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A legal cure for news choice overload: Regulating algorithms and AI with 'light patterns' to foster autonomy and democracy

Sacha Molitorisz 🆔

Faculty of Law, University of Technology Sydney, Sydney, New South Wales, Australia

Correspondence

Sacha Molitorisz, University of Technology Sydney, Faculty of Law, PO Box 123 Broadway 2007, Sydney, New South Wales 2007, Australia.
Email: sacha.molitorisz@uts.edu.au

Abstract

Despite an unprecedented abundance of news content, both news avoidance and dissatisfaction are rising. Blending journalism, philosophy and law scholarship, this paper argues that 'news choice overload' causes paralysis and poor outcomes as it transfers power to algorithms, thereby harming autonomy and, in turn, democracy. An analysis of Australian and European regulatory responses shows the need for an algorithmic regulator and a transparency requirement for digital platforms. Further, people's ability to choose autonomously can be fostered by *positive* interventions, or 'light patterns', including 'diversity nudges' and a shift from caveat emptor to a caveat venditor approach, in which digital platforms are assigned legal responsibility. Recognising that it is autonomy and democracy—not choice per se—that are valuable, such interventions can shift meaningful decision-making back to citizens at a moment when the rise of generative artificial intelligence is giving algorithms yet more power.

KEYWORDS

AI, algorithms, autonomy, caveat venditor, democracy, digital platforms, news choice overload, regulation

INTRODUCTION: CANNED NEWS

Let's imagine the news as a tinned good, like diced tomatoes. And let's imagine that, for optimal health, each person ought to consume one standard-sized tin of news each day. The problem is, the supermarket offers such a confusing array of choice. These news tins come in so many sizes: tiny; standard; huge. They also vary wildly in price, from free (!) to expensive. What's more, you know from experience that the contents taste different—salty; sweet; spicy; smooth; chunky—and that the quality is variable too, ranging from awful to excellent. Finally, your confusion is compounded by the labels: sometimes ingredients are clearly listed; sometimes the labelling is all lies. More than once you've brought home a tin of 'news', only to find it contains some ersatz disappointment.

In the face of all this choice, how can you make a good decision? Or will you be so overwhelmed that you decide you don't really want a tin of news after all?

That would be a shame, because news is a vital ingredient of a healthy civic diet. The nutritional value of news includes the 'watchdog' role played by journalists, who hold power to account and expose corruption and wrong-doing (Wilding et al., 2018, pp. 18–23). That isn't all. In 2017, an Australian research project added five further values of journalism: keeping the public up to date with what is going on; providing citizens with reliable information on which they may base choices as participants in political, economic and social life; providing a forum for the exchange of ideas and opinions; helping societies understand themselves; and providing the material upon which members of a society can base a common conversation (Centre for Advancing Journalism, 2017). An important good for individuals, journalism is also a necessary buttress for democracy. As journalism professor James W. Carey has written, 'No journalism, no democracy; but, equally, no democracy, no journalism' (Carey, 2000).

The catch is that only *some* news is valuable. News in the public interest is valuable; news that undermines democracy is not. Just like food, news content can range from healthy to unhealthy. And so, in the context of all this confusing abundance, the role of the shopkeeper becomes crucial. Which tins does she put on the shelves? Which tins does she put at eye-level? And which does she refuse to stock? In a digital media environment, this shopkeeper role is played by the algorithms that determine which content we see, and by the artificial intelligence (AI) working in tandem with these algorithms.

Building on an earlier outline (Wilding et al., 2018, p. 60), this paper explores how a hyper-abundance of news—ranging from the excellent to the abominable—is creating challenges for individuals, society and democracy. Citizens have more choice than ever; but this overload of choice, ironically, is being exploited by algorithms in ways that harm both individual autonomy and the public sphere. This necessitates legal responses that target algorithms, as well as AI. In section 2, historical context is provided to describe today's unprecedented abundance of news; in section 3, I describe how choice overload can lead to news avoidance and bad outcomes; in section 4, I examine the role of algorithms and AI in a context of information overload; in section 5, legal responses in Australia and Europe are compared; in section 6, I explain why autonomy matters more than choice; and in section 7, I propose how the law can help us to code in the public interest.

AN UNPRECEDENTED ABUNDANCE OF DIGITAL NEWS

The internet, or network of networks, arrived in 1969 (Molitorisz, 2020, p. 26). The very next year, digital journalism arrived in the shape of 'teletext', which involved short lines of text displayed on the television screen (Carlson, 2003, pp. 31–32). Teletext was cumbersome and slow, and its failure set the pattern for more than 20 years, as news services

found themselves stuck in a series of digital dead-ends, including hosting content on online services CompuServe, Prodigy and AOL (Carlson, 2003, pp. 47–48).

During this time, the reach of news media was limited. In the 1970s and 1980s, the *New York Times* remained a hard copy newspaper. Away from Brooklyn or the Village, it was hard to find. In Australia, where I live, a handful of newsagents stocked the weekend edition; but by the time the news had crossed the Pacific, the news was old, and expensive. In 1994, finding the *Times* was tough; finding a newspaper from Continental Europe was harder still; and good luck finding a newspaper from Asia, Africa or South America. And while radio and television broadcasters were better placed than newspapers to deliver overseas reports, they rarely did so, with a few notable exceptions (Hawkins & Ang, 2007).

