Tearing at the Seams? Automation and the Decline of Democracy

Moritz von Knebel
Forethought Foundation
Oxford, UK
moritz.vonknebel@gmail.com
ORCID: 0000-0002-6313-0940

Abstract

Macro-historically speaking, the concept of governing societies through democratic means is relatively novel and the exception rather than the norm: A unique set of conditions and circumstances has given rise to and enabled the persistence of modern democracies, but these conditions that may not hold in the near and distant future, giving rise to and accelerating dynamics of democratic decline and backsliding that are already observable today. Advances in science and technology have the potential to radically alter fundamental economic, political and societal systems and interactions, contributing to a rising number of challenges to democratic regimes. This paper investigates what causal factors hold explanatory power for both the rise and prevalence of democratic regimes, and what changes in these factors caused by advanced Artificial Intelligence imply about the future of democracy. A literature review was conducted to identify competing explanations for the historical emergence of modern democracies, as well as explanations for the "evolutionary advantage" that helps explain their proliferation and endurance over time. Based on the results of this analysis and forecasts about future technology development and diffusion, possible implications about the trajectory of democracies and the possibility of their decline are discussed. We find that democracies are threatened most by the transformations caused by the large-scale automation of labor and the possibility of rising inequality. The partial or full automation of the military, as well as the development and diffusion of novel technologies that lower the cost of repression, play a contributing role in disproportionately empowering autocrats, undermining democratic principles and eroding what used to be the very assets that helped democracies outperform and outmaneuver dictatorial regimes.

1 Introduction

More people live under democratic regimes today than ever in history - and this is not just a result of population growth. Democratic forms of rule and political leadership have also increased as a percentage of all regime types practiced worldwide (Herre et al. 2013). However, many democracies are less than a generation old, and in the broader picture of human history, democracy is the exception, not the rule: "Democracy may, after all, turn out to have been a historical accident, a brief parenthesis that is closing before our eyes [...]. And, really, only a tiny minority of humanity of the human race will have experienced it. In both time and space, democracy fills a very small corner." (Revel 1984, see also Dahl 1998) To make matters worse, a phenomenon has recently emerged that experts have termed "democratic backsliding" (Bermeo 2016). In 2023 alone, the Episodes of Regime Transformation data showed that a whopping 42 countries were in the process

Article presented at the Second IASEAI Conference (IASEAI'26).

of autocratizing (Herre et al. 2013, see also Herre 2022 and Herre 2024). Scholars have also noted that democratic resilience has weakened substantially since the early 1990s, noting an "unprecedented breakdown of 36 democratic regimes." (Boese et al. 2021) The same study found that once autocratization has begun, only a fifth of democracies succeeds in averting an ultimate breakdown.

If democracy is such a new phenomenon, and yet it is already in decline, should we be worried that its tenure as a superior mode of governance will be short-lived? Is democracy, as some have put it provocatively, "a bit chancy" (Dahl 1998), a "historical accident" (Revel 1984) or a "blip in history" (Harari/Sodeoka 2018)? In this paper, I argue that democracy as a way to rule and govern is indeed not just in danger, but that advances in Artificial Intelligence (AI) capabilities and the societal, political and military effects this has further downstream will exacerbate the threats that democracy faces. The argument rests on the following claims: (1) The prevalence of modern democracies can be explained by the subtle interplay of several dynamics and factors that have made democracies evolutionarily adaptive, conferring upon them a strategic advantage. This allowed for democracy as an idea to proliferate and outcompete autocracies. Enfranchisement of the citizenry was a necessary component to reap the aforementioned benefits. (2) Transformative AI capable of bringing about large-scale automation could fundamentally alter the conditions that were conducive to the emergence and survival of democracy. This is for at least five reasons:

(a) Transformative AI might significantly affect the degree to which enfranchisement of the broader population will be *necessary* to reap the aforementioned benefits:
    (i) The importance of wide-scale subscription to the military might diminish.
    (ii) The value of an educated workforce (and hence their bargaining power) might decline.
(b) Transformative AI could enhance autocrats' ability to process information and make decisions, which used to be a key weakness and hindrance to their acquisition of power.
(c) Transformative AI could disproportionately empower those with the least scruples to deploy it carelessly.
(d) Transformative AI could cement autocratic leadership by conferring upon them a military advantage that makes coups less likely/autocracy less costly.
(e) Transformative AI could exacerbate economic inequality, which decreases the chances of further democratization.

