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Reconceptualising the crimes of Big Tech

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ABSTRACT

Big Tech holds out a mythology of exceptionalism – promising disruption and innovation, operating on a pristine, otherworldly, abstract, imaginary plane – that is, the immaterial rather than the material. It holds itself out as different and separate from the ‘old’ economy and its concerns about material harms to people and the environment. Whilst there is increasing recognition of the harms of Big Tech, even these seem to be exceptional and epic, posing threats to democracy and our souls. This article argues against glamour of exceptionalism by Big Tech and instead contends that Big Tech epitomises problems of ascribing criminal liability to corporations – on steroids. This article aims to disrupt the myth and cultural imaginary of Big Tech as exceptional by teasing out various themes of legally enshrined corporate irresponsibility to highlight commonalities and to argue that corporations (including those that are part of Big Tech) urgently need to be regarded and regulated as criminal legal subjects. Far from exceptional and immaterial, Big Tech operates by a familiar playbook that enables it to externalise banal, routine harms that can and should be the subject of law.

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Big Tech holds out a mythology of exceptionalism and the romantic idea(l) of something special, transformative and unique – creating the digital economy and new, virtual worlds, with an open and free internet. There are a variety of different definitions of Big Tech, but it is commonly used to refer to a group of technology companies that have dominated the industry for years due to their size, influence and financial success,¹ and typically refers to the five US-based biggest, multinational technology companies Alphabet/Google, Amazon, Apple, Facebook/Meta and Microsoft.² These companies offer different services involving computers and services built on internet connection,

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¹According to the Collins English Dictionary, Big Tech is used to refer to the biggest technology companies. Some theorists include Chinese tech companies such as Alibaba and Tencent. Other platform giants include Netflix and Uber.

²Birch and Bronson (2022). Whelan distinguishes megacorporations from corporations on the basis of their ‘immensity’ which manifests in terms of global scale and broad scope of influence. On this basis, of the Big Tech corporations, only Alphabet, with its diverse range of investments, is a megacorporation: Whelan (2021). For Whelan, the English East India Company is an original megacorporate example.

but what they have in common is that they are leviathans that control the infrastructure for the digital age – which means that other tech companies are dependent upon them to conduct business. Digital technology has enabled a shift from the tangible to an intangible economy, enabling us to work remotely, market our businesses and reach global audiences. Amazon ‘eases the pain of drudgery – getting the stuff you need to survive. No great effort: no hunting, little gathering, just (one) clicking’.³ Facebook offers social networks where people never actually need to meet in person. When rebranding Facebook as Meta, Zuckerberg evoked a utopia of a metaverse, on a virtual plane, promising endless playgrounds for everyone.⁴ Big Tech holds itself out as separate from the ‘old’ economy and its concerns about material harms to people and the environment. It provides goods and services to consumers in ways that have never existed before, using algorithms to create personal experiences in new ways. Such is the innovation and promise of Big Tech that it is regarded as integral to ushering in a new industrial revolution. The first and second industrial revolutions represented developments in modes of production and how humans worked (eg use of machinery and mass production), the third industrial revolution began the shift towards automated production, while the fourth ‘blurs the lines between the physical, digital, and biological spheres’.⁵ The overarching ideal and cultural imaginary is that Big Tech promises disruption and innovation, operating on a pristine, otherworldly, abstract, imaginary plane – that is, the immaterial rather than the material.

The promise of Big Tech, and our dependence upon it in how we live, work, play and order our world, is also accompanied by an awareness that Big Tech has not delivered upon the ideals of a new world, and instead has been accompanied by a grotesque accumulation of wealth and power, and growing inequality. There is also an acknowledgment of (some of) the harms, but, like the promises of a new virtual world, many of the harms are conceived of in abstract rather than material terms. In recent years, increasing concern has been expressed by academics, media and government about the activities and dominance of Big Tech,⁶ but there is a tendency to silo concerns about Big Tech, accepting and reinforcing the myth of the exceptionalism of Big Tech – even whilst recognising commonalities with corporations of the past. Big Tech has been the subject of in-depth investigations by government, such as the US House of Representatives in 2020⁷ and the ACCC in 2021,⁸ and the target of specific legislative and policy action.⁹ Just as the promises of Big Tech are disruptive, vast, abstract and metaphysical, the threats to Big Tech are frequently framed as posing an existential, metaphysical threat to life as we know it, such as undermining democracy,¹⁰ or eating our souls.¹¹ Foroohar

³Galloway (2017).

⁴O’Brien and Ortutay (2021).

⁵Schwab (2016).

⁶Birch and Bronson (2022); Zuboff (2019); Agents of Chaos (HBO Documentary Films, 2023); media reporting in the Financial Times and The Economist.

⁷Nadler and Cicilline (2022).

⁸ACCC (2021).

⁹For example, the European Union’s Digital Market Act (DMA) which seeks to address large digital platforms acting as ‘gatekeepers’ to increasingly essential infrastructure: Regulation (EU) 2022/1925; G7 (2023).

¹⁰For example, there has been political backlash following exploitation of technology platforms to manipulate results in the 2016 US Presidential Election, 2016 British Referendum and the 2018 revelations about Cambridge Analytica: Zuboff (2019).

¹¹Foer (2018).

has argued that controlling the negative effects of Big Tech is the most pressing economic and political issue of our time:¹²

The challenge for us today is figuring out how to put boundaries around a technology industry that has become more powerful than many individual countries. If we can create a framework for fostering innovation and sharing the prosperity in a much broader way, while also protecting people from the dark side of digital technologies, then the next few decades could be a golden era of global growth.¹³

Foroohar's book, *The Big Four*, is framed as a wake-up call to anyone who 'believes in a future in which the benefits of innovation and progress outweigh the costs to individuals and to society'.¹⁴ I do not dispute that Big Tech poses specific problems, but Foroohar's statements above could equally apply to long-held questions about corporations – how do we foster innovation whilst sharing prosperity in a broader way? How do we rethink corporations so that they no longer externalise harms to individuals and society in pursuit of innovation and progress?¹⁵

One mechanism available to society is to regard and regulate the corporations that make up Big Tech as criminal legal subjects so that harms are no longer regarded as a cost of doing business, but instead, as prohibited wrongs.¹⁶ Despite recognition of the harms of Big Tech, it has enjoyed a relative impunity for its harms and wrongs, with Julia Powles pointing to 'Big Tech's small liabilities'.¹⁷ The mythology and cultural imaginary of exceptionalism is one factor that has contributed to the failure to apply criminal law to Big Tech, with the idea that even if we wished to respond to Big Tech's harms, Big Tech and its harms are too massive, too new and too exceptional to fit into pre-existing categories of criminal law.¹⁸ An ongoing question is whether we need new laws to deal with problems of technology (or new innovations) or can we use old laws and apply them in new ways?