The turning point for news, as for much else, was the invention of the world wide web in 1990 (Molitorisz, 2020, p. 27). On January 19, 1994, California's *Palo Alto* weekly became the first newspaper to publish regularly on the web (Carlson, 2003, p. 50). An international deluge followed. In 1995, Australia's *Sydney Morning Herald* launched smh.com.au (SMH, 2005); in 1996, Argentina's *Clarin* launched its site (Grupo Clarin, 2019) and that same year the *New York Times* finally took the plunge, announcing its URL arrival with a print story headlined, 'The New York Times Introduces a Web Site' (Lewis, 1996).

Digital audiences suddenly had access to a whole new world of bylines and headlines. Today, you can access newspaper sites from Azerbaijan (azertag.az) to Zambia (times.co. zm), from China (globaltimes.cn) to Chile (elmercurio.com), not to mention all the news streamed by radio networks and TV channels. Alternatively, you can access news via email newsletter, via YouTube video or via Twitter, Facebook, Instagram, TikTok, WeChat and Weibo. Globally, the trend to digital fragmentation is powerful and inexorable, as younger audiences in particular turn from legacy media to 'more participatory, personable, and personalised options offered via platforms' (Newman et al., 2023, p. 5). In Australia, while television remains the most popular main source of news (for 42% of news consumers), TikTok usage for news doubled between 2020 and 2022 (from 7% to 15% of news consumers) (Park et al., 2022, p. 68). Meanwhile, audiences are also becoming polarised, with online audiences more politically fragmented than offline audiences (Park et al., 2023, p. 33). I return to these trends in section 4.

As all this research suggests, today's information landscape is characterised by *abundance*. For news media, this abundance manifests in several forms, including an abundance of information, an abundance of news sources, and an abundance of pathways, platforms and mediums by which consumers can access the news (Newman et al., 2023; Pentina & Tarafdar, 2014; Tandoc & Kim, 2023). In many countries, news consumers have an unprecedented range of choice.

Granted, some abundance is illusory. First, much news online is not original but copied, including on AI-driven 'news' websites that are simply copy-and-paste recyclers producing no original journalism (Cagé et al., 2020; NewsGuard, 2023). Second, much 'news' on the web comprises misinformation and disinformation, although the extent of the problem is disputed (Adams et al., 2023). Third, media ownership is a concern. If I am presented with six news items, but all six are produced by the same partisan media outlet, that choice may be no choice at all. And fourth, quality is indeed an issue. Digital platforms have drastically lowered barriers to entry for news media, enabling a greater variety of journalism outlets to compete for audiences; unfortunately, one result has been the production of poor quality content, including clickbait and sensationalised content (Australian Competition and Consumer Commission [ACCC], 2019, pp. 298–299). The world wide web threatened to deliver an almost unlimited abundance of news for almost everyone; the reality, it turns out, is more complicated. Even in liberal democracies, abundance has its limits. Nonetheless, when it comes to news content, people in liberal democracies have an unprecedented amount of choice.

HOW CHOICE OVERLOAD DELIVERS BAD OUTCOMES

In market-based liberal democracies, it is commonly believed that more choice = more freedom = more wellbeing. This belief might stem from the normative argument that people *should be free* to determine their own lives, and that more choice will deliver them greater freedom (Schwartz & Cheek, 2017, p. 106). Or it might spring from the pragmatic argument that people *know what they want*, and more choice makes it more likely they will get what they want. This second argument suggests that:

> … providing a large choice set has no down-side. People satisfied with a handful of options can ignore the others, whereas people unsatisfied with a smaller subset of options have many more to choose from. In other words, adding options [makes] some people better off and… no one worse off (Schwartz & Cheek, 2017, p. 107).

But we *do* lose something with each new choice: we lose the prospect of fewer options. Further, the addition of extra choices alters the pre-existing options. For instance, law professor Michael Sandel (2012) argues that the advent of private schools, private hospitals and private prisons don't just present further alternatives, but fundamentally alter the pre-existing options. If there are only public schools, but then private schools are introduced, a parent no longer has the possibility of sending their child to a public school in a system *where every child attends a public school*. What's more, the existence of private schools is likely to induce qualitative changes in the public education system. Indeed, in a context such as news media, the addition of extra choices may diminish the revenue prospects of the pre-existing choices, given the new choices are unlikely to expand the revenue pie. This may leave the pre-existing news outlets with less revenue to invest in content, thereby lowering the quality of their journalism.

Alongside arguments based in philosophy and economics is empirical research into choice overload, including by psychology professor Barry Schwartz, whose findings consistently demonstrate that too much choice harms our well-being:

> Being able to choose has enormously important positive effects on us. But only up to a point. As the number of choices we face increases, the psychological benefits we derive start to level off. And some of the negative effects of choice accelerate … A point is reached at which increased choice brings increased misery (Schwartz, 2004b).

Too much choice makes us unhappy; it also leads to bad outcomes. In one study, students were given the task of writing an essay. Some students were presented with six essay topics to choose from, others were presented with 30. Those with six options performed better (Schwartz, 2004a, pp. 133–134). These findings have been mirrored in further studies, including into search engines: people whose searches returned six results made better choices and were more satisfied than participants whose searches returned 24 results (Oulasvirta et al., 2009). Six, it turns out, is something of a magic number. Once we have more than six options, our ability to make good choices tends to deteriorate (Schwartz, 2004a). Recent research confirms that there seems to be a series of 'Goldilocks' ranges with data searches, where the information found is neither too little nor too much, but just right. When participants use a search engine to find websites, this Goldilocks range comprises five to eight results (Matysek & Tomaszczyk, 2021).