As a result, democracies could lose their evolutionary advantage and could gradually (or suddenly) be replaced by dictatorships.

2 Methodology

A literature review was conducted to identify common strands in the realm of explanations for democratic emergence and prevalence over time, drawing from studies in Political Science, Economics, International Relations and Security Studies. Findings of said literature review were then agglomerated and distilled into "clusters" of theories that help explain why a rise in democratic regimes could be observed during a certain period. An emphasis is placed on foundational dynamics and causal relationships that we have reason to expect were predictive of the emergence or prevalence of democracies, and those that will most likely be affected by large-scale automation. Scholars (e.g. Carothers 2007, see also Cheibub et al. 1996 and Stasavage 2020) have argued that other facilitating factors like a small and homogenous populace, historical experience with political pluralism or the presence of democratic neighbors play a role in helping to usher in or help keep alive democracies, but as factors that are a) less central to the emergence of democracy and b) less amenable to intervention, they are largely excluded from the analysis. For each remaining cluster of theories, the available empirical evidence that would lend support to a given theory was critically examined. In a second step, forecasts and predictions about the expected effects of wide-scale automation on the factors that hold explanatory power for the emergence and persistence of democracy were collected in order to assess the degree to which such factors would continue to play

a role in conferring upon democracies a strategic or "evolutionary" advantage. This collection involved a review of the relevant literature in the respective domain (e.g. economics for the role that equality and economic development plays). Based on the findings of this mapping exercise, possible pathways towards autocratization were generated and evaluated for their likelihood.

3 Results

The literature review that was conducted to summarize differing accounts of what explains the success of modern democracies revealed a necessity to separate explanatory factors into two broad domains: Firstly, there are factors that appear to be conducive to the rise or emergence of democracies, while others are more suitable to providing an explanation as to why they prevail once they are established.

3.1 What explains the rise of modern democracies?

The process of democratization is well-studied, and frameworks for categorizing different types of democratic transitions have been developed as early as the 1980s, most famously by Donald Share (Share 1987, Mainwaring 1989) who proposes a typology alongside two axes, the speed at which the transition occurs and whether it was initiated by regime leaders or those opposing them. In this paper, I focus on transitions that were initiated or facilitated by regime leaders, rather than processes of democratization that could better be classified as revolutions. This is for a number of reasons: Peaceful transitions tend to work significantly better in bringing about lasting political change, as evidenced by the outstanding track record of Scandinavian countries (Andersen 2018, Jansson/Sandberg/Lindenfors 2013). Besides, transitions that can be described as "conversions" or those that were the result of cooperative approaches between elites and the disenfranchised have historically been in the majority and have a disproportionately low chance of reversion (Guo/Stradiotto 2014). Finally, Britain, France, Sweden and Germany have all been described as the results of efforts by political elites to prevent widespread social unrest (Acemoglu/Robinson 2000). The prime minister Earl Grey is believed to have said when introducing the electoral reform that the core idea of his reformist democratic transition of Britain is "to prevent the necessity of revolution" (Acemoglu/Robinson 2000).

At the heart of the question of what explains the rise of modern democracy therefore lies a fundamental puzzle: If you are an elite that is trying to hold on to (or maximize) power , why would you cede this capability to those who - assuming the status quo persists - have less of it? For large parts of human history, broad enfranchisement of the citizenry was a rarity. So to explain why democracies have risen and become the norm rather than the exception, an explanation is needed as to why there was a deviation from that norm, and what the underlying incentives (shaped by historical circumstances) were that led to this transformation, in addition to fears of being overthrown and/or murdered.

