INDIVIDUAL AUTONOMY IN THE AGE OF ALGORITHMIC PERSONALISATION

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Abstract—*Today our social media feeds, search results, shopping suggestions, and even news are personalised by internet platforms with the help of algorithms, which are based on our past online interactions. Personalisation is extremely helpful, especially in this attention and time scarce world. However, it has some downsides which may not be immediately perceptible but can be dangerous in the long run, both from an individualistic as well as a societal perspective. The privacy concerns posed by the extensive amount of data-tracking required for personalisation have been widely debated lately. However, privacy is not the only relevant right which has been impacted by algorithmic personalisation. This article analyses the impact of algorithmic personalisation on individual autonomy, and whether the social media ecosystem driven by surveillance capitalism leaves users with any actual ability to resist algorithmic decision-making on their behalf. It also argues that if autonomy is understood to be an individual's ability to govern oneself,*[68] *personalisation poses a threat to it by making decisions about what the individual likes to see online, thereby intervening in and reshaping their everyday online experience. Further, the impact of algorithmic personalisation on autonomy transcends beyond an individual concern and has implications even on the functioning of a democratic society. This article highlights the need to challenge algorithmic personalisation as the default manner of organisation of content on these platforms and sheds light on the need for setting up normative and ethical limits within which platforms can engage in personalisation in a democratic society that depends on 'self-determining individuals as the fulcrum of democratic life'*[69].

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[68] John Christman, 'Autonomy in Moral and Political Philosophy', (*Stanford Encyclopedia of Philosophy*, 2020) <www.plato.stanford.edu/entries/autonomy-moral/> accessed 11 February 2022.

[69] Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (Penguin 2019) 519.

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INTRODUCTION

Today, a personalised web experience has become the default feature of most internet platforms.[70] This is achieved by employing algorithms that predict a user's behaviour, preferences, and viewpoints in order to curate content that is deemed to be most relevant for them.[71] Thus, our information consumption in this digital world, be it our social media feed, search results, shopping suggestions, or even news recommendations is increasingly being determined by platform algorithms.[72] The advantages of algorithmic personalisation are immediately apparent: it saves us the time and effort required to actively search for relevant content in the vast amount of online information. Given the tangible benefits and convenience of personalisation, it is easy to overlook the hidden harms in the platforms' drive to become more accurate in their predictions of user behaviour and preferences.

Algorithmic personalisation relies on huge troves of user data to make inferences about our preferences, behaviour, and habits.[73] The privacy concerns that this constant tracking of our online activities entails,have already rung alarm bells.[74] However, 'privacy is not the only politically relevant concern'[75] that is raised by the practice of algorithmic personalisation. Internet platforms engage in data-tracking of users' activities not just to surveil or watch over them, but to assess facets of their personality and make personally relevant choices on their behalf.[76] In other words, the primary aim of technology companies behind personalisation 'is to

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[70] Urbano Reviglio and Claudio Agosti, 'Thinking Outside the Black-Box: The Case for "Algorithmic Sovereignty" in Social Media' (2020) 6(2) Social Media + Society 1, 2.

[71] Sofia Grafanaki, 'Autonomy Challenges in the Age of Big Data' (2017) 27 Fordham Intellectual Property Media & Entertainment Law Journal 803, 826.

[72] Birjit Stark and others, 'Are Algorithms a Threat to Democracy? The Rise of Intermediaries: A Challenge for Public Discourse' (*Algorithm Watch*, May 2020) <https://algorithmwatch.org/en/wp-content/uploads/2020/05/Governing-Platforms-communications-study-Stark-May-2020-AlgorithmWatch.pdf> accessed 11 February 2022.

[73] Grafanaki, 'Autonomy Challenges in the Age of Big Data' (n 71).

[74] Finn Brunton and Helen Nissenbaum, *Obfuscation: A User's Guide to Privacy and Protest* (Cambridge, MA: MIT Press 2015).

[75] Tarleton Gillespie, Pablo J Boczkowski and Kirsten A Foot (eds), *Media Technologies: Essays on Communication, Materiality, and Society* (Cambridge, MA: MIT Press 2014) 173.

[76] Tanya Kant, *Algorithmic Personalisation, Identity and Everyday Life* (Oxford University Press 2020) 12.

act on, with, or against the experience of users on the web'.[77] This raises the concern of infringement of autonomy of users, which is related to privacy but merits a separate discussion. If autonomy is understood to be an individual's ability to govern oneself,[78] personalisation poses a threat to it by making decisions on the individual's behalf by deciding on what they like to see online, thereby intervening and reshaping their everyday online experience. As Tanya Kant argues, this gives the system the 'power to co-constitute users' experience, identity, and selfhood'.[79] If, as Zuboff argues, in the age of surveillance capitalism, human experiences and attention are commodities to be traded to serve the profit motive of corporations,[80] then the enormous power that internet platforms possess to decide our digital information diet will have serious implications for individual agency and on our capacity to make informed decisions as citizens of a democracy. The Cambridge Analytica incident already demonstrated the power of algorithms to influence an important individual decision like voting.[81]

But are users indeed powerless to reclaim their autonomy from the algorithmic control of internet platforms? Will user-empowerment through law and technical tools enable them to resist data-tracking and subversion of their autonomy? Why is there a need to challenge algorithmic personalisation by internet platforms, and should there be ethical limits to the same? This article seeks to explore all these questions.