This article argues that the problems of Big Tech are perceived as so epic that they are operating as a glamour, such that we cannot see past the glamour to the all too familiar failure to treat corporations and their harms as criminal legal subjects. Here, 'glamour' highlights that our hopes and desires are inextricably tied up with Big Tech,¹⁹ and also the way that the harms seem so new and epic that their glamour distracts us from the banal, routine harms of Big Tech and existing law that could be applied. This article argues against the glamour of exceptionalism by Big Tech and instead contends that Big Tech epitomises problems of ascribing criminal liability to corporations – on steroids. The minimal pursuit of Big Tech in criminal jurisdictions, or even theorising about it,²⁰ typifies a failure overall to conceptualise and respond adequately to corporate

¹²Foroohar (2019). There are of course arguments that other issues may trump Big Tech, such as, climate change.

¹³Foroohar (2019), p 10.

¹⁴Foroohar (2019), p 10.

¹⁵See eg, Barak (2017); Mayer (2018).

¹⁶Gilchrist (2012).

¹⁷Powles (2023). For example, on the USA Corporate Prosecution Registry, only Google Inc appears for a 2011 prosecution for improper advertising in breach in violation of The Federal Food, Drug and Cosmetic Act and the Controlled Substances Act. As a consequence Google agreed to forfeit US\$500 million.

¹⁸The argument that tech harms are too new for criminal law is in accordance with a broader myth of technology that it changes too fast for all to keep up: Moses (2011).

¹⁹The idea that our desires are bound up with corporations even whilst we recognise the harms is also argued by Tombs and Whyte (2015).

²⁰Yue (2020); Palmieri (2022); Powles (2023); Size (2020).

crime. This article aims to disrupt the myth and cultural imaginary of Big Tech as exceptional by teasing out various themes of legally enshrined corporate irresponsibility to highlight commonalities and to argue that corporations (including those that are part of Big Tech) urgently need to be regarded and regulated as criminal legal subjects. The first section provides the theoretical framing for the article, teasing out constructs of the abstract juridical subject of individualistic bias and abstraction, and the idea of structural and cultural violence. The following section considers Big Tech as generating a problem of magnitude and the way that large corporations utilise the individualistic bias of criminal law and abstraction from the socio-economic context to their advantage. The article then highlights the ways in which Big Tech's harms are characterised as diffuse, abstract and too big, nasty and new for existing criminal legal categories so that rather than a criminal law story we are stuck in a horror story. The final section highlights the ways in which Big Tech causes banal, all too recognisable harms, which are externalised in classic ways.

The abstract juridical subject and corporations

This section provides the theoretical framework for analysing obstacles to applying criminal law to corporations through conceptions of the criminal legal subject. Key to this analysis is that the legal subject is necessarily constituted by law,²¹ and that these constructs have very real effects of who or what is/not ascribed responsibility in criminal law.²² A common explanation for difficulties of applying criminal law to corporations is that criminal legal doctrine has been constructed around the 'ideal legal actor'²³ – the responsible human being. To state the obvious, corporations are different from individual humans, and as such, this means that they do not easily fit into pre-existing categories of criminal law.²⁴ This has led the corporate law theorist Celia Wells to argue that there is an individualistic bias in criminal law, that is, a focus on offenders as individuals.²⁵ This manifests in problems of applying fundamental categories of criminal law to corporations, such as *mens rea*, *actus reus* and the requirement of temporal coincidence. How do we know what a corporation knew and intended, and when?²⁶ How can a corporation act without its individual members?²⁷ I recently extended Wells' argument about the individualistic bias in offence categories to explore the ways that this bias manifests in the categorisation of harms by criminal law.²⁸ That is, I argued that the criminal law assumes and conceptualises harms perpetrated by individuals, and this raises taxonomic problems for corporate liability because large organisations are capable of widespread systemic harms that massively exceed the dreams of even the most competent human supervillain.²⁹ My insight is that corporate harms are 'too big, too bad, too nasty' for (existing) criminal law categories – and these ideas can

²¹Vining (1978); Gindis (2016).

²²Not all humans are regarded as criminal legal subjects. For example, the presumption of *doli incapax* is that children lack the moral and intellectual development to have the capacity to be guilty of crime: Crofts (2018b).

²³Naffine (2009).

²⁴Crofts (2022a).

²⁵Wells (2002).

²⁶Lo (2017); Bant (2021); Bant (2023).

²⁷Clough (2007).

²⁸Crofts (2022b). This idea has been developed further in Crofts and van Rijswijk (Forthcoming).

²⁹Crofts (2022b); Peters (2023).

be applied to Big Tech. For the purposes of analysis throughout this article I will refer to these ideas as the individualistic thesis of criminal law.

There is an additional insight regarding the construct of the legal subject that is ripe for exploration regarding corporations and Big Tech. In *Crime, Reason and History*, the criminal law theorist Alan Norrie wrote of the ‘abstract juridical subject’ to emphasise that the seemingly universal legal subject was abstracted from its context, ‘an ideal individual living in an ideal world’.³⁰ Norrie is not alone in these arguments that criminal law was constructed to protect the interests of wealth and society.³¹ He argues that ‘the logic of individual right provides a measure of legal liberty and fairness to all members of society, it is also a logic that obscures the social realities beneath the legal appearances’.³² Thus, even though the law holds out the promise of universal rights and justice, the law simultaneously masks the contextual socio-economic inequality through its ‘formal character as a logic of universal individualism’.³³ In his arguments Norrie primarily focuses on how this abstraction is particularly unfair for those who are from lower socio-economic backgrounds, but his theory can equally apply in terms of the advantages accruing to those with higher socio-economic backgrounds. In her analysis of the *abstract* legal subject, the legal theorist Anna Gear refers to Norrie when pointing to continuities between law’s natural person and the corporation. Like Norrie, Gear emphasises the central attribute of the legal subject as abstract rationalism, asserting that the classic legal subject was formed around the Cartesian privileging of mind over matter, a form of rational disembodiment.³⁴ For Gear, corporations can be read as an analogue to the idealised characteristics of European (and colonial) masculinity: ‘separate legal personality, limited liability and the separation of ownership and control – as well as the legal duty placed upon company directors to pursue profit above all else – are legible as direct analogues to the mythic white, European male’.³⁵ Gear asserts that the legal subject:

[m]ay in the final analysis be too impossibly disembodied for any corporeally specific human beings fully to operationalise putative similarities with it. The same is not true, however, of the corporal juridical form, in which ... the Anthropos reaches its contemporary apotheosis in an idiosyncratic form of dis/embodyment perfectly fitting the structural and ideological features of a fully capitalistic legal subject.³⁶

Thus far from failing to fit the archetypal legal subject as suggested by the individualist thesis above, corporations should instead be regarded as *the* quintessential legal subject, ‘possessing disembodied characteristics that no corporeally specific human (or animal) body ultimately can possess’.³⁷ For the purposes of this article, I particularly want to emphasise the arguments of Norrie and Gear as emphasising the *abstract*, to tease out Big Tech’s claim and promise of operating on an abstract level and the idea that any harms that are caused are abstract.

³⁰Norrie (2014). See also Kapur (2007).

³¹See for example Thompson (1975), p 268: where even though the law holds out a ‘logic of equity’ to transcend the ‘inequalities of class power which, instrumentally, it is harnessed to serve’.

³²Norrie (2014), p 29.

³³Norrie (2014).

³⁴Gear (2015).

³⁵Gear (2015).

³⁶Gear (2015), p 237.