Having reviewed the literature on this, I find three strands of evidence that point to possible reasons why it was rational and in the rulers' best interest to distribute power rather than to further centralize it: (i) economic development and increasing equality, (ii) enfranchisement as a result of dynamics associated with military conquest and national security and (iii) the increased value of an educated workforce.

3.1.1 Economic development and increasing equality

It's been observed that an increase in GDP and the emergence of wide scale enfranchisement have historically often coincided. Boix (2003) calls the correlation between democracy and economic development "the strongest empirical generalization we have in comparative politics to date". What explains this correlation? Since correlation isn't causation and the direction of the causal arrow isn't clear, I consider the evidence behind both possible explanations. In section 3.2.1, I lay out how democratization can yield economic benefits. In this section, I look at how economic growth can lead to democratization. The core argument goes as follows: Economic development has historically

often benefited those who were worst off, and hence brought with it higher equality. This, however, only shifts the puzzle to a different question: Why is increased equality conducive to democratization?

The threat of democracy is that those who would then wield power will use it to call for more redistribution, and the bigger the difference between the poor and the rich, the more extreme these calls will be, and the more there is to lose for elites (Boix 2003). If, however, the gap between the classes is shrinking, so is the threat of redistribution and higher taxation. Historically, a contributing factor to this was a decline in the specificity of capital, which is associated with increasing GDP per capita (Ziblatt 2017). The more mobile capital is, the less likely it is that a government will impose high taxes (a real threat for elites), given the possibility that those paying the taxes could relocate to a different jurisdiction. A reduced threat of high taxes in turn diminished the risk of political conflict, lowering the cost of democracy and thereby making it more likely (Boix 2003). Increasingly mobile capital, as it happens, introduces a natural "upper bound" of the taxation that elites have to expect to pay, so that the threat of those who hold no capital to call for redistribution seems overall less existential to those who do have capital. Conversely, if the level of difficulty at which taxation can be escaped increases, support for authoritarian solutions increases. This is one explanation for why countries that heavily rely on natural resources for their wealth (e.g. gulf states and their oil) remain authoritarian in spite of increased relative wealth and economic development.

The idea of democratization as a way of preventing revolutions and violent upheaval indicates there is a second category of factors that played a role in the rise of modern democracies: the role of national and international security, warfare and the military.

3.1.2 Democratization and (inter-)national security

As indicated in the previous chapter, there appears to be an additional and similarly pragmatic reason for elites to extend the right to vote to those who were previously disenfranchised: guaranteeing internal and external security.

3.1.2.1 The state's (non-)monopoly on power and the fear of revolt

The second amendment to the US constitution is commonly at the heart of debates between progressives and conservatives about gun control and the right to bear arms. Proponents argue that the right and ability to acquire weaponry (including guns) is what keeps democracies from degrading into autocracies, since only a ruling class that is afraid of being toppled by its constituents will have sufficient incentives to act in their best interests. So as weapons like guns became more proliferated, the risk of oppressing dissenting forces rose to the point where it became untenable to uphold repressive structures, and elites reluctantly resorted to democracy as a way to escape their fate of not surviving a possible revolution.

The empirical evidence does not exactly encourage faith in such a theory, since around the globe, there is little correlation between the emergence and prevalence of democratic systems and a heavily armed citizenry (Michel 2013). Some attribute this to the advances in the kind of weaponry that is available to modern governments - citizens with conventional weapons simply aren't threatening enough. This hypothesis is corroborated by case studies from the Middle East: "Like the Iraqis, Libyans were fairly well armed under Muammar al-Qaddafi — 15.5 guns per 100 people as of 2007 — but it still took an assist from NATO air power to finally bring him down." (Keating 2013) Defendants of the aforementioned theory of a scared elite contend that the ability to actually win a confrontation is not what matters: It's enough for there to be a credible threat and for the suppression of an insurgency to be costly (even if it could be subdued), suggesting "a sort of cost-benefit/deterrence theory" (Dunlap 1995).