Having too much choice is known as 'choice overload', and research has established choice overload can lead to three types of bad outcome: *paralysis*, in the form of refusal to make a choice; *objectively worse outcomes*, in the form of bad decisions; and *subjectively worse*

outcomes, in the form of dissatisfaction with even good decisions (Schwartz & Cheek, 2017, p. 108). As an example of paralysis, one study showed that adding 10 extra investment options to a corporate retirement plan led to a 2% drop in the participation rate (Sethi-Iyengar et al., 2004). As an example of *objectively* worse outcomes, researchers found that US adults chose less convenient, more expensive plans for prescription drugs when presented with 24 options rather than with six (Tanius et al., 2009). And *subjectively* worse outcomes were observed when participants with time constraints were more satisfied with their choices when being presented with six search results rather than 24 (Chiravirakul & Payne, 2014).

In a media context, choice overload is complicated by 'information overload', the situation that arises 'when an individual's efficiency and effectiveness in using information… is hampered by the amount of relevant, and potentially useful, information available to them' (Bawden & Robinson, 2020, p. 13). Today, not only are there too many news items, there is simply too much information. This became particularly apparent during Covid, when the World Health Organisation adopted 'infodemic' as an official health topic, defining it as 'an overabundance of information—some accurate and some not—that occurs during an epidemic' (Tangcharoensathien et al., 2020). The precise relationship between choice overload and information overload is unclear; here, my point is simply that they are interwoven and causing major impacts.

Facing an overload of choice and information, how are news consumers responding? Often, by turning away. Globally, the Digital News Report surveyed 46 markets in 2023 and found that, despite the war in Ukraine and a cost-of-living crisis, interest in news continued to decline, 'fuelling disengagement and active news avoidance' (Newman et al., 2023, p. 21). In one Singaporean study, news consumers responded to 'information overload' during Covid by reporting news fatigue, 'analysis paralysis' and news avoidance (Tandoc & Kim, 2023). And in Australia, a 2022 survey of more than 2000 news consumers showed news interest had fallen by 6% since the start of the pandemic, while more than two-thirds (68%) of those surveyed said they actively avoided the news, marking a big jump from 2017, when only 57% said they avoided the news 'often, sometimes or occasionally' (Park et al., 2022, p. 46). The reasons cited were telling: 44% said 'the news has a negative effect on my mood'; 32% said 'I am worn out by the amount of news there is these days'; and 32% said 'the news is untrustworthy or biased' (Park et al., 2022, p. 51). Indeed, trust is a global concern. In 2023, only 40% of global news consumers said they 'think you can trust most of the news most of the time', down from 42% in 2022, and 44% in 2021 (Newman et al., 2023). In part, this stems from anxiety about misinformation, with 56% of those surveyed globally saying they worry about identifying the difference between what is real and fake on the internet when it comes to news, with those who mainly use social media as a source of news even more worried (Newman et al., 2023, p. 17).

These findings map neatly onto the three negative impacts of choice overload identified by Schwartz and Cheek. Choice paralysis manifests as news avoidance and the swelling ranks of citizens 'worn out by the amount of news there is these days'. Objectively worse outcomes are revealed by plummeting trust and rampant misinformation. And subjectively worse outcomes are evident in findings that news is having a negative effect on citizens' mood. When it comes to news, we are spoilt for choice. As a result, many of us are making news decisions that are bad for us, and bad for democracy, assuming we're able to muster the will to make any decision at all.

THE CHOICE OF ALGORITHMS

This brings us, logically, to algorithms. As Helberger et al. (2021) write, 'They filter and classify the growing abundance of information, prioritising content according to predefined ranking criteria … recommender algorithms are the engines behind the internet's knowledge

infrastructure.' In a digital context, where hyperabundance leads many of us to surrender or compromise our agency, algorithms often choose for us. More accurately, they *determine* which news is served up to us. The algorithm of Google Search determines which news stories rise to the top when you tap or speak a query. The algorithm of Facebook's 'Feed' determines which news content surfaces. Time and again, we relinquish our choice, enabling the coder and company behind the algorithm to choose for us, in a way that is indirect, oblique and opaque (Wilding et al., 2018, p. 53).

Algorithms are code. As computer scientist Pedro Domingos writes, 'An algorithm is a sequence of instructions telling a computer what to do' (Domingos, 2017, p. 1). They are built on the logic of 'if … then …', and on three simple operations: 'and', 'or' and 'not'. Certainly, there can be tremendous detail in their coding. Google's search engine uses more than 100 'signals' to determine your search results; so too a social network's algorithm will use what you recently clicked on, what your friends recently clicked on, and your recent breakup with your girlfriend. Fundamentally, though, an algorithm is a set of instructions, and these instructions can be in the public interest, or they can be against the public interest. These instructions can be just as benevolent or malevolent as the coders and companies behind them. And unfortunately, even if we could somehow ensure that coders and companies had benevolent intentions, that wouldn't be the end of the matter. The complexity (and opacity) of algorithmic coding ensures that benevolent intentions can have malevolent outcomes, and vice versa.