³⁷Gear (2015).

I will explore the ways in which the individualist and the abstract converge to facilitate criminal legal irresponsibility for corporations, particularly Big Tech, framed with the sociologist Johan Galtung's influential ideas about structural and cultural violence. Galtung defined violence as

the cause of the difference between the potential and the actual, between what could have been and what is. Violence is that which increases the distance between the potential and the actual, and that which impedes the decrease of this distance.³⁸

For Galtung, the concept of violence is necessarily contextual – he used the example of tuberculosis, stating that if people died of tuberculosis in the eighteenth century not much could be done about it so it would not be an example of structural violence. But in the present tuberculosis is avoidable, so that such deaths should be regarded as a form of violence. Galtung defined structural violence as a form of violence wherein some social structure or social institution may harm people by preventing them from meeting their basic needs, and in 1969, called on researchers to focus on ‘structural violence’ – between nations as well as individuals, which he argued already causes an ‘annual toll of nuclear magnitude’.³⁹ The idea of structural violence continues to be relevant, particularly in relation to arguments about corporations and governments of the Global North continuing to exploit the Global South. For example, the criminologist Bohm has drawn on the idea of structural violence to explore ‘asymmetric economic relationships – deviant and criminal business relationships in which corporations and industrialised countries participate in joint exploitative enterprise – an enterprise causing harm of nuclear magnitude’.⁴⁰

Galtung later developed the idea of cultural violence to denote aspects of culture ‘that make direct and structural violence look, even feel, right – or at least not wrong’.⁴¹ Galtung states that culture ‘preaches, teaches, admonishes, eggs on, and dulls us into seeing exploitation and/or repression as normal and natural, or into not seeing them (particularly not exploitation) at all’.⁴² In his analysis he pointed to ‘the symbolic sphere of our existence – exemplified by religion and ideology, language and art, empirical science and formal science (logic, mathematics) that can be used to justify or legitimise direct or structural violence’.⁴³ Galtung did not, however, consider law as a form of cultural violence, but here I argue that criminal law is a form of cultural violence – rendering violence by corporations and governments acceptable or at least allowable.⁴⁴ These arguments are in accordance with more recent insights about cultural legalities – which views law as culture and culture as law,⁴⁵ emphasising that law is both a producer of culture and an object of culture.⁴⁶ Criminal law and the conceptualisation of the criminal legal subject are part of the glamour of corporations that reflects and reinforces the collective imagination such that we do not register corporations as criminal, their

³⁸Galtung (1969), p 168.

³⁹Galtung (1969), p 183.

⁴⁰Bohm (2020).

⁴¹Galtung (1990), p 292.

⁴²Galtung (1990), p 295.

⁴³Galtung (1990), p 291.

⁴⁴See Trabsky and Flore (2024) for an argument about allowable deaths.

⁴⁵Mezey (2003); Sharp and Leiboff (2016); Peters and Crawley (2017); Giddens et al (2024).

⁴⁶Mezey (2003).

harms as criminal, or even comprehend the harms as harms or violence. This idea of a glamour is powerfully represented in vampire fiction, where vampires seduce and/or use mind control so that their prey do not recognise the danger until too late, if at all.⁴⁷ Their victims submit willingly to their blood being sucked, resulting in death, or worse, vampirism. I explore below the ways in which the individualistic bias and abstraction converge to facilitate and accept structural violence of corporations, including but not limited to, Big Tech, diminishing the likelihood of any application of criminal law to the crimes of Big Tech, or even that they will be regarded as crimes at all.

Corporate leviathans and the problem of magnitude

The individualistic bias in criminal law is especially salient for the companies that make up Big Tech due to their sheer size. Big Tech companies have grown exponentially in the past few decades, with the result that of the top ten biggest companies by market capitalisation in the world – five are tech companies – Apple, Microsoft, Alphabet, Amazon and Meta (of the other companies, four are petrol companies). For example, in 2022, Apple was the world's biggest company by market capitalisation, earning US \$394.3 billion in revenue in 2022. The platforms of Amazon, Apple, Facebook and Google combined were valued at more than \$5 trillion in September 2020 – more than a third of the value of the S&P 100.⁴⁸ As a consequence, Big Tech companies are the most valuable and powerful companies in the world. They have tremendous market power and in most cases are more powerful than nation states. A study by Mackeeper in 2021 took the market capitalisation of the tech giants and compared them with the annual gross domestic product (GDP) of countries and found that with a market capitalisation of more than \$2.1 trillion, Apple's market capitalisation is larger than 96 per cent of country GDPs. Only seven countries in the world have a higher GDP than Apple's market cap.⁴⁹

In brief, there are different reasons for the exponential growth of Big Tech. Part of the reason why these tech companies are so large is the failure of US government to apply existing competition or antitrust laws (to many corporations including technology corporations). Robert Bork's *The Antitrust Paradox*,⁵⁰ provided a theoretical justification for a shift in antitrust cases, that competition could be assessed not by the health of the market and whether a company was taking unfair advantage of a commanding market position to stifle competition, but rather whether it delivered low consumer prices or the short term interests of consumers.⁵¹ This was accompanied by a shift in narrative from the Reagan era onwards that growth of large companies contributed to superior economic efficiency, based on the belief that bigger was better due to economies of scale. This was justified by reference to Adam Smith's invisible hand of the

⁴⁷There is of course a massive vampire literature. A classic, influential text is Stoker (1897).

⁴⁸Nadler and Cicilline (2022).

⁴⁹Omri Wallach (2021) 'The World's Tech Giants Compared to the Size of Economies' <https://www.visualcapitalist.com/the-tech-giants-worth-compared-economies-countries/>.

⁵⁰Bork (1979). The US Supreme Court adopted his views in many cases including *Reiter v Sonotone Corp* 442 US 330 (1979).

⁵¹Miller (2022).

market, and the idea that we can rely on individual self-interest and the market to deliver the most efficient, productive outcomes, promoting a lack of government intervention to allow the market to reach equilibrium on its own.⁵² Decades later, there has been recent recognition and challenging of this failure to enforce antitrust laws, with a Congress committee finding that antitrust (competition) agencies in America had failed to ‘aggressively and fairly enforce the law’, and thus had failed to stop monopolists from rolling up their competitors and failed to protect the American people from abuses of monopoly power.⁵³ The effects of the failure to stop monopolies has manifested across industries and while not specific to Big Tech, definitely played to its strengths. Given that Big Tech trades in data via a system of barter, it had no need to raise prices.⁵⁴ It worked particularly well for Amazon, which was not regarded as anti-competitive because it delivered the cheapest prices to consumers, even as it created a monopsony so that it became the only supplier. But the problem of Big Corporations and Big Industries are not new – with many corporations historically being given a monopoly such as the infamous East India Company,⁵⁵ and/or developing natural monopolies due to network effects, such as railways, telegraph and telecommunications, where the more users a corporation has the more attractive it is to users. Given the tendency of corporations to want to get bigger and thrive, the lesson is that monopolies become the rule unless there is government intervention.⁵⁶