Taking all this evidence into account, it seems unlikely that the fear of elites to be removed from power (or worse, killed) was the driving force behind the rise of modern democracy. It might still be, however, that military considerations played an important role in the calculus of those

voluntarily ceding power: Fears might not be directed at their own constituents, but rather at the threats posed by external forces.

3.1.2.2 External security: The dependance of elites on large-scale civilian armies

Enfranchisement, interpreted this way, was a mere means through which leaders could ensure that they could recruit sufficient amounts of willing citizens into large-scale civilian armies, which remained important for a large part of history to win wars (Drutman/Mounk 2016). At the same time, asking the populace to put their life at risk for the abstract notion of a "state" or "shared cultural heritage and identity" often required concessions, and leaders found it was easier to raise large armies when they concurrently extended political rights to those who were subscribed into military service (Onorato et al. 2014). Keeping this in mind, it seems logical that most universal suffrage laws in Europe were passed around major wars (Ticchi/Vindigni 2008, Karlan 2020, Tripp 2023, for a statistical analysis see Ingesson et al. 2018). Enfranchisement became the most credible and sustainable way elites could commit to redistributive measures as compensation for the moral hazard of asking citizens to put their life at risk (Ticchi/Vindigni 2008).

Wars were also very expensive endeavors, and a government that sought to fund its expansionary (or purely defensive) activities quickly found itself in a position where taxes needed to be raised to finance military operations and large-scale armies (Hariri/Wingender 2023). In turn, citizens would demand the right to vote as compensation for this raise in taxes. Seen through this lens, democratization appears once again less as the outcome of a strong and steadfast commitment to egalitarian values, but rather as the outcome of a strategic calculus that considered the necessity to compensate citizens for engaging in costly and dangerous wars on behalf of the elites.

3.1.3 Increased value of an educated workforce & increased bargaining power of workers

The fact that democratization coincided with industrialisation has led some to develop theories that democracy started to reveal itself as a potentially *advantageous* form of rule, given the increased dependence of capital holders on a well-educated labor force in the United States and the United Kingdom towards the late nineteenth century (Drutman/Mounk 2016). Empirical evidence supports this theory, since states have been found to be able to boost economic growth and attract high-wage employers through investments in education (Berger/Fisher 2013). This way, policies that were redistributive in nature – like universal education – started to also become appealing to those in power (Acemoglu/Robinson 2005). At the same time, it's worth noting that this represented a gamble that plausibly wouldn't pay off for decades, and one that produced gains that were widely dispersed so that the benefit to any individual industrialist was likely small. So while it may make sense from a macroeconomic perspective (given the expected increase in economic growth), it may be less appealing from the viewpoint of a single factory or company owner (who primarily sought to maximize profit in the near or medium term).

To briefly and preliminarily summarize previous sections: The rise of democracy can be understood as an emergent phenomenon caused by dynamics related to the needs and preferences of elites rather than as a targeted march towards increased justice, fairness or freedom.

3.2 Why do democracies prevail?

Three forces appear to have come together to give rise to the phenomenon of modern democracy. However, this does not suffice to explain why democracies have *prevailed*, that is why they haven't degenerated into whatever form of rulership previously existed after a brief period of flourishing. After all, one might imagine that as circumstances change (e.g. there is currently no war to be fought, or inequality is briefly rising due to a financial crisis, or a change in supply and demand on the labor market diminished the bargaining power of the proletariat), the "need" to enfranchise workers concurrently decreases, providing a fertile ground for democratic backsliding. In other words: Democracies need to prove that they have a lasting evolutionary advantage over competing systems. And it seems like they do: "To date, democracy has offered the best answer to the question of how people should rule themselves." (Hobson 2015) There is active discourse on the advantages

and disadvantages of different political systems, but it appears there are at least three domains where democracies have – at least for now – outperformed their autocratic counterparts.