Part II explains the term 'algorithmic personalisation' for the purpose of this article and also explains its working. Part III elucidates the prominent theories of autonomy, particularly those by John Christman and Mariana Oshana, which are of help in theorising the implications of algorithmic personalisation for individual autonomy. Using these accounts of autonomy, Part IV of the article critiques the claim that algorithmic personalisation only reflects the users' choice and hence does not undermine their autonomy. In this part, it is argued that instead of reflecting the user's choice, the personalisation algorithm shapes the very choices available to the users and limits their self-exploration process, a very important aspect of individual autonomy. With the help of Ravigoli's and Agosti's exposition of 'paradox of choice',[82] Part V of this article examines whether users can truly resist subversion of their autonomy by

[77] ibid 9.
[78] Christman, 'Autonomy in Moral and Political Philosophy' (n 68).
[79] Kant (n 76) 12.
[80] Zuboff (n 69).
[81] Ken Ward, 'Social Networks, the 2016 US Presidential Election, and Kantian Ethics: Applying the Categorical Imperative to Cambridge Analytica's Behavioral Microtargeting' (2018) 33(3) Journal of Media Ethics 133.
[82] Reviglio and Agosti (n 70).

algorithmic personalisation by making active choices, as argued by technology companies and some scholars. Part VI argues that the autonomy subverting potential of algorithmic personalisation transcends individual concern and has implications for the broader democratic society. This Part consequently highlights the need for defining limits of personalisation that technology companies must adhere to. Part VII concludes the arguments in the article and sets out future directions for deliberation and research.

WHAT IS ALGORITHMIC PERSONALISATION?

This section explains what 'algorithmic personalisation' means and what it does not encompass for the purpose of this article. This section will further explain the working of personalisation algorithms in order to set the context for further discussion about the autonomy implications of such personalisation. Personalisation is a concept that was first identified and defined in management and marketing studies to refer to the practice of tailoring products and services to the requirements and preferences of specific individuals, i.e., 'to deliver the right services or products at the right time and place to the right customer'[83]. The advent of big data, artificial intelligence, and machine learning tools gave a fillip to personalization practices by increasing the data-points of a user, based on which improved predictions about their preferences could be made. The term 'algorithmic personalisation' is used in this article in the sense of how Tanya Kant defined it, i.e.,'the computational tracking and anticipation of users' preferences, movements, and identity categorisations in order to algorithmically intervene in users' daily experiences.'[84] This intervention takes the form of curating the digital content such as online ads, search results, social media feed, news recommendations, shopping suggestions, etc., for the user on the basis of their preferences and behaviour as inferred or assumed by the algorithms based on their past online activities.[85] For a more scathing description of algorithmic personalisation, we may turn to Zuboff, who described it as 'a camouflage for aggressive extraction operations that mines the intimate depths of everyday life and attempts to shape our behaviour in ways that favour surveillance capitalist's outcomes'[86].

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[83] Cody Dodd, 'Negotiating with Social Algorithms in the Design of Service Personalisation' (DPhil Thesis, London School of Economics and Political Science 2021) 5 <http:/etheses.lse.ac.uk/4328/1/Dodd__Negotiating-social-algorithms-design-of-service-personaization.pdf> accessed 11 February 2022.

[84] Kant (n 76)10.

[85] Sofia Grafanaki, 'Platforms, the First Amendment and Online Speech: Regulating the Filters' (2018) 39 Pace Law Review 111, 155.

[86] Zuboff (n 69) 19.

Algorithmic personalisation is to be distinguished from user-driven personalisation, wherein the users themselves select the personalisation criteria instead of the system deciding for them. It is also to be distinguished from trending algorithms that curate content based on what is trending or popular among the general user-base.[87] While personalisation algorithms identify and highlight what might be relevant to an individual user specifically, trending algorithms identify and highlight what is popular with the broader user-base.[88] The impact of trending algorithms on individual autonomy is more direct and obvious as it risks directing the process of self-discovery of the user towards the mainstream with no exposure to alternate and minority views.[89] But, it also raises a different set of concerns apart from individual autonomy. Hence, the article, while acknowledging the autonomy implications of trending algorithms, limits its discussion to algorithmic personalisation. Finally, algorithmic personalisation is also to be distinguished from obvious user manipulation techniques such as those employed by Facebook in the emotion contagion study and voter experiment[90] wherein Facebook tried to influence user emotions and behaviour by directing specific messages, which weren't tailored to their preferences, behaviour, or interests, but were aimed at nudging the users to do something or to induce specific emotions in them or manipulate their behaviour and opinions, mostly to serve the commercial interests of the platforms.

