Voting public

Leveraging personal information to construct voter preference

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In 1995, Paul Slovic, a well-known researcher in behavioural decision-making, wrote a paper entitled 'The Construction of Preference'.[1] The point of the paper is deceptively simple: Slovic argues that preferences, rather than being reflected in the results of a decision-making process, are in fact constructed in that same process. Thus, expressed preferences in the form of choices are in significant part a consequence of the environment – including the information environment – in which those choices are made. The data that Slovic assembles in his article, as well as a wide range of empirical results produced since that time, demonstrate that choices can be influenced by arguably irrelevant factors such as the order in which alternatives are encountered, emphasis on selected aspects of alternatives (e.g., positive rather than negative characteristics), or an implicit suggestion about the preferences of others like ourselves. In other words, choices can be manipulated.

Voting is the cornerstone of the democratic process; voting is also a clear instance of expressed – and thus constructed – preference. Traditional political advertising is an obvious and very public tactic to manipulate voter preferences. Recently, however, new and potentially more subtle techniques are being used to shape the information environment, and thus preferences, of voters. In particular, micro-targeting relies on personal profiling to segment the voting public according to characteristics relevant to political opinions and preferences, allowing sophisticated political communicators to use this information to create and deliver 'winning' messages constructed specifically for, and delivered specifically to, selected subsets of the voting public.

Privacy has always been recognised as critical to voter autonomy: hence the secret ballot. Micro-targeting on the basis of a vast array of personal information presents a new privacy-related threat to independent voter choice – a threat that leverages personal information to influence choice. This chapter explores the consequences of the individualised, highly selective, and manipulated information environment on voter preferences, examining the ways in which personal profiling can be used to manipulate voter preferences and thus undermine voter autonomy and processes critical to democratic government.

1 Paul Slovic, 'The Construction of Preference' (1995) 50 American Psychologist 364.

I. Traditional political science theories about political behaviour

The question of why people vote as they do and what motivates their political behaviour has been of endless interest to political scientists throughout the democratic world. Traditional political science theories hold that the key factors that empirical evidence indicates voters attend to in making political choices are political party affiliation, issues of particular interest to them, and individual candidate appeal. In terms of traditional democratic theory, political parties provide an overarching vision for the priorities the government should attune to and the ways the levers of government power should be used. When parties actually operate to achieve these two goals, parties are referred to as 'responsible parties'.[2] Generally speaking, parties in parliamentary systems are better organised than are parties in presidential systems to achieve these goals and are able to take 'ideological' stances to organise their policy goals and to appeal to voters. In presidential systems, especially the US system which is based on a 'winner take all' voting system, parties are less able to achieve these goals and developed more as loose, 'catch-all' umbrella affiliations of candidates and voters with party platforms that are less focused.[3] Because of voting rules, parliamentary forms of government tend to develop multi-party systems and presidential forms of government tend to develop two-party systems.[4] Regardless, traditional political science has highlighted the role of parties in organising the body politic and as mechanisms for bringing relevant information to members and voters. Once a voter identifies with a political party, which is most often the result of parents' party affiliation and socio-economic status, a voter is likely to remain loyal to that party. However, partisan identification appears to be weakening as influences on political socialisation increase and voters are exposed to more political information.[5]

Voters are also attuned to issues that are important to them personally or that they see as of national importance. Increasingly, single issues rather than multi-issue party platforms have become of more central concern to voters, giving rise to what has been termed 'one-issue voting', often associated in the US with social issues such as gun control and the right to choose/right to life.[6] Multiple reasons have been offered for why voters have gravitated to issues more than parties including the lack of clarity about party platforms, the emotional appeal of issues, the financial support issue campaigns have amassed, and media attention. Finally, voters pay attention to the candidate as a person – the candidate's character, personality, professional experience, personal attributes, and views on issues.[7]

2   Austin Ranney, *The Doctrine of Responsible Party Government: Its Origins and Present State* (University of Illinois Press 1954).
3   Clinton Rossiter, *Parties and Politics in America* (Cornell University Press 1960).
4   Lawrence Dodd, *Coalitions in Parliamentary Government* (Princeton University Press 1976).
5   Paul Allen Beck and M Kent Jennings, 'Family Traditions, Political Periods, and the Development of Partisan Orientations' (1991) 53(3) The Journal of Politics 742.
6   Pamela Johnson Conover, Virginia Gray, and Steven Combs, 'Single-Issue Voting: Elite-Mass Linkages' (1982) 4(4) Political Behavior 309.
7   Shawn W Rosenberg et al., 'The Image and the Vote: The Effect of Candidate Presentation on Voter Preference' (1986) 30(1) American Journal of Political Science 108.

Also of interest to political scientists is when voters make up their minds and whether they actually are motivated to vote. Voters' attention span and interest in politics vary tremendously.[8] The question of why voters choose to turn out and vote has been of overriding importance in countries where voting is not compulsory. Theories to explain turnout focus on a range of factors, such as socio-demographic characteristics, political attitudes, and environmental influences,[9] but also recognise the importance of voter mobilisation, or get out the vote, efforts, including motivating citizens to register if required.[10] At the risk of over-simplification, traditional party-line voters tend to vote regularly and regard it as part of their civic duty. Issue-oriented voters are less predictable in their behaviour, depending on how salient their issue is in an election. Candidate-inspired voters will vote if the person is one whom they like or with whom they identify.

Regardless of whether voters are motivated by party, issue, or candidate and regardless of whether they are politically motivated or not, political scientists have long recognised the important role that information plays in voters' motivations, views, and behaviours. Theories about voters' information acquisition and processing tend to begin with some form of the 'rational voter'. In a seminal book on this subject, Anthony Downs identifies the main steps of rationally deciding how to vote and then voting as follows:

- Gathering information relevant to each issue upon which important political decisions have been (or will be) made.
- For each issue, selecting from all the information gathered that which will be used in the voting decision.
- For each issue, analysing the facts selected to arrive at specific factual conclusions about possible alternative policies and their consequences.
- For each issue, appraising the consequences of every likely policy in light of relevant goals. This is a value appraisal, not a strictly factual one.
- Coordinating the appraisals of each issue into a net evaluation of each party running in the election. This is also a value judgement personally tailored to the goals of the voter himself.
- Making the voting decision by comparing the net evaluations of each party and weighing them for future contingencies.
- Actually voting or abstaining.[11]

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8   Anthony Downs, 'Up and Down with Ecology: the "Issue Attention Cycle"' (1972) 28 The Public Interest 38.
9   Angus Campbell et al., *The American Voter* (Oxford University Press 1960); Sidney Verba and Norman Nie, *Participation in America: Political Democracy and Social Equality* (Harper and Row 1972).
10   Steven J Rosenstone and John Mark Hansen, *Mobilization, Participation and Democracy in America* (Macmillan 1993); Jonathan Nagler, 'The Effect of Registration Laws and Education on US Voter Turnout' (1991) 85(4) American Political Science Review 1393.
11   Anthony Downs, *An Economic Theory of Democracy* (Harper and Row 1957) 209.

Downs recognises in his model and in the real world that rational voters are limited by the amount of information the human mind can process and by the time a voter can devote to such choices.[12] Therefore, voters have to decide which information to select and which information to reject. To a large extent, rational voters delegate their information gathering and analysis to sources that they have learned to trust. Downs points out that there is a certain amount of 'free information' available to voters from a number of sources including the government, political parties, professional publishers, interest groups, private citizens, and entertainment sources, but that not all citizens receive the same amount of 'free information' or have the same amount of time to process it. Moreover, how well they are able to evaluate information also varies; Downs postulates that it is rational, but difficult, to delegate evaluative decisions because one is not always certain that the agents to whom one delegates have goals similar to one's own.

