be *devoted to* a technology that is marketed as *our* servant?

VIII.

To an extent, our devotion to the machine has taken place without our informed consent. After all, what is the distinction between addiction and ordinary use? The more the Twittering Machine expands and colonizes our daily lives, the more the lines between ‘excessive’ and ‘normal’ behaviour are blurred.

The more society becomes dependent on the social industry to achieve everyday goals, such as socializing, entertainment, job-seeking and romance, the more it becomes logical, not pathological, to use them often and to become anxious when cut

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off. Think of the smartphone, the technological basis for platform interaction that, in a few short years, has taken over our lives. Since the popularization of the BlackBerry, dubbed the ‘CrackBerry’ by compulsive users, the smartphone has been associated with addictive behaviour. As we did before with mobile phones and personal computers, we have crossed an invisible techno-cultural threshold beyond which there is no return.

The smartphone is our portal to the world, our golden ticket out of here. It holds our credit cards, music, magazines, audiobooks, maps, movies, games, tickets and keys. It is our wayfinder. It connects us to family members, workmates and irresistible internet bullies. We use it to get dates, to get dinner. It breaks up our day, as Adam Greenfield puts it, into ‘jittery, schizoid intervals’ with constant updates. We keep it close, charged, at all times. It is as though, one day, it’s going to bring us the message we’ve been waiting for.

All of this rests not so much on unconscious substructures, as on layers of hard material infrastructure. What we refer to with such abstractions as ‘the cloud’ began with the laying of underground fibre-optic cables along the pathways of the railroad system all over the continental United States. The construction of this system was undertaken not in response to consumer demand, but as part of a digital modernization drive that Clintonite administrative elites believed was essential to future capitalist development. We were, in a sense, addicted to this emerging system before we even knew it existed.

Increasingly, these abstractions are linked to an emerging web of ubiquitous computing technologies which Greenfield has presciently called ‘everyware’. Ostensibly designed to smooth the edges of life, this network connects smartphones, sensors, data collectors, cookies and platforms in a constant flow of information. In so doing, it quietly outsources important decisions. When you ask Alexa or Siri for a nearby restaurant or shoe shop, it will be Apple or Google or Amazon that determines your path of movement through the urban space on the basis of their

commercial needs. Naturally, these structures can be used by political authority to promote governing norms, but they can also work as more insidious forms of control.

The emerging ideal of the ‘smart city’, where sensors and data collectors determine the allocation of resources and assets, is a case in point. Such cities are already being built in Canada, China and India. While the Chinese government wants to use the technology to promote a ‘social credit’ scheme rewarding good behaviour, Google’s plans in Toronto are seemingly driven by human need. To be called Quayside, Google’s ‘smart city’ will use data collection and sensors to monitor traffic, weather, pollution and noise, to adjust the roads, paving and architecture in response to emerging issues. This has met stiff local opposition, for fear of what will be done with the data.

However, the *benevolent* face of the ‘smart city’, the way it seems to make life easier, is also its dark side. It closely resembles French philosopher Gilles Deleuze’s idea of a ‘control society’. In the society of control, no one tells you what to do, whom to worship, or what is good and bad. You are simply presented with a range of tolerable options. Your reality is rewritten to exclude behaviours that the system finds intolerable. In the same way that online spending habits and clicking activities can determine how much debt you are allowed, or which advertisements you are likely to see, or what shops you will be pointed towards, your activity can be kept within a manageable bandwidth. This bandwidth is necessarily the upshot of political and ideological decisions at various stages, but it becomes submerged in the ‘given’ structure of things.

And lodged in this web is the social platform, the engine of constant, frantic, distracted writing. It is in this matrix that our passions, our desires, are accumulated as data, the better to manipulate and manage them. We confess to the machine while we walk, offering little ambulatory prayers. In doing so, we become cyborg beings: an assemblage of organic and inorganic materials, bits of technology, flesh and teeth, pieces of media, snippets of

code holding it all together. The connections between the parts as simple and fluid as the fingers skating with practised precision over a glassy surface. As Donna Haraway once wrote, our bodies don’t stop at the skin. Their very physical infrastructures now extend halfway round the world.

If what is meant by addiction is being unable to do without something, it is increasingly hard to imagine life with any other kind of body. And bodies think; there being, of course, nothing else to think with. Whether we’re walking or writing, we are always experiencing what the phenomenologists call ‘embodied cognition’. This is one of the things Freud adverted to when he claimed in a late, oracular note that the psyche is ‘extended’. By claiming that the mind is extended in space, he was identifying it with the body. Adding that the mind ‘knows nothing about’ its extension, he also linked the body to the unconscious. As though the body thinks without the mind’s noticing.

So what happens if bits of us, what the philosopher Brian Rotman calls our ‘distributed selves’, run in parallel on different processors? It is naive to suppose that these technologies simply expand the

powers of our organic bodies. They create dependencies; they change us. To use them at all, Lydia Liu argues, we must ‘serve these objects ... as gods or minor religions’. As our lives are rewritten by digital languages, a new theology begins to surface. An emerging dispensation of some ‘post-human singularity’ theorists is that the universe is fundamentally digital, and that reality is in some very real sense generated by a Universal Computer. This, the digital equivalent of praying to a sun god, gives cosmic dignity to the presuppositions of a transient way of life. It is an extreme expression of the way in which our attitudes to technology have always been religious.