When it comes to news and journalism, the impact of algorithms is enormous. Most obviously, algorithms play a key role in the distribution of news, particularly among the young, with 'the vast majority of those aged under 35 now [saying] that using social media, search engines, or news aggregators is their main way of getting news online' (Newman et al., 2023, p. 32). Direct access to news sites and apps is becoming the domain of older and news-focused citizens, with a growing majority relying on social, search and other platforms, all using algorithms to sort and recommend content (Newman et al., 2023, p. 32). The strong trend is towards 'more accessible, informal, and entertaining news formats, often delivered by influencers rather than journalists, and consumed *within* platforms like YouTube, Instagram, and TikTok … [and] they are set to become a more important part of the mix over the next decade' (Newman et al., 2023, p. 29). Accessibility and convenience are the attraction, including for news media sites, who themselves employ recommender algorithms to affect how audiences consume news, including which stories they see (Wilding et al., 2018, pp. 53–56). And audiences, it turns out, have mixed feelings about algorithms. Almost half of Australian news consumers say they do *not* want algorithms to choose their news for them based on news consumption of friends; on the other hand, 35% of Australian news consumers prefer algorithms to choose their news based on past consumption compared to 29% who prefer their news selected by editors and journalists (Park et al., 2023, p. 12). Meanwhile, algorithms are also impacting the *creation* of news. As journalists derive story ideas from social and optimise their work for search, algorithms are impacting the job of journalism; indeed, social media has been identified by journalists globally as the biggest factor influencing how their work is changing (Hanusch et al., 2019, p. 265).

Eager to expand its reach via digital media, news media has shown itself to be highly vulnerable to algorithmic changes that de-prioritise news. In January 2018, Facebook changed its algorithm to prioritise content from family and friends, with devastating effects on many news outlets, including halved traffic and masthead closures (Wilding et al., 2018, p. 50). In 2020, Google admitted that its algorithms were giving preferential treatment to publishers who used its Accelerated Mobile Pages technology, making their stories more visible and prominent (Meese & Bannerman, 2022, p. 2). As Meese and Bannerman write, problems emerge when digital platforms engage in news distribution: 'They use inscrutable algorithms to make significant decisions around the visibility of news on their service, which

can affect people who want to access news and news outlets who want audiences to reach their websites' (Meese & Bannerman, 2022, p. 2).

Social media algorithms warrant particular scrutiny. Often, social media algorithms are coded to optimise engagement, which is negatively related to quality: in 2021, for instance, Facebook's most-viewed posts were very low quality (Cunningham, 2023). These algorithms surface content that is brief, visual, provocative and emotive—including clickbait and mis-information (Kalogeropoulos et al., 2016). Increasingly, however, key social media algo-rithms are being coded to sideline news content altogether. For instance, the algorithm on TikTok's 'For You' page surfaces almost no news content, even when a user demonstrates an interest in news (Hagar & Diakopoulos, 2023). Research also suggests that topics such as Hong Kong protests and Tibet are particularly scarce on TikTok; in April 2024, due to concerns about the app's Chinese ownership, the US government passed a law that TikTok must be sold, or it would be banned (Leonhardt, 2024). In 2021, Facebook temporarily changed its algorithm to remove news entirely for Australian users, in protest against the government's planned introduction of the News Media Bargaining Code, under which Google and Facebook would be forced to pay news media businesses for use of news content (Lee & Molitorisz, 2021). In mid-2023, Canada passed a law modelled on Australia's code, whereupon Meta blocked all news content from Facebook and Instagram in Canada (Hermida, 2023). Meta's retreat from news is ongoing. In 2022, emblematically, Facebook relaunched its 'News Feed' as 'Feed', and in February 2024 Meta announced it would stop proactively recommending political content on Instagram and Threads (Perez, 2024). These examples show the direct connection between algorithms and democracy, a point I revisit below.

Increasingly ubiquitous, algorithms can determine whether your application for a rental apartment is successful (Przhedetsky, 2021), whether you are targeted for recovery of allegedly overpaid government benefits (Rinta-Kahila et al., 2023) and whether you attract extra attention from the police (Englezos, 2023). They also determine which news content rises to the surface and which is jettisoned to the murky depths. If we think of news as an overabundance of tins in a supermarket, algorithms determine which tins are stacked at eye level near the entry and which are consigned to the storeroom out the back. Amid wide-spread news avoidance and dissatisfaction—with citizens overwhelmed, paralysed and dissatisfied—algorithms fill the void. Unwilling or unable to make news choices ourselves, we transfer the power of curatorial authority from editor to black box.

REGULATING ALGORITHMS AND NEWS IN AUSTRALIA AND EUROPE

Belatedly, international regulators are responding. After two decades of minimal interven-tion, internet governance and regulation surged onto the global agenda in the mid-2010s (Flew, 2021). Even so, regulatory hesitancy persists, in part due to lack of normative con-sensus, all compounded by uncertainty regarding AI (Blanchett et al., 2022, p. 53). The following overview of legal responses reveals that Australia, like many countries, has much to learn from Europe.

Tellingly, the Australian response has been driven by Australia's competition regulator, the ACCC, reflecting an international trend for competition regulators to lead the regulatory turn against digital platforms. Three ACCC inquiries have spearheaded regulatory responses to algorithms and digital platforms: the Digital Platforms Inquiry (DPI, 2017–2019), the Digital Advertising Services Inquiry (DASI, 2020–2021) and the Digital Platforms Services Inquiry (DPSI, 2020–2025). A watershed inquiry, the DPI sparked an overhaul of privacy law, the introduction of a code to tackle disinformation, and the passage

into law of the world-first News Media Bargaining Code. The 2017 terms of reference for the DPI directed the ACCC to investigate, among other things, 'the impact of platform service providers on the level of choice and quality of news and journalistic content to consumers' (ACCC, 2019, p. 537).