Having set forth the meaning of 'algorithmic personalisation' as used in this article, its working is further explained.

Platforms personalise content by employing AI-algorithms that predict users' behaviour, preferences, and viewpoints.[91] Such predictions are made based on data explicitly shared by the users and also inferences (not always accurate) made about them from their past online interaction, like browsing, social media engagement, etc.[92] The first step towards algorithmic personalisation is extensive tracking of the online activities of users

[87] Sofia Grafanaki, 'Drowning in Big Data: Abundance of Choice, Scarcity of Attention and the Personalisation Trap, a Case for Regulation' (2017) 24 Richmond Journal of Law and Technology 1, 20.

[88] ibid.

[89] Grafanaki, 'Autonomy Challenges' (n 71) 826.

[90] Adam Kramar and others, 'Experimental Evidence of Massive-Scale Emotional Contagion Through Social Networks' (2014) 111(24) Proceedings of the National Academy of Sciences of the United States of America 8788 <www.pnas.org/content/111/24/8788> accessed 11 February 2022; David Talbot, 'How Facebook DroveVoters to the Polls' (*MIT Technology Review*, 12 September 2012) <www.technologyreview.com/2012/09/12/183851/how-facebook-drove-voters-to-the-polls/> accessed 11 February 2022.

[91] Grafanaki, 'Drowning in Big Data' (n 87) 18.

[92] Grafanaki, 'Platforms, the First Amendment and Online Speech' (n 85) 155.

across platforms, such as their browsing history, social media activities like comments, likes and shares, photos uploaded, shopping patterns, geo-location, content of their texts and emails, the songs they download, etc.[93] These snippets of their daily life are collated and then connected and correlated by the algorithms to make a psychographic profile of users, which reflects not only their demographic details but also their interests, hobbies, tastes in music or films, moral, ethical, and political values, and inherent attitudes, biases, and prejudices.[94] The key factor for personalisation is relevance.[95] The psychographic profiles of the users are used by the algorithms to predict the content that a user will find most relevant and will most likely engage with. In this way, the digital content of a user is curated according to the algorithms' predictions and inferences about what their preferences are. Interestingly, even content that userslike themhave engaged with,is recommend to them.[96] When the users subsequently click on the content that is recommended to them - which they will click in all probability as their choices are restricted by the algorithms - the inferences that the algorithms have made about them get reinforced, whether or not it is their actual choice.[97] In this way, algorithms are intervening in our everyday online experience.[98] This intervention is not only by showing the users the content that is deemed to be most relevant for them, but also by actively excluding the content which the algorithm determines to be irrelevant to the user.[99]

The underlying motive behind personalisation is that when users are provided with content that interests them and aligns with their viewpoints, they are likely to spend more time on the platforms, which converts to more advertising revenue.[100] Hence, personalisation, though usually proclaimed by the platforms to be of advantage to the users and a goodwill gesture by the companies, is actually driven by the economic

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93 Kant (n 76) 5.

94 'What is Psychographics? Understanding the Tech that Threatens Elections' (*CBI Insights*, 6 May 2020) <www.cbinsights.com/research/what-is-psychographics/> accessed 11 February 2022.

95 Grafanaki, 'Drowning in Big Data' (n 87) 20, 21.

96 Nandana Sengupta, 'Personalised Entertainment and Polarized Elections: Brought to You by AI' (*Huffpost*, 30 May 2019) <www.huffpost.com/archive/in/entry/personalisation-polarisation-artificial-intelligence_in_5cef9d1de4b07e067d893246> accessed 11 February 2022.

97 Grafanaki, 'Drowning in Big Data ' (n 87) 22-23.

98 Kant (n 76).

99 Stark and others (n 72) 9.

100 S Caveen, 'Polarflation: The Inflationary Effect of Attention-Optimising Algorithms on Polarisation in the Public Sphere' (MSc Dissertation Series, London School of Economics and Political Science 2021) <www.lse.ac.uk/media-and-communications/assets/documents/research/msc-dissertations/2020/256-Caveen.pdf> accessed 11 February 2022.

interests of the platforms.[101] In the age of surveillance capitalism, it is an important means by which the vast control over user data is leveraged to affect, influence, and modify the behaviour and values of the users for the commercial or other extraneous interests of the platforms.[102]

THEORISING AUTONOMY

Individual autonomy is a much theorised concept with different scholars arriving at different formulations about the substance of autonomy. Through all these overlapping and sometimes contradictory notions of autonomy, a common theme that emerges is the idea of self-government, i.e.,the capacity to govern oneself, 'to be directed by considerations, desires, conditions, and characteristics that are not simply imposed externally upon one, but are part of what can somehow be considered one's authentic self.'[103] According to Kant, practises that impinge on a person's autonomy by limiting people's access to information or by curtailing their rational capacities, are ethically unjust.[104] This section attempts to synthesise some of the important accounts of autonomy that may be useful to examine the impact of algorithmic personalisation on individual autonomy.

