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Bertrall L. Ross II*

ABSTRACT

Democracy in America faces a fundamental contradiction that threatens its future. Elected officials do not respond to the wants and needs of most Americans, yet they are being reelected at historically high rates. That contradiction has fueled rising dissatisfaction with democracy and support for its more autocratic alternatives.

To date, legal scholars have neglected a critical source of that accountability deficit: democracy's information problem. Most democratic citizens lack the capacity or competency to acquire and process information about the policies their elected officials support or oppose and how those policy choices impact their lives. Theoretically, people may draw on increased education and use information shortcuts like party labels to ameliorate their lack of policy knowledge. But the United States' widening education disparities and partisan polarization undermines those strategies. As a result, citizens cannot effectively hold politicians to account for decisions that undermine their well-being.

Democracy desperately needs another tool to respond to its information problem, or it may not survive. In this Article drawn from my Constitution Day Lecture at the University of Pittsburgh School of Law, I argue that artificial intelligence ("AI") can serve as that tool. While many consider AI to be a threat to democracy, it is a technology uniquely capable of making democratic information

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easy to acquire and process. If properly developed, AI can help democratic citizens hold elected officials accountable for the policy decisions they make. For AI to effectively mitigate democracy's information problem, though, it must be a trusted source of information. To avoid AI's potential perils, we should utilize the principles of "trustworthy AI" to build a legal and institutional framework that conserves the democracy-promoting uses of the technology.

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INTRODUCTION

Democracy has an information problem. Voters lack the time, resources, and motivation to acquire and process information relevant to democratic choices. That has dire consequences for democracy. When people lack political information, they cannot assess how well elected officials and policies are satisfying their wants and needs. Unresponsive and unaccountable government can result. Elected officials neither suffer the ordinary democratic penalties for failure to represent their constituents nor derive the ordinary rewards for doing so. Such unresponsive, unaccountable government can lead people to repudiate democracy and embrace its alternatives.[1]

The information problem is not new. Political philosophers have long doubted the informational capacity of the people to govern.[2] In the United States, prominent members of the 1789 Constitutional Convention feared the consequences of the population's lack of informational capacity. Elbridge Gerry of Massachusetts, for example, declared that the people are "the dupes of pretended patriots," who "are daily misled into the most baneful measures and opinions by the false reports

[1] *See* Richard Wike, Janell Fetterolf, Maria Smerkovich, Sarah Austin, Sneha Gubbala & Jordan Lippert, *Representative Democracy Remains a Popular Ideal, but People Around the World Are Critical of How It's Working*, PEW RSCH. CTR. (Feb. 28, 2024), https://www.pewresearch.org/global/2024/02/28/representative-democracy-remains-a-popular-ideal-but-people-around-the-world-are-critical-of-how-its-working/ [https://perma.cc/G5RS-BVW6] (finding that a median of fifty-nine percent of democratic citizens around the globe "are dissatisfied with how their democracy is functioning," with seventy-four percent thinking that "elected officials don't care what people like them think," and forty-two percent saying that "no political party in their country represents their views"); OPEN SOC'Y FOUNDS., OPEN SOCIETY BAROMETER: CAN DEMOCRACY DELIVER? 17–18 (2023), https://www.opensocietyfoundations.org/uploads/e6cd5a09-cd19-4587-aa06-368d3fc78917/open-society-barometer-can-democracy-deliver-20230911.pdf [https://perma.cc/X6XR-FZQX] (finding in a survey of thirty countries that thirty-three percent of survey respondents and twenty-nine percent of American survey respondents believe that "having army rule is a good way of running a country" while thirty-two percent of survey respondents and twenty-nine percent of American survey respondents believe "having a leader who does not bother with parliaments or elections is a good way of running a country").

[2] *See* MICHAEL X. DELLI CARPINI & SCOTT KEETER, WHAT AMERICANS KNOW ABOUT POLITICS AND WHY IT MATTERS 2 (1996) (identifying "the belief that the average citizen was intellectually and morally incapable of self-government" as a primary reason why "[d]emocracy was held in disrepute for most of the 2,500-year-old debate over what form of government is most just"); Bertrall L. Ross II, *Fundamental: How the Vote Became a Constitutional Right*, 109 IOWA L. REV. 1703, 1722–43 (2024) (describing resistance to popular government from eighteenth and nineteenth century American theorists based on doubts about the capacity and competence of the people to govern).

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circulated by designing men, and which no one on the spot can refute."[3] Gerry was far from alone; many political observers in U.S. history have expressed concern about the people's informational capacity to govern.[4]

Thus far, American democracy has survived, even as it has expanded to include most adults. Critical components of democracy—including periodic elections, subsequent transfers of power, and freedom of speech and assembly—remain intact in the United States despite the stresses placed upon them. Democracy's information problem has certainly not been solved, but scholars argue that the combination of education, heuristics, and other mitigating devices have lessened its effects.[5]

Americans are more educated than they have ever been, which has enhanced their ability to access and process political information.[6] Further, scholars now theorize that the information that Americans need is less than what classical democratic theory demands. Political scientists drawing from psychology have shown that individuals use mental shortcuts ("heuristics") such as party labels and media or opinion leader endorsements, as effective tools for ascertaining which candidates are more likely to advance their wants and needs.[7] And even if some Americans continue to err in their decisions, statistical methods suggest that individual errors will cancel out in the aggregate so that election outcomes will reflect the popular will.[8]

Those sanguine accounts suggest American democracy is secure. But there are glaring signs that American democracy is in decline and that the information problem is at least partially to blame. The system of checks and balances is weakening, legislative processes are increasingly dysfunctional, attacks on election integrity are

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[3] 1 THE RECORDS OF THE FEDERAL CONVENTION OF 1787, at 48 (Max Farrand ed., 1911) [hereinafter 1 RECORDS].

[4] *See infra* notes 30–32 and accompanying text.

[5] Bertrall L. Ross II & Douglas M. Spencer, *Passive Voter Suppression: Campaign Mobilization and the Effective Disfranchisement of the Poor*, 114 NW. U. L. REV. 633, 665 (2019); Elizabeth Garrett, *Voting with Cues*, 37 U. RICH. L. REV. 1011, 1023–24 (2003).

[6] *See* Veera Korhonen, *Educational Attainment Distribution in the United States from 1960 to 2022*, STATISTA, https://www.statista.com/statistics/184260/educational-attainment-in-the-us/ [https://perma.cc/3XFY-8VUQ] (showing the substantial increase in American educational attainment between 1960 and 2022).

[7] *See infra* Section I.B.

[8] *See* BENJAMIN I. PAGE & ROBERT Y. SHAPIRO, THE RATIONAL PUBLIC: FIFTY YEARS OF TRENDS IN AMERICANS' POLICY PREFERENCES 15 (1992).

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the norm, and violence has emerged as an element of presidential transfers of power.[9] Rising inequality and affective polarization (Americans' tendency to adopt party labels as emotion-laden identities) have contributed to this democratic decline.[10] The two phenomena have fed populists' disillusionment with the current state of democracy, arising from the system's real and perceived unresponsiveness to the wants and needs of most Americans.[11]

Most accounts of American democracy's decline have overlooked a key element: how acutely the barrage of rising inequality, affective polarization, and populism have revived the information problem and its potentially dire consequences for democracy. Rising inequality has fueled growing disparities in educational attainment across racial and socioeconomic classes.[12] Those educational disparities diminish opportunities not only for the disadvantaged to acquire and process political information, but also for those voters to effectively use heuristics. Education helps voters understand how to use information shortcuts like party labels to make democratic choices that accord with their own wants and needs. Less able to employ shortcuts to assess which candidates or policies best serve them, the educationally disadvantaged are more vulnerable to emotional appeals based on race, class, or geographical resentment.[13]

As voters' resentment feeds affective polarization, it has also rendered heuristics less valuable as full-information substitutes for individuals with the necessary education to effectively use them. In contexts of affective polarization, heuristics like partisan labels and media endorsements function less as tools to compare candidates and policies based on wants or needs and more as tools signaling to the individual whom they should support or oppose based on affect and identity. As affect and identity become more important bases for individual democratic

[9] *See* Robert C. Lieberman & Suzanne Mettler, *The Crisis of American Democracy in Historical Context*, 708 ANNALS AM. ACAD. POL. & SOC. SCI. 122, 125–31 (2023) (identifying sources of democratic backsliding in the United States).

[10] *See id.* at 125–27, 129–30.

[11] *See, e.g.*, TOM GINSBURG & AZIZ Z. HUQ, HOW TO SAVE A CONSTITUTIONAL DEMOCRACY 125 (2018) ("Trump's style of charismatic populism successfully appealed to voters living in racially isolated communities, who have experienced worse health outcomes, lower social mobility, less social capital, and greater reliance on Social Security income without capital income.").

[12] *See, e.g.*, Miles Corak, *Income Inequality, Equality of Opportunity, and Intergenerational Mobility*, 27 J. ECON. PERSPS. 79, 89–95 (2013) (finding a relationship between socioeconomic inequality and investment in human capital through means that include schooling).

[13] *See infra* notes 70–72 and accompanying text.

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choices, elected officials have diminished incentives to be responsive or accountable to voters' material wants and needs.[14]

Thus, inequality and affective polarization render political heuristics either difficult to use or less useful, leading more individuals to err in their democratic choices. With more individual errors it becomes less likely that errors will cancel out and that collective political choices will reflect popular will.[15] Democracy plagued by inequality and affective polarization is thus much more difficult to sustain without mitigating the information problem.

But how can the problem be effectively addressed? The complexity of American society and economy has only grown since the delegates at the early American Constitutional Convention complained about Americans' incapacity to grasp politics. If most Americans did not then have the motivation, time, and resources to acquire and process all the information relevant to democratic choice, they are at least as likely to lack the motivation, time, and resources now. Efficient information shortcuts are critical, but those we have come to rely upon are not as accessible and useful as they once were. How can we construct accessible, useful shortcuts to allow individuals to assess how well candidates and policies serve their wants and needs?

Scholars and commentators often overlook technology as a tool to address democracy's information problem. In fact, technology is broadly viewed as a threat to the proper functioning of democracy.[16] Partisans' use of computer technology to efficiently gerrymander districts, algorithms to enable microtargeting during campaigns, bots to spread misinformation online, and artificial intelligence to mislead through deepfakes is indeed a threat to democracy that needs to be

[14] *See infra* Section II.B.

[15] *See* PAGE & SHAPIRO, *supra* note 8, at 26 (noting that the conditions wherein the public collectively chooses preferred policies despite individual errors "are not always met in the real world").

[16] *See* JANNA ANDERSON & LEE RAINIE, PEW RSCH. CTR., MANY TECH EXPERTS SAY DIGITAL DISRUPTION WILL HURT DEMOCRACY 3–4 (2020), https://www.pewresearch.org/internet/2020/02/21/many-tech-experts-say-digital-disruption-will-hurt-democracy/ [https://perma.cc/G93Z-8HAX].

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counteracted.[17] But if we only embrace a defensive posture toward technology, we will miss its vast potential to improve democracy.[18]

Just as technology can be used to misinform and mislead, it can also serve as an effective tool for mitigating democracy's information problem. Heuristics have proven effective mitigators because they make information easy to acquire and efficient to process. Most importantly, heuristics served as effective substitutes for full information in that individuals who relied upon them were likely to make the same democratic choice they would have made with full information.

I argue that technology, particularly the regulated and structured use of artificial intelligence's large language models, can serve the same information shortcut function that partisan labels and newspaper or opinion leader endorsements once did. Large language models can acquire and make sense of an extraordinary amount of unstructured information and produce structured answers to questions. That information can be presented in ways that make clear its relevance to a specific individual's wants and needs. If properly developed, large language models can produce political information that is almost as easy to acquire and process as that transmitted by party labels, media endorsements, and other heuristics. Furthermore, there is a strong possibility that large language models could improve upon

[17] *See, e.g.*, DAVID DALEY, RATF**KED: THE TRUE STORY BEHIND THE SECRET PLAN TO STEAL AMERICA'S DEMOCRACY (2016) (cataloguing state uses of technology to engage in different forms of gerrymandering); EITAN D. HERSH, HACKING THE ELECTORATE: HOW CAMPAIGNS PERCEIVE VOTERS 72–73 (2015) (describing how campaigns use algorithms to decide which voters to contact during campaigns); Ross & Spencer, *supra* note 5, at 680–87 (arguing that campaigns' use of algorithms to decide who to contact functions as a form of voter suppression that disadvantages low information and typically poor democratic citizens); Bobby Chesney & Danielle Citron, *Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security*, 107 CALIF. L. REV. 1753, 1777–78 (2019) (identifying threats to democracy that arise from AI-generated deepfakes).

[18] *See, e.g.*, Siobhan Roberts, *Mathematicians Are Deploying Algorithms to Stop Gerrymandering*, MIT TECH. REV. (Aug. 12, 2021), https://www.technologyreview.com/2021/08/12/1031567/mathematicians-algorithms-stop-gerrymandering/ [https://perma.cc/2GYQ-AJXT] (describing how mathematicians are using algorithms to "detect and counter gerrymandering"); Fahad Shah, *Can Deepfakes Be Good for Democracy? India Tries to Balance Risks and Rewards of AI*, CHRISTIAN SCI. MONITOR (May 3, 2024, 5:02 PM), https://www.csmonitor.com/World/Asia-South-Central/2024/0503/Can-deepfakes-be-good-for-democracy-India-tries-to-balance-risks-and-rewards-of-AI [https://perma.cc/E5ES-3753] (describing democratic benefits from the use of AI-generated deepfakes during the Indian elections to make the ruling party candidate's speech available in different languages); Alex Baiocco, *Benefits of "Microtargeting": Why Online Ad Targeting Tools Are Good for Free Speech and Democracy*, INST. FOR FREE SPEECH (May 25, 2021), https://www.ifs.org/research/benefits-of-microtargeting-good-for-free-speech-and-democracy/ [https://perma.cc/AS6E-G3XU] (identifying benefits from the use of algorithms to target election appeals to particular audiences).

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previously used heuristics, leading to democratic choices that better accord with voters' wants and needs.[19]

The technology could thus provide democratic citizens with the information necessary to assess elected officials' responsiveness and hold them to account. But even if some citizens continue to lack the resources, time, and motivation to use the technology, the easy availability of such information could force elected officials to be more responsive out of fear that challengers, media, or opinion leaders would use information about their nonresponsiveness to threaten their reelection prospects.[20]

In this moment, the technology alternative may be the only effective means to counter the threat to democracy arising from affective polarization. Voters' like and dislike of parties and candidates based on the emotions of attachment, affinity, resentment, and hate are much more easily triggered as a basis for democratic choice than voters' rational reflection on candidates' and policies' relationship to their own wants and needs. Technologically derived information related to voters' wants and needs can be a viable competitor to the corrosive "us versus them" politics of modern American democracy.

Reliance on technology to mitigate democracy's information problem does, however, pose significant risks. Just like bots, deepfakes, and other algorithm-based technology, large language models can make the information problem worse. Unless properly structured and regulated, large language models can be used to produce information that misleads and misinforms, thereby reinforcing the inequality, affective polarization, and unresponsive, unaccountable government that they are designed to counteract. The principles and values that motivate the "trustworthy artificial intelligence" movement must therefore be central to the institutional and legal framework that governs the use of large language models as information shortcuts.[21]

This Article proceeds in four parts. In the first Part, I elaborate on democracy's information problem and the mechanisms that have mitigated its effects on democracy's operation to date. In Part II, I explain why those mechanisms are less effective in the current context of extreme economic inequality and affective polarization. An unchecked information problem, I argue in this Part, is a significant contributor to democratic decline and a threat to the future of democracy in the United States. In Part III, I introduce artificial intelligence large language models as alternative tools for mitigating democracy's information problem. Finally, in Part

[19] *See infra* Section III.A.

[20] *See infra* Sections III.B–C.

[21] *See infra* Part IV.

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IV, I argue for an institutional and legal framework built on the principles and values of trustworthy artificial intelligence as critical to bolstering the technology's promise and avoiding its perils.

I. DEMOCRACY'S INFORMATION PROBLEM

Democracies are complicated, and the expectations that they place on people are extraordinarily high. Throughout the world, democracies feature multiple layers of government decision-makers in different branches and at different levels. Those decision-makers are managing a wide array of issues at varying levels of complexity that lead to a range of policy choices that could culminate in a bill that becomes a law, a rule that becomes a regulation, or a judgment that becomes an order. Those policy decisions rely on a range of inputs, from government reports, to legislative hearings, to academic studies, and to many others. After adoption, policies need to be implemented in a broad variety of contexts that impact people and entities in many ways depending on their background, status, position, or other unique characteristic.