While Australia's competition regulator is explicitly concerned with choice and quality of news, however, its interest in algorithms has been inconsistent. In December 2018, the Preliminary Report of the DPI recommended that an algorithmic regulator be appointed to oversee the impact of algorithms on the display of news and advertising content. The ACCC noted that 'a lack of transparency as to the operation of the digital platforms' algorithms' can have significant adverse impacts on the surfacing of original content and on news media businesses' ability to sustain an audience (ACCC, 2018, p. 125). The preliminary recommendation was for a regulatory body, whether existing or new, to monitor algorithmic changes and impacts. As the Preliminary Report prescribed:

> The relevant digital platforms would need to be obliged to provide information and documents to the regulatory authority on a regular basis, and the regulatory authority would need appropriate investigative powers. The regulatory authority could have the power to investigate complaints, initiate its own investigations, make referrals to other government agencies and to publish reports and make recommendations (ACCC, 2018, p. 12).

This bold preliminary recommendation prompted a strong response from Facebook and Google, who submitted that people who use digital platforms, not regulators, ought to be the arbiters of algorithms' efficacy (Flew & Wilding, 2021). Ultimately, the ACCC dropped this recommendation from its Final Report of the DPI.

Nonetheless, the role of algorithms remained a live issue during development of the News Media Bargaining Code ('the Code'), which has prompted more than $200 million annually to flow from Google and Meta to news media businesses (Lee & Molitorisz, 2021). Under s 52S of the *Treasury Laws Amendment (News Media and Digital Platforms Mandatory Bargaining Code) Act 2021*, a digital service must provide registered news businesses a minimum of 14 days' notice of planned algorithmic changes that are likely to have a significant effect on referral traffic to the news media business. And under s 52X, a digital platform must ensure a proposal is developed to surface original news content. These provisions were diluted following tense last-minute negotiations between Google, Facebook and the government (Lee & Molitorisz, 2021). What's more, these provisions are not in effect. Under the law as passed in February 2021, digital platform services are subject to the Code only if 'designated' by the Treasurer, and the Treasurer will not designate a digital service if satisfied there has been a 'significant contribution to the sustainability of the Australian news industry'. Due to the deals Google and Meta have struck with news media businesses, no digital service has as yet been designated. In February 2024, Meta announced it would not renew its deals with Australian publishers, prompting government outcry and industry calls to designate the platform's services; meanwhile, the government opened discussions with TikTok about making payments under the Code (Taylor, 2024). Further, in May 2024 News Corp signed a multi-year, multi-jurisdiction deal for the use of its news content with OpenAI, following similar deals struck by Axel Springer, The Associated Press and other news media companies (Robertson, 2024). The future of the Code is unclear; but currently there appears to be little prospect of regulatory oversight of the impact of algorithms on citizens' news choices.

By contrast, Europe's approach has been more direct and expansive. In November 2022, after years of drafting and negotiations, the Digital Services Act (DSA) came into effect, with wide-ranging prescriptions for the oversight of algorithmic systems (EC, 2022). Described as

a 'Digital Constitution', the DSA mandates a degree of transparency for recommender systems and mandates that users be given more information and choices (EC, 2023). On April 25 2023, the European Commission designated 17 'very large online platforms' and two 'very large online search engines', who have extra obligations under the DSA.

Article 27 of the DSA, 'Recommender system transparency', prescribes that (italics mine):

1. Providers of online platforms that use recommender systems shall set out in their terms and conditions, in plain and intelligible language, the main parameters used in their recommender systems, as well as any options for the recipients of the service to modify or influence those main parameters.
2. The main parameters referred to in paragraph 1 shall explain *why certain information is suggested* to the recipient of the service. They shall include, at least:
   (a) *the criteria which are most significant* in determining the information suggested to the recipient of the service;
   (b) the *reasons* for the relative importance of those parameters.
3. Where several options are available pursuant to paragraph 1 for recommender systems that determine the relative order of information presented to recipients of the service, *providers of online platforms shall also make available a functionality that allows the recipient of the service to select and to modify at any time their preferred option*. That functionality shall be directly and easily accessible from the specific section of the online platform's online interface where the information is being prioritised.

Article 27 is supplemented by Article 38, requiring that 'very large online platforms' and 'very large online search engines… shall provide at least one option for each of their recommender systems which is not based on profiling …' The final version of Article 27 (which replaced draft Article 29) thus addresses the concerns of scholars that users would be unable to opt out of profiling (Helberger et al., 2021). To enforce the DSA, the EC has set up a European Centre for Algorithmic Transparency, with high-level technical and scientific experts, and is further establishing a 'pan-European supervisory architecture', involving a framework where digital services co-ordinators in member states work within the larger supervisory framework (EC, 2023). And to supplement the DSA, the EU's AI Act will potentially play a major role too, with its aim of ensuring 'AI systems… are safe, transparent, traceable, nondiscriminatory and environmentally friendly' (European Parliament, 2023a).

There is no guarantee the DSA (or AI Act) will succeed (Hoboken et al., 2023). Still, it provides a fitting template. At the least citizens ought to be: one, informed about the key criteria that algorithms are incorporating to sort the news content that is shown; two, given meaningful input into how the algorithm sorts their news content; and three, able to opt out of any recommender system based on profiling, at least from very large platforms. And to oversee and enforce such minimum standards, there ought to be an algorithmic regulator, precisely like the one that doesn't exist in Australia. With the help of an algorithmic regulator, we can begin to move beyond algorithmic transparency and towards 'platform observability', a promising approach that advocates empowering regulators and researchers to understand the impact of platforms on various sectors (Meese, 2023, p. 93).