One of the most influential accounts of autonomy is that of Joel Feinberg. He attributes four different meanings to autonomy – autonomy as the capacity to govern oneself, autonomy as successful self-government, autonomy as personal ideal of self-government, and autonomy as the sovereign authority to govern oneself.[105] Autonomy as a capacity requires only that an individual be able to consider the world and make rational assessments and decisions.[106] It stipulates only a baseline requirement that is 'low enough that adults can generally clear it'.[107] However, even a person with the capacity to make rational decisions may be constrained by his circumstances or by other people in exercising that capacity, or he may altogether fail to use that capacity.[108] Thus, autonomy as a capacity need not automatically lead to the successful exercise of autonomy. The ability of an individual to incorporate his values into the decisions that he makes is also dependent on the opportunities that exist in

[101] Kant (n 76) 5-6.
[102] Zuboff (n 69).
[103] Christman, 'Autonomy in Moral and Political Philosophy' (n 68).
[104] Ward (n 81) 137.
[105] Joel Feinberg, 'Autonomy' in John Christman (ed) *The Inner Citadel: Essays on Individual Autonomy* (Oxford University Press, 1989) 28.
[106] Alan Rubel, Clinton Castro and Adam Pham, *Algorithms and Autonomy: The Ethics of Automated Decision System* (Cambridge University Press 2021) 25.
[107] ibid 24.
[108] ibid 25.

the broader social context.[109] Further, the social structures within which an individual is situated delimit the principles and sense of value that an individual can develop.[110] Nonetheless, successful exercise of autonomy requires that an individual holds on to principles because they are principles and not because the society adheres to these principles.[111]

Autonomy as an ideal requires authenticity, self-control, and taking moral responsibility for one's actions.[112] The exercise of autonomy must also be mindful of the social circumstances and must not conflict with one's responsibilities to other community members.[113] Lastly, autonomy as a right refers to an individual's claim to be recognised as having the capacity to govern themselves, and any interference with a person's decision is a limitation on such a claim.[114] Fienberg's account of autonomy is helpful to understand that any theorisation of autonomy needs to take into account the social structures and circumstances within which it is to be exercised. One such theory of autonomy, which takes into account individuals' social and historical contexts, is given by John Christman.[115] According to Christman, there are two key requirements for individual autonomy – competence and authenticity.[116] By competence, he means that individuals must have the 'capacity to form, develop, and critically reflect on their values and to intentionally and effectively act in accordance with those values.'[117] While by authenticity, he means that the individual should not be 'alienated from their basic values and commitments, were they to 'engage in sustained critical reflection'[118] on them'[119]. In other words, their values and commitment must not become incompatible with their practical identity or sense of self over time.[120] Though Christman's account acknowledges that the self is formed within a social, historical, and political context, it does not concede that it is determined by any specific arrangement. In other words, his account is not relational, but rather places the individual and his self-interpretation and reflection at the centre. Therefore, his theory of autonomy can be called a psychological theory of autonomy.[121] In sharp contrast to, and as criticism of

[109] ibid.
[110] ibid.
[111] ibid.
[112] ibid.
[113] ibid 26.
[114] ibid.
[115] Rubel (n 106) 28.
[116] John Christman, *The Politics of Persons: Individual Autonomy and Socio-Historical Selves* (Cambridge University Press 2011).
[117] Rubel (n 106) 28.
[118] Christman (n 116) 155.
[119] ibid.
[120] Rubel (n 106) 28.
[121] ibid 27.

psychological accounts of autonomy like Christman's, scholars developed social and relational accounts of autonomy, prominent among whom was Marina Oshana. Oshana argued that for a person to be truly autonomous, it is not just enough that she satisfies the competence and authenticity requirement of Christman's account.[122] It is also necessary that the person must have sufficient social and relational support and not have substantial social and relational impediments in enjoying their ability to exercise life choices.[123] Oshana's account can be best understood using the examples of the 'Angel of the House' and the 'Would-be-surrendered woman'. The Angel of the House is a woman who lives in a repressive social circumstance; happy in being restricted to the role of managing the household and chooses and values being subservient to her husband.[124] Oshana argues that such a woman finds her life gratifying as her practical-self aligns with her values and she is reflective about these values as well, thereby fulfilling the competence and autonomous criteria of Christman's account.[125] Nonetheless, she is subjugated as her social structures limit the values that she can develop and the choices that she can exercise.[126]