In the complex democracies of the modern world, information about policies is not free. In fact, it is often quite expensive in terms of the time and resources necessary to access and obtain. The information is also quite costly to process in terms of connecting a particular policy to well-being. Things are made even more difficult for the typical democratic citizen who is often voting for or against a candidate in an election. Incumbent candidates have usually supported or opposed multiple policies during their tenure in office and challengers will often be pushing voters to support them based on a platform or portfolio of policies. For the democratic citizen seeking to make a choice between candidates, the information challenge multiplies beyond that which a democratic citizen needs when making a choice on a particular issue.[22]

Despite these daunting information challenges, democracy is premised on the ideal that democratic citizens can somehow meet them. In fact, for a democracy to satisfy the core demands of responsiveness and accountability, democratic citizens must somehow be able to overcome the extraordinary information challenges the system places on them. In this Part, I provide an account of the democratic ideal. Borrowing from an early twentieth-century skeptic, I label the ideal as unattainable, presenting theory and evidence supporting that characterization. I then offer an

[22] *See* Richard R. Lau & David P. Redlawsk, *Political Decision-Making*, *in* THE OXFORD HANDBOOK OF POLITICAL PSYCHOLOGY 150, 150, 156–57 (Leonie Huddy et al., eds., 3d ed. 2023) (describing the information challenges democratic citizens face).

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optimistic account, which suggests that the ideal does not need to be attained to sustain a functioning democracy.

A. The Unattainable Ideal?

As most of the delegates to the United States Constitutional Convention expressed considerable doubt about the capacity of the people to govern, there were some at the time, including Pennsylvanians Thomas Paine and James Wilson, who profoundly believed in democracy.[23] Underlying that belief was an idealized version of democracy that began with the Greek city-state in which the people directly participated in the making of laws. For that system to work, the people would have to gather the information necessary to guide their decisions about what laws to propose and whether to support or oppose laws that have been proposed. The early American democrats were pragmatists and recognized that a system of direct popular participation in lawmaking was impossible in a larger state.[24] They therefore supported a system of representative democracy in which the people would select the representatives who would be directly involved in the lawmaking process.[25] Representation, according to these early democrats, was merely a matter of convenience. Since there were too many people to put in a room to make and decide upon the laws, a subset of the people would have to do the work.[26]

According to this system, representatives did not have a special status. Their role was limited to representing the varying statuses, occupations, and interests of Americans and expressing that will in the decisions they made. Although most of the

[23] Thomas Paine was one of the most significant political thinkers at the time of the American Revolution. He advocated for a form of government that centered the democratic people, a government composed of a "legislative part to be managed by a select number chosen from the whole body, who are supposed to have the same concerns at stake which those who have appointed them, and who will act in the same manner as the whole body would act were they present." Thomas Paine, *Common Sense* (1776), *in* COMMON SENSE AND OTHER WRITINGS 8 (Gordon S. Wood ed., 2003). Over a decade later, at the United States Constitutional Convention, James Wilson was the most vocal proponent for what was then considered a radical conception of republican government: the direct popular election of all members of the federal government. *See* 1 RECORDS, *supra* note 3, at 151 (detailing James Wilsons's argument that "[i]f we are to establish a national Government, that Government ought to flow from the people at large").

[24] *See* Paine, *supra* note 23.

[25] *See id.*; *see also* U.S. CONST. art. I, § 1 (granting to Congress "[a]ll legislative Powers"); *id.* art. I, § 2, cl. 1 (providing for direct election of members of the House of Representatives). *But see id.* art. I, § 3, cl. 1 (providing for state legislatures to elect senators).

[26] Paine, *supra* note 23, at 7–8 (acknowledging that the size of the new United States "render[s] it too inconvenient for all of the people to meet on every occasion as at first, when their number was small, their inhabitants near, and the public concern few and trifling").

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people were no longer directly involved in the lawmaking process, they had the responsibility of ensuring that their representatives were representing the varying statuses, occupations, and interests of the American people and making decisions according to their will. The information burden thus remained essentially the same.[27] Rather than gathering the necessary information to make democratic decisions directly, they would have to gather the necessary information to ensure that their representatives were making the decisions they would have made if they were directly involved in the decision-making process.

Elections served as the critical mechanism for ensuring that representatives were responsive and accountable to the people. At these junctures, which the early democrats proposed should be annual occurrences, the people would decide whether their representatives fulfilled their assigned function.[28] The people would evaluate the decisions that their representatives made, assess whether those decisions accorded with what they wanted or needed, and determine whether the opposing candidate would better represent the people if elected.[29]

The electoral choice placed immense information demands on the people. The people would have to be able to trace democratic decisions to their wants or needs, determine how well those decisions were satisfying those wants or needs, and evaluate whether an opposing candidate's policy proposals would do better. The early American democrats did not directly confront these information challenges associated with democracy; they instead simply assumed that the people could meet them. The early skeptics of democracy were not so sure. Elbridge Gerry was not alone in his critique of the informational capacity of the people to govern. Other Constitutional Convention delegates joined him. Roger Sherman, a delegate from Connecticut, argued "[t]he people . . . should have as little to do as may be about the Government. They want information and are consistently liable to be misled."[30]

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[27] *See* RICHARD R. LAU & DAVID P. REDLAWSK, HOW VOTERS DECIDE: INFORMATION PROCESSING IN ELECTION CAMPAIGNS 72 (2006) ("The classic texts of democratic theory assume that for a democracy to function properly, citizens should be interested in, pay attention to, discuss, and actively participate in politics.").

[28] *See* 1 RECORDS, *supra* note 3, at 214–15.

[29] *See* JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 225 (1942) (defining eighteenth century democratic philosophy as being based on the assumption that "every member of the community . . . knowing his or her mind, discerning what is good and what is bad, takes part, actively and responsibly, in furthering the former and fighting the latter and all the members taken together control their public affairs").

[30] 1 RECORDS, *supra* note 3, at 48.

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George Mason of Virginia disparagingly claimed it "would be as unnatural to refer the choice of a proper character for chief Magistrate to the people, as it would, to refer a trial of colours to a blind man."[31] The people, Mason continued, simply lacked "the requisite capacity to judge of the respective pretensions of the Candidates."[32]

Theorists who followed used less colorful and disparaging language than the Convention delegates, but they came to the same conclusion—democracy according to the ideal was not attainable. In their seminal sociological study of voting behavior in the 1950s, Bernard Berelson, Paul Lazarsfeld, and William McPhee described the ideal as one in which "it is possible and reasonably convenient for the voter to see clear-cut alternatives: to judge the differences between candidates, weigh the relevance of the issues to his own needs, and then rightly or wrongly 'decide' what to do."[33] That ideal, according to the sociologists, placed extraordinary demands on the people. "The democratic citizen is expected to be well informed about political affairs. He is supposed to know what the issues are, what their history is, what the relevant facts are, what alternatives are proposed, what the party stands for, what the likely consequences are."[34] Their study revealed that voters fell well short of meeting those high standards.[35]

In a more recent scholarly account, political scientists Christopher Achen and Larry Bartels similarly described the democratic ideal as one in which "[o]rdinary people have preferences about what their governments should do," and they "choose leaders who will do those things, or they enact their preferences directly in referendums."[36] For Achen and Bartels, this account represents a "folk theory" of democracy, which they define as "a set of accessible, appealing ideas assuring people that they live under an ethically defensible form of government that has their interests

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[31] 2 THE RECORDS OF THE FEDERAL CONVENTION OF 1787, at 31 (Max Farrand ed., 1911).

[32] *Id.*

[33] BERNARD R. BERELSON, PAUL F. LAZARSFELD & WILLIAM N. MCPHEE, VOTING: A STUDY OF OPINION FORMATION IN A PRESIDENTIAL CAMPAIGN 114 (1954).

[34] *Id.* at 308.

[35] *Id.*

[36] CHRISTOPHER H. ACHEN & LARRY M. BARTELS, DEMOCRACY FOR REALISTS: WHY ELECTIONS DO NOT PRODUCE RESPONSIVE GOVERNMENT 1 (2016); *see also* JANE J. MANSBRIDGE, BEYOND ADVERSARY DEMOCRACY 25 (1983) (defining the democratic theoretical expectation of "enlightened preference" as the preferences individuals would have if "information were perfect, including the knowledge [individuals] would have in retrospect if they had a chance to live out the consequences of each choice before actually making a decision").

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at heart."[37] The credibility of the folk theory of democracy, the political scientists contend, "has been severely undercut by a growing body of scientific evidence presenting a different and considerably darker view of democratic politics."[38] According to that darker view of democratic politics, the people's preferences are not enacted, and their representatives are not held to account for their failure to do so.[39]

The people's want of information has been associated with the failed democratic ideal. A consistent finding through the years is that the people simply cannot meet the information demands that the democratic ideal places on them.[40] As one scholar puts it, "[t]he paradox of mass politics is the gap between the expectation of an informed citizenry put forward by democratic theory and the discomforting reality revealed by systematic survey interviewing."[41] That survey evidence reveals a "level of public awareness [that] is disturbingly low."[42] Another scholar describes "[t]he widespread ignorance of the general public about all but the most highly salient political events and actors" as "one of the best documented facts in all of the social sciences."[43]

This information problem did not suddenly appear. Rather, it appears to be inherent in a democratic system premised on a fiction of popular sovereignty. Walter Lippmann, writing in the 1920s, exposed this fiction in his account of the democratic citizen and the phantom public. He writes:

> The private citizen today has come to feel rather like a deaf spectator in the back row, who ought to keep his mind on the mystery off there, but cannot quite manage to keep awake.

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[37] ACHEN & BARTELS, *supra* note 36.

[38] *Id.*

[39] *See id.*

[40] *See, e.g.*, LAU & REDLAWSK, *supra* note 27, at 72; WALTER LIPPMANN, THE PHANTOM PUBLIC 3 (1993).

[41] W. RUSSELL NEUMAN, THE PARADOX OF MASS POLITICS: KNOWLEDGE AND OPINION IN THE AMERICAN ELECTORATE 3 (1986).

[42] *Id.* at 4.

[43] Richard R. Lau & David P. Redlawsk, *Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making*, 45 AM. J. POL. SCI. 951, 951 (2001).

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> . . . As a private person he does not know for certain what is going on, or who is doing it, or where he is being carried. No newspaper reports his environment so that he can grasp it; no school has taught him how to imagine it; his ideals, often, do not fit with it; listening to speeches, uttering opinions and voting do not, he finds, enable him to govern it. He lives in a world which he cannot see, does not understand and is unable to direct.
>
> In the cold light of experience he knows that his sovereignty is a fiction. He reigns in theory, but in fact he does not govern.[44]

Lippman's impressionistic account of the democratic citizens accords with the most comprehensive appraisal of what citizens know about democratic politics. Although conducted in the 1990s, that appraisal continues to be the standard assessment of political knowledge for scholars writing on the subject three decades since. The study's findings also accord with the findings from surveys conducted since the study.[45]

In that study, Michael Delli Carpini and Scott Keeter examined 3,700 survey questions dating back to the 1930s that addressed what people know about politics.[46] The findings show that most people generally know very little about the substance of politics. The findings most relevant to the democratic ideal reveal that most respondents were unable to answer correctly more than half of the survey items about domestic politics and foreign affairs.[47] Forty-one percent of respondents on average answered questions correctly involving "surface knowledge" of politics while only sixteen percent answered questions correctly involving "deep knowledge" of politics.[48] With such low levels of information, it is difficult to imagine a people

[44] LIPPMANN, *supra* note 40, at 3–4.

[45] *See, e.g.*, BENJAMIN I. PAGE & MARTIN GILENS, DEMOCRACY IN AMERICA? WHAT HAS GONE WRONG AND WHAT CAN WE DO ABOUT IT 9 (2020) ("[D]ecades worth of polls and surveys have shown that most Americans are not much interested in or informed about politics.").

[46] DELLI CARPINI & KEETER, *supra* note 2, at 66–67.

[47] In domestic affairs, "[m]ore than 60 percent of the items tapping knowledge of domestic politics could not be answered by as many as half of those asked." *Id.* at 82. In foreign affairs, "more than half of the 553 foreign affairs items could be answered by less than half the general public." *Id.* at 85–86.

[48] *Id.* at 92. Other studies at the time made similar findings about the low levels of political information that the typical American possesses. *See, e.g.*, Larry M. Bartels, *Uninformed Votes: Information Effects in Presidential Elections*, 40 AM. J. POL. SCI. 194, 196–97 (1996) (citations omitted) ("[A]lthough information levels have fluctuated from time to time with changes in the political environment, the basic facts with respect to levels of political information do not seem to be much different now than they were when political scientists first pointed out that 'the voter falls short' of the knowledge required by classical standards of democratic citizenship."); Martin Gilens, *Political Ignorance and Collective Policy*

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capable of tracing the decisions of their elected officials, relating those decisions to their wants and needs, and holding representatives to account for their success and failure in satisfying their wants and needs.

The empirical findings regarding the people's knowledge and information comports with the expectations of a leading theory of political behavior. According to the rational choice theory of politics, associated most prominently with Anthony Downs, people make decisions based on a cost-benefit calculation.[49] If information is free, readily accessible, easy to process, and produces some benefit, then democratic citizens should ordinarily be willing to meet the information demands the system places upon them. But information is not free. In fact, it is rather costly in terms of the time and resources needed to access and process it. Many cannot afford to expend the resources to become fully informed democratic citizens.[50] They need to work full-time jobs, attend school, or care for family members, or they for other reasons lack the time necessary to invest in obtaining and processing the copious amount of political information.

For those who can afford it, there is the question of whether they will be motivated to expend the resources necessary to access and process political information given the opportunity to do other things. That decision, according to rational choice theory, will turn in part on whether the benefits from acquiring and processing political information exceed the cost.[51] To the extent those benefits are defined as the opportunity to cast an informed and pivotal vote that will secure the election of accountable and responsive representatives, the probability those benefits will be realized in any reasonably sized election will be low: "Why make a big investment in acquiring political information? Especially since the odds of one individual having a pivotal effect on a major electoral outcome are usually vanishingly small."[52] Even if we expand the benefits from casting an informed vote to the good feeling of performing one's patriotic duty, the benefits for most people will not exceed the cost of acquiring and processing political information. For some

Preferences, 95 AM. POL. SCI. REV. 379, 383 (2001) (finding through a survey of Americans' knowledge of policy-specific facts that "the level of specific knowledge varies greatly from fact to fact, and in several cases ignorance of specific information appears widespread, even among those who are best informed according to general knowledge scales").

[49] *See* ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY 260 (1957).

[50] *Id.* at 264.

[51] *Id.* at 269.

[52] PAGE & GILENS, *supra* note 45, at 9.

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people, casting a vote without acquiring and processing the necessary information is enough to fulfill one's patriotic duty. The theoretical expectation, therefore, is that it is rational for democratic citizens to be ignorant about politics in that they "have little reason to devote a great deal of time or energy to most political matters."[53]

Beyond the theoretical expectations of rational choice theory, findings from cognitive psychology also align with the empirical reality of a low-information public. According to principles of cognitive psychology, "humans are limited information processors," meaning that they "can process only a small fraction of the information to which they are exposed."[54] Those limits of human capacity suggest that citizens cannot meet the information demands that the democratic ideal places on them.

In sum, democratic citizens do not acquire and process the information necessary to satisfy the democratic ideal and rational choice theories and cognitive psychology suggest that we should not expect them to. Yet, at least until recently, most Americans believed that democracy worked well enough in that it secured both policies at least moderately responsive to majoritarian preferences and officeholders who appeared to be accountable to their constituents in the decisions they made.[55] How was this possible when people know so little about politics and the decisions that their representatives make? The combination of anticipated preferences, heuristics, and balanced-out decision errors have been theorized and found to be critical to sustaining a democracy that falls far short of its ideal.

B. Second-Best Democracy

Almost as consistent as the finding that the public possesses low amounts of political information is the finding that representatives are at least moderately responsive to the preferences of their constituents. In a seminal study, Warren Miller and Donald Stokes acknowledged as a starting point that "most Americans are almost totally uninformed about legislative issues in Washington."[56] Yet, the political

[53] *Id.*

[54] LAU & REDLAWSK, *supra* note 27, at 73.

[55] *See* Jamie Ballard, *Polls from the Past: Democracy, Patriotism, and Trust in Other Americans*, YOUGOV (June 30, 2023, 2:10 PM), https://today.yougov.com/politics/articles/45867-polls-past-democracy-patriotism-trust-americans [https://perma.cc/8LNN-G39J] (reporting on polls showing the drop in the levels of satisfaction with democracy from sixty-two percent of Americans being moderately to extremely satisfied with democracy in 1997 to thirty-one percent feeling the same in 2023).

[56] Warren E. Miller & Donald E. Stokes, *Constituency Influence in Congress*, 57 AM. POL. SCI. REV. 45, 47 (1963).

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scientists found "considerable agreement between Representative and district" on issues of social and economic welfare as well as civil rights.[57] The correlations were not perfect, ranging from 0.3 to 0.6 on a 0–1 scale; nonetheless, the correlation suggested that representatives at least tried to be responsive to their constituents' preferences even though their constituents weren't paying much attention to what their representatives were doing.[58] Most studies that followed also found modest and sometimes even strong correlations between constituency preferences and the decisions of elected officials or legislative bodies.[59]

These correlational analyses cannot explain the causes underlying the relationship between constituency preferences and official democratic decisions. Political scientists have nonetheless theorized that politicians' responsiveness is based on their efforts to anticipate their constituents' preferences.[60] Elected officials do not know what their constituents know or might be willing to learn about the decisions they make. Politicians might properly assume that most of their constituents know little about what they do. But they will still worry that their constituents can acquire the information to hold them to account, particularly when policies or policy failures directly impact them.[61] Additionally, there is the threat that

[57] *Id.* at 49.