AUTONOMY, DEMOCRACY AND AUTONOMOUS SYSTEMS

In all our discussion of news and choice, one central concept has been absent. Autonomy.

For Immanuel Kant in 1785, it was autonomy that made humans special. It was our reason-based ability *freely to choose* how to act that provided the normative grounding of all

ethics. For Kant, autonomy, and specifically moral autonomy, is the source of human *dignity*, which comprises the irreducible worth of each person. As Kant wrote, '… if [something] is exalted above all price and so admits of no equivalent, then it has a dignity … [and] morality, and humanity so far as it is capable of morality, is the only thing which has dignity' (Kant, 2009, p. 102). In other words, our reason-based autonomy gives us our dignity. This dignity, in turn, deserves unqualified respect. Hence an action compatible with autonomy of the will is permitted, but one that does not harmonise with autonomy is forbidden.

Granted, the term 'autonomy' is hard to pin down, even for philosophers (Sahebi & Formosa, 2022). Fundamentally, it denotes having control over key aspects of one's life, while not being controlled, manipulated or coerced by others; and it involves creating the conditions such that our choices are, as far as possible, genuinely ours. Indeed, we can think of autonomy as both a property and a principle. As a property, autonomy is the *potential* any rational being has to be a decision-maker, and specifically a moral decision maker. This is the form of autonomy that gives every rational agent 'status dignity'—the dignity that one has merely from the fact of being a rational agent (Formosa, 2017, p. 167). As a principle, autonomy involves putting the property of autonomy *into action* by governing oneself freely and morally. These actions then become the foundation of 'achievement dignity', where we earn respect by behaving in a way that respects dignity and morality (Formosa, 2017, p. 168). By contrast, 'heteronomy' is living according to principles imposed on us, rather than self-imposed according to principles founded on reason, dignity and respect. Tellingly, Kant contrasted the 'autonomy of the will' ('Autonomie des Willens') with the 'heteronomy of choice/willing' ('Heteronomie der Willkur') (Kant, 1898). This calls our attention to the crucial distinction between autonomy and choice: it is autonomy, not choice per se, that matters. In life, we ought to strive to maximise our achievement dignity, which we can achieve by fostering autonomy, both in ourselves and others. And when it comes to news, fostering autonomy means examining the nature of the choices in front of us, and making choices that are good for us, and for our communities.

Autonomy is also linked to democracy. If democracy is the ability of people freely to choose their government, then it presupposes that people are free to choose. If people have autonomy, democracy can function; if the populace is being controlled, manipulated or coerced, then their autonomy, and their ability to vote freely, is vulnerable. A genuinely democratic government fosters the autonomy of its citizens; an undemocratic government oppresses the ability of its citizens to choose. This is why, for Hannah Arendt, lies are so toxic for democracy. Reflecting on War II, Arendt wrote:

> If everybody always lies to you, the consequence is not that you believe the lies, but rather that nobody believes anything any longer… And a people that no longer can believe anything cannot make up its mind. It is deprived not only of its capacity to act but also of its capacity to think and to judge. And with such a people you can then do what you please (Arendt, 1978).

Totalitarian leaders—including aspiring totalitarians in democracies—benefit from lies, and not just from lies that support their own position. For Kant, lies harm autonomy; for Arendt, lies harm democracy. For both, what mattered was the *freedom* to choose, in light of the truth.

This connection between autonomy and democracy further reveals that autonomy is best construed as *relational*. Our individual autonomy is, in fact, not really so individual after all. If my freedom to vote is harmed, that may harm democracy, which may in turn harm you. Relational autonomy recognises that we are all beings-in-relation, each one of us genetically and socially constituted, our freedom necessarily contingent upon our place in our family and society (Mackenzie & Stoljar, 2000). This means that some people have a greater

capacity to exercise autonomy than others, due to factors such as gender, wealth, and nationality (or lack thereof). The foundations of our autonomy 'can be undermined if interpersonal relationships, as well as social and political structures, are oppressive, exploitative, or unjust' (Sahebi & Formosa, 2022). If our goal is to foster autonomy, as it should be, the best approach will involve addressing the factors that make interpersonal relationships, social structures and political structures more just. Online, for instance, women's autonomy can be harmed amid a prevailing context of sexism and misogyny. Even if a woman is not herself a direct victim, she must engage in a context where sexism and misogyny proliferate, which is likely to impact how she behaves. We cannot hope to foster all individuals' autonomy without redressing interpersonal and overarching inequities. Autonomy will be scarce in a society rife with structural injustices.

What does this mean for our approach to algorithms and news choices? In the absence of DSA-style provisions, algorithms are a clear case of heteronomy. Fundamentally, algorithms ought to respect and foster autonomy and democracy, rather than harming them. And our autonomy and democracy are more effectively respected and fostered if we are given six rather than 24 choices. For again, it is autonomy, not choice per se, that is valuable; and, as we have seen, bombarding people with an excess of choice can paralyse them into inaction, or make them choose badly, or unhappily. An analogous point can be made about diversity. What we want is not simply *more*; what matters is *meaningful* diversity that increases the plurality of media voices, rather than just an unthinking 'fetishization of diversity' (Braman, 2006). In a digital context, overloading people can be a deliberate strategy, as shown by labyrinthine privacy terms and conditions that appear to give the user control while effectively negating agency (Molitorisz et al., 2021). What matters is the *freedom* to choose. This depends on the *number* and *quality* of choices available. This in turn can be influenced by external factors. If all the best news sources are behind a paywall, those with limited funds will be disadvantaged.