IX.

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Addicts administer death in small doses. We are devoted to what kills us. In this respect, it is very like sun worship. For all the obsession with gratification, the most obvious attribute of addiction in its negative sense is that it kills. And nor is this a purely physical death. The drug addicts of Vancouver’s Hastings Corridor, described by Bruce Alexander, suffer symbolic death, ‘sodden misery’, before their biological death from overdose, suicide, Aids or hepatitis. Compulsive gamblers administer death in a symbolic sense, too, building up unpayable debts to the point where they lose everything they have lived for. If their bet poses a question about destiny, the addiction specialist Rik Loose argues, death is the radical answer.

Social media addiction is rarely understood in this extreme light. Nonetheless, users often describe it wrecking their careers and relationships. The complaints are almost always the same: users end up constantly distracted, unproductive, anxious, needy and depressed – yet also curiously susceptible to advertising. Patrick Garratt wrote of his social media addiction causing a ‘desperate, hollow pressure of waste’ in his working life as a journalist. Social media addiction has been linked, repeatedly, to increased depression: interaction with the platforms correlates with a major decline in mental health, while increased screen time (or ‘time on device’) may be contributing to a recent surge in teen suicides. Facebook’s own guileful way of presenting the issue was to claim that while ‘passive’ consumption of social media content could pose mental health risks, more engagement could ‘improve wellbeing’. This claim, while not supported by the research, would mean more profitable data for the site.

The dominant view of these self-destructive propensities was vividly explained by addiction entrepreneur, the late Allen Carr. In a macabre image, he compared addiction to a carnivorous pitcher plant. The plant lures insects and small animals to their death with the fragrant smell of nectar. Once the creature is inside, gazing down at that delicious pool of sugary liquid, he finds the walls slippery and waxy, then slides down, with growing speed, falling

into what he discovers is his watery grave. By the time he realizes that the pleasure is a mirage, it is too late to escape. He is consumed by digestive enzymes. This was Carr's hard sell, one of a range of powerful suggestion techniques he used to break his clients' addictions. But it also condenses how we mostly tend to think of the dark side of addiction – as something that ambushes the user, lured by a simple promise of pleasure.

The problem is, widespread knowledge of the dangers of addiction doesn't stop it from happening. Likewise, we know by now that if social industry platforms get us addicted, they are *working well*. The more they wreck our lives, the better they're functioning. Yet we persist. Some of this can be explained away by the manner in which addiction organizes our attention. The platforms, like gambling machines, are experts at disguising losses as wins. These work thanks to an effect similar to that exploited by practitioners of cold reading and 'psychic' tricks: we attend to the pleasurable 'hits' and ignore the disappointing 'misses'. We focus on the buzz of winning, not the cost of playing the game, and not the opportunities lost by playing. And if occasionally the habit threatens to crush us, we can fantasize that one day a big win will save us. But to explain away behaviour is not really to explain it. It is to collude in the rationalization of behaviour that may not be rational.

The prevalence of addiction might be attributable in general to 'psychosocial dislocation', but as an adaptive strategy it sucks. It quite visibly destroys people. Which raises the troubling question: is self-destruction, in some perverse way, the *yield*? What if we dive into the pitcher plant in part because we expect a slow death? What if, for example, the images of death and disease on the cigarette packet are an advertisement? Of course, it is not what is consciously sought. Heroin users are always trying to rediscover the bliss of the first hit. Compulsive gamblers live for those manic moments when their strategy seems to have paid off with a big win. But if it was really all about dopamine loops keeping us fixated on the next hit, it would be difficult to explain why random hits of

pleasure would make social media even *more* gripping. The platforms treat us mean and keep us keen.

One metric for this experience is known as 'The Ratio'. On Twitter, if the replies to your tweet vastly outnumber the 'likes' and retweets, you've gambled and lost. Whatever you have written is so outrageous, so horrible, that you are now in the zone of the shitstorm. The notorious examples of this involve corporate CEOs, politicians and celebrities, ostensibly on the medium for professional purposes, pushing the self-destruct button with an awful post. But the telling examples are not those tweets where there is a momentary lapse in good public relations, but those where intelligent users become embroiled in horrendous, undignified, self-destructive fights with their followers.

Consider, for example, Mary Beard, a Cambridge historian who maintains a profile on Twitter filled with amiable selfies, centre-left views and chat with fans. Beard's downfall came as she mused publicly about the horrendous allegations of Oxfam aid workers raping and sexually

exploiting children in Haiti. While stipulating that it couldn't be condoned, she wondered aloud how easy it would be to 'sustain "civilized" values in a disaster zone'. Beard's progressive followers were horrified. She seemed to be relativizing the behaviour of rapists. Would she be saying this, people wondered, if the victims were white? Beard was presumably unaware of any racist implication of her argument, but it was striking that she chose *this* medium as the place to make it. And perhaps just as significant was how ordinary that decision was. Twitter is good for witty banter; the lapidary concision of a tweet makes any put-down seem brutally decisive. Exactly for that reason, it's a terrible place to idly propose provocative theses.