3.2.1 Economic development and innovation

Evidence suggests that democracies perform better in economic terms – Acemoglu et al. (2019) found that democratization is followed by GDP per capita increases of about 20 percent. Various factors have been credited for this trend, from benefits accrued by a stronger emphasis on education to the prevalence of more amicable trade relationships. One theory has gained disproportionate attention, also known as the so-called "Popper hypothesis": Democracies are better at innovation, a key driver of economic growth and prosperity. This is hotly debated, however, and while one study of 132 countries over 37 years did provide evidence that autocracies are generally less innovative with regards to technological advances (Wang et al. 2021), other studies find no such link (Gao et al. 2017, Ahmed et al. 2024).

There is one more domain in which democracy's innovative advantage plays out: The battlefield. Democracies relative advantage in facilitating research and development also means that they are outperforming autocracies in the domain of military technology development and diffusion (Sauer/Schörnig 2020), which confers a strategic advantage to them under conditions of geopolitical tension. We turn to this success factor next.

3.2.2 Military mobilization and success

Historically, democracies have had an impressive track record when it comes to their performance on the battlefield (Lake 1992). There is some debate around the direction of the causality that is suggested here, and uncertainty about whether democracies are the cause or the effect of traits and characteristics that predict superior performance in armed conflicts, for instance the availability of superior human capital or harmonious civil-military relations (Biddle/Long 2004).

What is it that makes democracies so successful in violent conflicts? One plausible explanation lies in the possibility of selection effects: It has been observed that democracies are more conservative in their decisions to go to war (Stam/Reiter 2020, Filson/Werner 2004), a selectivity which may explain their disproportionate winning percentage. Biddle/Long (2004) attribute this selectivity to a combination of higher openness (which allows those in opposition of a war to make their disagreement heard) and higher vulnerability of leadership (which creates pressure through electoral sanctions in the event of a failure), allowing leaders to make more well-informed decisions.

3.2.3 Higher adaptability due to better decision making, problem solving and information processing, especially in times of crises

Finally, democracies have been credited with an increased ability to make well-informed decisions and solve complex problems and challenges, especially those that require constant re-orientation, flexibility and the ability to adapt to changing circumstances. The classic counterexample of this is the Soviet Union. With strong centralisation of power also came a key weakness: Efficient planning and allocation of resources was difficult enough to represent a key barrier to growth, and the inability to process large amounts of information which could feed back into the deliberation process presented a challenge.

4 Discussion

The results of the literature review have shown that a number of general factors coalesce to explain the emergence and the prevalence of democracy as the dominant form of rule and leadership today by providing a fertile ground upon which democracies could grow and flourish. According to Yuval Noah Harari, "[t]heir success in the 20th century depended on unique technological conditions that may prove ephemeral." (Harari/Sodeoka 2018) Given recent advances in AI development, these conditions may change radically, and in some domains already have. Hence - and building on the

findings from the previous sections – in this section I discuss whether large-scale automation could fundamentally alter the environments in which democracy prospered by taking each of the factors identified above and examining whether we should expect them to get stronger, prevail at an existing level or erode following large-scale automation, and what that implies for the prospects of democratic regimes around the world.

4.1 Economic development and increasing equality

Looking at economic development alone, most forecasts suggest that AI advances will fuel growth (European Parliament 2019, IMF 2024, Acemoglu 2024), although disagreement exists about whether this will be of an exponential nature (Aghion et al. 2017, Davidson 2021, Naudé 2024). The potential of new scientific discoveries and large-scale automation stand a chance of opening up entirely new sources of economic value and making existing ones even more profitable. All else equal, this should make us more optimistic about the survival of democracy given that economic development has historically been associated with democratization. However, scholars have noted that while economic development does appear to bolster resilience to the *onset* of autocratization, it does not provide protective benefits once the process of democratic decline has begun (Boese et al. 2021). This means that signs of impending autocratization over the next 5-10 years, during which large-scale automation seems particularly likely, need to be carefully monitored.