Oshana's contrasting example is that of a 'would-be surrendered woman' who is financially, socially, and educationally independent and is very successful in her profession.[127] Nevertheless, her values and self-conception are to live like the Angel of the House, deferential to a controlling partner. As per Christman's account of autonomy she is not autonomous as her practical identity is alienated from her sense of values and principles.[128] But Oshana would call her an autonomous person as her social and relational circumstances allow her to govern herself, even if she is not living a life that conforms to her sense of values.[129] Thus, while Christman requires only competence and authenticity for a person to be autonomous, Oshana's theory emphasises on 'appropriately conducive social conditions and choice architectures.'[130]

Oshana's theory of autonomy is reminiscent of Joseph Raz's view that it is not just enough to have choice and control over choice, but also access to a variety of relevant, attractive options.[131] Further, a semblance of Oshana's theory can also be seen in the writings of Cohen on

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[122] Marina Oshana, *Personal Autonomy in Society* (1st edn, Routledge 2016) 46.
[123] Rubel (n 106) 32.
[124] ibid 29.
[125] ibid.
[126] ibid 30.
[127] ibid.
[128] ibid.
[129] ibid.
[130] ibid 31.
[131] ibid 32.

informational privacy when she said: *"Autonomous individuals do not spring full-blown from the womb. We must learn to process information and to draw our own conclusions about the world around us. We must learn to choose, and must learn something before we can choose anything"*.[132]

Alan Rubel rightly noted that fully realised autonomy requires both procedural independence, i.e., autonomy in Christman's terms satisfying both competence and authenticity conditions, and substantive independence, i.e., autonomy in Oshana's terms which requires reciprocal support and non-domination from the society.[133] Therefore, both the psychological account and the social-relational account of autonomy discussed above will be helpful to examine the impact of algorithmic personalisation on the autonomy of the users of internet platforms.

DO YOU SHAPE YOUR MEDIA OR DOES MEDIA SHAPE YOU?

A common argument made by the platforms when confronted with the autonomy implications of personalisation is that their algorithms merely reflect the user's preferences and do not lead the choice-making process for the users.[134] However, Grafanki argues that 'the assumption that personalisation algorithms truly represent users' choices requires a leap in reasoning'.[135] This section examines these opposing arguments.

It is said that the earliest prophecy of personalised media was made by MIT Media Lab'sfounder, Nicholas Negroponte, in 1995.[136] In his book titled 'Being Digital', Negroponte envisioned a personalised newspaper that would contain only those stories and information that a reader would want to see and know.[137] In his imagination, the reader has complete control over the selection of content produced and disseminated by newspaper editors and other gatekeepers. Thus, if I am inquisitive of news solely from the Indian sub-continent and have a disinclination towards sports-related content, I can choose to read the content of my daily accordingly. Though Negroponte's imagination of the 'Daily Me' can be seen as a prototype of a personalised medium, it is also quite different from the personalised media created by algorithms in terms of the control that users

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[132] Julie E Cohen, 'Examined Lives: Informational Privacy and the Subject as Object' (2000) 52 Stanford Law Review 1373, 1424.
[133] Rubel (n 106) 14.
[134] Grafanaki, 'Drowning in Big Data' (n 87) 57.
[135] ibid 25.
[136] Nicholas Negroponte, *Being Digital* (Alfred A Knopf 1995) 153.
[137] ibid.

have over the selection of content. While in Negroponte's personalised newspaper, the users themselves select the content that they want, in case of algorithmic personalisation, such selection is made by the algorithm or the system on behalf of the user. This distinction is important to make in examining the autonomy implication of algorithmic personalisation. It is also important to note that personalisation on internet platforms is not primarily motivated by the interest of the user, but is driven by monetisation interests of the platforms,[138] in which human experiences and attention are considered as commodities to be traded.[139]

As noted in the previous section on the working of algorithmic personalisation, internet platforms track and collect data relating to the online and sometimes even the offline activities of the users. This is then used by the algorithm to build their detailed demographic and psychographic profile to target them with the right content. Thus, a key step in personalisation is to reduce individuals into bodies with stable identities with no complexities or contradictions over time, as it is the most efficient way of targeting users with relevant content.[140] What is lost in this homogenising process is the actual choices of the users, which the personalisation algorithms claim to honour as the inferences that they make about a user from her past online activities may not be an accurate depiction of who she is and, most importantly, who she aspires to be. Her past activities are reduced to datapoints without context, from which conclusions are drawn about her choices. For example, a user's past online interactions may indicate that she engages more with right-leaning and sports-related content, but she may be open to and interested in engaging with alternate views and topics if exposed to them. Nevertheless, the algorithm profiles her as a right-leaning person and sports enthusiast and curates her social media feed with more of such content to lengthen her engagement time on the platform. Clicking on something because that is the only thing shown to you does not reflect your true choice of content, but reinforces the inferences that the algorithm has made about you. It succeeds in capturing your attention but fails in giving you autonomy over the selection of content.[141] In this attention and time-scarce world, such personalisation can result in individuals unconsciously limiting their perspective to what the algorithms curate for them. This inhibits the capacity of an individual to reflect on their values, motivations and decision-making involved in engaging with the content. This is especially so given the epistemic imbalance of power between the users and the platform, as the users have very little knowledge about the extent of their data that is processed by