European legislators are evidently committed to protecting autonomy. As the European Parliament wrote after negotiations on the AI Act in December 2023: 'Recognising the potential threat to citizens' rights and democracy posed by certain applications of AI, the co-legislators agreed to prohibit … AI systems that manipulate human behaviour to circumvent their free will' (European Parliament, 2023b). Similarly, the DSA aims to reclaim autonomy for Europeans. The Articles and Recitals described above give Europeans a degree of meaningful control that regulators can oversee and enforce. The DSA is even clearer in relation to 'dark patterns' and 'deceptive patterns', which describe manipulative digital design practices that trick users into doing things not in their best interests (Brignull et al., 2023). In Recital 67, the DSA prescribes (italics mine):

> Dark patterns … are practices that materially distort or impair, either on purpose or in effect, the ability of recipients of the service to make *autonomous* and informed choices or decisions. Those practices can be used to persuade the recipients of the service to engage in unwanted behaviours or into undesired decisions which have negative consequences for them. Providers of online platforms should therefore be prohibited from deceiving or nudging recipients of the service and from distorting or impairing the autonomy, decision-making, or choice of the recipients of the service via the structure, design or functionalities of an online interface or a part thereof. This should include, but not be limited to, exploitative design choices to direct the recipient to actions that benefit the provider of online platforms, but which may not be in the recipients' interests…

Autonomy is a repeat casualty online, particularly on social media, where digital platforms control the data, attention and even behaviour of users (Sahebi & Formosa, 2022). This can be

true even for nonusers of a service, whose content can be tailored surreptitiously by algorithms as they engage on the web (Molitorisz, 2020). Are these hidden manipulations stealing our autonomy? Little by little, perhaps, and in the process, 'algorithms acquire the smoky aura of agency' (González-Bailón, 2021). With the line between human and machine blurring, some scholars urge that 'autonomous systems' is a more accurate descriptor than 'artificial intelligence'. As Domingos (2017, p. 4) writes: 'Machine learning is something new … a technology that builds itself'. Recommender algorithms, sometimes harnessing neural networks, are arguably autonomous to the extent that they operate without direct intervention to deliver outputs that are to some extent undetermined. Even so, when it comes to news choice it is the autonomy of the *citizen* that we want to respect and foster, and to do so we must recognise that the goal shouldn't simply be *more choice.* What we really ought to be striving for is *more autonomy*, accompanied by *better choices*.

CODING FOR THE PUBLIC INTEREST WITH 'LIGHT PATTERNS'

How can we best foster autonomy and democracy? Well, we do not merely want to code *against*, but to code *for*. We don't just want algorithms to demote clickbait and misinformation, for instance, but also to promote high quality news.

Via the law, there are several ways we might do this. The law could, for instance, categorise platforms as publishers, or as pseudo-publishers, and thus bestow on them certain rights and responsibilities that are currently bestowed on news media (Wilding et al., 2018, p. 48). Or the law could impose fiduciary duties on platforms, thereby creating a legally-enforceable relationship that would bind platforms to act in line with users' best interests (Balkin, 2020). However, given my focus is algorithms and autonomy, I want to dwell on 'nudging', which refers to the practice of recommending and surfacing content that the *nudger* wants the user to choose. Here, we can construe the nudger as the public—that is, *all of us*. And for the benefit of all of us, we want nudges that are in the public interest. In other words, I'm arguing, we want algorithms that 'nudge' users towards high quality news, and towards autonomy and democracy. Given what's at stake, this is where the law ought to intervene.

A preliminary issue, though, is whether we can reconcile nudging and autonomy. Prima facie, nudging appears to harm autonomy. Certainly, I have been arguing against dark patterns, and against algorithms that nudge us to behave in ways that are not in our best interest, and not in the public interest. But what about positive nudges? What about nudges that *promote* autonomy? What about nudges that *promote* democracy? Law scholar Natali Helberger (2019) has argued for 'participatory' algorithms that foster engagement with civic issues and society:

> The particular challenge and opportunity for the participatory recommender will be to make a selection that gives a fair and inclusive representation of different ideas and opinions in society, while also helping a user to gain a deeper understanding and to feel engaged, rather than confused, by the abundance of information out there.

Primarily, a participatory algorithm would recommend political content, but it would also recommend nonpolitical content. The goal is to foster participation in civic life. As Helberger writes, if a user spends a large amount of screen time on sport or celebrity news, why shouldn''t the algorithm nudge her to try some political news? Similarly, why shouldn't an algorithm nudge someone towards consuming a more *diverse* range of content, rather than content that is, say, from one source and one political perspective?

Nudges raise questions about paternalism, and about the boundaries between information, education, and manipulation (Spahn, 2012). But in a context where autonomy-harming nudges abound—prioritising profit over, say, privacy, safety or health—I am arguing nudges are needed to *enhance* autonomy, particularly in a context of choice overload. If this is paternalism, it is, I would argue, benign and restrained. It's putting in place measures to promote autonomy, including by protecting citizens from hidden manipulations. It's certainly less paternalistic than mandating seat belts in cars, or mandating food hygiene standards in restaurants, which similarly impose regulatory limits to protect freedoms such as safety and health. As opposed to dark patterns, we can coin a new term for such strategies: *light patterns*, being interventions that promote the best interests of the user, and of society. Light patterns include coding for 'desirable inefficiency', as when iPhones lock out users for several seconds after a mistyped password (Ohm & Frankle, 2019); similarly, low quality news can be made harder to find by giving algorithmic priority to news produced by journalists who subscribe to accepted codes of ethics. A related issue concerns 'discoverability' and 'prominence', which describe how easily an audience can find content or services: 'These strategies are meant to channel viewers' attention, guide and nudge audiences in their searches, and influence what is accessed and consumed' (Mazzoli, 2020, p. 306). Regulators are taking note of these issues in digital media; in November 2023 the Australian government announced it would regulate a 'prominence framework' to ensure free-to-air TV remained visible in a digital context (Rowland, 2023).