II. Insights on voter behaviour from psychology

The construction of voting as a fully rational process provides a great deal of insight into the decisions of voters. At the same time, however, there are many aspects of voting behaviour that cannot be accounted for under a model of full rationality. Herbert Simon argued, in 1985, for a 'dialogue of psychology with political science' in order to better understand political affairs. Simon concludes that 'the principle of rationality, unless accompanied by extensive empirical research to identify the core auxiliary assumptions, has little power to make valid predictions about political phenomena'.[13] In other words, Simon believes that the 'rational voter' model put forward by Downs does not fully describe the decision-making processes of voters – and decades of empirical research support this conclusion.

One of the areas of research that provides additional insight into voter behaviour is that of behavioural decision-making, and particularly the study of the heuristics and biases that people use to make real-world judgements and decisions.[14] Many researchers in the area of political psychology have recognised that cognitive heuristics affect political decision-making.[15] Kuklinski and Quirk[16] note that citizens 'use heuristics – mental shortcuts that require hardly any

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12   Ibid 211.
13   Herbert A Simon, 'Human Nature in Politics: The Dialogue of Psychology with Political Science' (1985) 79(2) American Political Science Review 293.
14   See e.g. Amos Tversky and Daniel Kahneman, 'Judgement Under Certainty: Heuristics and Biases' (1974) 185(4157) Science 1124.
15   Richard R Lau and David P Redlawsk, 'Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making' (2001) 45(4) American Journal of Political Science 951.
16   James H Kuklinski and Paul J Quirk, 'Reconsidering the Rational Public: Cognition, Heuristics, and Mass Opinion' in Arthur Lupia, Mathew D McCubbins, and Samuel L Popkin (eds), *Elements of Reason: Cognition, Choice, and the Bounds of Rationality* (Cambridge University Press 2000) 153.

information – to make fairly reliable political judgments'. As many have argued, cognitive heuristics allow decision-makers to operate more efficiently in challenging decision-making environments.[17] At the same time, these heuristics introduce bias and 'irrationality' into decisions, effects that are particularly strong under conditions of information overload,[18] lack of information[19], low levels of knowledge,[20] and relatively low levels of engagement in the issue or decision at hand.[21] Heuristic decision-making is often influenced by what has been called the 'choice architecture', including the information available during the decision process.[22] Subjective estimates of the likelihood of an event (e.g., of succumbing to a disease), for example, are influenced by how easy it is to remember specific instances, which is in turn determined in part by the frequency with which instances are covered in the media. As a result of this type of reasoning, many incorrectly estimate the likelihood of dying in an accident (which is likely to be reported in the news) as being higher than the probability of dying of a more prosaic cause such as disease.[23] Many political decisions, and particularly those made under the conditions noted above, are therefore subject to influence by factors that are, arguably, irrelevant to the decision – including the information environment in which the decision is made. Those decisions are therefore also subject to influence by those who design and deliver the messages that constitute the information environment; in other words, political choices can be engineered.

Edward Bernays first raised the idea of the 'engineering of consent' in a 1947 article of that same name. In that article, he advocated the use of the vast communications network of the time, a system in which 'a single whisper is magnified thousands of times' in the service of 'socially constructive action'.[24] He recognised the power of communications networks as a 'potent force for social good or

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17   Herbert A Simon, 'Theories of Bounded Rationality' (1972) 1(1) Decision and Organization 161.
18   Robert P Abelson and Ariel S Levi, 'Decision Making and Decision Theory' in Gardner Lindzey and Elliot Aronson (eds), *The Handbook of Social Psychology Vol 1* (Random House 1985); Naresh K Malhotra, 'Information Load and Consumer Decision Making' (1982) 8(4) Journal of Consumer Research 419.
19   Susan A Banducci et al., 'Ballot Photographs as Cues in Low-Information Elections' (2008) 29(6) Political Psychology 903.
20   Lau and Redlawsk (n 14); Timothy D Wilson et al., 'A New Look at Anchoring Effects: Basic Anchoring and its Antecedents' (1996) 125(4) Journal of Experimental Psychology: General 387.
21   Scott A Hawkins and Stephen J Hoch, 'Low-Involvement Learning: Memory Without Evaluation' (1992) 19(2) Journal of Consumer Research 212; Richard E Petty et al., 'Personal Involvement as a Determinant of Argument-Based Persuasion' (1981) 41(5) Journal of Personality and Social Psychology 847.
22   Richard H Thaler and Cass R Sunstein, *Nudge: The Gentle Power of Choice Architecture* (Yale University Press 2008).
23   Barbara Combs and Paul Slovic, 'Newspaper coverage of causes of death' (1979) 56 (4) Journalism Quarterly 837.
24   Edward L Bernays, 'The Engineering of Consent' (1947) 250(1) The Annals of the American Academy of Political and Social Science 113.

possible evil' and exhorted political leaders, with the aid of technicians in the field of communications, to utilise these communications channels 'for sound social ends':[25] essentially, to lead the public to the 'right' conclusion. The perspective is profoundly patronising, suggesting that political leaders can and should direct public opinion through carefully designed persuasive communication.

Over 60 years later, Thaler and Sunstein[26] brought to prominence the notion of the decision-making 'nudge' – creating 'choice architectures' that 'steer people in particular directions, but that also allow them to go their own way'.[27] Sunstein focuses on the potential positive impact of nudges, asserting that 'desirable nudges undermine neither autonomy nor welfare […] they can promote both values; indeed, they might be indispensable for them'.[28] Others, however, are not so sanguine about the 'gentle' and at times undetectable shaping of choices by unidentified and unaccountable actors. Tapson,[29] for example, prefers to call what some term the 'social paternalism'[30] of nudging by another name: 'soft totalitarianism'. Kerr and colleagues[31] raised concerns that this type of shaping could be undermining the notion of consent in the context of information privacy; Regan and Jesse[32] worry about the use of nudging in the educational context. Yeung[33] argues that big data analytics of behavioural data contribute to increasingly sophisticated – and individualised – design of the informational context for decisions. She uses the term 'hypernudge' to describe nudges based on this type of analytics, and argues that 'Big Data analytic nudges are extremely powerful and potent due to their networked, continuously updated, dynamic and pervasive nature'.[34]

The potential impact of 'nudges', or 'choice architectures', or individualised persuasive messaging is as great in the realm of political expression as it is in any other area of decision-making. Political psychologists recognise that candidate preferences are formed 'online', updated as new information becomes available, rather than being