[138] Kant (n 76) 5-6.
[139] Zuboff (n 69).
[140] Reviglio and Agosti (n 70) 9.
[141] Grafanaki, 'Drowning in Big Data' (n 87) 26.

the algorithms and the extent to which what they see online is curated by such algorithms.[142] This impinges on the competence requirement that is common in both Christman's and Oshana's accounts of autonomy which requires an individual to be self-reflective and self-aware. There are various aspects of oneself that an individual does not fully understand but is only slowly exploring and shaping as she develops.[143] For this process of self-realisation and development, she must be able to experiment with different views, beliefs, tastes, and associations.[144] This essential aspect of personal autonomy is threatened when our half-baked opinions are reinforced by algorithmic suggestions.[145]

The user in an algorithmically filtered online environment is akin to the Angel of the House in Oshana's example as her choice of content is limited even without her awareness. Further, even if she wants to engage with different content and viewpoints, the infrastructure of the platforms hinders her from doing so without a considerable 'effort tax'[146], which will be explained in the following section. Hence, the claim that personalisation algorithms merely reflect a user's choices is contentious because of the role played by the algorithms in shaping the very same choices and in limiting the exploration process of the user.

PRESENTING THE 'PARADOX OF CHOICE'

Today, many users are aware that their digital information diet, whether it is their social media feed, news recommendations, shopping suggestions etc., is curated algorithmically by the internet platforms.[147] While many of them appreciate such personalisation because of the convenience that it offers, they are aware of and despise the fact that such personalisation services are a result of extensive tracking of their online activities and intrusion into their privacy for the commercial benefit of the platform companies.[148] Some users find algorithmic personalisation as depriving their agency in the selection of content. They opine that even though personalisation has some benefits, there should be a limit to it,

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[142] Zuboff (n 69) 11.

[143] DJ Solove, M Rotenberg and PM Schwartz, *Privacy, Information, and Technology* (Aspen Publishers 2006) 37.

[144] ibid 1424–25.

[145] Amber Sinha, 'Beyond Public Squares, Dumb Conduits, and Gatekeepers: The Need for a New Legal Metaphor for Social Media' (*IT for Change*, 2020) <www.itforchange.net/digital-new-deal/2020/11/01/beyond-public-squares-dumb-conduits-and-gatekeepers-the-need-for-a-new-legal-metaphor-for-social-media/> accessed 11 February 2022.

[146] Cass R Sunstein, *Choosing not to Choose: Understanding the Value of Choice* (OUP USA 2015) 34- 35.

[147] Kant (n 76) 3-4.

[148] ibid.

if its implementation is for the furtherance of the commercial interest of the platforms.[149] In light of the increasing awareness among users about algorithms taking over control of the digital content that they see, there arises a question as to whether users are indeed powerless to safeguard their autonomy from algorithmic personalisation and whether technological companies bear any moral responsibility to desist from engaging in practices that impinge on the individual autonomy of its users. This section of the essay is aimed at addressing the first question and the next section will address the second question.

Proponents of algorithmic personalisation argue that users can indeed exercise autonomy in the personalised ecosystem if they want, by actively choosing content.[150] Moreover, some users have taken efforts to resist the data-tracking practices of internet platforms by using tracker blocking tools like Ghostery and have engaged in data obfuscation by giving the platforms wrong information.[151] Apart from consciously bringing changes to the way the users engage in these internet platforms, today's users are also empowered by data-protection laws in many countries, that provides them many rights. These rights would include the right to control the use of their data, to be informed of the uses to which the data collected will be put, to access the data generated, to receive information about the logic involved and opt not to be subject to automated decision-making.[152] Nevertheless, it is generally observed that users submit to algorithmically curated content, either with or without the knowledge of its implication on privacy and autonomy. This presents, what Urbano Reviglio and Claudio Agosti term as, the paradox of choice:

> *The more choices users have, the more easily they rely on simple-to-use personalised tools. In other words, in order for personalisation systems to provide a "better service," users are surveilled and their data captured and exploited. Even if they disagree—as they more often do—they do not proactively react. Even in cases where the users are provided with more agency, they are unlikely to take advantage.*[153]

This paradox of choice can be mainly attributed to the imbalance of power between the users and the platform companies. While the platforms, with their capacity leveraged by big data and AI- and

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[149] ibid.
[150] Grafanaki, 'Drowning in Big Data' (n 87) 31.
[151] Kant (n 76) ch 4.
[152] Reviglio and Agosti (n 70) 5.
[153] ibid 4.