In a context of hyperabundance, light patterns could have a dramatic impact. Imagine a search engine algorithm that presents you with a seemingly endless list of results based on two factors: what you're interested in; and what is likely to generate profits for the search engine. Now imagine a search engine algorithm that presents you with *six* results based also on two *additional* factors: what's in your best interest; and what's in the public interest (assuming six such options exist). The difference is stark. Rather than simply fostering corporate profits in a way that's opaque and sometimes deceptive, the second algorithm would foster autonomy (by limiting and improving our choices) and democracy (by serving the public interest) in a way that's transparent and consensual. An extensive range of such nudges have already been developed to help protect people's privacy and security; in a digital context of rampant data mining and exploitation, these 'soft paternalistic interventions' nudge users toward more beneficial choices (Acquisti et al., 2018).

Algorithms are already nudging us to buy this shirt and to watch that film. If we accept commercial nudges, then we should also accept beneficial nudges encouraging people to consume public interest news and a more diverse media diet. After all, nudges work. Research shows users are more likely to select even nonpreferred articles if they are higher on the page (Loecherbach et al., 2021, p. 288) and that algorithmic nudges 'increase consumption diversity, especially when readers experience information overload' (Mattis et al., 2022). In a democratic society, recommender algorithms can foster, rather than endanger, 'fundamental rights and public values' (Helberger et al., 2021). A news landscape rife with misinformation and mistrust is not a given; algorithms can work for the public interest as well as profit:

> Algorithms are ultimately the key to finding a solution to the problem of information pollution … We can choose to design those algorithms to, for instance, incorporate signals of source quality in their recommendations (González-Bailón, 2021).

AI has made the need for light patterns even more urgent. In December 2023, as Covid ebbed and AI surged, a misinformation watchdog identified more than 600 'unreliable AI-generated news' websites operating with little to no human oversight (NewsGuard, 2023).

Meanwhile, digital platforms are incorporating AI more extensively. In May 2023, Google announced it was harnessing generative AI for its Search Generative Experience, or SGE:

> With new breakthroughs in generative AI … we can unlock entirely new types of questions you never thought Search could answer, and transform the way information is organised, to help you sort through and make sense of what's out there (Reid, 2023).

As AI reshapes the production and distribution of news, choices may expand even further, making algorithms yet more pivotal. Regulatory oversight of algorithms and AI is needed, and the regulatory approach ought to shift from *caveat emptor*, by which the user herself is charged with responsibility for how she is treated online, to *caveat venditor*, under which digital services and platforms are held appropriately responsible (Molitorisz, 2020, p. 220). And among other things, these regulatory interventions must address the challenge of *limiting* choice to foster freedom:

> … even in cultural contexts that value choice, too much choice can lead to paralysis, bad decisions, and dissatisfaction with even good decisions. Policy-makers are often in a position to enhance well-being by limiting choice (Schwartz & Cheek, 2017).

Other reforms are needed too, of course. Privacy protections need strengthening. Misinformation needs targeting. And news media standards need improvement. In Australia, a fragmented and flawed system of news media oversight is largely ineffective in its efforts to uphold journalistic standards such as accuracy, objectivity and the public interest (Wilding & Molitorisz, 2022). Really, we do not need more news choices; we need *better* news choices, in the shape of a greater selection of quality journalism that's in the public interest. That's where policy-makers and legislators should intervene to ensure that the choices we are offered do in fact foster our ability to choose, rather than compromising both our autonomy, and our democracy.

CONCLUSION

In 1971, 2 years after the invention of the internet, economist Herbert Simon (1971) made a prescient argument about choice in a digital world:

> In an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes. What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.

Beset by an overload of information and choice, we need to pay more attention to the cues and signals coded into the algorithms that determine the news we see, and to the impacts on our autonomy and democracy. Given that news is a public good, and that democracy depends upon journalism, algorithms—and AI—require greater scrutiny.

The overabundance of news can be paralysing. It can lead us to make poor choices, and to be dissatisfied even when we make good choices; but still we continue to pursue the ideal of yet more choice. What we need is not more choice, but more freedom to choose. This will

involve implementing policy and law that foster the public interest, combat hidden manipulations and promote autonomy and democracy. This requires an algorithmic regulator (as originally proposed by the ACCC) and emulating the DSA's provisions concerning algorithmic transparency and enhanced user control. In general terms, the law needs to shift towards a caveat venditor approach, in which companies behind algorithms are held more responsible, supported by 'light patterns' in the shape of beneficial nudges. Given the crucial role of journalism, we need to shape algorithms and AI to suit us, rather than letting ourselves be shaped in hidden ways that, ultimately, we don't want. In a healthy society, citizens consume the news, rather than the other way around.

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ORCID

Sacha Molitorisz iD http://orcid.org/0000-0002-6825-3392

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