As a consequence of the ideology and lack of legal enforcement we are left with mega corporations, allowing Big Tech to incorporate and/or extinguish (potential) competition, and in the process grow exponentially.⁵⁷ Kwoka notes that the five Big Tech companies have acquired more than 600 companies between them in the past 20 years.⁵⁸ For example, in 2012, Facebook acquired the photo-sharing app Instagram for approximately \$US 1 billion in cash and stock and in 2014 Facebook acquired WhatsApp in a deal valued at \$US 19 billion.⁵⁹ Big Tech has also adopted a practice known as ‘killer acquisitions’, where it purchases rivals to stamp out threats to their market power. The process of acquiring potential competitors assists Big Tech to obtain or maintain dominance, and generates problems, even if Big Tech ‘kills’ the competitor, but keeps the data.⁶⁰ By providing the hardware, Big Tech can surveil other businesses, identify potential rivals, and incorporate or destroy rivals, entrenching and expanding their dominance, running the marketplace while also competing in it.⁶¹ Recently, there has been broad agreement across the political spectrum that the sheer size of Big Tech is a problem, and that anti-trust laws need to be strengthened and enforced.⁶²

⁵²However, economists such as Adam Smith would not have regarded these oligopolies and monopolies as the operation of the free market. For more detail see Tombs and Whyte (2015).

⁵³Nadler and Cicilline (2022).

⁵⁴Foroohar (2019).

⁵⁵Dalrymple (2019); Stern (2011).

⁵⁶For example, Bell Telephone and Standard Oil were broken up by the government: Galloway (2018).

⁵⁷Fon (2021); Alford (2022).

⁵⁸Kwoka (2020), p 199.

⁵⁹Kumar (2018).

⁶⁰Stucke and Grunes (2016).

⁶¹Nadler and Cicilline (2022).

⁶²Alford (2022). Whilst these anti-competitive practices are regarded as an expression of power, the alternative has been argued, that Big Tech’s actions of gobbling up upstart competitors and emerging platforms is because they fear competition, eg losing users on Facebook and Google. See eg, Martin (2021).

Problems of magnitude

But given the sheer size of Big Tech corporations they are generating problems of magnitude. In *Law and Irresponsibility*, the legal theorist Scott Veitch asserted that the larger an organisation, the more capable it is of systemic harms, and the less likely it is to be held accountable.⁶³ Veitch's arguments were particularly concerned with governmental wrongdoing – but can equally be extended to massive corporations. The problem of magnitude manifests as obstacles to the enforcement of criminal law in multiple ways, exemplifying a convergence of the individualistic bias and the abstraction of law from the socio-economic context of phenomenal inequality of wealth and power.

A common theme and fear of magnitude in corporate crime literature and practice is that some corporations are too big to fail or too big to jail.⁶⁴ One issue that arises is our dependence on the goods and services provided by large organisations – including, but not limited to, Big Tech. During the pandemic, we relied on Big Tech heavily, to work, to eat and drink, and to maintain social relations etc, massively boosting Big Tech's transformation. Where virtual monopolies exist, there is a lack of meaningful and/or attractive alternatives if consumers are dissatisfied. For example, the takeover of Twitter by Elon Musk and removal of controls on 'free speech' has resulted in a surge in extremist and hate speech, but currently there is a lack of a good alternative to Twitter.⁶⁵ But this same argument of dependence can be made for many other corporate goods and services – for example, if an aged care home closes – where will residents go?⁶⁶ As a society we remain heavily dependent on Big Tech, even whilst we have concerns about many of the products and services we rely upon on a daily basis. For example, we continue to use Facebook even after the Cambridge Analytica scandal laid bare the mechanics of economic surveillance.⁶⁷ This has led Alford to argue that we suffer cognitive dissonance in our relationship to Big Tech – utter dependence whilst also having grave misgivings about harms (and crimes) caused by and/or associated with Big Tech.⁶⁸ Likewise, this cognitive dissonance is also apparent in our dependence on other corporations. During the pandemic, not only were we increasingly dependent on Big Tech, but also pharmaceutical companies to manufacture vaccines and medicines – at a time when we were aware of the harms caused by pharmaceutical companies, such as Purdue's responsibility for the opioid epidemic.⁶⁹ Thus even whilst we recognise the harms of corporations, our hopes and desires remain bound up with them.

The dependence on Big Tech is expressed not only by individuals but also by the state, to the extent that it might be better characterised as a romance. This is particularly due to the state's desire for data and surveillance.⁷⁰ Once again though, this dependence on large corporations is not specific to Big Tech. It has long been recognised that states depend on corporations to invest in their jurisdictions in the belief that it will generate jobs and

⁶³Veitch (2007).

⁶⁴Munger and Salsman (2013); Garrett (2014); Golumbic and Lichy (2014).

⁶⁵Jikeli and Soemer (2023).

⁶⁶Maker and McSherry (2019).

⁶⁷Afriat et al (2021).

⁶⁸Alford (2022).

⁶⁹van Zee (2009); Griffin and Miller (2011); Lelling (2018); Jones (2021).

⁷⁰Galloway (2017).

income, which the state needs to fulfil its functions and ensure legitimacy.⁷¹ Corporations can be big enough to affect the global economy. This belief was reflected and reinforced in the Global Financial Crisis (GFC) – the collapse of Lehmann Brothers is regarded as triggering the global collapse of the economy.⁷² It is also reflected in government bail outs for companies during the GFC and during COVID. The fear is that failure of these massive corporations will have a domino effect – on other workers and other corporations.⁷³ Given this dependence, transnational corporations have the capacity to choose which jurisdictions that they operate in, with the result that there has been a ‘race to the bottom’ of reducing expensive regulations, such as the protection of workers and the environment, to attract business in the (false) belief of trickle-down economics. The Big Tech companies have sought to rely on ‘jurisdictional veils’ to shield themselves from ‘foreign’ regulation that is contrary to their commercial interest.⁷⁴ Big Tech can serve as gatekeepers over key channels of distribution, and as discussed below, they can impose oppressive contract terms and extract valuable data from people and businesses that rely on them. This suspension of regulations and laws is not limited to Big Tech but is a feature of other corporate negotiations with the state.⁷⁵ The more dependent we are on these large corporations, the more difficult it is to conceptualise and respond to corporate wrongdoing whether on a personal social or governmental level.

The problem of magnitude has also been accompanied/exacerbated by the narrative of small government.⁷⁶ Big Tech is associated with the ideology of small government, as ‘digital utopians’ believed that popular adoption of a free internet would make government less relevant to public life, through a transition from centralised power of the industrial age to dispersed, decentralised institutions of the networked world.⁷⁷ Like most big corporations, Big Tech sets up codes of ethics as a way to forestall government murmurings of regulatory and legislative reform. The massive dependence on Big Tech, the desire for data, accompanied by an ideology of small government and neo-liberalism have converged with the result that states have reduced capacity to regulate, investigate and control corporations. The governmental approach to corporations is expressed in the highly influential theory of the regulatory pyramid, with a focus on working with and persuading corporations to obey regulations and laws, with criminal sanctions only as a last resort – an approach that is not applied to individuals.⁷⁸ But the problem is that the pinnacle of the regulatory pyramid, that is criminal prosecution, is mainly absent for most corporate wrongdoing – with the result that most corporations do not realistically fear criminal sanctions.⁷⁹ Even if prosecution were considered, there are then difficulties of how to punish corporations in meaningful ways,⁸⁰ without hurting ‘innocent

⁷¹Habermas (1999).