[58] *Id.*

[59] *See, e.g.*, Benjamin I. Page & Robert Y. Shapiro, *Effects of Public Opinion on Policy*, 77 AM. POL. SCI. REV. 175, 179 (1983) (finding policy change to be congruent with changes in public opinion in sixty-six percent of cases); JOHN KINGDON, CONGRESSMEN'S VOTING DECISIONS 67 (3d ed. 1989) (finding constituency preferences to be an important determinant of congresspersons' decision-making across several measures); Larry M. Bartels, *Constituency Opinion and Congressional Policy Making: The Reagan Defense Build Up*, 85 AM. POL. SCI. REV. 457, 467 (1991) (concluding in a study assessing the relationship between public opinion and defense spending that "public opinion was a powerful force"); Alan D. Monroe, *Public Opinion and Public Policy, 1980–1993*, at 62 PUB. OP. Q. 6, 17 (1998) (finding a striking association between proposed changes and public support). *But see* James H. Kuklinski, *Representativeness and Elections: A Policy Analysis*, 72 AM. POL. SCI. REV. 165, 172 (finding a low "level of policy agreement between legislative voting and constituency opinion"); Daniel M. Butler & David W. Nickerson, *Can Learning Constituency Opinion Affect How Legislators Vote? Results from a Field Experiment*, 6 Q. J. POL. SCI. 55, 58 (2011) (concluding from a field experiment "that legislators want to act more like delegates but often fail because they are uninformed or misinformed about public opinion.").

[60] *See* R. DOUGLAS ARNOLD, THE LOGIC OF CONGRESSIONAL ACTION 10 (1990) ("Legislators' anticipation of future opinion can be a powerful constraint on their voting decisions.").

[61] *See* R. Douglas Arnold, *Can Inattentive Citizens Control Their Elected Representatives?*, *in* CONGRESS RECONSIDERED 401, 410 (Lawrence C. Dodd & Bruce I. Oppenheimer eds., 5th ed. 1993) (finding that even on issues for which their constituents are unaware or indifferent, "legislators consider the possibility that someone might work to inform their constituents about their policy positions before the next election

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political entrepreneurs, including electoral challengers and interest groups, could alert their constituents to the harms associated with the elected officials' actions or inaction.[62] Elected officials will therefore seek to anticipate the preferences of their constituents and act in ways responsive to their wants and needs even though their constituents will usually lack the information necessary to hold them to account.[63]

Heuristics can elevate the electoral risks for representatives who fail to anticipate the preferences of their constituents. Heuristics are mental shortcuts used to reduce the costs of acquiring and processing the information necessary to keep representatives responsive and accountable.[64] For heuristics to reduce costs, they must be easy to access, efficient to process, and effective. Examples of heuristics used in democratic politics include party labels, newspaper or opinion leader endorsements, poll results, and candidate appearances.[65] Each of these heuristics is easy to access and efficient to process, as they are either attached to a candidate during an election or are available in quick and summary form in television advertisements, news reports, social media, and word-of-mouth through social networks. However, the key is whether they are effective; meaning whether the shortcuts serve as a reasonable enough substitute to full information to allow democratic citizens to make choices that mostly accord with their wants and needs.[66] Only when heuristics serve as effective substitutes for full information can they support a government framework that is a reasonable facsimile to the democratic ideal.

An effective heuristic is one that accurately conveys to the democratic citizen what the elected official is likely to do with respect to a wide range of policies—such as taxes, health care, retirement security, trade, and foreign affairs. The democratic citizen, knowing the combination of policies that best accord with their wants or

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and that their constituents might not be pleased by their positions and might be inspired to oppose their reelection").

[62] *See* ARNOLD, *supra* note 60, at 128 ("If an issue is salient or potentially salient to substantial numbers of inattentive citizens, then legislators must consider the possibility that instigators or future challengers might eventually turn their constituents against them.").

[63] *See* Arnold, *supra* note 61, at 410–11.

[64] *See* Jeffrey J. Rachlinski, *Selling Heuristics*, 64 ALA. L. REV. 389, 390 (2012) (defining heuristics as mental shortcuts used "to manage complexity and uncertainty").

[65] *See* Lau & Redlawsk, *supra* note 43, at 953–54 (describing five common heuristics).

[66] *See* Garrett, *supra* note 5, at 1024 (referring to heuristics as a tool that voters use to enable them "to vote with limited information as they would if they had full information").

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needs, simply looks to the candidate's party label, endorsements, appearance, and electoral viability to make their electoral choice.[67] When democratic citizens' candidates win office, the winning candidates should pursue the set of policies that accord with the heuristic, knowing that any deviation could expose them to a primary or general election challenge that threatens their reelection. Thus, heuristics that satisfy the requirements of accessibility, efficiency, and effectiveness should, in contexts of normal democratic politics, increase pressure on elected officials to anticipate the preferences of their constituents because they increase their constituents' capacity to hold them to account.

Heuristics, however, are not failproof. Democratic citizens might inaccurately assess how well the bundle of policies associated with a heuristic advances their wants and needs, an error they could avoid if they had full information.[68] Moreover, heuristics might be such a partial and incomplete representation of full information that they provide only limited help to the democratic citizen seeking to support candidates or policies that accord with their preferences.[69] Errors arising from mistakenly assessed or incomplete heuristics can contribute to shallow and unstable preferences that undermine their usefulness as tools for overcoming democracy's information problem.[70]

One prominent response to heuristics' potential to fail is that, even accounting for individual errors in democratic judgment, the collective will of the people will still be accurately conveyed in survey assessments of preferences and expressions of public opinion. The process that is said to assure the accuracy of collective will when individuals err is statistical aggregation.[71] According to that process, "adding together or averaging many individuals' survey responses . . . tends to cancel out the distorting effects of random errors in the measurement of individuals' opinions."[72]

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[67] *See* Michael S. Kang, *Democratizing Direct Democracy: Restoring Voter Competence Through Heuristic Cues and "Disclosure Plus*," 50 UCLA L. REV. 1141, 1150 (2003) ("Political scientists have shown that when deciding for whom to vote in candidate elections, the typical voter refers to the heuristic cue of party identification to figure out which candidate is most likely to match her values and share her interests.").

[68] *See, e.g.*, Céline Colombo & Marco R. Steenbergen, *Heuristics and Biases in Political Decision Making*, *in* OXFORD RESEARCH ENCYCLOPEDIA OF POLITICS (2020) (summarizing the disadvantages of heuristics use in politics).

[69] *Id.*

[70] *See* PAGE & SHAPIRO, *supra* note 8, at 14 (describing the rational choice account of individual policy preferences as "shallow and unstable").

[71] *Id.*

[72] *Id.* at 15.

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In other words, assuming heuristics are effective in conveying relevant and representative information, their collective use to evaluate candidates and policies will lead to accurate decisions in the aggregate even though some individuals who rely on heuristics will be wrong in their assessments.

* * *

In sum, the democratic ideal in which democratic citizens gather all the information relevant to democratic choices and use that information to secure responsive government by holding their representatives to account for their decisions is widely recognized as unattainable. Democratic citizens generally know very little about politics, and that ignorance makes both rational sense and comports with the limits of humans' cognitive capacity. Democracy, thus, has a serious information problem.

Yet, a longstanding view is that the information problem does not seriously undermine the operation of democracy. Despite the public's low amount of information, representatives are modestly to significantly responsive to their constituents. That responsiveness arises from their incentives to anticipate the preferences of their mostly ignorant constituents; incentives that are made stronger by their constituents' use of information shortcuts as effective substitutes for full information.

Democracy's information problem has not been seriously addressed, nor has the usefulness of the anticipated preference model or heuristics been seriously questioned, since the series of transformative political events that began with the election of Barack Obama in 2008. Those events include a financial crash, major recession, the rise of racialized and affective politics, and the emergence of a political movement led by Donald Trump that prioritizes resentment and identity over policy.

In the next Part, I argue that in this new political context it is no longer possible to claim that democracy is insulated from its information problem. I focus particular attention on extreme inequality and affective polarization and show how those two phenomena have diminished the usefulness of the anticipated preference model, heuristics, and statistical aggregation as mechanisms for securing a government responsive and accountable to popular wants and needs.

II. AN UNEQUAL AND BROKEN DEMOCRACY

In a Pew Research survey conducted in 2022, sixty-two percent of American respondents said that they were not satisfied with the way democracy is working in the United States while seventy-one percent answered that people like them have a

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level of influence on politics rated as "not too much or no influence at all"[73] on politics. This and other similar surveys indicate a broad disillusionment with a system of government that is perceived as being far removed from the democratic ideals of responsiveness and accountability.[74]

Empirical evidence supports those survey responses. The leading view that American elected officials and institutions are at least moderately responsive to their constituents has been challenged by new studies testing governmental responsiveness to different sub-constituencies.[75] These studies suggest that most governmental responsiveness to constituents is directed at the preferences of wealthier and white constituents.[76] Despite the lack of responsiveness to a wide swath of the American public, incumbents have been reelected at historically high rates over the past two decades, which suggests that they are not being held to account for their non-responsiveness to the unique interests of most Americans.[77]

The findings of unequal responsiveness have come at a time of renewed attention to the rising and extreme economic inequality in the United States. French economist Thomas Piketty's seminal book *Capital in the Twenty-First Century* explores the history of economic inequality across countries. He found that the United States in the 2010s had reached a level of economic inequality that had not been seen since the late nineteenth and early twentieth century's Gilded Age.[78] That inequality, which Piketty ascribes to the growing disparity between the rate of return

[73] RICHARD WIKE ET AL., PEW RES. CTR., SOCIAL MEDIA SEEN AS MOSTLY GOOD FOR DEMOCRACY ACROSS MANY NATIONS, BUT U.S. IS A MAJOR OUTLIER 13–14 (2022).

[74] *See, e.g.*, Richard Wike & Janell Fetterolf, *Satisfaction with Democracy Has Declined in Recent Years in High-Income Nations*, PEW RSCH. CTR. (June 18, 2024), https://www.pewresearch.org/short-reads/2024/06/18/satisfaction-with-democracy-has-declined-in-recent-years-in-high-income-nations/ [https://perma.cc/6CUN-FJLN] (showing that sixty-four percent of survey respondents in high-income nations are dissatisfied with democracy); CENTRE FOR THE FUTURE OF DEMOCRACY, GLOBAL SATISFACTION WITH DEMOCRACY 2020, at 2 (2020) (finding that the percent of people around the globe who are dissatisfied with democracy has risen from 38.7% in 2005 to 57.5% in 2020).

[75] *See infra* Section II.C.

[76] *See infra* notes 128–30 and accompanying text.

[77] *See infra* notes 131–34 and accompanying text.

[78] *See* THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY 438–42 (Arthur Goldhammer trans., 2013) (describing the historical trajectory of economic inequality in the United States).

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from capital and labor, has received only a tepid government response that has done little to check inequality's rise.[79]

Accompanying the political and economic inequality is the growing polarization of the American people. Unlike the polarization of the past, which was mostly an elite phenomenon based on differences in policy, the polarization of the present is based more on identity and affect.[80] Americans do not disagree all that much on policy, but the antipathy that Democrats and Republicans hold toward one another currently exceeds that which any non-partisan groups hold toward another.[81] The causal relationship between inequality and affective polarization is not clear, but affective polarization's foundation in resentment between groups based on perceptions of government favoritism and prejudice suggests a link between the two.[82]

The United States is thus experiencing growing dissatisfaction with democracy amid rather extreme political and economic inequality and strengthening affective polarization. How can we make sense of this? It appears that the anticipated preference model has broken down as politicians appear to be focused primarily, if not exclusively, on anticipating the preferences of a subset of the American people on all but the most salient of issues. Further, the heuristics that are supposed to serve as the tools for a low-information public to hold elected officials to account do not seem to be working as theorized. Party labels and news media or opinion leader endorsements seem to be functioning less as information shortcuts for a more comprehensive policy portfolio that voters can relate to their wants and needs and more as markers of identity or clan affiliation only loosely related to policy.[83]

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[79] *Id.* at 26, 34; Bertrall L. Ross II, *Addressing Inequality in the Age of* Citizens United, 93 N.Y.U. L. REV. 1120, 1133–36 (2018) (discussing the lack of policy responsiveness to rising inequality in the United States).

[80] *Compare* NOLAN MCCARTY, KEITH T. POOLE & HOWARD ROSENTHAL, POLARIZED AMERICA: THE DANCE OF IDEOLOGY AND UNEQUAL RICHES 10–14 (2006) (studying political polarization as a policy-based phenomenon), *with* Shanto Iyengar, Gaurav Sood & Yphtach Lelkes, *Affect, Not Ideology: A Social Identity Perspective on Polarization*, 76 PUB. OP. Q. 405, 406 (2012) (showing how the emerging polarization was driven more by affect and identity than policy differences).

[81] *See* Shanto Iyengar & Masha Krupenkin, *The Strengthening of Partisan Affect*, 39 ADVANCES POL. PSYCH. 201, 201 (2018) ("Today, outgroup prejudice based on party identity exceeds the comparable bias based on race, religion, and other significant social cleavages.").

[82] *Id.* at 205.

[83] *See, e.g.*, Lilliana Mason & Julie Wronski, *One Tribe to Bind Them All: How Our Social Group Attachments Strengthen Partisanship*, 39 ADVANCES POL. PSYCH. 257, 273 (2018).

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Finally, the changing function of heuristics is raising questions about whether the assumptions underlying the statistical aggregation model are holding up. If heuristics serve more as shortcuts for identity and affiliation than policy, then they are more likely to mislead democratic citizens into voting for candidates they would not support with full information about their policies and their relationship to wants and needs.[84] The changing function of heuristics thus increases the likelihood of a democratic citizen's error from reliance on them, which increases the probability that the aggregate opinion will be a biased reflection of collective will.

There are several potential contributors to this democratic breakdown. In legal scholarship, much attention has been directed at the role of money in politics, the persistent electoral participation gaps between different racial and socioeconomic classes, and the contributions that vote dilution and gerrymandering make to our distorted democracy.[85] Those sources certainly cannot be ignored. But we should not overlook democracy's information problem that appears to be worse than it has been in some time.

A. Inequality and Democracy's Information Problem

Information has costs and in an unequal society, some democratic citizens are better able to bear those costs than others. Heuristics lower the cost of information, but they do not make information costless. Before democratic citizens can effectively use heuristics, they need two critical pieces of information. First, they need to know what the heuristic functions as a shortcut to. In other words, what set of policies does the heuristic represent, and in what contexts and for which candidates do the heuristics fail to represent that set of policies? Second, they need to know how the set of policies the heuristic represents impacts their well-being. This is the information challenge that all citizens face in a democracy that cannot be avoided by using heuristics.

At both points there are opportunities to manipulate those who suffer from information deficits. In this Section, I focus on two often-overlapping categories of

[84] *See* Kang, *supra* note 67, at 1160.

[85] *See, e.g.*, Spencer Overton, *The Participation Interest*, 100 GEO. L.J. 1259 (2012) (analyzing the connection between lack of participation and money in politics); Russell J. Dalton & Steven Weldon, *Context and Inequality*, *in* RUSSELL J. DALTON, THE PARTICIPATION GAP: SOCIAL STATUS & POLITICAL INEQUALITY 147 (2017) (studying electoral participation gaps); Paul A. Riley, Jr., Note, *"Unpacking" the Problem: The Need to Broaden the Scope of Vote Dilution Claims Under Section 2 of the VRA*, 55 COLUM. J.L. & SOC. PROBS. 279, 279 (2022) (analyzing gerrymandering through vote-packing methods that cluster a voting bloc into a single district).

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democratic citizens that suffer from information deficits: those with low educational attainment and those who are indifferent about politics. In the next Section, I examine a third category of democratic citizen that suffers from an informational deficit—those with an emotional attachment to parties who engage in motivated forms of reasoning that give heuristics an apparent overpowering effect on democratic decision-making.

American society suffers from a persistent education gap between racial groups and socioeconomic classes.[86] A history of slavery, segregation, and persistent disparities in educational opportunities has had a multi-generational impact on the educational attainment of African Americans and other racial groups that have been the subject of various forms of institutional and societal discrimination.[87] A system of economic relations based primarily around a capitalist model of distribution has both reinforced the historical-based inequality and broadened its reach to many white Americans as well.[88] Accompanying the capitalist system is an unequal distribution of educational benefits as elementary and secondary schools are funded predominantly through property taxes that are linked to the wealth and income of the community.[89] It is also reflected in the unequal allocation of higher education to those who attend better-resourced elementary and secondary schools.[90] Such higher education comes with a premium of better jobs and greater income and wealth

[86] *See Racial and Ethnic Achievement Gaps*, STAN. CTR. FOR EDUC. POL'Y ANALYSIS: THE EDUC. OPPORTUNITY MONITORING PROJECT, https://cepa.stanford.edu/educational-opportunity-monitoring-project/achievement-gaps/race/ [https://perma.cc/Y5ZX-TLK7] (last visited May 28, 2025) (showing a persistent educational gap between racial minorities and whites that is narrowing slowly, unevenly, and incompletely); Sean F. Reardon, *The Widening Academic Achievement Gap Between the Rich and the Poor: New Evidence and Possible Explanations*, *in* WHITHER OPPORTUNITY?: RISING INEQUALITY, SCHOOLS, AND CHILDREN'S LIFE CHANCES 91 (Greg J. Duncan & Richard J. Murnane eds., 2011).