It's also notable that economic development only predicted democratization in situations where capital was sufficiently mobile. As alluded to above when discussing the gulf states, when capital is locked up in relatively stationary assets like oil or other natural resources, economic development and the existence of stable dictatorships can go hand in hand. Even when democracy has been tested in these environments, it's been found that oil-based economies are more likely to backslide into authoritarianism (Watts 2016). There have been debates around whether data and compute will be the "new oil" (European Parliament 2020, Dargan 2024) or whether the analogy ultimately breaks down in meaningful ways (Moschella 2023, Benaich/Chalmers 2024). If the analogy holds, this doesn't inspire hope in the survival chances for democracy.

Further, the review has shown that economic development is linked to increasing equality, which historically served as a catalyst for additional redistributive measures and large-scale enfranchisement by lowering the cost of enfranchisement and increasing the cost of suppression. While there is currently no conclusive evidence about the effects of AI advances on inequality, the potential of large scale automation alone indicates the possibility of a world where capital assets become more and not less monopolized by those with access to key resources like compute or proprietary data sets. As a result, there may be a decisive strategic advantage for first movers, which would allow that party to slow down competitors at a later stage. It's also conceivable that barriers to entry for users create conditions under which some benefit from being able to use AI systems to increase their productivity, while others won't (Robinson 2024). Rising inequality has repeatedly been brought up by experts from around the world as a key risk associated with the development and deployment of ever-more powerful AI systems (Acemoglu 2024, Cornelli et al. 2023, Joshi/Nykvist 2023, Gries/Naudé 2018), though some reports suggest otherwise, finding no effects between or even decreasing inequality effects within occupations (OECD 2024).

In summary, while we should expect economic development to persist or even speed up as a result of AI advances, we shouldn't be similarly optimistic that this will bolster democracy, given the lack of mobile capital assets and the downstream effects on rising inequality, which might make democracy a more costly system for those who stand to lose from redistribution.

4.2 Democratization and (inter-)national security

Two factors played a role in the nexus between enfranchisement and security concerns: Firstly, enfranchisement was seen as a way of appeasing a public that otherwise posed a threat given the invention of weaponry that could be used by wider portions of the populace. Secondly, enfranchisement was a means of compensating those who took on the costly job of defending the country against external adversaries.

Starting with the first point, we might expect governments with access to advanced technology to be less concerned by citizen revolts, at least as long as we assume that the weaponry available to governments will be sufficiently superior and inaccessible by the wider public. AI may also provide new surveillance capabilities that make safeguarding against attempts of insurrection and revolt (or even just peaceful protest) easier and less costly (Frantz et al. 2020, Shahbaz 2018). However, some have argued that within the next two decades we are destined for a so-called "Third Drone Age" (Rogers 2022), a time in history where fully autonomous weapon systems will become widely available to non-state actors. In a world where these destructive military capabilities are more evenly distributed, enfranchisement as appeasement still seems like a tenable strategy, although it is worth noting that the levels of proliferation needed for this effect to function as intended come with considerable externalities, most importantly the proliferation of dangerous weapons to potentially nefarious actors.

Moving on to the second point, it seems similarly unlikely that governments will rely on civilians for large scale militaries in an age where most warfare is automated and drones become the preferred tool for military decision makers, especially since the political and public pressure to use increasingly sophisticated and targeted technology to save avoidable casualties can be expected to rise as systems' capabilities advance. While drones are (in the near term) unlikely to entirely replace the human workforce in the defense sector (CSS 2010, McLean 2014), they will still reduce the government's reliance on human labor and human capital for military purposes. In such a world, enfranchisement as compensation for conscription will become obsolete. Other mechanisms described above – like citizens paying for wars with their taxes – might continue to provide some protection against rampant aggressions and military conquest.