⁷²Enron also led to collapse of Arthur Andersen, resulting in the loss of thousands of jobs.

⁷³See most recently the way that Australian governments have handled casinos.

⁷⁴Muchlinski (2001) coined the term ‘jurisdictional veil’. See also, Douglas (2023) for an analysis of Big Tech cases disputing jurisdiction.

⁷⁵See for example, Bradshaw (2015); Crofts and van Rijswijk (2023).

⁷⁶In 1996, President Bill Clinton stated in his State of Union address that ‘the era of big government is over’. See Mitchell (1996).

⁷⁷Dyson et al. (1994), p 297 cited by Sylvain (2019).

⁷⁸Braithwaite (2011).

⁷⁹Truby (2020), p 946.

⁸⁰Innovative theories have been offered of ways to punish corporations: see Diamantis and Laufer (2019); Edelman (2022).

shareholders', increasing costs for customers, and/or leading to corporate failure. There is an element of catastrophism here – where any possible moves to penalise corporations are seemingly impossible – whether because of our dependence and/or the fact that, unlike the responsible human being, they have 'no body' and thus usual techniques of imprisonment are not available.⁸¹ Despite widespread harms, it is rare for Big Tech to be held legally responsible and any responsibility tends to be civil. The primary areas where Big Tech companies have been held liable are privacy and data protection, competition law (antitrust), consumer law, engaging in harmful tax practices and employment law.⁸² These interventions have resulted in the equivalent of a rap on the knuckles, where penalties are absorbed as part of a cost of doing business, and are not sufficient to undermine the rational economic choice to stop the offending behaviour, given its profitability.⁸³

Moreover, the problem of magnitude can also affect the structure of law and legal categories, a form of cultural violence, so that harms by corporations are not even seen as criminal in the first place. Here the insights of Norrie and Gear are pertinent, and the way in which the abstract juridical subject is decontextualised from profound power and economic inequality. Our dependence upon Big Tech and the problem of magnitude exacerbates the capacity to influence the law and minimise responsibility. Here too, there are parallels with other large corporations and industries, including Big Tobacco, Big Oil and Big Pharma,⁸⁴ such that theorists have argued that this is a problem inherent to capitalism.⁸⁵ This can be through political persuasion and/or pressure so that laws and regulations reflect the needs and interests of big corporations. This political pressure can be accomplished through advertising and lobbying. If lobbying fails to yield the results that massive corporations want, then given that many corporations are more powerful than many nation states, they have not been afraid to flex their muscles. This was demonstrated recently when the Australian government was developing regulations to ensure that Big Tech would pay for the news that it streamed on its platforms. Big Tech responded with advertising campaigns against the proposals, for example Google ran a yellow warning strip on its site that proposed laws would risk Australian's capacity to search (heavy advertising has also been relied upon by the mining industry to subvert reforms). Facebook went further and shut down multiple sites in protest – including emergency services during a terrible bush fire season⁸⁶ – leading Powles and Smith to suggest that Facebook could be charged with terrorism offences.⁸⁷

Gear has called for more critical theory about the legal subject – particularly the corporation as an abstract juridical subject.⁸⁸ Her arguments about corporations as quintessential legal subjects are particularly salient in relation to corporations' ability to draw upon universal rights. My colleague Honni van Rijswijk and I have pointed out that many of our fundamental legal principles and 'universal rights' are concerned with the

⁸¹Coffee Jr (1980).

⁸²Powles (2023).

⁸³Powles (2023).

⁸⁴Lotz (2018).

⁸⁵Martel (2024).

⁸⁶In 2014, Google pulled out of Spain in response to the Spanish government charging copyright fees for using news snippets: Carson and Dodd (2020).

⁸⁷Powles and Smith (2022).

⁸⁸Gear (2015).

relationship of the individual to the state – and that principles such as the Rule of Law and human rights are aimed at protecting the individual from the arbitrary exercise of power of the state.⁸⁹ We have argued that we need to add corporations as a third player in the mix, to think through the relationship of individuals to corporations and the corporation to the state. This failure to interrogate the corporation and decontextualise its socio-economic power has meant that it has been able to draw upon rights that were created to protect individuals, such as the right to free speech in *Citizens United*.⁹⁰ Through political spending, Big Tech has had an unprecedented influence on democratic process.⁹¹ For example, in the US, Public Citizen issued a report in 2021 entitled ‘Big Tech, Big Cash’ about how Big Tech corporations have blanketed Capitol Hill with lobbyists and lavished members of Congress with campaign contributions.⁹² Facebook and Amazon are now the two biggest corporate lending spenders in the USA, with Big Tech has eclipsing previous big lobbying spenders, Big Oil and Big Tobacco. In 2020, Amazon and Facebook spent nearly twice as much as Exxon and Philip Morris on lobbying. Big Tech is the second largest lobbying group in Washington – after Big Pharma – and Google’s parent company Alphabet is frequently the largest individual corporate lobbyist in Washington. Corporations are thus able to shape legal categories to their benefit so as not to be seen as a subject of criminal law at all. Instead, if harms come to our attention they are framed as an individual issue (eg as an issue of consent or choice) or as a governance issue (rather than criminal).

Demythologising the crimes of Big Tech

Given that Big Tech are corporate behemoths they are capable of harms on a massive, unprecedented scale. Much of corporate crime academic literature focuses on the problem of *mens rea* – how do we know what a corporation is thinking/intending/knowing?⁹³ The ongoing difficulty of attributing *mens rea* to corporations is exacerbated for Big Tech, not only because of complex, massive corporate structures, but also because of the use of algorithmic or automated systems that underpin every aspect of how these companies operate. There are ways around this issue of *mens rea*. For example, Elise Bant’s theory of system intentionality can be drawn upon to construct evidence of *mens rea*:

What a corporation routinely and systematically does, and what its systems are objectively apt to produce, to ascertain what it knows, intends or is reckless towards.⁹⁴

Powles applies the idea of system intentionality to argue that it is integral to Uber’s business model to deliberately ignore and evade legal protections, subvert regulators and enforcement, deprioritise safety, and financially exploit passengers and drivers.⁹⁵

Accordingly, Uber’s breaches of law are a result of ‘the relentless pace of growth and expansion; and the systematic exercise of starving units of resources for organisational

⁸⁹Crofts and van Rijswijk (2021).

⁹⁰Sepinwall (2015); Pollman (2016); Siraganian (2020). See also Campbell’s analysis of professional privilege and how this has been mis/used by corporations: Campbell (2024).

⁹¹D’Cunha (2021) p. 121.

⁹²Chung (2021).

⁹³Lim (2013); Lo (2017); Campbell (2018); Diamantis (2019); Bant (2021).

⁹⁴Bant (2021).