[87] *See* MICHAEL J. KLARMAN, FROM JIM CROW TO CIVIL RIGHTS: THE SUPREME COURT AND THE STRUGGLE FOR RACIAL INEQUALITY 8–60 (2004) (chronicling the history of race-based segregation and exclusion); Daniel B. Jones & Ethan Schmick, *Reconstruction-Era Education and Long-Run Black-White Inequality*, 17 AM. J. ECON. POL'Y (forthcoming 2025) (manuscript at 14–16) (available on SSRN) (empirically demonstrating the intergenerational nature of educational inequality).

[88] *See* Suzanne Mettler & Trevor Brown, *The Growing Rural-Urban Political Divide and Democratic Vulnerability*, 699 ANNALS AM. ACAD. POL. & SOC. SCI. 130, 134 (2022) (describing the economic deprivation experienced in white rural communities).

[89] *See* Derek W. Black, *Localism, Pretext, and the Color of School Dollars*, 107 MINN. L. REV. 1415, 1424–30 (2023) (describing the local and state sources of school funding gaps).

[90] *See* Martha J. Bailey & Susan M. Dynarski, *Gains and Gaps: Changing Inequality in U.S. College Entry and Completion* 4–5 (Nat'l Bureau of Econ. Rsch., Working Paper No. 17633, 2011) (finding gaps in college entry and completion between those from higher and lower socioeconomic classes).

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generation opportunities.[91] As a result, and contrary to the American myth of equal opportunity and economic mobility, a cycle of inequality persists generation after generation with only the anecdotes of those who broke through providing reasons for hope and bases for justifying the system that is.[92]

The leading comprehensive account of political knowledge finds a pattern in group-based political knowledge that is the product of America's discriminatory history and capitalist system of distribution. In their study, Delli Carpini and Scott Keeter find a pattern in which "men are more informed than women; whites are more informed than blacks; those with higher incomes are more informed than those with lower incomes; and older citizens are more informed than younger ones."[93]

Lower educational attainment not only reduces the capacity of democratic citizens to obtain and process information, but it also diminishes their ability to make use of heuristics. Those who lack information about politics are less likely to know what a party, news organization, or opinion leader represents in terms of underlying policies or how new information and policy actions change the meaning of those heuristics.[94] Low-information democratic citizens are therefore poorly positioned to use heuristics as shortcuts for an accurate appraisal of a policy portfolio. Moreover, those low information democratic citizens are less likely to know how those policies the heuristics are said to represent will impact their well-being.[95] For example, even if a low-information democratic citizen can determine that a party label is a shortcut for a particular policy, they will still have to overcome the information hurdle of assessing how that policy impacts their overall well-being.

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[91] *See* ANTHONY P. CARNEVALE, BAN CHEAH & EMMA WENZINGER, THE COLLEGE PAYOFF: MORE EDUCATION DOESN'T ALWAYS MEAN MORE EARNINGS 2 (2021), https://cew.georgetown.edu/wp-content/uploads/cew-college_payoff_2021-fr.pdf [https://perma.cc/3KTJ-WKRD] (finding "workers with bachelor's degrees earn 75 percent more than those with no more than a high school diploma").

[92] *See* Radha Jagannathan, Louis Donnelly, Sara McLanahan, Michael J. Camasso & Yu Yang, *Growing Up Poor but Doing Well: Contextual Factors that Predict Academic Success*, 21 J. ECON. INEQ. 169, 169–70, 187–93 (2023) (citing studies finding a strong relationship between socioeconomic status, academic achievement and economic mobility and identifying contextual factors that have allowed a small number of poor Americans to beat the odds and achieve economic mobility).

[93] DELLI CARPINI & KEETER, *supra* note 2, at 157.

[94] *Id.* at 55 ("With any heuristic . . . citizens still need to have more specific information about public officials, political parties, and public policy—much of it also heuristic in quality. Without such information any shortcut to political decision making will lose its efficacy.").

[95] *Id.* at 45 (noting that "the information necessary for a citizen to engage in . . . decision-making shortcuts is precisely the kind that many citizens lack").

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Low information is also associated with diminished interest in politics that reduces the motivation to obtain and process political information, including information necessary to effectively use heuristics.[96] Those who lack information often lack a clear sense of how they can influence political decision-making. But many low-information democratic citizens do perceive themselves as being neglected, which contributes to their sense of political inefficacy.[97] For those democratic citizens, it doesn't make sense to expend the effort to obtain and process information—even the lower amounts of information required to effectively use heuristics—because that information will not provide benefits to them.[98]

Empirical studies showing that those with more education are better able than those with less to use heuristics to make correct political choices (choices that they would have made with full information) which reinforces the information problem associated with shortcuts. According to one study, sophisticated voters' use of heuristics increases their probability of making correct decisions by twenty percent but reduces low-information voters' probability of making correct decisions by twenty-one percent.[99] Other studies find similar disparities in the usefulness of heuristics for democratic citizens of different information classes.[100]

If heuristics make correct voting decisions less likely for a large portion of democratic citizens, then it raises questions about whether the aggregation of preferences will truly reflect public opinion. The data suggest that low-information voters err and err often when using heuristics.[101] In circumstances in which there is

[96] *See id.* at 184.

[97] For the foundational analysis of political efficacy, see Stephen C. Craig & Michael A. Maggiotto, *Measuring Political Efficacy*, POL. METHODOLOGY, 1982, at 85, 85–87.

[98] As one scholar notes, "[d]isadvantaged citizens are less likely than the advantaged to be politically motivated. They . . . are less likely to believe that they could be efficacious if they were politically active." Sidney Verba, *Would the Dream of Political Equality Turn Out to Be a Nightmare?*, 1 PERSPS. ON POL. 663, 675 (2003).

[99] Lau & Redlawsk, *supra* note 43, at 964.

[100] *See, e.g.*, Larry M. Bartels, *Uninformed Votes: Information Effects in Presidential Elections*, 40 AM. J. POL. SCI. 194, 202 (1996) (questioning the value and utility of heuristics for different socioeconomic classes); Dennis Chong, *Rational Choice as an Empirical and Normative Model of Political Behavior*, *in* THE OXFORD HANDBOOK OF POLITICAL PSYCHOLOGY 109, 122 (Leonie Huddy et al., eds., 3d ed. 2023) ("Differences in public opinion across knowledge levels imply that heuristics are unable to compensate for lower levels of information, and, therefore, inattention probably results in worse choices.").

[101] *See* Chong, *supra* note 100, at 122 ("Virtually all studies that examine the effect of knowledge on political choices find that better-informed individuals hold different preferences, which suggests that less informed citizens are not making optimal choices.").

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a relatively high rate of individual errors concentrated in a particular class of democratic citizens, it is less likely that the errors would be randomly distributed such that they cancel each other out. The more likely result is that the errors concentrated among low-information voters will lead to the uneven distribution of errors and thereby undercut the logic of the statistical aggregation model.[102]

Inequality thus raises serious questions about the value of heuristics and the statistical aggregation model in overcoming democracy's information problem. Affective polarization raises more questions arising from democracy's other information problem, the problem of misinformation.

B. Motivated Reasoning, Affective Polarization, and Democracy's Information Problem

Neither the problem of misinformation nor the problem of affective polarization is new, but how the two reinforce each other and contribute to democracy's information problem has only recently become the focus of scholars. A democratic citizen is misinformed when their knowledge is based on an erroneous set of facts or when they draw erroneous conclusions from the facts they possess.[103] As an example of being misinformed about facts, a democratic citizen might err in thinking that a proposed change to Social Security will eliminate retirement benefits for everyone under fifty when, in fact, the proposal would freeze retirement benefits for persons in that age group. That error might arise innocently from a well-meaning friend, misremembering what they learned on a news program and conveying erroneous information. It can also arise more nefariously from a political flyer or campaign canvasser seeking to curry support for, or build opposition to, a candidate or party by exaggerating or mistakenly describing the facts. Even if the democratic citizen can overcome the factual error, they might confuse the effect of the benefits

[102] *See, e.g.*, Bartels, *supra* note 100, at 199–200 ("If sources of error affect the entire electorate (or a significant fraction of the entire electorate) in similar ways, the resulting errors will simply not cancel out no matter how large the electorate may be.").

[103] *See* D.J. Flynn, Brendan Nyhan & Jason Reifler, *The Nature and Origins of Misperceptions: Understanding False and Unsupported Beliefs About Politics*, 38 ADVANCES POL. PSYCH. 127, 128 (2017) (offering "factual beliefs that are false or contradict the best available evidence in the public domain" as a definition of misperception); James H. Kuklinski, Paul J. Quirk, Jennifer Jerit, David Schwieder & Robert F. Rich, *Misinformation and the Currency of Democratic Citizenship*, 62 J. POL. 790, 792 (2000) ("The problem . . . at least with respect to attitudes about public policy, is not that people simply lack information, but that they firmly hold the wrong information—and use it to form preferences.").

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freeze on their well-being, mistakenly believing that the freeze will have a more detrimental impact on their capacity to retire than what comports with the facts.

It might be assumed that correct information should be able to counteract misinformation. But psychologists have found that the efficacy of correct information on a misinformed individual will depend on the type of reasoning the individual employs. In a seminal article, psychologist Ziva Kunda identified two categories of motivations underlying individuals' reasoning about facts: "those in which the motive is to arrive at an accurate conclusion, whatever it may be, and those in which the motive is to arrive at a particular, directional conclusion."[104] Experimental studies have found that individuals who are motivated to reach accurate conclusions "know their own preferences, update those preferences accurately upon receipt of new information, and choose the candidate that best represents their interests."[105] To arrive at accurate conclusions, the rational democratic citizen employs strategies associated with a rational assessment of facts, which includes gathering information, assessing the integrity and validity of information sources, and verifying facts.[106]

Studies have also found that all individuals, at least some of the time, are motivated in their thinking by directional goals. When individual reasoning is motivated to achieve directional goals, they seek to maintain an "illusion of objectivity" in their factual assessment.[107] But that assessment has as its object, "a justification of their desired conclusion that would persuade a dispassionate observer."[108] To serve that objective, the directionally motivated thinker either supplements or supplants rational fact-assessment strategies with other strategies oriented toward reaching a particular conclusion. Those include "search[ing] memory for those beliefs and rules that could support their desired conclusion" or

[104] Ziva Kunda, *The Case for Motivated Reasoning*, 108 PSYCH. BULL. 480, 480 (1990).

[105] David P. Redlawsk, Andrew J.W. Civettini & Karen M. Emmerson, *The Affective Tipping Point: Do Motivated Voters Ever "Get It"?*, 31 POL. PSYCH. 563, 564 (2010).

[106] *See* Chong, *supra* note 100, at 128–29 (describing a rational decision-making process).

[107] Kunda, *supra* note 104, at 483; *see also* Dan M. Kahan, *The Supreme Court, 2010 Term—Foreword: Neutral Principles, Motivated Cognition, and Some Problems for Constitutional Law*, 125 HARV. L. REV. 1, 19–20 (2011) (defining and providing examples of motivated reasoning).

[108] Kunda, *supra* note 104, at 482–83.

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"creatively combin[ing] accessed knowledge to construct new beliefs that could logically support the desired conclusion."[109]

The directionally motivated reasoner is usually not conscious of what they are doing. As Kunda explains, they do not recognize that their reasoning process "is biased by their goals, that they are accessing only a subset of their relevant knowledge, that they would probably access different beliefs and rules in the presence of different directional goals, and that they might even be capable of justifying opposite conclusions on different occasions."[110] That lack of consciousness regarding directionally motivated thinking exacerbates the challenges associated with counteracting misinformation with correct information.

Over the past two decades, political scientists have drawn a link between directionally motivated thinking and the rising partisanship that feeds into affective polarization.[111] A significant directional goal motivating democratic citizens in their thinking is reaching conclusions favoring one's own party and disfavoring the opposing party. In an account of the American voter, Angus Campbell and his co-authors concluded, "[i]dentification with a party raises a perceptual screen through which the individual tends to see what is favorable to his partisan orientation."[112] The perceptual screen of party leads to selective engagement with facts and political developments such that "when the political fortunes wane for one party, its supporters nonetheless maintain their prior beliefs and evaluations . . . [while] supporters of the other party . . . absorb the favorable news."[113] Such "asymmetry"

[109] *Id.* at 483.

[110] *Id.*

[111] *See, e.g.*, Redlawsk et al., *supra* note 105, at 567 (connecting motivated reasoning to affective evaluations of candidates).

[112] ANGUS CAMPBELL, PHILIP E. CONVERSE, WARREN E. MILLER & DONALD E. STOKES, THE AMERICAN VOTER 133 (1980); *see also* Paul Goren, Christopher M. Federico & Miki Caul Kittilson, *Source Cues, Partisan Identities, and Political Value Expression*, 53 AM. J. POL. SCI. 805, 812 (2009) (finding through an experimental study that "partisan source cues lead individuals to rely more heavily on partisan identities to vertically constrain their core political principles").

[113] Alan Gerber & Donald Green, *Misperceptions About Perceptual Bias*, 2 ANN. REV. POL. SCI. 189, 192 (1999).

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in factual updating of beliefs and evaluations in contexts of new information "widens the gap between the perceptions of Democrats and Republicans."[114]

That gap in perception between Democrats and Republicans arising in part from motivated reasoning is at the core of the affective polarization that plagues democratic politics in the United States. Through a series of experiments, psychologists have found that we are prone to develop "us versus them" social identities based on the most arbitrary characteristics or categorizations.[115] Those "us versus them" social identities—which include race, religion, sex, socioeconomic class, and sexual orientation—have taken on much more than arbitrary significance in American and world history as they have been the source of division, exclusion, persecution, and even genocide.[116] By capturing elements of each of the historically significant social identities, the form of "us versus them" identity that appears to be trumping them all is party affiliation.

The origin of rising partisan antipathy is associated with partisan sorting based on social identity that began as early as the 1930s and has accelerated over the past two decades.[117] Not since the 1970s have the two political parties represented such a distinct coalition of social identities as they do now.[118] These coalitions of social identities, represented under the labels Democrat and Republican, do not disagree that much on policy.[119] Nonetheless, they deeply dislike each other to the point that

[114] *Id.*; *see also* Jennifer Jerit & Jason Barabas, *Partisan Perceptual Bias and the Information Environment*, 74 J. POL. 672, 678 (2012) (finding through an experiment that "Democrats and Republicans are motivated to see the world in a particular way").

[115] *See, e.g.*, Henri Tajfel, *Experiments in Intergroup Discrimination*, SCI. AM., Nov. 1970, at 96; Henri Tajfel & John Turner, *An Integrative Theory of Intergroup Conflict*, *in* PSYCHOLOGY OF INTERGROUP RELATIONS 33 (Stephen Worchel & William G. Austin eds., 2d ed. 1986) (identifying through experiments the conditions in which intergroup competition is expected to occur).

[116] *See generally* ADAM JONES, GENOCIDE: A COMPREHENSIVE INTRODUCTION (2006).

[117] *See* ERIC SCHICKLER, RACIAL REALIGNMENT: THE TRANSFORMATION OF AMERICAN LIBERALISM, 1932–1965, at 3 (2016).

[118] *See, e.g.*, LILLIANA MASON, UNCIVIL AGREEMENT: HOW POLITICS BECAME OUR IDENTITY 6–7 (2018) (describing the phenomenon of demographic-group-based sorting in the United States).

[119] *See, e.g.*, Michael J. Barber & Nolan McCarty, *Causes and Consequences of Polarization*, *in* SOLUTIONS TO POLITICAL POLARIZATION IN AMERICA 15, 24 (Nathaniel Persily ed., 2015) ("The emerging consensus is that most voters have been and remain overwhelmingly moderate in their policy positions.").

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partisans on both sides of the political divide believe that the other represents an existential threat to the American republic.[120]

Several information sources have contributed to and reinforced affective polarization, including political elites, partisan news media, and social media.[121] These sources sometimes convey accurate information, but they often focus on the most divisive and sensationalized pieces of it.[122] They are also prominent sources of distorted and erroneous information along with exaggerated appeals centered on the threat the other side is said to represent.[123]

It is impossible to ascertain which was the chicken and which was the egg, but the intimate relationship between affective polarization and directionally motivated reasoning is clear. The two relate to each other as a feedback loop. An individual's embrace of partisan identity leads to directionally motivated reasoning, which has, as its goal, the defense of all that is related to that partisan identity and opposition to all that is related to the other partisan identity.[124] Such directionally motivated reasoning reinforces that partisan identity and strengthens the goal that motivates such reasoning. As the feedback loop operates on both sides of the partisan divide, democratic citizens are pulled further apart, and the "us versus them" mentality

[120] *See* Lilliana Mason, *Ideologues Without Issues: The Polarizing Consequences of Ideological Identities*, 82 PUB. OP. Q. 866, 870 (2018) (finding that "partisans increasingly dislike each other without any direct or conditional connection to issue-based ideological disagreements").