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25   Ibid.
26   Thaler and Sunstein (n 21).
27   Cass R Sunstein, 'Nudges, Agency, and Abstraction: A Reply to Critics' (2015) 6(3) Review of Philosophy and Psychology 511.
28   Ibid 514
29   Mark Tapson, 'The Soft Totalitarianism of Nudging: The Left's New Social Engineering Tool to Steer Americans Toward Making the "Correct" Choices', *Frontpage Mag* (13 August 2013) www.frontpagemag.com/fpm/200533/soft-totalitarianism-nudging-mark-tapson, accessed 30 September 2018.
30   David Brooks, 'The Nudge Debate' *The New York Times* (9 August 2013) A19.
31   Ian Kerr et al., 'Soft Surveillance, Hard Consent: The Law and Psychology of Engineering Consent' (2009) in Ian Kerr, Valerie Steeves, and Carole Lucock (eds), *Lessons From the Identity Trail: Anonymity, Privacy and Identity in a Networked Society* (Oxford University Press 2009) 5.
32   Priscilla M Regan and Jolene Jesse, 'Ethical challenges of edtech, big data and personalized learning: twenty-first century student sorting and tracking' (2019) 21 (3) Ethics and Information Technology 167. (https://doi.org/10.1007/s10676-018-9492-2).
33   K Yeung, '"Hypernudge": Big Data as a mode of regulation by design' (2017) 20(1) Information, Communication & Society 118.
34   Ibid.

based on a holistic evaluation of available information at voting time,[35] thus rendering the process open to shaping by the information environment. Indeed, although partisanship has traditionally been held to be a stable characteristic, recent data suggest that party preferences are malleable, potentially shaped by information delivered during election campaigns,[36] particularly personal canvassing.[37] There is also good evidence that voting preferences can be shaped in part by the media environment: not only do Fox News viewers tend to be more politically conservative,[38] but also Republican support *increases* in communities when Fox News is introduced,[39] suggesting that the partisan news coverage both reflects and shapes preferences. The notion that political behaviour is being shaped by leveraging psychological research has been raised in the popular press.[40] Indeed, John and colleagues[41] wrote an entire book examining the use of nudges to shape civic behaviour. It is precisely this concern that is raised by Jonathan Zittrain in his article entitled 'Engineering an Election',[42] and Tufecki raises similar issues under the rubric of 'computational politics' and 'engineering the public'.[43] At the root of all of these concerns lies the basic truth articulated by Slovic: preferences are *constructed* in the process of political decision-making – and political decision-makers can therefore be influenced by the information they encounter in the process of making a decision.

Psychological research also tells us that different messages are persuasive to different people: in other words, neither all messages nor all audiences are created equal. A famous theory in the area of persuasive communication – the Elaboration Likelihood Model[44] – for example, suggests that highly engaged individuals focus more on the *content* of arguments, while those less engaged in an issue attend

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35 Jon A Krosnick, Penny S Visser, and Joshua Harder, 'The Psychological Underpinnings of Political Behaviour' in Susan T Fiske, Daniel T Gilbert, and Gardner Lindzey, *Handbook of Social Psychology Vol. 2* (5th edn, Wiley 2010) 1288.

36 Rüdiger Schmitt-Beck, Stephan Weick, and Bernhard Christoph, 'Shaky Attachments: Individual-Level Stability and Change of Partisanship Among West German Voters, 1984–2001' (2006) 45(4) European Journal of Political Research 581.

37 David Johann et al., 'Intra-campaign changes in voting preferences: The impact of media and party communication' (2018) 35(2) Political Communication 261.

38 Jonathan S Morris, 'Slanted Objectivity? Perceived Media Bias, Cable News Exposure, and Political Attitudes' (2007) 88(3) Social Science Quarterly 707.

39 Stefano DellaVigna and Ethan Kaplan, 'The Fox News Effect: Media Bias and Voting' (2007) 122(3) The Quarterly Journal of Economics 1187; James N Druckman and Michael Parkin, 'The Impact of Media Bias: How Editorial Slant Affects Voters' (2005) 67(4) The Journal of Politics 1030.

40 Sasha Issenberg, 'Nudge the Vote' *The New York Times Magazine* (29 October 2010) www.nytimes.com/2010/10/31/magazine/31politics-html, accessed 28 September 2018.

41 Peter John et al., *Nudge, Nudge, Think, Think: Experimenting with Ways to Change Civic Behaviour* (Bloomsbury 2013).

42 Jonathan Zittrain, 'Engineering an Election' (2013) 127 Harvard Law Review 335.

43 Zeynep Tufekci, 'Engineering the Public: Big Data, Surveillance and Computational Politics' (2014) 19(7) First Monday.

44 Richard E Petty and John T Cacioppo, 'The Elaboration Likelihood Model of Persuasion' (1986) Communication and Persuasion 1.

more to the *source* of those arguments: celebrity endorsers, therefore, will be more persuasive for those less engaged in the issue. Persuasive messages that rely on social norms as a tactic (i.e., 'do this because your peers are doing it' or 'do this because your peers think you should do it') have been demonstrated to influence behaviour.[45] In at least some cases where the social norms that are conveyed in the message condone anti-social behaviours, women are less responsive to social norm pressure than are men.[46] These and other empirical results emphasise that the most effective political messaging – messaging that will shape preferences and choices – leverages general psychological principles as well as detailed information about the intended audience. In other words, the most effective messages will be *targeted* to specific subsets of the population, and *tailored* to be particularly effective in changing the attitudes and behaviour of the selected audience.

III. Constructing political choice

What forms of targeting and tailoring work to increase message effectiveness? An exhaustive survey of the ways in which information presentation can influence decision-making in the political context is well beyond the scope of this chapter; we will instead present some examples that demonstrate the potential of message design, especially design based on knowledge of specific characteristics of the recipient.

Appearances matter – in politics as much as anywhere else. The mere *appearance* of a political candidate can influence impressions and thereby voting behaviour, particularly for less-informed citizens,[47] or in elections where the electorate knows relatively little about the candidates.[48] First impressions based on appearance drive inferences about the personalities and capabilities of candidates, and these impressions are 'sticky': difficult to overcome, retaining their influence even as new information about the candidate is provided.[49] One of the more interesting demonstrations of the impact of information shaping on political preferences involves the subtle manipulation of candidate images presented to potential voters.

45 Robert B Cialdini, Carl A Kallgren, and Raymond R Reno, 'A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior' (1991) 24 Advances in Experimental Social Psychology 201.

46 Toke R Fosgaard, Lars Hansen, and Marco Piovesan, 'Separating Will from Grace: An Experiment on Conformity and Awareness in Cheating' (2013) 93 Journal of Economic Behaviour and Organization 279; Tian Lan and Ying Yi Hong, 'Norm, Gender, and Bribe-Giving: Insights from a Behavioural Game' (2017) 12(12) PLOS One e0189995.

47 Gabriel S Lenz and Chappell Lawson, 'Looking the Part: Television Leads Less Informed Citizens to Vote Based on Candidates' Appearance' (2011) 55(3) American Journal of Political Science 574.

48 Banducci et al. (n 18).

49 Christopher Y Olivola and Alexander Todorov, 'Elected in 100 Milliseconds: Appearance-Based Trait Interferences and Voting' (2010) 34(2) Journal of Nonverbal Behavior 83.

New digital technologies allow the 'morphing' of two or more faces into a single image; these techniques also allow the manipulation of the contribution of each original face to the final version. Bailenson and colleagues used digital morphing techniques to create new and individualised versions of candidate faces, subtly altering the candidate images to look more (but only *slightly* more) like the individual to whom the images were presented.[50] Consistent with psychological theory that predicts increased liking of those who are similar to ourselves, viewers who received candidate images morphed with photographs of themselves expressed greater support for the candidates than did those who received candidate images morphed with photos of other people – even though the viewers were *unaware* that the images had been altered. This type of information tailoring would be unacceptable to the public,[51] not to mention manifestly unethical, yet it is also effective and difficult to detect.