⁹⁵Powles (2023).

safety functions to mitigate known and systemic harms'.⁹⁶ It is actually how the system is meant to work in the quest for rapid and total market domination.⁹⁷ Other theorists have argued that we can determine the intention of a corporation based on its choices and actions across time.⁹⁸ Additionally, given their (potential) immortality and size, corporations also tend to have complex causal chains that are more complex than those conceptualised in classic legal doctrine revolving around the responsible human being.⁹⁹ These causal issues can be capitalised upon by corporations, 'by making the causal chain longer the actor avoids having to face the violence directly'.¹⁰⁰

This section explores a precursor to issues of *mens rea* and causation, that is, the problem of the harms themselves given the convergence of individualistic bias and abstract juridical subject. The harms of Big Tech are ostensibly exceptional, those that dominate the cultural imagination are seemingly new types of harms that have not been seen before, and in accordance with the exceptionalist mythology of Big Tech, these harms seem abstract and immaterial. In 'The Horror of Corporate Harms', I have argued that corporate harms are schema incongruent, that is, they do not fit into pre-existing categories of criminal law. In my analysis, I have noted the individualistic bias in criminal law which means that categories of harm revolve around individual human beings – whether as perpetrators or victims – rendering corporate harms that are 'too big, too bad, too nasty'.¹⁰¹ I draw on emotion theorists Taylor and Uchida who argue that horror is a response to schema incongruence, that is, unlike seeing a snake (which might arouse fear so we run away), if we see something that we cannot categorise, like a blood sucking vampire, then we respond with horror and do not know what to do.¹⁰² I argue that given the schema incongruence of corporate harms we are stuck in a horror story. These ideas are particularly salient for Big Tech harms as they are ostensibly too widespread, too new and nasty for pre-existing criminal legal categories.

Big Tech seems so epic, almost mythical and Mephistophelean. The harms of Big Tech are frequently described in epic terms reminiscent of a disaster film or science fiction dystopia, threatening the very fabric of society. The harms that we do acknowledge (even as we ignore them and continue using the products of Big Tech), tend to be associated with intangible or diffuse harms, such as, invading consumer privacy, spreading misinformation, unlawful content, hate speech, sexual violence, human trafficking, the weaponisation of information, creating platforms that can be hijacked for deceptive purposes and anti-competitive.¹⁰³ For example, we are aware that Big Tech can be toxic for teenage girls, causing psychological illnesses such as body dysmorphia. As the memo at Facebook released by whistle blower Frances Haugen acknowledged, 'we make body image issues worse'.¹⁰⁴ Likewise, fake news threatens 'democratic political process, health, environment or security'.¹⁰⁵ There is a tendency also for researchers to silo harms by Big

⁹⁶Powles (2023).

⁹⁷Powles (2023).

⁹⁸Diamantis (2019); Crofts (2022c).

⁹⁹Jikeli and Soemer (2023).

¹⁰⁰Galtung (1990), p 293.

¹⁰¹Crofts (2022b).

¹⁰²Taylor and Uchida (2019).

¹⁰³Broadfoot (2020); Lomas (2017). The EU has indicated that if Google fails to conform with acceptable business practices the fines will grow.

¹⁰⁴Wells et al (2021).

¹⁰⁵Tan (2022). Although see Size (2020) for the argument that fake news can and should be prosecuted as fraud.

Tech (as they do with corporate harms), so that there is a focus on a specific area, eg privacy, free speech, content moderation, but no overarching theory of Big Tech harms. Each of these harms are important but the way that we frame them tends to be abstract, massive and diffuse. For example, the Cambridge Analytica scandal (rather than crime) involved the unauthorised (illegal) massive collection of data of 87 million Facebook users,¹⁰⁶ and combined surveillance capitalist commercialisation with a cybernetic logic of control to manipulate voters in the Brexit referendum and the 2016 US Presidential Election.¹⁰⁷ Cambridge Analytica's claims of more effective advertising based on commercial user profiling were labelled as 'snake oil' by Facebook, but Nosthoff et al argue that Cambridge Analytica's advertising strategies have long since become business as usual.¹⁰⁸ The 'scandal' undermined and threatened intangibles – privacy, data, democracy – on a massive level.

To extend Grear, not only are corporations abstract juridical subjects, but the harms that they cause are also (ostensibly) abstract. The threats 'to our democracies, livelihoods and minds'¹⁰⁹ are so epic as to almost compare with those of Luther in Milton's *Paradise Lost*. Even if we can move past problems of proving that the harms are occurring and that they have been caused by the actions of Big Tech, they raise questions about *what* can be done in response, that is, how the problem might be fixed. They are too big and generate a sense of apathy and helplessness. I would argue that these epic harms are schema incongruent for existing categories of criminal law, and as such, we are stuck in a horror story.¹¹⁰ This narrative portrays Big Tech as having an almost supernatural capacity to challenge life as we know it. Mythological wickedness of this kind sets up a particular kind of narrative and serves a purpose.¹¹¹ Supernatural creatures justify and require extreme measures – ordinary techniques will not work. It is not enough to kill a vampire, we must put a stake through its heart and decapitate it.¹¹² This label of mythological wickedness is a form of a glamour, it can lend itself to a disavowal of responsibility, by governments and individuals, because the problem is too big.¹¹³ Instead of embracing the romanticism of epic harms, we need to respond practically, and move away from a horror story to a crime story. We can consider whether existing laws are fit for purpose, and can and should be applied to harms caused by Big Tech,¹¹⁴ or whether we need to create new offence categories that can take into account the widespread, collective harms of Big Tech.

Un/acceptable and familiar harms

The romanticism of epic harms can be unpicked by pointing to the banal, prosaic and insidious harms caused by Big Tech which are often neglected or forgotten about. All

¹⁰⁶Isaak and Hanna (2018).

¹⁰⁷Nosthoff and Maschewski (2024); Nadler and Cicilline (2022).

¹⁰⁸Quoted in Nosthoff and Maschewski (2024), p 179.

¹⁰⁹Foroohar (2019); Auletta (2009); Zuboff (2019). See also Brownsword (2008), questioning whether technological management undermines our moral agency.

¹¹⁰Crofts (2022b).

¹¹¹Cole (2006).

¹¹²Stoker (1897).

¹¹³Crofts (2018a).