[121] *See* MILTON LODGE & CHARLES S. TABER, THE RATIONALIZING VOTER 25 (2013) (finding that through "selective media attention we infuse our thoughts with congenial cues"); Thomas J. Leeper, *The Informational Basis for Mass Polarization*, 78 PUB. OP. Q. 27, 34 (2014) (finding evidence that "the information environment shapes opinions by exposing individuals to potentially slanted information").

[122] *See, e.g.*, Jiyoung Han & Marco Yzer, *Media-Induced Misperception Further Divides Public Opinion*, 32 J. MEDIA PSYCH. 70, 71 (2020) (describing how salience, exaggeration, and assimilation contribute to misperception and polarization).

[123] *See, e.g.*, JOSHUA A. TUCKER ET AL., SOCIAL MEDIA, POLITICAL POLARIZATION, AND POLITICAL DISINFORMATION: A REVIEW OF THE SCIENTIFIC LITERATURE 17–19 (2018) (discussing the volume and sources of online social media misinformation).

[124] *See* Redlawsk et al., *supra* note 105, at 567 (finding that voters committed to a candidate or party are motivated to accept information that is congruent and discount information that is incongruent with their preferences); LODGE & TABER, *supra* note 121, at 24 ("[T]he systematic biasing of judgments in favor of automatically activated, affectively congruent beliefs and feelings . . . is built into the basic architecture and information processing mechanism of the brain.").

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becomes entrenched in politics.[125] For some democratic citizens, directionally motivated reasoning constantly reinforced through affective polarization insulates the misinformation that underlies their political opinions and preferences from external challenges or corrections.[126]

Directionally motivated partisans include those who fall outside the class of democratic citizens that lack information due to low educational attainment or who are indifferent from politics. Many are politically sophisticated and relatively knowledgeable about politics but have committed themselves to a partisan identity in ways that distort their reasoning and reduce their willingness to acquire and process accurate information when it disfavors their identity and favors another.[127]

The problem of misinformation that is associated with directionally motivated reasoning and affective polarization both contributes to the diminished value of heuristics and raises further doubts about the assumptions underlying the statistical aggregation model. In contexts of directionally motivated reasoning and affective polarization, heuristics such as party labels and newspaper or opinion leader endorsements are no longer focused on representing a policy portfolio that citizens can connect to their wants and needs.

Of greater importance is the identity and emotional attachments the heuristics promote. Heuristics that have a more attenuated relationship to policies that could satisfy wants and needs raise the likelihood of errors as democratic citizens support candidates and parties who further policies those citizens would oppose if they had full information, or vice versa. The proliferation of individual errors diminishes the likelihood that the errors will cancel out as is assumed under the statistical aggregation model. The result is a growing disconnect between aggregate public opinion and the true collective will that decreases faith in democracy even as support for the two parties intensifies among their supporters through affective polarization. That declining faith in democracy arises from the diminished need for politicians in contexts of inequality and affective polarization to be responsive or accountable to the people in the policies they support and oppose.

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[125] *See* Erik Peterson & Shanto Iyengar, *Partisan Gaps in Political Information and Information-Seeking Behavior: Motivated Reasoning or Cheerleading?*, 65 AM. J. POL. SCI. 133, 135 (2021) (finding partisans' motivated reasoning to be a contributor to deepening polarization).

[126] *See* Brendan Nyhan & Jason Reifler, *When Corrections Fail: The Persistence of Political Misperceptions*, 32 POL. BEHAV. 303, 323 (2010) (finding through a study that attempts to correct misinformation "fail[ed] to reduce misperceptions for the most committed participants").

[127] *See* Charles S. Taber & Milton Lodge, *Motivated Skepticism in the Evaluation of Political Beliefs*, 50 AM. J. POL. SCI. 755, 760 (2006) (finding through experiments that "the prior belief effect is systematic and robust among sophisticates and those who feel the strongest").

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C. *Democracy's Information Problem and the Paradox of Unresponsive, Unaccountable Governance*

Optimism about the responsiveness and accountability of government has faded along with the rediscovery of how democracy's information problem is associated with political inequality and affective polarization. The accounts of modest or even significant correlations between roll call votes or democratic institutional decisions and popular preferences have been supplanted by research showing highly unequal responsiveness to different groups in the American polity.

In a series of studies, political scientists have found that across a range of domestic and foreign affairs policies, elected officials and democratic institutions are either not at all or only minimally responsive to the unique interests of poor, middle-class, and racial-minority members of the polity.[128] Only the wealthy are well represented in the democratic process, with elected officials responding to the interests of the disadvantaged only when they accord with those of the wealthy class.[129]

The unequal responsiveness that recent studies have found is not necessarily new. Past studies finding relationships between roll call votes or government policy and constituency preferences did not disaggregate constituencies in the ways that recent studies do.[130] Thus, due to democracy's persistent information problems, it is likely that disadvantaged economic and racial groups have suffered from unequal responsiveness for a long time.

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[128] *See, e.g.*, JOHN D. GRIFFIN & BRIAN NEWMAN, MINORITY REPORT: EVALUATING POLITICAL EQUALITY IN AMERICA 95–96, 107–10 (2008) (finding through several empirical tests that racial minorities are the beneficiary of disproportionately fewer favorable policies and are underrepresented in legislatures as compared to whites); MARTIN GILENS, AFFLUENCE AND INFLUENCE: ECONOMIC INEQUALITY AND POLITICAL POWER IN AMERICA 70–123 (2012) (presenting evidence that elected officials are not at all responsive to low-income and middle-income voters).

[129] *See* LARRY M. BARTELS, UNEQUAL DEMOCRACY: THE POLITICAL ECONOMY OF THE NEW GILDED AGE 244, 248 (2d ed. 2016) (presenting evidence that elected officials are much more responsive to the wealthy than any other socioeconomic class).

[130] Benjamin Bishin wrote a seminal article challenging prior studies showing a relationship between constituency preferences and roll call votes or government decisions by focusing on their failure to disaggregate constituents. Benjamin G. Bishin, *Constituency Influence in Congress: Does Subconstituency Matter?*, 25 LEGIS. STUD. Q. 389, 390 (2000) ("The failure of researchers to account for . . . subgroups results in statistical models of legislator behavior that diverge substantially from legislators' own experiences. Specifically, legislators do not consider the views of every voter equally on each issue they face." (citation omitted)).

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Yet elected officials' broad unresponsiveness to the unique interests of an overwhelming majority of Americans has gone mostly unpunished. The reelection rate for elected officials has remained consistently high despite their lack of responsiveness to most of their constituents. For members of the U.S. House of Representatives, the reelection rate for incumbents has not dropped below eighty-five percent and has been above ninety percent for all but two elections since 1976.[131] The reelection rate for incumbent U.S. Senators is a little lower, but it still averaged eighty-eight percent in all elections since 1990 with the rate rising to 100% in the 2022 senatorial elections.[132] State legislatures experience more turnover, but such turnover is rarely the result of incumbents losing elections. In state legislative elections contested by two or more candidates, incumbents won 2,812 of the 2,951 elections in which they ran, a win rate of more than ninety-five percent.[133] These extraordinary reelection rates suggest that the political class of elected officials are mostly insulated from accountability for failing to represent the unique interests of most of their constituents.

What accounts for the paradox of unresponsive elected officials in a democracy being insulated from accountability? Conventional explanations focus on gerrymandering and money in politics. Both appear to be relevant and significant factors, but they cannot fully explain the paradox. The gerrymandering explanation comes up short because it cannot account for why incumbent win rates are the same in states more prone to gerrymandering (states in which legislatures draw district lines) as they are in states less prone to gerrymandering (states in which independent redistricting commissions draw district lines).[134] Moreover, there is no evidence supporting a claim that the similarity in incumbent win rates arises from the fact that elected officials are more responsive to constituent preferences in states less likely to be gerrymandered than in states that are more likely to be. As for the money-in-politics explanation, it provides a compelling reason why elected officials are

[131] *Reelection Rates over the Years*, OPENSECRETS, https://www.opensecrets.org/elections-overview/reelection-rates [https://perma.cc/5BTL-L2RQ] (last visited June 4, 2025).

[132] *Id.*

[133] Ben Reynolds, *Incumbency Performance in State Elections*, THE COUNCIL OF STATE GOV'TS (Nov. 16, 2022), https://www.csg.org/2022/11/16/incumbency-performance-in-state-elections/ [https://perma.cc/9D68-F5FW].

[134] *See Election Results, 2022: Incumbent Win Rates by State*, BALLOTPEDIA (Mar. 16, 2023), https://ballotpedia.org/Election_results,_2022:_Incumbent_win_rates_by_state [https://perma.cc/JYV3-JCTS]; Chris Leaverton, *Who Controlled Redistricting in Every State*, BRENNAN CTR. FOR JUST. (Oct. 5, 2022), https://www.brennancenter.org/our-work/research-reports/who-controlled-redistricting-every-state [https://perma.cc/B8CY-UCCG].

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responsive to wealthy constituents with more money to give to campaigns. But it cannot account for how elected officials get away with neglecting the unique wants and needs of the constituents who hold most of the votes.

A more complete explanation of the paradox requires an account of how democracy's information problem manifests in the context of inequality and affective polarization. In this context, heuristics are less used and useful as substitutes for full information about elected officials, their policies, and those policies' relevance to democratic citizens' wants and needs. Other easily accessible information from news sources, campaign advertisements, or social media is mostly incomplete, biased, or erroneous, or it otherwise fails as a stand-in for full information about all but the most salient or directly traceable policies.[135] When democratic citizens lack alternatives for overcoming the cost and motivation barriers to acquiring and processing the necessary information to judge elected officials' responsiveness to their preferences, an opening arises for unaccountable governing.

Affective polarization further opens the door to unaccountable governing as heuristics are repurposed. The partisan labels, newspaper or opinion leader endorsements, and candidate affiliations that once principally served as information shortcuts to a broader policy portfolio have, in the context of affective polarization, evolved into serving primarily as emotional triggers for social identity and clan affiliation. The burden on the democratic citizen to overcome the information problem only increases as it now requires that they acquire and process information that might be in tension with their emotional attachment and directionally motivated ways of thinking.

The anticipated preference model breaks down when the information problem becomes insurmountable. A series of studies already shows that elected officials know very little about what their constituents want or need.[136] Some of this ignorance arises from the lack of clear and easily identifiable channels for democratic citizens to express their preferences to their representatives.[137] But it also arises from the

[135] *See supra* notes 122–23 and accompanying text.

[136] *See, e.g.*, David E. Broockman, *Distorted Communication, Unequal Representation: Constituents Communicate Less to Representatives Not of Their Race*, 58 AM. J. POL. SCI. 307, 307 (2014) (citations omitted) ("Representatives . . . often know surprisingly little about what their constituents prefer."); David E. Broockman & Christopher Skovron, *Bias in Perceptions of Public Opinion Among Political Elites*, 112 AM. POL. SCI. REV. 542, 542 (2018) (finding that politicians "systematically misperceive" their constituents' preferences).

[137] *See, e.g.*, Sidney Verba, Kay Lehman Schlozman, Henry Brady & Norman H. Nie, *Citizen Activity: Who Participates? What Do They Say?*, 87 AM. POL. SCI. REV. 303, 311–12 (1993) (finding low levels of

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failure of elected officials to commit the effort to learning their constituents' wants and needs.[138]

Representatives, perceiving that most of their constituents will not be able to overcome democracy's information problem, see that on all but the most salient and easily traceable issues they do not need to learn or anticipate their constituents' preferences to be reelected.[139] Elected officials can therefore act according to what they think is good policy based on their own ideology, beliefs, and status. Or, as is often the case, they can pursue policies that accord with the preferences of those who pay the most attention to politics. That tends to be the wealthy donor class, which also tends to have more money directly at stake related to politicians' policy actions.[140] The result of the anticipated preference model's breakdown is twofold: (1) greater inequality as policy favors the wealthy; and (2) more affective polarization as politicians promote emotional attachment and social identity to hide their unresponsiveness to everyone else.

What, if anything, can alter the trajectory of democracy's decline? In the next Part, I propose a role for technology, and particularly artificial intelligence, as a tool for mitigating democracy's information problem and resolving the paradox of unresponsive and unaccountable government.

III. THE PROMISE OF ARTIFICIAL INTELLIGENCE

Imagine a person could enter information into a computer application ("app") about their neighborhood, income, number and age of their children, and their use of public schools. The app then generates the probable impact of the city's budgetary law or a city council candidate's budgetary proposal on the quality of their children's education. The app provides the person with the degree and a probability range of teacher turnover, changes to teacher-student ratios, impact on the safety of their schools, and changes in the percentage of students who will graduate on time and attend college. The person could then use that information to decide whether to

communication between constituents and representatives and large disparities in such communication between economically advantaged and disadvantaged constituents).

[138] *See, e.g.*, KRISTINA C. MILER, CONSTITUENCY REPRESENTATION IN CONGRESS: THE VIEW FROM CAPITOL HILL 77–85 (2010) (explaining elected officials' reliance on easily accessible information that limits the depth of their knowledge about their constituents).

[139] *See* ARNOLD, *supra* note 60, at 128 ("If an issue is salient or potentially salient to substantial numbers of inattentive citizens, then legislators must consider the possibility that instigators or future challengers might eventually turn their constituents against them.").

[140] *See* JULIA CAGÉ, THE PRICE OF DEMOCRACY: HOW MONEY SHAPES POLITICS AND WHAT TO DO ABOUT IT 38–59 (Patrick Camiller trans., 2020) (showing how the preferences of the wealthy donor class are reflected in policy).

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support the challenger and her proposed budget or stick with the incumbent who voted for the city council's budget.

Alternatively, imagine a person could enter information into an app about their income, employment situation, and cost of living. The app then generates the probable impact of a state minimum wage referendum. The program could tell them a probability range of changes to their income that would be produced by the law, the likelihood that their job will be impacted, and what that impact might be. The app could provide the person with a range of probabilities regarding the broader impact of the minimum wage proposal on the income of other state residents and employment rates. The person could then use that information to decide whether to support that referendum.

Or, finally, imagine a person could enter information into an app about their income, financial assets, number of children, and family's use of federal government benefits and services. The app then generates a probability assessment of a federal tax reform proposal's impact. The app could provide the person with a probability range of how much more or less they would pay in taxes and how the government benefits and services they receive now—and in the future—would be impacted. The app could also provide the person with a probability range of the tax reform's long-term budgetary consequences on their children's welfare in terms of additional tax burdens or benefits. The person could use that information to contact their representative to tell them to support or oppose the tax reform proposal and hold the representative accountable in the next election if they act against the person's preferences.

As recently as a decade ago, those hypotheticals would have been considered fantastical. Artificial intelligence had not yet broken out of a decades-long lull to reveal the promise that we see today.[141] Today, it is possible to imagine the development of artificial intelligence capabilities that can mitigate, if not completely address, democracy's information problem. If artificial intelligence proves capable of providing democratic citizens with information that is as easy to access and efficient to process as the hypotheticals pose, then there will be an opportunity that has not been available to democracies for a long time. Democratic citizens will be better positioned than they have been since the rise of inequality and affective polarization to hold elected officials and candidates to account for policies they

[141] *See* Yuchen Jiang, Xiang Li, Hao Luo, Shen Yin & Okyay Kaynak, *Quo Vadis Artificial Intelligence?*, DISCOVER A.I., Mar. 7, 2022, at 1, 4, https://link.springer.com/article/10.1007/s44163-022-00022-8 [https://perma.cc/T2GA-6D8F] (describing the "AI winters" arising from disillusionment with AI).

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support or oppose based on information about policies' impacts on their wants and needs.

In this Part, I explore the promise of artificial intelligence as a tool to mitigate democracy's information problem. AI's promise is described in broad conceptual terms as I seek to provide a roadmap for future development. Ultimately, the technical details and development of AI's capabilities will require deep collaboration between computer scientists, engineers, political scientists, economists, statisticians, policy analysts, lawyers, and others. After offering a roadmap, I show how AI could respond to democracy's information problems that are associated with inequality and affective polarization. That includes the problem of both low-information voters who lack the resources and motivation to overcome their political information deficit and higher-information voters who are affectively attached to candidates and parties and lack the resources and motivation to overcome their directionally motivated reasoning.

A. Artificial Intelligence's Capabilities

When it comes to technology, we are in the age of information—an age comparable in its transformational potential to the ages of steam and electricity that preceded it. Computers are at the center of this information age, and their transformational potential is being more fully realized with AI's evolution into what some scholars describe as "the pillar of technology in the contemporary era and beyond."[142]

AI can be defined as a machine "capable of processing a large amount of data coming from various sources and generating insights and summar[ies] of it at extremely fast speed and . . . conveying these results to humans in humanlike interaction."[143] AI's capabilities can be broken down into four major components. AI can: (1) efficiently collect massive amounts of unstructured data (data in the form of text, numbers, or facts that is not structured in tables with specified columns and rows) and add structure to the data; (2) identify patterns from the data and make predictions about future outcomes; (3) generate results and answers to questions from those predictions; and (4) use new information to revise results and answers over time.[144]

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[142] *Id.* at 2.

[143] AMEET V. JOSHI, MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE 4 (2d ed. 2023).

[144] *See* Ella Glikson & Anita Williams Woolley, *Human Trust in Artificial Intelligence: Review of Empirical Research*, 14 ACAD. MGMT. ANNALS 627, 628 (2020).