4.3 Increased value of an educated workforce and increased bargaining power of an educated workforce

It's unclear whether having access to a well-educated workforce will be an equally important factor for a country's economic performance as it was in the past. At the moment, human talent remains a key bottleneck to AI development (Deloitte 2020, Musser et al. 2023) and countries are competing for highly educated workers up to a point where Chinese recruitment of engineers from Taiwan and Korea has become a well-documented phenomenon (Everington 2019, Hale 2022, Mak 2022, Liao 2022, Chiang/Lin 2023). However, that doesn't mean that large swathes of the population need to be highly educated. It's also unclear whether this trend will persist, given recent advances in even highly technical professions like the electronic design of chips (Lin 2023). AI advances would likely bring more automation with it, and with that a reduced dependence on a large base of skilled workers.

4.4 Economic development and innovation

Since the link between democratization and innovation is not well understood, it is difficult to draw conclusions about the likelihood that democracies will continue to be more innovative than autocracies, and whether they will enjoy greater economic development. However, to the degree that innovation will also be mostly driven by AI systems – and we have already seen impressive results in domains from protein folding (Jumper et al. 2021) to drug development (Tompa 2024) and the discovery of new materials for batteries used in electric vehicles (Blades 2021) – there is prima facie no good reason to think that democracies would be more effective in facilitating this.

4.5 Military mobilization and success on the battlefield

To briefly revisit the case for democratic superiority in terms of military efforts, the review has shown that democracies have historically had access to a more motivated army with a better technology that is more selectively deployed in wars, while also enabling relations between rulers and military leaders that proved beneficial for cooperation, creating conditions under which democracies were overall more likely to win wars. Should we expect any or all of these contributing factors to hold?

Furthermore, there is the combination of soldier's high loyalty and access to advanced technology. Both factors could be made irrelevant by the introduction of automated weaponry, which is well underway and already in use in conflicts like the ongoing one in Gaza (Abraham 2024). If anything, autocracies can be expected to be *more* indiscriminate and *less* reserved about deploying potentially controversial tools like drones and lethal autonomous weapons. Democracies relative advantage in military endeavors also stemmed from the fact that they had an edge with regards to research and development of cutting-edge weaponry, thanks to the existence of competitive civilian markets. As a previous chapter has shown, there is no reason to believe this would persist when innovation is itself automated. On the other hand, an area where autocracies traditionally had advantages (the channeling of massive resources into the manufacturing once the R&D had concluded) could become less relevant when production resources become less relevant (due to their increased availability) in both democracies and autocracies (Sauer/Schörnig 2020).

4.6 Higher adaptability due to better decision making, problem solving and information processing, especially in times of crises

Democracies have proven to be particularly effective in dealing with problems by having better decision-making, fueled by more efficient information processing. Out of all of the factors that explain democracy's victorious trajectory, this is arguably the most likely to vanish as a result of large-scale automation. One reason is that AI could soon enable autocracies to amend one of their key weaknesses by allowing them to centrally process massive amounts of information, something that was difficult for the Soviet Union. Actors with no concern for privacy might even benefit from the enhanced centralization observable in autocracies, given that machine learning benefits from "having all data in one place". That way, what used to be a handicap for authoritarian regimes in the past may become one of their biggest advantages (Harari/Sodeoka 2018).

4.7 Implications for the possibility of democratic decline

The analysis presented in previous sections has provided reason to believe that democracy's tenure may indeed, in the grand scheme of things, be short-lived: "Given the right conditions, any society can turn against democracy. Indeed, if history is anything to go by, all of our societies eventually will." (Applebaum 2020) Based on the results presented above, two possible pathways towards autocracy appear most plausible – one that is focused on the economic dimension, and one that is focused on the military dimension.

4.7.1 Economic dimension

The most straightforward mechanism that could bring about the fall of democracy is mediated through a rise in inequality and the disappearance of a middle class as a stabilizing force, which could undermine the support of elites for democracy. Growing costs of redistribution that come alongside rising inequality, paired with a reduced need for human labor (or military might) could mean that elites see the democratic process as a relict that is simply not needed anymore (Drutman/Mounk 2016). This could be exacerbated by a vicious cycle with self-reinforcing feedback loops: As societies become more unequal, the cost of redistribution rises, and efforts to block such measures will become more aggressive. This, in turn, will increase inequality, further raising the cost of redistribution and the cost of tolerating democracy (see also Korinek/Bell 2024).