¹¹⁴For example, Size argues that fake news can and should be regarded as fraud: Size (2020).

too ordinary, material harms such as to humans and the environment are inflicted for the all too banal motive of profit, and accepted as a cost of doing business. This is particularly the case if we embrace the de-humanised imagery of Big Tech. Although claiming to operate on an immaterial sphere, material issues such as political economy, geography, incentives, regulatory arrangements and industrial design concerns are relevant to decisions corporations.¹¹⁵ Big Tech, like other corporations, prioritises growth and profit, and is able to externalise harms that it is not legally required to include in its cost benefit analysis. As Powles asserts, there is a ‘routinised expectation – indeed, tolerance – of the systematic production of collateral damage, or negative externalities, as a necessary trade-off of their too-big-to-patrol products and services, their extractive business models, and their tireless hunt for scale and dominance’.¹¹⁶ This is a form of cultural violence, where the harms may not be seen as harms at all, but as allowable, standard business practices. For example, harms to labour and the environment are a form of slow violence which is schema incongruent to the traditional criminal law categories which focus on interpersonal violence. And these problems of registering corporate harms are exacerbated by structural violence as a result of asymmetrical power relations – between corporations and individuals, corporations and states, and the Global North and Global South. Criminal law is state based, focused on the ‘law of the land’,¹¹⁷ but Big Tech is multinational, enabling corporations to pick and choose jurisdictions that have lower standards and protections – or to persuade the state to lower standards in order to attract business.¹¹⁸ This has led theorists to argue that contemporary capitalism is a continuation of the colonial project,¹¹⁹ where despite new corporate interventions and free-market relations ‘the commodities’ supply direction, however, has not changed. The Global South seems to be locked in this perpetual reality’.¹²⁰

Environmental harms

Big Tech is integral to the myth of sustainable development, but is simultaneously one of the biggest consumers of natural resources to develop technologies that fight environmental degradation. As long ago as 1990, Galtung mused that ‘[t]he buzzword “sustainable economic growth” may prove to be yet another form of cultural violence’.¹²¹ We tend not to think about what is required ecologically for our on-line lives.¹²² For example, to make a smart phone, lithium, graphite and cobalt are needed to create the anodes of the rechargeable battery, which are mined in different parts of the world.¹²³ The mining processes are resource intensive and has resulted in loss of life through accidents and bio-hazardous health effects.¹²⁴ Ferris has summarised some of the harms that go toward making a smartphone:

¹¹⁵Sylvain (2019).

¹¹⁶Powles (2023).

¹¹⁷Farmer (1997).

¹¹⁸Passas and Goodwin (2005).

¹¹⁹Bohm (2020).

¹²⁰Bohm (2020).

¹²¹Galtung (1990), p 294.

¹²²Roberts (2018).

¹²³Ferris (2021).

¹²⁴See O'Donoghue (2021); Crider (2020); IER (2020), stating lithium mining in the town had caused hydrochloric acid and other chemicals to pollute the local water sources.

[l]ithium mining pollutes water of Tibetan holy land – monks must practice their faith without potable water because of contamination. Bolivian indigenous groups had their sovereign land taken away from them for a German lithium mining operation that left the population without any source of income because they relied on the mine for profit. Children in the Congo die in collapsing tunnels while mining for cobalt and their younger siblings are born with debilitating birth defects from the uranium that leached into the ground water from the mines and there is no end in sight. Entire villages in the north-eastern provinces of China are without edible food for miles and their lungs are filled with silver dust from the graphite mines in the area that take no precautions and are incentivized by the government to continue production.¹²⁵

This has led some theorists to argue that we need to create a new offence of ecocide to criminalise the mass destruction of the ecosystem, which would help struggling nations to protect themselves against corporate polluters who may have more resources to fight domestic litigation than the state itself.¹²⁶

There is also the problem of tech waste. According to the Global e-waste monitor, in 2019, the world generated a striking 53.6 Mt of e-waste, an average of 7.3 kg per capita.¹²⁷ The global generation of e-waste grew by 9.2 Mt since 2014 and is projected to grow to 74.7 Mt by 2030 – almost doubling in only 16 years.¹²⁸ We tend also to forget the concrete harms of massive server farms and data centres which require water, electricity and land to operate. Data centres are being constructed around the world at a rate of a 15 per cent increase each year, powered by regional water and power sources,¹²⁹ in the US data centres are the largest and fastest growing consumers of electricity and water.¹³⁰ Whilst these harms to the environment are epic, they are all too familiar. Criminal law is imbricated in cultural violence which enables structural violence, particularly against the Global South, so that environmental harms may not be seen as harms at all and/or framed as an acceptable cost of doing business. Or, even if recognised as criminal, the power of corporations trumps the capacity of states to investigate or enforce.

Harms to labour

The problem of epic, acceptable harms is sustained in relation to the treatment of labour. Part of the glamour of Big Tech is that technology is integral to the long-held belief in the end of work.¹³¹ Big Tech holds out a depiction of an increasingly automated workforce and to a certain extent this is true. Big Tech has less labour, for example, when the social media firm WhatsApp was sold to Facebook in 2014, it had a market cap of \$19 billion, and only 35 employees. Part of the image is that the human employees who remain are celebrated as highly skilled employees, such as engineers, who due to their skills have a great deal of power.¹³² However, instead of abolishing work this depiction belies the extent to which Big Tech still needs low-end workers to provide essential local services – such as cleaning, health services and food, which ‘cannot be replaced by technology, at least not soon’.¹³³

¹²⁵Ferris (2021).

¹²⁶Ferris (2021).

¹²⁷Forti et al (2020).

¹²⁸Forti et al (2020).

¹²⁹Hogan (2018).

¹³⁰Hogan (2018).

¹³¹Brownsword (2008).

¹³²Detrick (2018); Crofts and van Rijswijk (2020).

¹³³Fon (2021).

It continues to use massive transnational production lines and employers of global labour forces and relies on largely illiterate, desperately poor, exceedingly vulnerable people for labour. The gig economy has shifted labour practices,¹³⁴ but is actually a continuation of the same old problems due to unequal power relations between corporations and individual workers, and the capacity of corporations to shape definitions of law and/or use law to their benefit, such as the mis/classification of employees as contractors.¹³⁵ Big Tech, like other corporations, also transfers jobs to lower-cost countries,¹³⁶ with less traditional employment protections. Corporations also have the capacity to negotiate even better terms in the Global South, with states seeking to attract investment ‘tax exemptions and other sweetheart economic terms that may also include relaxed labour laws or other incentives that leave workers and other citizens at a deficit’.¹³⁷ Not only has Big Tech not abolished work, it uses classic corporate techniques to externalise harms to labour.

Concrete harms to labour tend to be characterised as occupational health and safety offences – but if the same harms were caused by an individual they would be characterised as assaults or homicides. In *Behind the Screen*, Sarah Roberts movingly describes material harms to workers that undertake content moderation for Big Tech.¹³⁸ Big Tech companies are increasingly concerned about social media content, not because they are concerned about material harms to historically subordinated groups and the effects of disinformation on democracy,¹³⁹ but because they are aware that content moderation is crucial to maintaining audience and expanding their dominion over networked information flow. The processes of content moderation are assumed to be, and are portrayed as, automated – with a belief that humans are too slow or too clumsy to keep up with speed and scale of online information flows.¹⁴⁰ However, this image belies the extent to which human managers at Big Tech companies develop and select business designs, algorithms and operational techniques for managing content distribution.¹⁴¹ Automated screening technologies are not good enough yet to make sense of the massive amount of content that flows through their servers – they rely on people to ‘correct oversights, redress algorithmic biases, and clean up other mistakes the screening technologies make’.¹⁴²

Tens of thousands of social media human reviewers are employed as salaried workers and contractors around the world to review materials. Once users have flagged content that violates content guidelines, a global workforce on an industrial scale checks on flagged content.¹⁴³ Human reviewers are essential to bestowing a degree of legitimacy to platforms’ moderation choices.¹⁴⁴ AI cannot explain why it has made a decision in a language that people understand. Roberts argues that the work that individuals are required to do is traumatising – they must watch, categorise, remove and block the worst kinds of content, such as graphic abuse of children, war zone footage, and self-

¹³⁴Marmo et al (2022).