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AI operates through algorithms and neural networks that are used to train large language models ("LLMs") on what data to collect, the means of data analysis, and the method of data interpretation. LLMs can be trained to collect data from all relevant digital sources. Such data is referred to as "big data" because of the size and complexity of the data available that LLMs can be trained to collect.[145] After collecting data, the LLMs can be trained to perform data analysis, which includes transforming unstructured data into structured data, fixing or accounting for imperfect data (outlier, erroneous, or missing data), and validating the data as reliable or useful.[146] At the last stage, LLMs can be trained to interpret the data through a method of pattern identification that generates predictions.[147]

The Bayesian framework offers a method of pattern identification that holds the most promise as a tool for informing democratic citizens about policies' probable impact on their well-being. Named after Thomas Bayes, an eighteenth-century English presbyterian clergyman and amateur politician, Bayesian methodology involves constructing probability assessments based on experience.[148] The Bayesian starting point is a prior distribution of probabilities about the relationship of outcomes to certain inputs that can be derived from experience, expertise, or even personal belief.[149] As new information from experience about the relationship between outcomes and inputs becomes available, the distribution is sequentially updated to reflect new probabilities about the relationship.[150] This posterior

[145] *See* JOSHI, *supra* note 143, at 7 (defining big data as data that "is large enough such that it cannot be processed on a single machine within reasonable time frame").

[146] *See* Xiangfeng Liu, Jianting Sun, Aidi Lei & Junzhi Zhu, *Research and Applications of Large Language Models for Converting Unstructured Data into Structured Data*, 3RD INT'L CONF. CLOUD COMPUTING, BIG DATA APPLICATION & SOFTWARE ENG'G (CBASE), 2024, at 305, 305, https://ieeexplore.ieee.org/document/10824634 [https://perma.cc/HP23-X88U] (exploring "the promising role of large language models in converting unstructured data into structured formats").

[147] *See* K.R. CHOWDHARY, FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE 15 (2020) (describing artificial intelligence symbol use and pattern identification).

[148] *See Bayes Rules*, ECONOMIST (Jan. 5, 2006), https://www.economist.com/science-and-technology/2006/01/05/bayes-rules [https://perma.cc/QS3S-VQZ4] (describing the development and progress of the statistical methodology associated with Thomas Bayes).

[149] *See* SILVELYN ZWANZIG & RAUF AHMAD, BAYESIAN INFERENCE: THEORY, METHODS, COMPUTATIONS 2–4 (2024).

[150] *See id.* at 3; *see also* BRIAN J. REICH & SUJIT K. GHOSH, BAYESIAN STATISTICAL METHODS 41–42 (2019).

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distribution of outcome probabilities from inputs becomes the basis of statistical inference about the relationship between inputs and outcomes.[151]

A classic example of Bayesian reasoning at work involves the story of the precocious newborn child, who observes the sun rising during its first day of life. The newborn's prior distribution might be that there is an equal probability the sun will rise (the output) every day (the input) based on the newborn's experience or a personal belief about the sun rising. With every day that the sun rises, new data is incorporated into the model such that the posterior probability reaches the level of certainty that the sun will rise every day.[152]

The relationship between certain policies (input) and an individual's well-being (output) is obviously much more complicated and uncertain than the relationship between the sun rising and the day.[153] Whether it is the relationship between a city's educational spending and a child's probable graduation rate and college attendance; minimum wage laws and an individual's salary and employment status; or a tax reform proposal and an individual's access to government benefits and services, there will be a larger confluence of inputs related to the output and correspondingly more uncertainty about the relationships between inputs and outputs. As a result, applying Bayesian reasoning to the complicated relationship between policies and an individual's well-being will produce a much wider probability range than that arising from applying Bayesian reasoning to the relationship between the sun rising and the day.[154] But being informed about a wider probability range regarding the relationship between policy inputs and well-being outputs would still put democratic citizens in a better position than they are now to assess governmental responsiveness to their wants and needs.

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[151] *See* Jasmin Praful Bharadiya, *A Review of Bayesian Machine Learning Principles, Methods, and Applications*, 8 INT'L J. INNOVATIVE SCI. & RSCH. TECH. 2033, 2034 (2023) ("By sequentially updating the posterior distribution as new data becomes available, Bayesian methods can adapt and learn from changing environments, making them applicable to real-time and online learning scenarios.").

[152] *See In Praise of Bayes*, ECONOMIST (Sept. 28, 2000), https://www.economist.com/science-and-technology/2000/09/28/in-praise-of-bayes [https://perma.cc/V4PY-86PW].

[153] For an example of a more complicated Bayesian network analysis, see Mauro Scanagatta, Antonio Salmerón & Fabio Stella, *A Survey on Bayesian Network Structure Learning from Data*, 8 PROGRESS A.I. 425, 428 (2019).

[154] *See* KEVIN B. KORB & ANN E. NICHOLSON, BAYESIAN ARTIFICIAL INTELLIGENCE 4 (2d ed. 2011) (identifying Bayesianism as "the philosophy that asserts that in order to understand human opinion as it ought to be, constrained by ignorance and uncertainty, the probability calculus is the single most important tool for representing appropriate strengths of belief").

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Humans have the capacity and capability to collect, analyze, and interpret data using Bayesian methods on a wide range of questions that are much more data intensive than assessing the relationship between the sun rising and the day. However, due to the extraordinary demands on data collection, analysis, and interpretation, it stretches human capacity and capability to assess and constantly update the relationship between a policy and an individual's well-being. AI can therefore serve as a critical tool for augmenting human capacity and capabilities to provide democratic citizens with critical information about the relationship of policies to their wants and needs.

To see how a Bayesian machine learning model could be trained to perform the task of informing democratic citizens about the probable relationship between policy inputs and their well-being, let's look more closely at one of the hypotheticals posed above.[155] Since Massachusetts adopted the first minimum wage law in 1912, the federal government, most states, and several localities have adopted their own minimum wage laws.[156] To assess the relationship between the adoption of minimum wage laws and the probable employment status of a non-union, low-wage worker in manufacturing, the LLM would have to be trained to collect all available digital data across all states and localities on the employment status of non-union, low-wage employees in manufacturing both before and after the adoption of minimum wage laws in the different jurisdictions. It would also have to be trained to collect data across all states and localities that have adopted minimum wage laws on other relevant contextual inputs. A far-from-exhaustive list of additional data sources might include: (1) the unemployment rate before and after the change; (2) the distribution of workers across occupational and wage status; (3) the broader performance of the economy at the local, state, and national level; (4) the performance of the manufacturing industry at the local, state, and national level; and (5) the status of import and export barriers to trade at the point of the law's adoption.

These data sources would be in the form of unstructured text, numbers, or facts that the LLM would have to be trained to turn into structured forms of data from which patterns could be identified. From these patterns in data collected from state and local jurisdictions over time, the LLM could employ Bayesian methods to assess the probable impact of a state or local jurisdiction's adoption of a minimum wage law on the employment status of a non-union, low-wage worker in manufacturing.

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[155] *See* Bharadiya, *supra* note 151, at 2034–35 (describing the Bayesian machine learning process); Zoubin Ghahramani, *Probabilistic Machine Learning and Artificial Intelligence*, NATURE, May 28, 2015, at 452, 452–54 (providing a summary of probabilistic machine learning processes).

[156] *See* Clifford F. Thies, *The First Minimum Wage Laws*, 10 CATO J. 715, 716–20 (1991) (providing a history of minimum wage laws).

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The prior distribution of probabilities about the relationship between minimum wage laws and employment status might be drawn from expert economists' models or the experience of early adopters of minimum wage laws. Starting from this prior distribution, LLMs could use data from states' and localities' prior adoptions of minimum wage laws, including the contextual inputs described above, to sequentially construct posterior distributions of probable relationships between the laws' adoptions and the employment statuses of particular workers. From the latest posterior distribution, the LLM could generate probability ranges for different employment outcomes resulting from a state's or locality's adoption of a minimum wage law.

Key to whether LLMs can perform the functions proposed for them is whether they can draw predictive probability ranges from numeric analyses. Many of the data sources that LLMs will be asked to analyze in making policy-based predictions will involve numbers, but the predictive analysis that LLMs have performed in most other settings involves text. However, recent studies assessing LLMs' predictive capacities for financial analysis provide bases for optimism. In a review of these studies, Yuqi Nie found "LLMs have shown potential capabilities in *Financial Time Series Analysis*, including forecasting market trends, detecting anomalies, and classifying financial data."[157] LLMs have demonstrated growing capabilities for "understanding complex expressions, dealing with large datasets and handling unstructured data efficiently."[158] These advances are critical for LLMs to be able to perform the discrete policy analysis functions that are advocated for in this Article.

Although the analyses offer a source of optimism about AI's capabilities, more study is necessary to support innovations that will improve both AI's textual and numeric predictive capabilities. It is also important to note that the complex judgments involved in making predictions about future business performance from

[157] Yuqi Nie, Yaxuan Kong, Xiaowen Dong et al., *A Survey of Large Language Models for Financial Applications: Progress, Prospects and Challenges*, ARXIV:2206.11903 [Q-FIN.GN], June 15, 2024, at 2, https://arxiv.org/pdf/2406.11903 [https://perma.cc/6K9Z-G893]. A series of papers have programmed and tested AI capabilities involving time series and numeric datasets yielding positive results regarding the AI tools' predictive capacity. Ming Jin, Shiyu Want, Lintao Ma et al., *Time-LLM: Time Series Forecasting by Reprogramming Large Language Models*, ARXIV:2310.01728 [CS.LG], June 29, 2024, https://arxiv.org/pdf/2310.01728 [https://perma.cc/YHC7-4P5Z]; Nate Gruver, Marc Finzi, Shikai Qiu & Andrew Gordon Wilson, *Large Language Models Are Zero-Shot Time Series Forecasters*, ARXIV:2310.07820 [CS.LG], Aug. 12, 2024, https://arxiv.org/pdf/2310.07820 [https://perma.cc/68HC-427C]; Tian Zhou, Peisong Niu, Xue Wang, Liang Sun & Rong Jin, *One Fits All: Power General Time Series Analysis by Pretrained LM*, ARXIV:2302.11939 [CS.LG] (Oct. 15, 2023), https://arxiv.org/pdf/2302.11939 [https://perma.cc/5U97-TYQ6].

[158] Nie et al., *supra* note 157, at 6.

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financial statements pale in comparison to that which will be required for the policy-based analyses proposed above.[159] But given the innovative leaps that are being made with AI, there is a sense that the technology can meet the demand placed on it here.

In the rest of this Part, I work from the assumption that AI can, through human innovation, be made capable of performing the tasks I have assigned to it. The question I turn to now is whether such an AI tool can mitigate the information problem that plagues democracy.

B. AI and the Low-Information Voter

The hypothetical computer application powered by artificial intelligence that informs democratic citizens about the probable impacts of a policy on their well-being—and candidates' support or opposition to that policy—seems like a promising response to democracy's information problem. To the extent the technology can be developed to incorporate most or all policies in candidates' portfolios and provide the democratic citizen with the opportunity to clearly compare the two candidates based on their support for or opposition to policies relevant to the democratic citizen's well-being, the problem would be mitigated. The technologically derived political information would be easy to access, efficient to process, and effective as a tool for democratic citizens to assess the responsiveness of elected officials and candidates to their wants and needs.

It is on the latter point of effectiveness that technologically derived political information would, in the context of affective polarization, diverge in their usefulness from the usual heuristics. As discussed in Part II, the usual heuristics of party label and news media or opinion leader endorsement can mislead voters into thinking that they are shortcut indicators of the relationship between a candidate's policy portfolios and the voters' interests.[160] If the information produced by technology provides an accurate appraisal of policy and its relationship to a democratic citizen's well-being, then democratic citizens will be able to hold elected officials to account for the things they do.

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[159] *See generally* Thomas L. Saaty, *Multi-Decisions Decision-Making: In Addition to Wheeling and Dealing, Our National Political Bodies Need a Formal Approach for Prioritization*, 46 MATHEMATICAL & COMPUT. MODELLING 1001, 1001 (2007) ("Government decisions are even more complex than those of corporations: corporations do not have the issues with pressure from all sides that governments have, nor do they involve as much politics.").

[160] *See supra* Part II.

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For technologically derived information to be useful to low-information voters, however, there remains the problem of know-how and motivation. Just as in the case of the usual heuristics, for a democratic citizen to be able to use technologically derived information, they require some preliminary information. In the case of heuristics, the democratic citizen needed preliminary information about the meaning of the heuristics and how that heuristic relates to their well-being.[161] In the case of technologically derived information, the democratic citizen will need to know about the availability of the technology, learn how it works, and have an understanding of what policies might be relevant to their well-being. These challenges are not easy to overcome, and it should not be assumed the low-information voter will have time, resources, and motivation to obtain the necessary knowledge to make the best use of the technology.

There remains, nonetheless, a means by which inequality in responsiveness to most low-information voters can be redressed even if most of those democratic citizens will not take full advantage of the technology. To understand how, we need to return to the anticipated preference model. According to that model, risk-averse elected officials will seek to anticipate the wants and needs of their constituents to secure the best chance for reelection. Similarly, to be elected, candidates challenging an incumbent will seek to promote policies that they think will be more consistent with the wants and needs of their constituents.[162] The model breaks down when elected officials or candidates are unable to ascertain the wants and needs of a broad segment of their constituencies because of their lack of engagement with the neglected parts of their constituency or their over-engagement with the advantaged parts of their constituency. In this instance, the elected officials and candidates lack the capacity to anticipate the policy-related interests of their constituents.

The model also breaks down when democratic citizens prioritize considerations such as social identity and affinity toward one's party over policies in their voting decisions. In those instances, the elected officials and candidates will lack incentives to anticipate the policy-related interests of their constituents. Elected officials can be reelected through campaign appeals to emotional attachments, affect, and resentment while supporting policies mostly unresponsive to their constituents' preferences.

It is unlikely that an elected official or candidate will entirely lack the capacity or incentives to anticipate all the wants and needs of their neglected constituents. On the most salient matters, elected officials will likely think they need to anticipate the

[161] *See supra* Section II.B.

[162] *See supra* notes 60–62 and accompanying text.

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preferences of enough of their constituents to be reelected.[163] But on the many other policies that are less salient, are less traceable, or require that democratic citizen be able to resolve disputes about the policies' relevance and impact on their lives, elected officials' capacity and perceived need to anticipate will likely be low.

The availability of technologically derived information can respond to the anticipated preference model's breakdown. The information about policies' impacts on individuals' well-being is not only useful to democratic citizens making voting decisions, but also to elected officials and candidates seeking to understand policies' relevance to their constituents' preferences. The technology could provide elected officials and candidates with the capacity to anticipate the preferences of their many neglected constituents and formulate a more responsive policy platform.

Technologically derived information could also increase the politicians' incentives to anticipate the preferences of their constituents. The availability of easy-to-assess, efficient-to-process information raises the perceived costs associated with ignoring the preferences of their constituents. It creates the possibility that their constituents, equipped with policy-relevant information, will not simply vote based on emotional attachment, resentment, or other policy-irrelevant considerations. For risk-averse politicians, that possibility could increase the number of policy matters for which they think they need to anticipate their constituents' preferences.

Finally, for the low-information voter ill-equipped to proactively use technology to inform their understanding of policies and their relevance to their own well-being, such information derivable from technology can be effectively used in a reactive way. Rather than being burdened with the responsibility of seeking out policies to assess, they can use the technology to verify policy-based assertions that politicians make through advertisement and mobilization efforts and that news media and opinion leaders make through reports and endorsements. This verification opportunity raises pressure on politicians to support policies they think align with their constituents' preferences because the risks associated with lying and misleading are greater.

An AI system that can produce policy-relevant information is certainly no panacea. There is no guarantee that low-information voters will proactively seek to use the technology to their benefit. But the availability of technologically derived information could change political dynamics by increasing the capacity and incentive for politicians to be responsive to the needs of those low-information voters previously unable to hold them to account.

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[163] *See supra* note 139 and accompanying text.

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C. AI and the Motivated-Reasoning Voter

For directionally motivated reasoning voters, the problem is less about their capacity to acquire and process new political information and more about their willingness to do so. The question for these voters is whether technologically derived information will be believed or change their views on a policy question. If neither, then the availability of easily accessible and efficiently processed political information from technology will not significantly change politicians' incentives to be responsive on policy matters because voters will not hold them to account.

Findings from a series of political psychology studies raise significant doubts about whether technologically derived information can mitigate the aspects of democracy's information problem associated with motivated reasoning. In fact, the studies suggest that using technology to make new and accurate information more available could worsen democracy's information problem by intensifying the motivated reasoning it is intended to redress.

In a foundational study on motivated reasoning, political psychologists Charles Taber and Milton Lodge conducted an experiment in which participants shared their prior attitudes on affirmative action and gun control and were then presented with arguments for and against on the two issues.[164] Rather than moderating or maintaining their views on the issues, the presentation of the pro and con arguments led sophisticated participants with strong priors to strengthen their prior attitudes on the issues.[165] The introduction of new information served to further polarize the participants' views on the issues—an effect likely to intensify the motivated reasoning that new information about issues would ideally redress. From that finding, Taber and Lodge concluded that "the unconscious linking of feelings to thoughts to preferences to behavioral intentions . . . conspire to promote our view of the individual as more rationalizer than rational decision maker."[166]

In another study, political psychologists Brendan Nyhan and Jason Reifler conducted two rounds of experiments testing how participants respond to information in news reports correcting common misperceptions on salient issues.[167]

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[164] Taber & Lodge, *supra* note 127, at 755–56.