Many researchers have documented a 'bandwagon' or 'rally around the winner' effect, in which decision-makers tend to support the side they believe to be 'winning' – for example, by exposure to the results of opinion polls or to online discussions favouring one side.[52] Selective communication of positive poll results in political messages could give recipients the impression that one side is winning, thus increasing support. Although the overall effect is relatively weak, and indeed has been contested in the literature, some personal characteristics seem to increase the effect. In particular, the bandwagon effect has been demonstrated to be stronger for women, and stronger for those who demonstrate specific psychological characteristics: namely, high arousability and low dominance.[53] The effect also appears to have the greatest impact among voters demonstrating relatively weak partisanship when the bandwagon effect induces them to change party alliance, among strong partisans when the bandwagon effect reinforces existing party alliance, and among those with relatively poor political awareness.[54] These results

50 Jeremy N Bailenson et al., 'Facial Similarity Between Voters and Candidates Causes Influence' (2008) 72(5) Public Opinion Quarterly 935.
51 On the acceptability of tailored political messaging, see Joseph Turow et al., 'Americans Roundly Reject Tailored Political Advertising', Annenberg School for Communication, University of Pennsylvania (July 2012) https://repository.upenn.edu/asc_papers/398, accessed 4 October 2018.
52 Kyu S Hahn et al., 'The Influence of "Social Viewing" on Televised Debate Viewers' Political Judgment' (2018) 35(2) Political Communication 287; Albert Mehrabian, 'Effects of Poll Reports on Voter Preferences' (1998) 28(23) Journal of Applied Social Psychology 2119; Rüdiger Schmitt-Beck, 'Bandwagon Effect' in Gianpietro Mazzoleni (ed), The International Encyclopedia of Political Communication 1–5 (Wiley 2015).
53 Mehrabian (ibid).
54 Todd Donovan and Shaun Bowler, 'Experiments on the Effects of Opinion Polls and Implications for Laws Banning Pre-Election Polling' in André Blais, Jean-François Laslier, and Karine Van der Straeten (eds), Voting Experiments (Springer 2016) 149; Michael Ragozzino and Todd Hartman, 'The Influence of Public Opinion Polls on Issue Preferences', SSRN (30 November 2014) https://ssrn.com/abstract=2532324, accessed 23 May 2019; Schmitt-Beck (n 51).

could be leveraged to target 'bandwagon' messages to those most likely to respond to those messages.

Empirical research in psychology has demonstrated that personality characteristics determine in part the types of messages that individuals find persuasive. Personality is typically measured in terms of the 'big five' personality dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Authoritarianism has also been identified as a stable personality characteristic.[55] Extraverts have been demonstrated to respond more positively to messages that are extraverted in tone (brighter colours, showing more people, text emphasising extraverted activities), while introverts prefer messages that are more measured (muted, colours, fewer people, text emphasising individual activities).[56] Authoritarianism has been demonstrated to affect receptiveness to different types of 'get out the vote' messages. High-authoritarian individuals respond better to 'fear' appeals that emphasise the negative consequences of *not* voting, while low-authoritarian individuals are more responsive to 'reward' messages that emphasise the benefits of voting.[57] Another important and relevant difference between individuals is their propensity to 'self-monitor',[58] reflected in the desire to 'fit in' to social situations. In one research study, high self-monitors evaluated more positively and responded more strongly to a socially oriented message encouraging voting that emphasised the impact of voting on personal popularity, attractiveness, and status, and also indicated that the majority of their peers were planning to vote. Low self-monitors, by contrast, were more persuaded by a values-oriented message that emphasised voting as a way for the public to express support for important values such as freedom and liberty, and an opportunity to put attitudes and beliefs into action.[59] These and other individual differences have clear implications for receptivity to different types of political messaging, and thus for the design of messages that will be most persuasive for different people.

This is only a small sample of the subtle ways in which political messages can be targeted and tailored for persuasive effect. The impact of such manipulations

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55   Steven G Ludeke and Robert F Krueger, 'Authoritarianism as a Personality Trait: Evidence from a Longitudinal Behavior Genetic Study' (2013) 55(5) Personality and Individual Differences 480.

56   Sandra C Matz et al., 'Psychological Targeting as an Effective Approach to Digital Mass Persuasion' (2017) 114(48) Proceedings of the National Academy of Sciences 12714; for other demonstrations of personality differences in response to advertising, see e.g. Jacob B Hirsh, Sonia K Kang, and Galen V Bodenhausen, 'Personalized Persuasion: Tailoring Persuasive Appeals to Recipients' Personality Traits' (2012) 23(6) Psychological Science 578.

57   Howard Lavine et al., 'Threat, Authoritarianism, and Voting: An Investigation of Personality and Persuasion' (1999) 25(3) Personality and Social Psychology Bulletin 337.

58   Mark Snyder, 'The Self-Monitoring of Expressive Behavior' (1974) 30(4) Journal of Personality and Social Psychology 526.

59   Howard Lavine and Mark Snyder, 'Cognitive Processing and the Functional Matching Effect in Persuasion: The Mediating Role of Subjective Perceptions of Message Quality' (1996) 32(6) Journal of Experimental Social Psychology 580.

may – indeed, is likely to – be only a small shift in preferences for a small propor-tion of decision-makers. In the context of voting, however, small shifts can make a big difference. In Canada, for example, the second Quebec independence refer-endum in 1995 failed by just over 1% (50.58% of voters against secession vs. 49.42% in favour of the motion). A shift of 0.6% of votes cast would have removed Quebec from confederation. The 2000 US presidential election was decided by a margin of 0.008% (537 votes) in Florida: those 537 votes put George Bush rather than Al Gore in the White House, and changed the future of the United States. Elections to the Virginia House of Delegates have twice (in 1971 and 2017) been determined by random selection after a tied vote.[60] Incremental changes in voting patterns can introduce categorical – and highly meaningful – changes in outcomes.

Moreover, parties engaged in the manipulation of political preferences through message shaping and micro-targeting are unlikely to rely on only one technique. Instead, campaigns interested in nudging voters would employ a number of dif-ferent approaches to achieve the same end: 'get out the vote' initiatives, for example, that target different sub-groups of voters with different messages designed to be effective for each particular group. This multi-faceted approach is certainly recommended in the area of health communication, where the tailoring of messages to achieve desired behavioural outcomes has had widespread application.[61]

Finally, there is good reason to believe that developing preferences are self-reinforcing, through mechanisms such as confirmation bias, in which decision-makers selectively attend to information supportive of their emerging preferences.[62] 'First impressions' can be powerful and 'sticky' determinants of attitudes, including political candidate evaluation.[63] Carefully structured and targeted persuasive mes-sages might do little to change the opinions of those who have strong pre-existing preferences, but a small but effective 'nudge' to an undecided voter could set in motion a decision-making cascade that could ultimately determine voting beha-viour. 'Swing' voters are both relatively common[64] and critically important in

60   Fenit Nirappil, 'Virginia Will Decide Tied Race by Pulling a Name from a Bowl. How Would You Break a Tie?', *The Washington Post* (21 December 2017) www.washing tonpost.com/news/local/wp/2017/12/21/virginia-might-decide-a-tied-race-by-p ulling-a-name-from-a-bowl-how-would-you-break-a-tie, accessed 17 October 2018.
61   Barbara K Rimer and Matthew W Kreuter, 'Advancing Tailored Health Communica-tion: A Persuasion and Message Effects Perspective' (2006) 56(S1) Journal of Com-munication S184.
62   Eva Jonas et al., 'Confirmation Bias in Sequential Information Search After Preliminary Decisions: An Expansion of Dissonance Theoretical Research on Selective Exposure to Information' (2001) 80(4) Journal of Personality and Social Psychology 557.
63   Milton Lodge, Kathleen M McGraw, and Patrick Stroh, 'An Impression-Driven Model of Candidate Evaluation' (1989) 83(2) American Political Science Review 399; Olivola and Todorov (n 48).
64   Patrick Butler and Neil Collins, 'Political Marketing: Structure and Process' (1994) 28 (1) European Journal of Marketing 19; Stuart Oskamp, *Attitudes and Opinions* (2nd edn, Prentice-Hall 1991).

determining election outcomes.[65] They also make their voting decisions late in the campaign,[66] leaving plenty of time, and room, for persuasive messages to exert their effect.