ML-powered algorithms, possess minute details of our online activity that represent the person that we are (or the person that they assume us to be), the users are kept in the dark about how their social media feed is curated.[154] Further, in this age of information abundance, actively choosing content demands a lot of time and effort on the part of the users; what Sunstein terms as 'effort tax'.[155] Research has shown that if users spend considerable time and effort in actively choosing content, they could get out of the algorithmic loop. However, the 'power of inertia' will take over the users and they will not do so unless they have a very strong objection.[156] Furthermore, it has been observed that the technological tools and changes in privacy settings that may help the users to evade or minimise the extent of data-tracking by the platforms are usually confined to the power-users i.e. 'users who have higher levels of technological efficacy, understanding, and knowledge than the average user'.[157] Scholars have noted that Bounded Rationality, a concept in behavioural studies, also explains why the users do not make use of technological tools or exercise their legal rights to resist the creeping influence of algorithms on decision-makings that affect us, such as content selection.[158] Bounded Rationality denotes the choices or the decisions that individuals make, are influenced by both their knowledge and computational limitations.[159] Consent fatigue[160] that is induced by the informed consent requirement of data protection laws is a consequence of such bounded rationality. Recognising the 'effort tax' involved in the active selection of content, Cass Sunstein argued for a right to choose not to choose, i.e., a right to choose to stick to the default personalisation settings of the platform.[161] But, for this to be a meaningful exercise of autonomy, the individual should have, 'a minimum understanding of what she is relinquishing,'.[162] Such an understanding is hindered due to the lack of transparency about the logic behind personalisation algorithms recommending certain types while excluding other content.

The above discussion intends to show that the claim that users can, if they want to, safeguard their autonomy in a highly personalised digital ecosystem, amounts to putting an unreasonable responsibility on the

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154 Zuboff (n 69) 11.
155 Sunstein (n 146).
156 ibid; Grafanaki, 'Drowning in Big Data' (n 87) 32.
157 Kant (n 76) 97.
158 Grafanaki, 'Drowning in Big Data' (n 87) 26; Reviglio and Agosti (n 70) 5.
159 Herbert A Simon, 'Bounded Rationality' in J Eatwell and others (eds), *Utility and Probability* (Palgrave Macmillan 1990).
160 Rahul Matthan, *Privacy 3.0: Unlocking Our Data Driven Future* (Harper Collins India 2018) 163.
161 Sunstein (n 146).
162 Grafanaki, 'Autonomy Challenges' (n 71) 840.

users vis-à-vis the enormous power and profit motives of the internet platforms.

WHY SHOULD THERE BE LIMITS TO ALGORITHMIC PERSONALISATION IN A DEMOCRATIC SOCIETY?

Sofia Grafanaki warns that we are slowly sleep-walking towards a future of algorithmic regulation, where every aspect of our life, even our inner perceptions of our values, beliefs and ideals are influenced by the algorithms.[163] As forenamed, algorithmic personalisation encroaches upon the autonomy of an individual by reducing them to mere datapoints and pre-maturely limiting the choices of information and view-points even before they could form a well-rounded understanding of their likes and preferences. Personalisation is one of the chief tools of surveillance capitalism, which Zuboff defines as 'unilateral claiming of human experience as free raw material for translation into behavioural data'.[164] These data are then used to intervene in our experience to shape our behaviour in ways that favour surveillance capitalists' commercial outcomes. This is where the impact of algorithmic personalisation on individual autonomy, transcends beyond an individual concern and has implications on the functioning of a democratic society. As Cohen notes, "*development of the capacity for autonomous choice is an indispensable condition for reasoned participation in the governance of the community and its constituent institutions - political, economic, and social*".[165] This capacity is significantly undermined by algorithmic personalisation that only aims at speaking to the idiosyncrasies, interests, desires and needs of the users,[166] rather than enhancing their choices or the capacity to make choices. Here, it is worth noting the distinction that Sunstein made between consumer sovereignty and political sovereignty.[167] According to Sunstein, "*Political sovereignty embodies democratic self-government, understood as a requirement of government by discussion and does not account for people as simply having fixed tastes and preferences, there to be discovered.*"[168] He argues that the algorithms employed by internet platforms view their users strictly as consumers and not as citizens who are to fulfil their role in a democracy.[169] By limiting the exposure of users to diverse content

[163] Grafanaki, 'Drowning in Big Data' (n 87) 39.
[164] Zuboff (n 69) 11.
[165] Cohen (n 132) 1426.
[166] Grafanaki, 'Drowning in Big Data' (n 87) 25-26.
[167] Cass Sunstein, *#Republic: Divided Democracy in the Age of Social Media* (Princeton University Press 2017) 54.
[168] ibid.
[169] ibid 53.