[165] *Id.* at 765 ("Pooling the data . . . we find strong evidence of attitude polarization for sophisticated participants, those with strong priors, and (most importantly) those who were biased in their information processing.").

[166] LODGE & TABER, *supra* note 121, at 26.

[167] Nyhan & Reifler, *supra* note 126, at 304.

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The participants were first asked to read a news report that included a political figure's statement reinforcing a broadly held misperception.[168] They were then randomly assigned to receive or not to receive corrective information immediately after the misleading statement.[169] At the last step, the participants were presented with a series of factual and opinion questions used to assess the impact of the corrective information on their perceptions.[170]

The findings from the experiments revealed that for those with the strongest prior attitudes on the issues the corrective information not only failed to reduce misperceptions but also had what the scholars label a "backfire effect."[171] According to this backfire effect, motivated reasoners presented with contrary information tended to counter-argue in ways that strengthened their attachment to their "ideologically grounded factual beliefs."[172] To the extent that those ideologically grounded factual beliefs were divorced from facts, the backfire effect diminished democratic citizens' relationship to facts.[173]

The studies thus suggest not only that motivated reasoners are unwilling to consider new information contrary to their biased reasoning, but also that their biased reasoning becomes more entrenched when presented with countervailing information. Those troubling findings came, however, with a hopeful finding and a caveat. On the hopeful side, political psychologists found that the backfire effect was limited to democratic citizens who were ideologically committed to the issue.[174] For those who did not have ideological commitments to the issue, new corrective information had the effect that rational choice theory predicts: those democratic

[168] *Id.* at 310.

[169] *Id.*

[170] *Id.*

[171] *Id.* at 323.

[172] *Id.*

[173] *See id.* (finding that corrective information "actually *strengthen* misperceptions among ideological subgroups in several cases"); *see also* Bert N. Bakker, Gijs Schumacher & Matthijs Rooduijn, *Hot Politics? Affective Responses to Political Rhetoric*, 115 AM. POL. SCI. REV. 150, 153 (2021) ("Stronger (more extreme) attitudes on an issue produce stronger biases in information processing. Affective primes also have stronger effects on people with stronger attitudes on an issue." (citation omitted)).

[174] *See* Nyhan & Reifler, *supra* note 126, at 323.

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citizens were motivated to update their beliefs and perceptions in the direction toward accuracy.[175]

The studies' caveat is that the experiments involved only salient issues—like affirmative action, the Iraq War, and gun control—on which the participants were likely to hold strong attitudes. There are likely to be fewer ideologically committed democratic citizens on less-salient issues, improving new information's potential utility as a gap filler and corrective.

Subsequent studies offer hope that the impact of motivated reasoning on democratic citizens' capacity and willingness to process new information is not as bad as once feared. One experimental study found an affective tipping point at which incongruent information can overcome motivated reasoned evaluations.[176] When motivated reasoners receive enough incongruent information, they will shift from defending their prior beliefs to accurately updating their prior beliefs.[177]

Two other experimental studies examining participants' responses to corrective information inconsistent with their prior beliefs raised questions about the existence of a backfire effect. Neither study—which included a wider array of issues, both more and less salient, and a larger number of participants—found any examples of a backfire effect.[178] The authors of the first study recognized that the findings do not mean that a backfire effect "is categorically impossible," but they offered a reason for why it is unlikely.[179] They note that Americans tend to not put much cognitive effort into democratic decision-making and that counter-arguing requires an investment of cognitive effort that most Americans are unwilling to make.[180] The authors of the second study acknowledged their experimental findings about individuals' capacity

[175] *See, e.g.*, James N. Druckman, *The Politics of Motivation*, 24 CRITICAL REV. 199, 205 (2012) (finding that "motivated reasoning disappeared for ambivalent individuals (i.e., those less trusting of their party)").

[176] *See* Redlawsk et al., *supra* note 105, at 564, 583 (finding that there is "a point at which voters stop reinforcing their preferences, abandon motivated reasoning, and begin 'rational' updating").

[177] *Id.* at 583 (finding an affective tipping point in experimental studies that falls somewhere between 13%–28% incongruent information).

[178] *See* Thomas Wood & Ethan Porter, *The Elusive Backfire Effect: Mass Attitudes' Steadfast Factual Adherence*, 41 POL. BEHAV. 135, 137 (2019); Andrew Guess & Alexander Coppock, *Does Counter-Attitudinal Information Cause Backlash? Results from Three Large Survey Experiments*, 50 BRIT. J. POL. SCI. 1497, 1499 (2020).

[179] Wood & Porter, *supra* note 178, at 142.

[180] *Id.* at 160.

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to update their prior beliefs with new information might not translate into the real world, where people can "selectively avoid counter-attitudinal information."[181]

The contrasting studies from political psychology suggest at least two possibilities regarding the impact of technologically derived information on democracy's information problem. One possibility is that the availability of corrective information either does not change or leaves more entrenched the views on issues for which democratic citizens are ideologically committed. That leaves a wide swath of issues and democratic citizens on which technologically derived information could have a positive mitigating effect on the information problem.[182] Another possibility is that technologically derived information constantly updated with new, widely available facts overcomes motivated reasoning. Both possibilities would have positive results for mitigating democracy's information problem.

* * *

We are probably some ways from the ideal state, in which artificial intelligence reaches the level of technological capability to produce probability-based predictions about policies' impact on individuals' well-being. Nonetheless, technological advances and social science behavioral studies suggest that a pathway exists for artificial intelligence to serve as a tool for mitigating democracy's information problem. It is important to emphasize technology's proposed role as a mitigator of the information problem. Technology alone cannot solve an information problem rooted in historical disadvantage, a convoluted information space, and widespread efforts to mislead. But adding technology to the toolkit of possible responses to the information problem could be a significant positive for democracy.

There are, however, a host of other challenges associated with using AI to mitigate democracy's information problem. Even if the technology proves capable of performing the tasks assigned to it here, it will fail to mitigate democracy's information problem if it is not considered trustworthy. The critical requirements for building trust in artificial intelligence in the democracy space is the focal point of this Article's final Part.

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[181] Guess & Coppock, *supra* note 178, at 1512.

[182] *See, e.g.*, Toby Bolsen, James N. Druckman & Fay Lomax Cook, *The Influence of Partisan Motivated Reasoning on Public Opinion*, 36 POL. BEHAV. 235, 248–49 (2014) (finding no evidence of motivated reasoning on an issue for which the experiment participants lacked ideological priors); Jennifer Jerit & Jason Barabas, *Partisan Perceptual Bias and the Information Environment*, 74 J. POL. 672, 679 (2012) (finding through an experiment that "perceptual bias becomes greater on topics receiving extensive media coverage").

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IV. AVOIDING THE PERILS OF ARTIFICIAL INTELLIGENCE

The promises of AI as a tool for mitigating democracy's information problems are significant, but there are potential perils associated with its use that could exacerbate the problem. AI trained on low-quality data could serve as another source of misinformation that misleads democratic citizens on the policies politicians support and oppose and those policies' impact on democratic citizens' well-being. AI trained on high-quality data might still make the information problem worse if the process for achieving the results (the probability-based prediction of a policy's impact on a democratic citizen's well-being) is not transparent. A process that is not transparent is one that cannot be adequately interpreted by the user, explained to the user, or be held accountable through external replication that tests the reliability of the results. An AI system that lacks transparency is less likely to be broadly accepted, particularly in a context of deep polarization, even if the results it produces are accurate. To avoid these perils, it is important to establish a legal and institutional framework that incentivizes or forces adherence to the principles of trustworthy AI.

A. Trustworthy AI

Along with the development of AI over the past decade concerns have emerged about its trustworthiness. Trust has been popularly defined as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party."[183] In the context of AI, it is the democratic citizen being made vulnerable to the actions of a machine with the expectation that the machine will produce information the democratic citizen can trust, even when it cannot monitor or control the machine. For AI to be trustworthy, it must be "developed, deployed, and used in ways that not only ensure its compliance with all relevant laws and its robustness but especially its adherence to general ethical principles."[184] There are several ethical principles that are central to trustworthy AI, including transparency, autonomy, safety, reliability, fairness, and privacy.[185] Adherence to these ethical principles is necessary to foster trust of AI and to secure public acceptance of the technology's use to mitigate democracy's information problem.

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[183] Roger C. Mayer, James H. Davis & F. David Schoorman, *An Integrative Model of Organizational Trust*, 20 ACAD. MGMT. REV. 709, 712 (1995).

[184] Scott Thiebes, Sebastian Lins & Ali Sunyaev, *Trustworthy Artificial Intelligence*, 31 ELEC. MKTS. 447, 451 (2021).

[185] *See* Davinder Kaur, Suleyman Uslu, Kaley J. Rittichier & Arjan Durresi, *Trustworthy Artificial Intelligence: A Review*, 55 ACM COMPUTING SURVS. 39:1, 39:4 (2022) (identifying principles underlying trustworthy AI).

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In the following Section, I focus on two requirements for creating a robust and ethical AI system that need to be met to avoid exacerbating the misinformation problem and to secure broad public acceptance: high-quality data and transparency. Focusing on these two aspects of trustworthy AI does not mean the other considerations are irrelevant—they certainly are relevant—and a few will be addressed in the requirements for high-quality data and transparency. But as a foundational matter, if the AI system is trained on bad data and it lacks transparency, it will certainly fail to mitigate democracy's information problem.

1. Data Quality

Generative AI tools like ChatGPT are trained on massive amounts of data available on the internet.[186] The data is not curated and is of varying levels of quality in terms of accuracy and reliability.[187] The result is that such models "can be unreliable, making errors of both fact and reasoning that can be spread on an unprecedented scale."[188] Members of the public using these generative AI tools are vulnerable to receiving misinformation that can spread.

Hallucination is a form of misinformation delivery that has gained prominent attention recently. A hallucination is defined as "output generated by [large language models] that is nonsensical, not factual, unfaithful to the underlying content, misleading, or partially or totally incorrect."[189] Some hallucinations are so farcical that they are easy to detect. Others, however, are more subtle, and the user may lack the background knowledge necessary to understand that the AI tool is in fact hallucinating.

Aside from the hallucination problem, there is the fact that a considerable amount of the content on the internet is manipulated, and it is not clear whether and how a generative AI tool like ChatGPT discriminates between manipulated and real

[186] *See* Vinay Chamola, Vikas Hassija, A. Razia Sulthana, Debshishu Ghosh, Divyansh Dhingra & Biplab Sikdar, *A Review of Trustworthy and Explainable Artificial Intelligence (XAI)*, 11 IEEE ACCESS 78994, 78997 (2023) ("[Machine Learning] approaches dominate AI today, with the fundamental feature of building a reasoning system directly from data, typically in massive amounts, without explicit rules to obtain the process outcome.").

[187] *See* Scott Monteith, Tasha Glenn, John R. Geddes, Peter C. Whybrow, Eric Achtyes & Michael Bauer, *Artificial Intelligence and Increasing Misinformation*, 224 BRIT. J. PSYCHIATRY 33, 33 (2024).

[188] *Id.*

[189] *Id.*

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content.[190] Finally, there is the problem of representation bias. Representation bias arises when the data available "does not represent all segments of society equally."[191] That bias could arise from the manipulation of content or it could be the byproduct of past and current societal discrimination that results in the underrepresentation of racial minorities, women, and other historically marginalized groups in the data.[192]

OpenAI—the developer of ChatGPT—and others have made efforts to mitigate the misinformation problem through means such as pre-moderation. Pre-moderation involves "a team of human moderators [who] review and approve content before it is made publicly available."[193] This response is, however, ultimately inadequate because humans lack the capacity to moderate the extraordinary amount of content that generative AI tools are producing on the back end. Automated pre-moderation is a response to the human capacity problem that could be effective at addressing abusive AI generated content but is doubtful in its capabilities to identify false information.[194]

The limited response to the misinformation problem from commercial AI companies arises from the fact that they are profit-motivated to create the most powerful generator of intelligence.[195] This ultimately leads to the approach of using AI to gather as much data as is available and then hoping the AI tool produces accurate results. The response to accuracy failure is more power and more hope for better results.[196]

An AI tool tasked with providing political information relevant to democratic choice should not be singularly, or even primarily, focused on creating the most

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[190] *Id.* at 34.

[191] Kaur et al., *supra* note 185, at 39:10.

[192] *Id.*

[193] Philipp Hacker, Andreas Engel & Marco Mauer, *Regulating ChatGPT and Other Large Generative AI Models*, *in* PROCEEDINGS OF THE 6TH ACM CONFERENCE ON FAIRNESS, ACCOUNTABILITY, AND TRANSPARENCY (FACCT 2023) 1112, 1113 (2023).

[194] *See id.* (acknowledging the possibility that automatic pre-moderation can redress abusive content but identifying the continued danger of AI-generated "fake news" that automated pre-processing would have difficulty spotting).

[195] *See, e.g.*, DARON ACEMOGLU & SIMON JOHNSON, POWER AND PROGRESS: OUR 1000-YEAR STRUGGLE OVER TECHNOLOGY AND PROSPERITY 316–20 (2023) (criticizing corporate artificial intelligence developers for fixating on creating powerful machine intelligence that uses mass-scale data over creating machines that usefully augment human intelligence).

[196] *See id.* at 319–20.

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powerful generator of intelligence. Instead, the accuracy goal needs to be prioritized because the costs associated with an AI system producing misinformation used to make democratic choices are so high. Those costs include the perpetuation of unresponsive and unaccountable elected officials and further declines in support for democracy.

In an ideal future state, creating the most powerful generator of intelligence would align with producing the most accurate result, but that is not where we are with AI development right now. In the current state, the curation of data that an AI tool will be trained on is vital for creating the most accurate results possible. Curation involves the human selection of data sources on which AI tools will be trained. Such decisions should be based on considerations designed to ensure that the AI tool is being trained on high-quality data that has not been manipulated nor does it suffer from extreme representation bias.[197]

AI tools trained on more limited data than those on which commercial AI tools are trained will be less powerful, and they may not necessarily produce more reliable political information. The fact is, we do not know whether and how much more reliable the political information from AI tools trained on curated, as opposed to mass, data will be over time. Institutions responsible for employing the AI tools to provide political information should therefore constantly compare results from AI tools trained on curated and mass data and make appropriate adjustments to the curation process.

Even if increased reliability benefits are not realized from AI tools trained on curated data, there is a related accountability benefit that favors the use of curated data. AI tools trained on curated data made known and available to the public can be reproduced more easily than AI tools trained on mass data that might not be equally accessible due to corporate or other institutional constraints on data use. Opportunities to reproduce results builds checks into the system to ensure that the AI tools' results comport with the data inputs on which they are trained. AI tools can be held accountable through such checks, which will build public trust in the system. Accountability and trust, however, require not only access to data inputs but also transparency of algorithmic processes and results.

[197] *See* Hacker et al., *supra* note 193, at 1113 (describing curation as a way to mitigate AI generation of "biased, prejudiced, or harmful" content).

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2. Transparency

Transparency is widely considered a critical feature of trustworthy AI. Transparency has two primary components. First, AI results must be interpretable, meaning that they make sense to the human user of the tools.[198] A democratic citizen made vulnerable to AI cannot know whether an AI tool is performing as expected if they cannot interpret the results being produced. Uninterpretable results are more likely to mislead as democratic citizens are less able to make sense of the results in a way that comports with the meaning of those results. Uninterpretable results are also subject to external manipulations as democratic citizens rely on others to give meaning to the results. Those others may not be in a better position to interpret the results or choose to use their better position to misinform about the meaning of the results. Either way, uninterpretable results have the potential to exacerbate democracy's information problem.

Making AI tools interpretable requires meeting the users where they are. That means presenting the results in a way that is accessible to users across the education and knowledge range.[199] One way to meet users where they are is to present the results in as diverse an array of formats as is available. This could include textual, graphical, interactive, visual, and audio presentations.[200] Another way to make results interpretable is to include a simple explanation of the results with the presentation. Care, however, must be taken regarding the extent of explanation. Too little would be insufficient to make the information interpretable. Too much might keep democratic citizens from using AI because the perceived information acquisition and processing costs become too high.[201] A method to achieve just the right amount of information is through an information layering process in which the democratic citizen is given a choice about how much explanatory information they want to see.

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[198] Alejandro Barredo Arrieta, Natalia Díaz-Rodríguez, Javier Del Ser et al., *Explainable Artificial Intelligence (XAI): Concepts, Taxonomies, Opportunities and Challenges Toward Responsible AI*, 58 INFO. FUSION 82, 85 (2020).

[199] *See* P. JONATHON PHILLIPS, CARINA A. HAHN, PETER C. FONTANA ET AL., U.S. DEP'T COM., FOUR PRINCIPLES OF EXPLAINABLE ARTIFICIAL INTELLIGENCE 4 (2021) (identifying factors that contribute to making AI results meaningful to democratic citizens, which include "understanding the audience's needs, level of experience, and relevancy to the question or query at hand").