IV. Micro-targeting: Targeting to and tailoring for individual voters

Effective political communicators are in the business of persuasive messaging. 'Get out the vote' initiatives, for example, are a feature of almost every election in jurisdictions where voting is not compulsory, and messages intended to influence the direction of votes are a normal and universal part of political campaigning. These broadcast messages are designed to encourage voters to cast their ballot, or to vote in a particular way, and the most effective are based on well-established persuasive communication techniques. Research suggests, for example, that voters are motivated to get out and vote by messages that affirm voting as an admirable aspect of character, rather than an action that an individual should take: thus, a message that encourages recipients to 'be a voter' will be in general more effective than one that exhorts individuals to 'get out the vote'.[67] Such persuasive messages, including those that are specifically designed to motivate behaviour based on psychological and sociological research, are a well-accepted part of the political landscape.

Broadcast political messaging delivers the same message to the entire audience. Different audience members could, and no doubt will, respond differently to the presented messages: most obviously, potential voters will be more positively disposed toward messages consistent with their own political positions and views. Given these differences in response to political messaging, it is evident that the persuasive effect of political messages can be increased through *targeting* and *tailoring* of messages.[68]

Targeted messages are delivered to a specific subset of the audience (an associated technique, identified by Turow,[69] is *signalling* to some people that they *should* be part of the audience, and to others that they should *not*). One way to target messages is to communicate a message that is persuasive to most audience members selectively to those who support (or do not support) your political position. In this way, the impact of the message is restricted to a specific subset of

65   William H Flanigan, *Political Behaviour of the American Electorate* (2nd edn, Allyn and Bacon 1972).

66   Karen S Johnson-Cartee and Gary A Copeland, *Inside Political Campaigns: Theory and Practice* (Praeger 1997); Dan Schill and Rita Kirk, 'Courting the Swing Voter: "Real Time" Insights into the 2008 and 2012 US Presidential Debates' (2014) 58(4) American Behavioral Scientist 536.

67   Marguerite Rigioglioso, 'Research-Backed Ways to Get Out the Vote' *Insights by Stanford Business* (17 April 2012) www.gsb.stanford.edu/insights/research-backed-ways-get-out-vote, accessed 30 September 2018.

68   Joseph Turow, 'Segmenting, Signaling and Tailoring, Probing the Dark Side of Target Marketing' in R Andersen and K Strate (eds), *Critical Studies in Media Commercialism* (Oxford University Press 2000).

69   Ibid.

the population. An effective 'get out the vote' message delivered selectively to the supporters of one candidate in an election, for example, could be a winning strategy.[70] Another way to target is to deliver a (generally) persuasive message specifically to those who you have reason to believe will be *most* affected by that message. This verges on *tailoring* (see below), but differs in emphasis: in this case it is the *audience* that is manipulated rather than the *message*. Targeting requires knowledge of the intended recipient of the message: in order to deliver messages specifically to your political supporters, you must be able to identify those supporters; in order to deliver a message that is most persuasive to disinterested voters, you need to identify those disinterested voters.

Tailoring (for which *targeting* is a necessary precursor) delivers to specifically identified individuals a specifically designed message – a message that is designed to be persuasive for those individuals based on information that is known about them. The most obvious form of tailoring is the personal address: contrast a general 'vote for candidate Smith' message with a message that exhorts 'Mrs Jones, vote for candidate Smith'. Personalisation of messages is certainly effective. Personalised 'calls to action' are demonstrably more effective than more general messages with the same thrust.[71] Personalisation is also manifestly evident. If you receive a personalised message, you *know* that the communication is tailored to you.

Other forms of tailoring are much more subtle. Messages can be tailored to appeal to individuals based on demographic characteristics such as age and gender. Tailoring on the basis of political affiliation or beliefs, or on the basis of core values, is also an effective way to improve message effectiveness. Messages can also be designed to appeal to individuals with particular personality characteristics or information-processing styles. Tailoring on the basis of these characteristics will not necessarily be evident to the recipient – and thus the targets of these tailored messages might not be aware that they are subject to communications designed specifically for them in order to influence their decisions and/or attitudes.

One of the important things to recognise about targeting and tailoring is that generally these strategies are revealed only by contrast – that is, in order to know that a message has been targeted and (potentially) tailored, one must know also what (if any) messages have been delivered to *other* people. This does not change the impact of the targeting or tailoring, but it does make detection, and thus regulation, of these practices that much more difficult.

'*Micro-targeting*', as practised in recent elections and discussed in the literature,[72] generally incorporates *both* targeting and tailoring of messages. Both are

70   Zittrain (n 41).
71   Henry Sauermann and Michael Roach, 'Increasing Web Survey Response Rates in Innovation Research: An Experimental Study of Static and Dynamic Contact Design Features' (2013) 42(1) Research Policy 273.
72   Jeff Chester and Kathryn C Montgomery, 'The Role of Digital Marketing in Political Campaigns' (2017) 6(4) Internet Policy Review; Balázs Bodó et al., 'Political Micro-Targeting: A Manchurian Candidate or Just a Dark Horse?' (2017) 6(4) Internet Policy Review.

achieved through the development of information-rich 'enhanced voter files' that integrate information from a wide range of sources to create detailed profiles of individual voters.[73] These profiles combine information about voters from multiple sources: information that is required (e.g., registration information), voluntarily provided (e.g., responses to questionnaires), and passively recorded (e.g., browsing behaviour),[74] enhanced with details that can be inferred on the basis of 'big data' analytics.[75] The resulting profiles allow political communicators to reach particular voters with messages designed specifically to influence them, through traditional means (e.g., telephone calls) or through new media channels (e.g., targeted advertising on social media sites).

The practice of assembling voter profiles and using these to direct political communication (e.g., door-to-door campaigning) is long-standing – and this might lead us to discount the importance of this new era of micro-targeting. Why would this new form of persuasive communication raise particular privacy concerns? The answer can be found in the impact of online behavioural tracking and big data analytics, which together allow for the assembly of far more detailed and revealing voter profiles, which in turn allows for the development and targeted delivery of more effective personalised persuasive messaging, often in ways that are not evident to the recipient.