¹³⁵Schofield-Georges and Munton (2023).

¹³⁶Fon (2021).

¹³⁷Roberts (2019).

¹³⁸Roberts (2019).

¹³⁹Vaidhyanathan (2018).

¹⁴⁰Wu (2019). For example, Zuckerberg’s prophecy to Congress in Spring 2018 that artificial intelligence will cure Facebook of its failings in content moderation: Jeong (2018).

¹⁴¹Sylvain (2019).

¹⁴²Sylvain (2019).

¹⁴³Roberts (2019).

¹⁴⁴Wu (2019).

harm. In order to do the job, a person needs to be sensitive – but they then suffer psychological effects from continual exposure to traumatic videos – such that they either lose their sensitivity or their souls are destroyed.¹⁴⁵ Roberts argues that contracts are usually only for at most a couple of years. Employees suffer PTSD or burnout – and there is no aftercare or follow-through.¹⁴⁶ These kinds of harms could be prosecuted as assaults, after all, psychiatric injuries such as these have long been recognised as harms for the purpose of aggravated assaults.¹⁴⁷

A specific example of harms to labour is at Amazon, which continues to rely on human work. During the Covid-19 pandemic, the company almost doubled its number of employees worldwide compared to 2019, so that in November 2020 around 1.2 million people were working at Amazon globally (excluding temporary workers and contractual delivery drivers).¹⁴⁸ In December 2015, one year after rolling out its fleet of robots, there was an increase in the number of workers, more injuries, poorer working conditions and a serious-injury rate that was three times greater than that of the average across all private employers.¹⁴⁹ Amazon has been criticised for unsafe working conditions under COVID,¹⁵⁰ tamping down on worker efforts to unionise,¹⁵¹ spying on workers,¹⁵² illegally interrogating and threatening workers,¹⁵³ retaliating against those who organise,¹⁵⁴ and exhausting workers with unreasonable, inhumane expectations for productivity and efficiency.¹⁵⁵ For example, it became apparent in early 2021 that there was a serious injury crisis for Amazon warehouse workers, after workers in Bessemer, AL voted whether to unionise. But despite the portrayal of Big Tech as disruptive and abstract, this had historical parallels with an unprecedented strike led by GM workers in Flint, Michigan in 1937. As Andrew Miller argues:

Demands of both GM workers and those in Bessemer were not so different: less unpredictable hours, better pay, and an end to management putting profits at the expense of the health and safety of its workers. In both instances, unionizing was met with all-out war, led by the world's richest executives relying on relentless monitoring, harassment, and unlawful election interference to ferret out dissent, recruiting the Pinkertons, notorious union-busters.¹⁵⁶

The power of Amazon and its capacity to shape conditions to its benefit is shown with its ability to avoid the enforcement of occupational health and safety regulators. For example, in 2017, Indiana OSHA found Amazon had failed to provide adequate training to a worker, exposing them to a fatal hazard. OSHA issued four serious safety citations, for a total fine of \$28,000, but as a consequence of pressure from Amazon officials and the Indiana Labor Commissioner, OSHA was forced to back away from the case due to fear that the state would lose the Amazon headquarters bid.¹⁵⁷ The serious injuries at Amazon

¹⁴⁵Roberts (2019).

¹⁴⁶Roberts (2019).

¹⁴⁷*R v Chan-Fook* [1994] 2 All ER 552; *R v Ireland*; *R v Burstow* [1998] AC 147.

¹⁴⁸Weise (2020).

¹⁴⁹Miller (2022).

¹⁵⁰James (2021).

¹⁵¹Greene (2021).

¹⁵²Gurley (2020).

¹⁵³Gurley (2021).

¹⁵⁴Cohen (2021).

¹⁵⁵Day and Soper (2020).

¹⁵⁶Miller (2022). See also Canales (2020).

¹⁵⁷Miller (2022).

are a result of an unaccountable monopsony, where government oversight and enforcement mechanisms are virtually non-existent.¹⁵⁸ In communities hollowed out by deindustrialisation there are few reasonable alternatives to work.¹⁵⁹ Amazon takes advantage of the ability to lower prices with workers having to choose between the lower wage or no wage at all. In contrast, a firm in the competitive market would pay a higher wage and employ more people at a point where labour supply is equal to marginal revenue of production. Many of these approaches are not actually criminal, Amazon is instead using its power and the law's abstraction from context to reduce payment so that people cannot earn a living wage.¹⁶⁰

Conclusion

There is a romance and glamour to Big Tech that is reminiscent of classic monsters such as Milton's Luther and Bram Stoker's Dracula, both in terms of its promises of an abstract, immaterial future and the epic, existential nature of its threats. But the exceptionalist glamour of Big Tech belies the extent to which it uses an old corporate playbook to take advantage of existing legal principles to evade regulation and externalise harms. Given the individualistic bias in criminal legal doctrine, it is difficult to recognise the corporation and its harms as subjects of criminal law – not because the harms of corporations are trivial, but because they are too big, too bad and too nasty for criminal law. This is then complicated by Norrie and Grear's emphasis upon the *abstract* juridical subject, that simultaneously holds out universal rights whilst abstracting the subject from the unequal socio-economic context. Corporations, including Big Tech, as abstract entities are able to take advantage of rights and powers to influence law and legal categories to their benefit, so that the structural violence that they commit against individuals and the Global South are regarded as an acceptable cost of doing business.

So, what is to be done? If we fail to impose appropriate criminal penalties on corporations then, as quintessential rational entities, they will continue to regard humans and the environment as disposable and replaceable. We have a choice here. We can sit within a horror narrative, accepting a narrative of exceptionalism and mythic harms. There are, of course, advantages to the horror genre. It may shock us out of our social and legal apathy, justifying and requiring extreme responses. Alternatively, we could rebut the glamour of Big Tech and its harms, and instead, bring it back to concrete harms, and highlight how common and routine these harms are. In many cases, many of these harms are already recognised by criminal law, and if not, the categories can be changed so that corporate harms are no longer schema incongruent.

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¹⁵⁸Miller (2022).

¹⁵⁹Krugman (2014).

¹⁶⁰Broadfoot (2020).

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Notes on contributor

Professor Penny Crofts is an international expert on criminal law, models of culpability and the legal regulation of the sex industry. Her research is cross-disciplinary, drawing upon a range of historical, philosophical, empirical and literary materials to enrich her analysis of the law. Her research is in the area of socio-legal studies coalescing around issues of justice in criminal law in practice and theory makes a distinctive contribution to critical evaluations of criminal legal models of culpability and enforcement. Many of her recommendations for the legal regulation of brothels have informed Parliamentary debates, influenced council planning policies and shaped proposed law reforms. Her analysis of criminal legal models of wickedness has contributed to a jurisprudence of blameworthiness. Professor Crofts' socio-legal scholarship reflects her on-going commitment to the analysis of the impacts of criminal law and the development of pragmatic strategies for reform framed by sophisticated theoretical analysis. Her research is a call to responsibility – to the legal system, law-makers, legal academics, and the general community – to be more aware and critical of the models of culpability held out and enforced by criminal law.

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