in the name of user's ease and advantage, personalisation significantly 'threatens the viability of a marketplace of ideas, which is critical for citizens in a democratic society to perform their civic duties'.[170]

The existence of phenomena such as filter bubbles and echo chambers, conditions that result from users being cocooned from information and view-points that are contradictory to theirs, is contested.[171] However, incidents like the Cambridge Analytica indicates the pernicious extent to which algorithmic personalisation can be used to influence and manipulate an important democratic process like the election. It also points to the power of algorithms in the hands of surveillance capitalists to tune, herd and condition the behaviour of their users.[172] Hence, it is imperative to define limits to the extent of algorithmic personalisation that can be engaged in by internet platforms, so that they do not unduly curtail user choice, agency and autonomy and do not threaten the prerequisites of a democratic society. The urgency to set these limits is fuelled by the fact that the algorithms of these internet platforms like Facebook and Google have now become part of the infrastructure of our public sphere.[173]

CONCLUSION AND WAY FORWARD

This article intended to highlight the impact of algorithmic personalisation by internet platforms on the individual autonomy of the users and the need to challenge personalisation as the default manner of organisation of content on these platforms. An important point that this article aims to emphasise is that algorithmic personalisation does not necessarily reflect the user's preferences and choices, but can alter their behaviour and choices to meet the commercial and other extraneous ends of internet platforms. Since some level of personalisation is beneficial to the users given the abundance of information online, it is not wise to put an embargo on it altogether. Instead,it is essential to envisage normative and ethical limits to the extent to which platforms can engage in personalisation and give users meaningful control and choices about how they want their content to be curated. It is unrealistic to expect technology companies to lead the path by changing the design of the algorithm in such a way that individual autonomy is minimally interfered with. This is because they have little incentive to do so, especially when their profit is dependent on the commodification of human attention and in 'tuning,

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[170] Grafanaki (n 87) 65.

[171] Stark and others (n 72) 17-25.

[172] Zuboff (n 69) 295-298.

[173] Josh Simons and Dipayan Ghosh, 'Utilities for Democracy: Why and How the Algorithmic Infrastructure of Facebook and Google Must be Regulated' (*Brookings Institute*, August 2020).

herding, and conditioning of the behaviour of the users'.[174] Hence, there is a need for external regulation of personalisation practices of the platforms through laws. Since the algorithms of these platforms dictate the infrastructure of our public sphere, the law must be directed at the design choice of personalisation algorithms. This can be done by requiring factors other than those falling under the catchphrase 'relevance' to be considered in curating the digital content of the users, so that the content is diverse, challenging, important, or serendipitous.[175] The extent of diversity that may be required may vary from one platform to another, with news recommendation apps requiring a higher level of diversity and randomness in suggestions due to the important role that they play in shaping public discourse. Nevertheless, in case of all internet platforms, the law must correct the imbalance of power between the users and the platform by requiring the latter to provide more options and control over choices of content to the user, without however overwhelming them.

Alan Rubel et al, call for technology companies to implement epistemically paternalistic technological tools like the Click-Gap tool implemented by Facebook.[176] Click-gap works by identifying and demoting low-quality content such as fake news in their newsfeed to prevent it from going viral on the platform.[177] Though paternalism is the opposite of autonomy, Rubel and others argue that epistemically paternalistic tools like Click-gap enhance the autonomy of users by preventing them from forming inauthentic attitudes, which might otherwise result from attributing more credibility to a piece of content than it deserves, and hence is morally permissible.[178] Similar tools may be employed to inject a 'randomness' factor into the content that is shown to the users so that they are not boxed into one particular content type or viewpoint based on their past online activities.[179] However, given the abundance of information online, respecting users' autonomy also requires allowing them to stick to default personalisation, i.e. choosing not to actively choose content.[180] For this to be a meaningful exercise of autonomy, the users must be acquainted with the factors that algorithms take into consideration in curating content for them and what they will be losing out by sticking to default personalisation. Concerted efforts of the technical and legal

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[174] Zuboff (n 69) 295-298.

[175] S Ignatidou, 'AI-driven Personalisation in Digital Media: Political and Societal Implications' (*Chatham House,* 2019) 17 <www.chathamhouse.org/2019/12/ai-driven-personalisation-digital-media-political-and-societal-implications> accessed 11 February 2022.

[176] Rubel (n 106) 122.

[177] ibid.

[178] ibid.

[179] Ignatidou (n 175).

[180] Sunstein, '*Choosing not to Choose*' (n 146).

community are needed to thwart the autonomy diminishing aspects of algorithmic personalisation. Users must be empowered through greater transparency of the logic behind algorithmic personalisation and by allowing them to own their self-exploration process and to make authentic choices.