In his 2014 article on 'Engineering an Election',[76] Jonathan Zittrain examines an important hypothetical scenario that highlights the game-changing reality of social media data mining for political communication. He invites us to consider the possibility that social media data could be mined to reveal political views and political affiliation. These data-based conclusions could be used to target 'get out the vote' initiatives to a specific subset of users: those thought to support the position or candidate that the advertiser (in the hypothetical scenario, Facebook) wishes to promote. What makes this scenario particularly – and *realistically* – concerning is that the manipulation is *not* based on the 'enhanced voter files' addressed in most discussions of micro-targeting. The manipulation Zittrain describes requires no identifying information, and does not even require direct revelation of political views by the targeted users:[77] instead, the hypothetical

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73   Colin J Bennett, 'Voter Databases, Micro-targeting, and Data Protection Law: Can Political Parties Campaign in Europe as They Do in North America' (2016) 6(4) International Data Privacy Law 261.

74   Pew Research Center, 'Commercial Voter Files and the Study of U.S. Politics' (2018) www.pewresearch.org/methods/2018/02/15/commercial-voter-files-and-the-study-of-u-s-politics, accessed 23 May 2019.

75   Michal Kosinski, David Stillwell, and Thore Graepel, 'Private Traits and Attributes Are Predictable from Digital Records of Human Behaviour' (2013) 110(15) Proceedings of the National Academy of Sciences 5802; Michal Kosinski and Yilun Wang, 'Deep Neural Networks Are More Accurate Than Humans at Detecting Sexual Orientation from Facial Images' (2018) 114(2) Journal of Personality and Social Psychology 246.

76   Zittrain (n 41).

77   Kosinski, Stillwell, and Graepel (n 74).

targeting is based on very *real* demonstrations of the power of data analytics applied to social media information.

Kosinski, Stillwell, and Graepel caused a stir when they demonstrated, in 2013,[78] that 'private traits and attributes are predictable from digital records of human behavior'. They used data from over 58,000 Facebook volunteers to demonstrate that Facebook 'likes' could be used to reliably predict a range of private characteristics not directly revealed in those data. Their results indicate that Facebook 'likes' reliably predict gender (male vs. female, with 93% accuracy), sexual orientation (heterosexual vs. homosexual, with 88% accuracy for men and 75% accuracy for women), race (discriminating with 95% accuracy between African Americans and Caucasian Americans), religious affiliation (82% accuracy distinguishing between Christian and Islamic affiliation), and political party support (85% accurate in distinguishing Democrat and Republican supporters). Moreover, accurate prediction extends beyond this type of (relatively simple) *category assignment*. The same information was demonstrated to reliably predict age (correlation of 0.75), social network density (correlation of 0.52), social network size (correlation of 0.47) and, perhaps most concerning, the psychological trait of openness with almost the same degree of accuracy as the standard multi-item questionnaire used to assess the characteristic. In order to *identify* these reliable relationships, they required volunteer participants to reveal the personal characteristics that were being predicted (e.g., to accurately identify gender and age, and to complete standardised personality assessments that measured psychological traits). Critically, however, the *application* of algorithms based on the revealed relationships to *new* Facebook users (not in the original sample) does not require that this information be disclosed.

Subsequent research has demonstrated that social media and online behavioural tracking information can be used to predict personality characteristics, with particular success in the case of extraversion and life satisfaction.[79] Moreover, when the judgements based on social media data and judgements made by friends and family are compared with actual measures of these qualities (collected from the individuals themselves), the social-media-based predictions prove *more accurate*.[80] The words, phrases, and topics that appear in social media postings are highly indicative of age and gender, and show (with appropriate analysis) strong relationships to the 'big five' personality traits of extraversion, agreeableness, onscientiousness, neuroticism, and openness.[81]

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78 Ibid.
79 Michal Kosinski et al., 'Manifestations of User Personality in Website Choice and Behaviour on Online Social Networks' (2014) 95(3) Machine Learning 357.
80 Wu Youyou, Michal Kosinski, and David Stillwell, 'Computer-Based Personality Judgments Are More Accurate Than Those Made by Humans' (2015) 112(4) Proceedings of the National Academy of Sciences 1036.
81 Gregory Park et al., 'Automatic Personality Assessment Through Social Media Language' (2015) 108(6) Journal of Personality and Social Psychology 934; H Andrew Schwartz et al., 'Personality, Gender, and Age in the Language of Social Media: The Open Vocabulary Approach' (2013) 8 PLOS One e73791.

Other researchers have leveraged photos and photo-related activities to successfully predict personality traits.[82]

These same types of data can be used to predict other private characteristics. Kosinski and Wang,[83] for example, demonstrated that sexual orientation can be accurately inferred from social media profile pictures. Zhong and colleagues[84] used location check-ins to infer a variety of demographic characteristics including gender, age, educational background, and marital status. Religion, relationship status, language, countries of interest, and parental status can be determined reliably from another ready source of information: the apps installed on a mobile device.[85] Twitter data has been used to accurately predict Democratic vs. Republican political affiliation among US users,[86] and such predictions are even more accurate if user information is integrated with information derived from online social ties.[87] Search query histories have been demonstrated to be reliably associated to age, gender, and political and religious views.[88]

This is not, and does not intend to be, an exhaustive list – indeed, such a goal is unattainable, since the list is a moving target. Researchers are constantly harnessing new data sources to predict different individual characteristics – and if there is a message to be gleaned, it is that *no prediction* is out of the realm of possibility, given enough data and enough computing power. Moreover, although any individual prediction of a characteristic (say, for example, political affiliation) is good but *imperfect*, there is no reason why different predictive models could not be used together to more accurately identify the characteristic in question and target the individual with information tailored to their personal characteristics.

The end result is, and should be, disturbing. Political communicators can purchase voter files that include an incredible amount of highly personal information about individual voters, including traditionally protected personally identifiable

82 Azar Eftekhar, Chris Fullwood, and Neil Morris, 'Capturing Personality from Facebook Photos and Photo-Related Activities: How Much Exposure Do You Need?' (2014) 37 Computers in Human Behaviour 162.
83 Kosinski and Wang (n 74).
84 Yuan Zhong et al., 'You Are Where You Go: Inferring Demographic Attributes from Location Checkin-Ins' (2015) Proceedings of the Eighth ACM International Conference on Web Search and Data Mining 295.
85 Suranga Seneviratne et al., 'Predicting User Traits from a Snapshot of Apps Installed on a Smartphone' (2014) 18(2) ACM SIGMOBILE Mobile Computing and Communications Review 1.
86 Michael D Conover et al., 'Predicting the Political Alignment of Twitter Users' (2011) Privacy, Security, Risk and Trust (PASSAT) and 2011 IEEE Third International Conference on Social Computing (SocialCom), 2011 IEEE Third International Conference 192.
87 Faiyaz Al Zamal, Wendy F Liu, and Derek Ruths, 'Homophily and Latent Attribute Inference: Inferring Latent Attributes of Twitter Users from Neighbors' (2012) 270 ICWSM.
88 Bin Bi et al., 'Inferring the Demographics of Search Users: Social Data Meets Search Queries' (2013) Proceedings of the 22nd International Conference on the World Wide Web 131.

information that is integrated with behavioural tracking records and augmented by otherwise invisible characteristics inferred on the basis of big data analytics.[89] That information can be used to develop and target particularly effective political messaging – messaging that has the effect of influencing choice, through 'nudging' and the creation of 'choice architectures' that favour particular opinions or outcomes. The hyper-individualised nature of online communication – the fact that every internet user can and indeed does interact in an information environment structured particularly for them – means that message manipulations are difficult to detect. As a result, voters may be unaware that they are being subjected to invisible persuasion by unidentified actors. The situation is one where intrusions on privacy, represented by the collection and use of personal information for the purposes of targeted political communication, have clear implications for autonomy, which in turn has clear implications for democratic principles and practices – and as such we must carefully consider appropriate regulation.