In the ensuing shitstorm, blizzards of concise, lethal replies were launched in her direction. Disappointed followers declared their disaffection. Beyond a certain critical mass, it stopped mattering how accurate the criticisms were. The shitstorm is not a form of accountability. Nor is it political pedagogy, regardless of the high-minded intentions, or sadism, of the participants. No one is learning

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anything, except how to remain connected to the machine. It is a punishment beating, its ecstasies sanctioned by virtue. Twitter has, as part of its addictive repertoire, democratized punishment.

Rather than backing away from the medium in open-mouthed horror and reconsidering her whole approach to the issue, Beard remained entranced by the flow. As so many users have done, she spent hours upping the ante, trying to rebut, engage and manage the emotional fallout from the attack. She ended the day by posting a tearful photograph of herself, pleading with the medium that 'I am not really not the nasty colonialist you say I am'. This, predictably, egged the medium on, adding 'white tears' and 'white fragility' to the indictment. Hurt feelings, trivial in the scale of human woe, were being used to evade political accountability. (Besides, sotto voce, hurt feelings are *delicious, but not enough*.)

Still, Beard kept returning. It was, in its own way, a form of digital self-harm. The mirror that had told her how awesome she was now called her a scumbag, and it was clearly *irresistible*. Many online self-harmers must set up anonymous accounts to bully themselves, a practice which among the 'incel' (involuntarily-celibate) community is known as 'blackpilling'. On the Twittering Machine, no such efforts are needed. You just have to keep playing and wait for it. Come for the nectar of approval, stay for the frisson of virtual death.

X.

Part of what keeps us hooked is the so-called variability of 'rewards': what Jaron Lanier calls 'carrot and stick'. The Twittering Machine gives us both positive and negative reinforcements, and the unpredictable variation of its feedback is what makes it so compulsive. Routine rewards might begin to bore us, but volatility, the way the medium suddenly turns on us, makes it more intriguing.

Like a mercurial lover, the machine keeps us needy and guessing; we can never be sure how to stay in its good graces.

Indeed, the app manufacturers increasingly build in artificial-intelligence machine-learning systems so that they can learn from us how to randomize rewards and punishments more effectively. This sounds like an abusive relationship. Indeed, much as we describe relationships as having gone ‘toxic’, it is common to hear of ‘Twitter toxicity’.

Toxicity is a useful starting point for understanding a machine that hooks us with unpleasure, because it indexes both the pleasure of intoxication and the danger of having too much – hence the clinical term for the administration of toxic substances, ‘toxicomania’. The Renaissance natural philosopher Paracelsus is credited with a major insight of modern toxicology: the dose, not the substance, makes the poison. ‘Every food and drink, if taken beyond its dose, is poison,’ he said.

If toxicity is having the wrong dose, what are we overdosing on? Even with drugs, the answer is not straightforward. As Rik Loose points out, similar quantities of the same drug administered to different individuals have widely varying effects. The real experience of the drug – the subject-effect, as it’s called – partly depends on something other than the drug itself, namely something in the user. The happy pills have no more magic than magic beans. They have a blunt somatic force, but there has to be something else to act on. And if ‘psychosocial dislocation’ was a sufficient cause, then there would be far more addicts. Beyond a certain point, addiction must act on, and be caused by, the psychic world of the user.

With social media addiction, there are many more variables than with drugs, so it is hard to know where to begin. The designers of the smartphone or tablet interface, for example, have made sure that it is pleasurable to engage with, hold, even just to look at. The urge to reach, irritably, for the device during meals, conversations, parties and upon awakening, can partly be attributed to lust for the object and the soft, nacreous glow of the screen. Once we’ve navigated to the app, it is the platform designers who take control. For the duration of our visit, life is briefly streamlined, as with a

video game, into a single visual flow, a set of soluble challenges, some dangled rewards and a game of chance. But the variety of possible experiences include voyeurism, approval and disapproval, gaming, news, nostalgia, socializing and regular social comparisons. If we’re addicted, we might just be addicted to the activities that the platforms enable, from gambling to shopping to spying on ‘friends’.

The platforms don’t organize our experience according to a master plan. As the sociologist Benjamin Bratton puts it, the mechanism is ‘strict and invariable’, but within that ‘autocracy of means’, the user is granted a relative ‘liberty of ends’. The protocols of the platform standardize and order the interactions of users. They use incentives and choke points to keep people committed to the machine. They manipulate ends for the benefit of their real clients – other firms. They bombard us with stimuli, learning from our responses, the better to teach us how to be the market demographic we’ve been identified as. But they don’t force us to stay there, or tell us what to do

with the hours spent on the platform. Even more so than in the case of drugs, then, the toxicity is something we as users bring to the game.

There is no evidence that this toxicity is chemical. To locate it, we may have to go, as Freud put it, 'beyond the pleasure principle'. The name for our compulsion to pursue that which we know will give us unpleasure is 'death drive'.

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