[200] *See, e.g.*, Arrieta et al., *supra* note 198, at 88 (providing different examples of explanation formats).

[201] *See* PHILLIPS ET AL., *supra* note 199, at 4–5 (describing the tradeoffs between too little and too much explanatory information); Kaur et al., *supra* note 185, at 39:17–39:18 (identifying the different levels of explanation and the need to find the right balance).

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The second AI transparency component that is critical to trust is explainability. Trust in AI machines requires that the process they use to convert data inputs into outcome predictions be explainable to democratic citizens.[202] AI that cannot be explained to democratic citizens may lead to distrust arising out of the inability to understand how the results were reached.[203]

Explainability, however, comes with a trade-off. The more sophisticated AI models do not rely on rule-based algorithms like Bayesian methods to make predictions from data.[204] Instead, they are designed to operate more like a human brain through deep learning, which involves a multi-layered neutral network that uses data to learn to construct and modify complex algorithms that are then used to make predictions from the data.[205] Deep learning has been a revolutionary innovation that has enabled AI machines to perform more complicated tasks using larger amounts of unstructured data through a process of self-learning.[206] There could be some considerable advantages from employing deep learning AI models to provide political information to democratic citizens. For example, rather than using a more traditional AI model to assess the impact of specific policies on an individual's well-being, a deep learning AI model might be able to examine entire portfolios of policies and make predictions about their overall impact on an individual's well-being.

But those deep learning model advantages come with costs in terms of explainability. Just as humans still have so much to learn about how the brain works, much of the deep learning multi-layered neutral networks and complex algorithms function as a black box in which the results can be observed, but the process of achieving those results is impossible to understand.[207] Many of those deep learning

[202] *See* PHILLIPS ET AL., *supra* note 199, at 2.

[203] *See, e.g.*, Luciano Floridi, Josh Cowls, Monica Beltrametti et al., *AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations*, 28 MINDS & MACHS. 689, 701 (2018) ("It is especially important that AI be explicable, as explicability is a critical tool to build public trust in, and understanding of, the technology."); Arrieta et al., *supra* note 198, at 83 ("In general, humans are reticent to adopt techniques that are not directly interpretable, tractable and trustworthy.").

[204] *See* SHRIRAM K. VASUDEVAN, SINI RAJ PULARI & SUBASHRI VASUDEVAN, DEEP LEARNING: A COMPREHENSIVE GUIDE 65 (2021) (explaining the different framework for "deep learning" AI models).

[205] *See, e.g.*, *id.* at 65–75 (summarizing the deep learning framework with an analogy to human neurons).

[206] *See* Hacker et al., *supra* note 193, at 1113 (describing features of the more advanced large generative AI models).

[207] *See* ARMIN B. CREMERS, ALEX ENGLANDER, MARKUS GABRIEL ET AL., FRAUNHOFER INST. FOR INTELLIGENT ANALYSIS & INFO. SYS., TRUSTWORTHY USE OF ARTIFICIAL INTELLIGENCE: PRIORITIES FROM A PHILOSOPHICAL, ETHICAL, LEGAL, AND TECHNOLOGICAL VIEWPOINT AS A BASIS FOR

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processes are extraordinarily complex and beyond human knowledge, raising concerns about whether such unexplainable models will be trusted, particularly in the current context of extreme polarization and high political distrust.[208] To the extent an AI machine produces political information that cannot be clearly traced, humans will likely be reluctant to accept it and more likely to rely on the traditional and decreasingly useful heuristics of partisan labels, opinion leaders, or news media to make democratic choices.

The more traditional AI model proposed in Part III, which relies on a pre-determined Bayesian algorithm, would not have the same capabilities as a deep learning model. But because its processes can be explained, it is more likely to serve as a trusted supplement or substitute for traditional sources of political information.[209] The rules that structure the algorithm can be made transparently available so that the public can understand how the AI tool converts data inputs into probability-based outcomes. An explainable algorithmic process using curated and broadly accessible data inputs would be eminently reproducible, leading to an accountable system of information production that the public should be more inclined to accept.

B. Law and Institutions

Countries around the world are trying to figure out how best to regulate AI. From the Montreal Declaration for a Responsible Development of Artificial Intelligence in 2018 to the White House's Blueprint for an AI Bill of Rights in 2022 to the European Union's Artificial Intelligence Act in 2024, the focal point has been on how to mitigate current and foreseen harms from AI.[210] Commercially developed

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CERTIFICATION OF ARTIFICIAL INTELLIGENCE 11 (2019) ("Black boxes are systems in which only the external behavior can be observed. The internal function mechanisms are not accessible . . . due to complexity or a lack of knowledge."); Arrieta et al., *supra* note 198, at 83 (describing the aspects of deep learning models that lead them to "be considered as complex black-box models" (emphasis omitted)).

[208] *See* Arrieta et al., *supra* note 198, at 83 ("As black-box Machine Learning (ML) models are increasingly being employed to make important predictions in critical contexts, the demand for transparency is increasing from the various stakeholders in AI.").

[209] *See* Chamola et al., *supra* note 186, at 78995 ("Primitive machines and algorithms did not have trust issues as the machine would perform whatever task it had been coded to perform."); Arrieta et al., *supra* note 198, at 85 ("Any means to reduce the complexity of the model or to simplify its outputs should be considered as an [explainable AI] approach.").

[210] MONTRÉAL DECLARATION FOR A RESPONSIBLE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE (2018); THE WHITE HOUSE, BLUEPRINT FOR AN AI BILL OF RIGHTS: MAKING AUTOMATED SYSTEMS WORK FOR THE AMERICAN PEOPLE (2022); EUROPEAN UNION, PROPOSAL FOR A REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL: LAYING DOWN HARMONISED RULES ON ARTIFICIAL INTELLIGENCE

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AI systems have been the primary targets for legal regulation thus far.[211] At the center of those regulatory frameworks are the principles of trustworthy AI.[212] They include promoting transparency and fairness; protecting the autonomy, safety, and privacy of individuals; classifying risks associated with AI systems; and assigning obligations to developers based on their system's risk level.[213] The European Union law also establishes an agency, the AI Office, that is responsible for implementing the Act.[214]

Legal and institutional frameworks will also be key to the creation of trustworthy AI systems that can mitigate democracy's information problem. The AI system proposed in this Article should not be guided by the same profit motive as other commercially developed and operated systems. Instead, democracy promotion should be the overriding objective of such systems. As a result, the focus of the regulatory framework and the institutional methods for enforcing the framework will vary somewhat from those applicable to commercial AI. The following is not meant to be a comprehensive account of the law and institutional frameworks necessary for a trustworthy AI system in the democracy space. Rather, it is intended to function as a starting point to identifying some legal and institutional frameworks that would be valuable for promoting that goal.

Consistent with the subordination of the profit motive, democracy-promoting AI systems should be developed and operated by governmental or non-profit institutions. None of the systems' features or AI operations should be proprietary. Instead, in accordance with transparency goals, the law should ensure that the AI systems' features and operations are available, accessible, and easy to reproduce. As explained above, maintaining transparent AI system features and operations provide

(ARTIFICIAL INTELLIGENCE ACT) AND AMENDING CERTAIN UNION LEGISLATIVE ACTS (2024) [hereinafter EU AI ACT].

[211] *See, e.g.*, ISACA, UNDERSTANDING THE EU AI ACT: REQUIREMENTS AND NEXT STEPS 6 (2024), https://www.isaca.org/resources/white-papers/2024/understanding-the-eu-ai-act [https://perma.cc/52WX-6CWM].

[212] *See* Kaur et al., *supra* note 185, at 39:2 (describing the relationship between trustworthy AI and different legal and institutional AI frameworks).

[213] *See* sources cited *supra* note 210.

[214] *See* EUROPEAN UNION, ANNEXES TO THE EU AI ACT 9–13 (2024) (establishing a conformity assessment procedure for AI to be performed by an AI agency).

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external actors with the opportunity to check processes and results in ways that will promote trust.[215]

Law should also ensure that relevant data is as widely accessible as possible and that the data inputs used are transparently available to the public. In terms of data accessibility, the U.S. Constitution and state constitutions already mandate that legislatures make their records of proceedings available to the public.[216] Public records laws at the federal level and in all fifty states require the provision of more data about governmental actions.[217] Valuable data from these sources include statements and reports about the law and its intended impact, as well as accounts of past laws and their experienced effect.[218] The record also includes roll call votes,[219] which is critical evidence of elected officials' support and opposition of policies.

Complementing the legislative record are governmental and non-governmental institutions like the Governmental Accountability Office ("GAO") and the Congressional Budget Office ("CBO") that examine policies and their impacts.[220] The data inputs currently available may be sufficient for some policies at the federal policy level, but more sources of data would be valuable at all governmental levels to satisfy the purposes advocated here. Most states and localities lack an equivalent to the federal GAO, CBO, or other institution that assesses governmental performance or policy impacts.[221] Creating such institutions within state and local governments, or in other institutions like colleges and universities, would enhance the effectiveness of AI tools as predictors of policy impacts on democratic citizens.

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[215] *See supra* Section IV.A.

[216] *See, e.g.*, U.S. CONST. art. I, § 5, cl. 3 ("Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy."); PA. CONST. art. II § 13 ("The sessions of each House and of committees of the whole shall be open unless when the business is such as ought to be kept secret."). *See generally* G. ALAN TARR, UNDERSTANDING STATE CONSTITUTIONS (1998).

[217] *See* 5 U.S.C. § 552; *Public Records Law and State Legislatures*, NCSL (Apr. 16, 2025), https://www.ncsl.org/cls/public-records-law-and-state-legislatures [https://perma.cc/99FC-2454].

[218] *See Public Records Law and State Legislatures*, *supra* note 217.

[219] *See id.*

[220] *See, e.g.*, *Artificial Intelligence*, U.S. GOV'T ACCOUNTABILITY OFF., https://www.gao.gov/artificial-intelligence [https://perma.cc/W6QM-BR6L] (last visited July 1, 2025); CONG. BUDGET OFF., ARTIFICIAL INTELLIGENCE AND ITS POTENTIAL EFFECTS ON THE ECONOMY AND THE FEDERAL BUDGET (2024), https://www.cbo.gov/publication/60774 [https://perma.cc/7G42-RBLY].

[221] *See, e.g.*, FREDERICK M. KAISER, CONG. RSCH. SERV., RL30349, GAO: GOVERNMENTAL ACCOUNTABILITY OFFICE AND GENERAL ACCOUNTING OFFICE 1–8 (2008) (cataloguing GAO functions and responsibilities); Philip Rocco, *Keeping Score: The Congressional Budget Office and the Politics of Institutional Durability*, 53 POLITY 691, 698–99 (2021) (describing some of the functions of the CBO).

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Establishing state and local equivalents of GAOs and CBOs will not be cheap or easy, but partnerships with policy-oriented and academic institutions can make it more feasible.

Law should ensure that any data input the AI system uses is transparently available to the public. The list of data sources, inputs, and weights the AI algorithmic system gives to those inputs in making its predictions of a policy's impact should be publicly available. Such data availability promotes the goals of making the system interpretable and explainable to the user, reproducible by external actors, and ultimately accountable to the public.

Since humans will be involved at the stage of curating the data and establishing the rules for the algorithm, they will need to be both accountable for their decisions and independent from politics. Both the accountability and independence of the system will promote trust. But creating such an institutional framework that promotes the two goals will be challenging. The independent agency model could serve as a guiding institutional framework.

Through this institutional framework, regulators in public agencies should make decisions and set rules in coordination with AI system developers and operators in ways that are responsive to public input. Whether by notice and comment proceedings, public meetings with interested persons, or other opportunities for public engagement, the agencies should make decisions or establish rules through a process of public collaboration. Public collaboration should lead to decisions and rules derived from multiple sources of input and explanations of the choices made.

Regulators should also be insulated from partisan influence on their decisions and rules. Elected officials will have an obvious incentive to secure AI system results that favor the policies they have supported and disfavor the ones they have opposed or that their electoral opponent supports. The choice of data inputs or algorithmic rules could provide an opening for partisan manipulation of the AI system. Such partisan influence could be channeled through the appointment and removal process or through funding. The most constitutionally available means for resisting improper external influence is through limits on removal and the establishment of insulated streams of funding.[222] At the federal level, however, those tools of agency

[222] *See* Rachel E. Barkow, *Insulating Agencies: Avoiding Capture Through Institutional Design*, 89 TEX. L. REV. 15, 16 (2010) ("[T]he defining hallmark of an independent agency is that it is headed by someone who cannot be removed at will by the President but instead can be removed only for good cause."); Charles

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independence are under threat from a Supreme Court that is quite skeptical of the administrative model.[223] Further, at the state level, there is considerable instability in the agency independence model.[224]

In this state of legal flux, it is challenging to prescribe with any precision what a constitutionally sustainable form of independence might look like for an AI agency. The Federal Reserve (the "Fed"), however, remains the gold standard for agency independence that could provide a blueprint.[225] Since the Fed's structure has effectively preserved the agency's independence and that structure has not yet been subject to a successful constitutional attack,[226] the AI agency should incorporate as many of its structural features as might make sense. First, the AI agency should operate as a technocratic institution advancing a statutorily specified goal of informing the public on policy impacts.[227] Second, the political appointees in the AI agency should have long, statutorily mandated terms in office to secure stable leadership in the agency across presidential administrations.[228] Third, political appointees in the AI agency should be given statutory for-cause removal

Kruly, Essay, *Self-Funding and Agency Independence*, 81 GEO. WASH. L. REV. 1733, 1743 (2013) ("Self-funding is no doubt a critical indicator of independence.").

[223] *See, e.g.*, Mark A. Lemley, *The Imperial Supreme Court*, 136 HARV. L. REV. F. 97, 99–102 (2022) (describing the current Supreme Court's efforts to diminish agency power and independence).

[224] *See* Miriam Seifter, *Understanding State Agency Independence*, 117 MICH. L. REV. 1537, 1560–61 (2019) (identifying sources of agency independence instability at the state level).

[225] *See* Steven A. Ramirez, *Depoliticizing Financial Regulation*, 41 WM. & MARY L. REV. 503, 522 (2000) ("The Federal Reserve Board (the Fed) is an example of just how politically independent an agency may be.").

[226] *See* Selia L. LLC v. Consumer Fin. Prot. Bureau, 591 U.S. 197 (2020) (upholding Congress's power to insulate the heads of multimember administrative bodies from at-will removal by the President).

[227] *See* PETER CONTI-BROWN, THE POWER AND INDEPENDENCE OF THE FEDERAL RESERVE 3 (2016) (arguing as a source of the Fed's independence, the technocratic nature of its work that "requires special training but not the exercise of value judgments" or ideology).

[228] The President can remove the Chair and Vice Chair of the Federal Reserve (but not the members of the Federal Reserve Board) without cause, but due to conventions and norms, Presidents have not exercised this power. *See* Adrian Vermeule, *Conventions of Agency Independence*, 113 COLUM. L. REV. 1163, 1166 (2013). Those conventions and norms that have been built up over time are unlikely to extend to the new agency proposed here. *See id.* at 1176. Thus, statutory for-cause limitations on removal will be critical to sustaining the independence of the AI agency.

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protections.[229] Finally, the AI statute should establish a source of funding for the agency that is not directly dependent on congressional appropriations.[230]

All these features are designed to secure the AI agency's insulation from partisan exercises of power and thereby further public trust in the political information that AI systems provide. More, of course, will be required to regulate such AI systems and the legal and institutional framework will need to evolve as conditions change to preserve AI's trustworthiness. Lawyers, policymakers, engineers, computer scientists, and other experts with skills relevant to the AI project should all be involved in the design of the legal and institutional framework to ensure that it advances the democratic promise—and avoids the perils—of AI.

CONCLUSION

Democracies throughout the world are under considerable stress. Yet democracy's information problem has been both neglected and assumed to be intrinsic to any democracy. Legal scholars have neglected the information problem as they focus on challenges to democracy arising from voter suppression, gerrymandering, and money in politics. For their part, political scientists and psychologists assume that the combination of heuristics and the magic of statistical aggregation will effectively mitigate democracy's information problem. But in the current context of extreme inequality and affective polarization, democracy's information problem can no longer be neglected or assumed away. Citizens' inadequate ability to acquire and assess political information contributes significantly to unresponsive and unaccountable government.

AI can enter as part of the solution to democracy's information problem. AI promises easy-to-access and efficient-to-process political information that democratic citizens can use to assess policies' impact on their well-being. With that, citizens can hold their elected officials and governments accountable, which should lead to more responsive government. More responsive and accountable government moves us closer to the democratic ideal and could reverse the trend of growing popular dissatisfaction with democracy. Still, for AI to attain its promise, it must be trusted. Law and institutional frameworks constructed around the principles of trustworthy AI should be the starting point for building public trust in AI that mitigates democracy's information problem.

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[229] *See* Federal Reserve Act, Pub. L. No. 117-263, § 10 (2022) (establishing longer terms for Federal Reserve Board appointees).

[230] *See* Barkow, *supra* note 222, at 44 (providing examples of self-funded agencies).

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