V. Implications for democracy

One can view democratic theory, particularly liberal democratic theory, as being built on three reinforcing pillars (in italics): the '*self*' or autonomous individual whose 'free will' leads her to choose to participate as a member of a *civil society or body politic* in which she and others in that civil society have the *ability to influence political actors and actions* in ways that are consistent with their preferences. As we analyse the implications of targeting, tailoring, and micro-targeting of political messages, we need to be conscious of each of these pillars, the processes associated with each, and, of most interest in this analysis, the importance of privacy in achieving each.

If the autonomous individual, the 'self', is the basic unit in a democratic system, the question is: how does such an individual develop? Early political philosophers, such as Enlightenment thinkers, to some extent idealised the notion of the self as a somewhat self-evident rational being who was able to know her preferences (self-interest) and make (rational) choices. In early thinking on privacy, Warren and Brandeis[90] referred to the protection of one's 'inviolate personality', a form of this autonomous self. Ruth Gavison underscored the importance of privacy 'in a democratic government because it fosters and encourages the moral autonomy of the citizen, a central requirement of democracy'.[91] Modern political philosophers recognise a more complicated, less fully formed self, affected by the times, individuals, and society around them – a socially constructed self. Julie Cohen identifies a 'dynamic theory of individual autonomy' where the individual is valued 'as an agent of self-determination and community-building' and where 'productive

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89   Pew Research Center (n 73).
90   Samuel Warren and Louis Brandeis, 'The Right to Privacy' (1890) Harvard Law Review 193.
91   Ruth Gavison, 'Privacy and the Limits of the Law' (1980) 89(3) Yale Law Journal 455.

expression and development […] have room to flourish'.[92] Without the space privacy protects to engage in the 'conscious construction of the self',[93] individuals' beliefs and desires are more likely to track with the mainstream and expected, rather than with what the self might become if unencumbered with the clutter of constant stimuli and messages. As Cohen elaborates in her 2012 book, the modern individual is widely recognised as a socially constructed, 'situated, embodied being',[94] and privacy plays an important role in allowing individuality and creativity to flourish, and protecting against the tyranny of the majority.[95] Similarly, Beate Rössler argues that 'the true realization of freedom, that is a life led autonomously, is only possible in conditions where privacy is protected'.[96]

Within democratic systems, a number of principles and practices are considered fundamental to the development of an autonomous self. Freedom of conscience, ensuring that individuals can develop their own beliefs and values, represents the importance of such autonomy.

Freedom of speech, the ability to hear others and to engage in discussions with others, is essential to the development of a 'marketplace of ideas'[97] which enables individuals to arrive at their values and preferences. Core to this is the notion that individuals can reflect on what is occurring around them using their 'free will' – that despite the noise, there is an autonomous individual who is independently thinking, perhaps (indeed most assuredly) not rationally, but thinking as she wants to process the incoming information. That, as Slovic points out, her ideas are formed in the process of thinking about what she is learning and hearing around her. The key point is that *she* is the one processing and deciding: there is no 'invisible hand' guiding her thoughts, no outside force 'nudging' her to a particular conclusion.

Assuming for the moment that the development of autonomous individuals has been accomplished, then how is the development of a 'body politic' or 'civil society' achieved and what role does autonomy play? Paul Schwartz[98] anchors a public value of privacy in civic republicanism and the importance of democratic deliberation and of individual self-determination:

> The need is to insulate an individual's reflective facilities from certain forms of manipulation and coercion. Privacy rules for cyberspace must set aside areas of

92 Julie E Cohen, 'Examined Lives: Informational Privacy and the Subject as Object' (2000) 52 Stanford Law Review 1377.
93 Ibid 1424.
94 Julie E Cohen, *Configuring the Networked Self: Law, Code and the Play of Everyday Practice* (Yale University Press 2012) 6.
95 Ibid 110–111.
96 Beate Rössler, *The Value of Privacy* (Polity Press 2005) 72.
97 Alexander Meiklejohn, *Free Speech and Its Relation to Self-Government* (Harper & Brothers 1948).
98 Paul M Schwartz, 'Privacy and Democracy in Cyberspace' (1999) 52 Vanderbilt Law Review 1607.

limited access to personal data in order to allow individuals, alone and in association with others, to deliberate about how to live their lives.[99]

Schwartz notes the importance of protecting privacy in order to generate 'the kind of public, quasi-public, and private spaces necessary to promote democratic self-rule'.[100]

Regan argues that privacy is independently important to the democratic process as the development of commonality, essential to the construction of a 'public' or Arendt's 'community of one's peers', requires privacy.[101] Arendt highlights the political importance of the capacity to think representationally by placing oneself in the position of others, what Kant referred to as 'enlarged mentality', which gives individuals the ability to judge impartially and disinterestedly.[102] Without privacy, it would be difficult for autonomous individuals to come together as relative equals in order to recognise their common interests. This is similar to Rawls' 'veil of ignorance' which is designed to shield particular, differentiated interests and force people to see the interests of all.[103] However, as Beate Rössler notes, the 'public realm is turned into an "Arendtian nightmare" in which boundaries between public and private are blurred, rendering it difficult to formulate or identify a civic commitment to public welfare, or indeed with any notion of "public"'.[104] Culnan and Regan raise this concretely with respect to the campaign mailing lists of the 1990s:

> [T]he creation of campaign mailing lists treats the individual as an assemblage of parts rather than as a citizen sharing interests with others – that is, as a consumer to be appealed to on the basis of certain characteristics rather than as an intelligent, thinking member of the body politic.[105]

Although targeted campaign messages may give individual voters information relevant to them and thus increase their participation, that participation will be geared to protecting or promoting their individualised interests rather than their interests as a member of a political community.

99 Ibid 1653.
100 Ibid 1660.
101 Priscilla M Regan, *Legislating Privacy: Technology, Social Values, and Public Policy* (University of North Carolina Press 1995) 226.
102 Maurizio Passerin d'Entreves, 'Hannah Arendt' in Edward N Zalta (ed) *The Stanford Encyclopedia of Philosophy* (Spring 2019 Edition) https://plato.stanford.edu/a rchives/spr2019/entries/arendt, accessed 23 May 2019.
103 John Rawls, *A Theory of Justice* (Harvard University Press 1971). In this work, Rawls talked about (male) heads of household as being in the original position. He later accepted Susan Moller Okin's criticism that this assumption imports an empirical position into the thought experiment. See further Susan Moller Okin, 'Reason and Feeling in Thinking About Ethics' (1989) 99 Ethics 229; Susan Moller Okin, *Justice, Gender and the Family* (Basic Books 1989).
104 Rössler (n 95) 170.
105 Mary J Culnan and Priscilla M Regan, 'Privacy Issues and the Creation of Campaign Mailing Lists' (1995) 11(2) The Information Society 86.

A number of principles and policies reflect long-standing concerns about protecting the formation and health of the 'body politic'. First Amendment 'freedom of association' is designed to protect spaces where autonomous individuals can meet to realise their common values and goals without government interference, and free from surveillance of discussions or reporting of members. However, with more group activities taking place in online spaces, it has become far easier to identify formal or informal members, to document their contributions to group decision-making, and to analyse membership interactions in order to target political messages. This can be viewed as not only as a fragmentation of the body politic but also as a result of a panoptic sorting,[106] discriminating among voters allocating options and messages on the basis of selected characteristics. Such infringements on freedom of association appear to have taken on new proportions as demonstrated by the Facebook/Cambridge Analytica revelations of Russian hackers and by the actions of social bots. Hackers created competing political events, drawing those sympathetic to each cause into likely confrontations during the 2016 US election.[107] During the election, social media bots participated in online discussions, a practice that Bessi and Ferrara found 'can indeed negatively affect democratic political discussion rather than improving it, which in turn can potentially alter public opinion and endanger the integrity of the Presidential election'.[108] This is not unique to the US, as Russian Twitter 'bots' actively denigrated Conservative candidates and promoted Labour candidates in the 2017 UK elections.[109] These seemingly successfully attempts to participate in and influence elections not only raise questions about foreign influence but also underscore how vulnerable freedom of association has become as a result of access to social media data and increased capabilities of manipulating messages.

In terms of developing a 'body politic', theorists and policymakers have also recognised the importance of having the 'marketplace of ideas' operate as a competitive, open, and unbiased market. To that end, for example, the Radio Act of 1927 (US) regulated broadcasters, who were using the public airwaves to transmit their messages, to operate in the 'public interest, convenience, and necessity'.[110] The Act characterised

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106   Oscar Gandy, *The Panoptic Sort: A Political Economy of Personal Information* (Westview Press 1993).

107   Matthew Rosenberg, Nicholas Confessore, and Carole Cadwalladr, 'How Trump Consultants Exploited the Facebook Data of Millions' *The New York Times* (17 March 2018) www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html, accessed 20 September 2018.

108   Alessandro Bessi and Emilio Ferrara, 'Social Bots Distort the 2016 U.S. Presidential Election Online Discussion' (2016) 21(11) First Monday, https://doi.org/10.5210/fm.v21i11.7090, accessed 23 May 2019.

109   Camilla Turner, 'Russian Twitter "bots" Attempted to Influence Election by Supporting Jeremy Corbyn, Investigation Finds' *The Telegraph* (28 April 2018) www.telegraph.co.uk/news/2018/04/28/russian-twitter-bots-attempted-influence-election-supporting, accessed 10 October 2018.

110   Glen O Robinson, 'The Federal Communications Act: An Essay on Origins and Regulatory Purpose' in Max D Paglin (ed), *A Legislative History of the Communications Act of 1934* (Oxford University Press 1989) 3.

broadcasters as '"public trustees" who were "privileged" to use a scarce public resource' – the public airwaves and the broadcast spectrum.[111] The Act emphasised the 'social responsibilities' of broadcasters and the goal to ensure that 'the interest, the convenience, and the necessity of the listening public', and not that of the 'individual broadcaster or the advertiser', was 'first and foremost'.[112] In the 1970s and 1980s, the increase in the number of broadcasting stations and other communications providers obviated an argument based on scarcity and regulations, and as a result the 'fairness doctrine' and 'equal time' requirements were lifted. At the same time, ownership regulations on newspapers, designed to ensure that readers had access to multiple viewpoints, were also lifted. The prevailing view was that there was a significant number of ways that the *public* could get information and that the free 'marketplace of ideas' would function well absent regulation. Targeting of one set of ideas to certain groups and another set of ideas to others, however, undermines such a free market of unconstrained information and ideas, and undercuts the possibility of the emergence of a 'body politic' with some shared understandings of the world around them. The current 'war on truth' provides a profound and telling example of the result of this.

The final pillar of democratic theory is the ability of individuals to influence political actors and actions in ways that are consistent with their preferences. This assumes that people have developed their own preferences, that these have emerged as a result of their autonomous thinking as members within a common 'body politic', and that they can act on these preferences without interference or pressure. The sacredness accorded to the secret ballot attests to the importance of this, as do various laws protecting workers' political activities from management influence and laws protecting anonymous and pseudonymous expression. However, this is the last step in the process, and if citizens have not developed their views not only as individual decision-makers but also as members of a 'body politic', then a focus on this last step is actually meaningless – it is simply too late. Protecting the privacy of the voter as she casts her ballot does not protect her autonomy if it has been compromised at the earlier stages.

VI. Conclusion

The problems and trends that we have identified in this chapter are not new. Indeed, privacy scholars, democratic theorists, and political psychologists have been writing about them since the late 1980s when it became clear that political consultants, parties, interest groups, and candidates all realised that the databases of personal information that had been amassed for voting purposes and for commercial purposes presented a treasure trove of valuable information for targeting voters. These problems have not gone unnoticed but have been reported on and analysed at each stage as the technology became more

111 Erwin G Krasnow and Jack N Goodman, 'The "Public Interest" Standard: The Search for the Holy Grail' (1998) 50(3) Federal Communications Law Journal 605, 609.
112 Ibid 610.

sophisticated and powerful at reaching individual voters – slicing and dicing the body politic. Analysts have raised concerns that voters will be discriminated against, that voters will refrain from participating in politics, that partisanship will be exacerbated, and that single-issue voting will dominate choices.[113] And there has by no means been a lack of proposals and recommendations for addressing these problems – in the United States, for example, usually entailing more effective or expanded information privacy regulation such as expanding the Federal Trade Commision's authority, providing protections for state voter databases, and creating a right to 'reasonable inferences'.[114]

However, none of these recommendations has received serious legislative attention, while voter information has increased exponentially and targeting techniques have become increasingly sophisticated. What was a cottage industry consisting of a few political consulting firms has grown into a vast, global, well-funded network of commercial, social media, and political organisations sharing (or at least making available) reams of personal data on minute characteristics and activities of individuals – data that has now taken on the proportions of 'big data' as it is merged, refined, and processed with sophisticated artificial intelligence/machine learning techniques to create yet more data about individual voters. There is no one point of intervention in this network of data flows that would specifically address the problems posed by targeting, tailoring, and micro-targeting in the political arena. However, as pointed out above, the problems for democratic government are profound and have arguably reached something of a crisis as democratic systems deal with polarised, angry, and fragmented citizens who increasingly only see messages and news with which they are likely to agree. Dealing effectively with these problems will entail dealing effectively with what has become the infrastructure of the online information economy as a whole.

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113 Daniel Kreiss, 'Yes We Can (Profile You): A Brief Primer on Campaigns and Political Data' (2012) 64 Stanford Law Review Online 70; Daniel Kreiss and Philip Howard, 'New Challenges to Political Privacy: Lessons From the First US Presidential Race in the Web 2.0 Era' (2010) 4 International Journal of Communication 1032; Solon Barocas, 'The Price of Precision: Voter Microtargeting and its Potential Harms to the Democratic Process' (2012) Proceedings of the First Edition Workshop on Politics, Elections, and Data 31.

114 Ira S Rubinstein, 'Voter Privacy in the Age of Big Data' (2014) 5 Wisconsin Law Review 861; Bennett (n 72); Kwame N Akosah, 'Cracking the One-Way Mirror: How Computational Politics Harms Voter Privacy, and Proposed Regulatory Solutions' (2015) 251(3/4) Fordham Intellectual Property, Media, and Entertainment Law Journal 1007; Sandra Wachter and Brent D Mittelstadt, 'A Right to Reasonable Interferences: Re-Thinking Data Protection Law in the Age of Big Data and AI' (2019) Columbia Business Law Review (forthcoming).