From an economic point of view, elites may not simply have *more to lose* (due to increasing inequality). They may also have *a lot less to gain*. In a world where elites do not need citizens to staff their factories or to fight their wars, large parts of the population may suddenly face a new threat, entirely different from previous precarities like exploitation or repression, and much harder to fight against: irrelevance (Harari/Sodeoka 2018). This goes back to the observation that in the early days of democracy, elites needed at least parts of the population to determine the right amount of land, to implement and enforce policies, etc. In later years, they became dependent on a well-educated workforce. Once this dependency disappears, enfranchisement could become a purely costly endeavor without any associated benefits. Elites might still be incentivized to provide a baseline of services to their citizens to consolidate their power in a similar way as it's currently done

in the gulf states (cf. previous chapters). These autocracies might actually turn out to be the most stable ones, since they would also enjoy some of the benefits that have made democracies successful, e.g. popular support.

4.7.2 Military dimension

A second path towards dictatorship emerges from the observations outlined above about the dependence on and superiority of democracy's large scale civilian armies, and how both might become obsolete in a military future dominated by automated weapons and advanced AI military technology. Two main factors stand out: (1) A decreased reliance on citizens for military purposes and (2) decreasing costs and advanced methods of suppression and pre-empting of revolts and insurrection. The idea that innovative technologies will transform the role of human resources in violent conflicts between states is not new. As early as the mid-1990s, military historians have claimed that "high technology weapons make large numbers of soldiers irrelevant" (Dunlap 1995). Since then, advances in the automation of key technologies have only made this more pronounced, and future leaders may not depend on mass civilian armies at all. If the need for military subscription played an important role in shifting regimes towards democracy, this is significant.

5 Limitations

Generally speaking, the fact that democracy is – macro historically speaking – such a young and new phenomenon means there is a limited amount of data available. Especially when investigating specific topics like the likelihood of winning wars or the ability to handle crises efficiently, small sample sizes and the possibility of a variety of confounding factors and variables make generalizations difficult, compromising the external validity of the findings presented in this paper.

6 Conclusion

This paper investigated the possibility of democratic decline and the danger of autocratization by examining what explains the rise and prevalence of democracy historically, and by assessing whether the large-scale automation of labor and military power will fundamentally alter the factors that have led to the spreading of democracy, and what that means for whether democracies can maintain what used to be their evolutionary advantages. For all three factors that help to explain the rise of democracy (Economic development and increasing equality, national and international security and the increased value and bargaining power of an educated workforce), there exists reason for concern that large-scale automation facilitated by AI provides a significant disrupting force that presents a real threat to democracies. Similarly, for the three factors identified as predictors of the prevailing of a democratic regime (Economic development & innovation, military success and better decision-making and information processing) we find that automation and – more generally – the advent and adoption of novel and emerging technologies could confer upon autocratic regimes an advantage that was previously enjoyed by democratic regimes. Concretely, two pathways of democratic decline seem most plausible and worrying based on the analysis presented above: Firstly, a decline in equality and associated power concentration in the hands of a few might increase the cost of enfranchisement and spark division between economic classes that tears at the seams of a functioning democracy. Secondly, the partial or (eventually) full automation of the military represents a threat to democracy by decreasing the reliance of elites on broad conscription and enlistment, while also empowering dictators with stabilizing powers and possibly heightening geopolitical instability.

References

Abraham, Y. (2024). 'Lavender': The AI machine directing Israel's bombing spree in Gaza. +972 Magazine. https://www.972mag.com/lavender-ai-israeli-army-gaza/

Acemoglu, D. (2024). The simple macroeconomics of AI. MIT. https://economics.mit.edu/sites/default/files/2024-04/The%20Simple%20Macroeconomics%20of%20AI.pdf

Acemoglu, D., & Robinson, J. A. (2000). A theory of political transitions. The American Economic Review 91–91 (4), 938–963. https://economics.mit.edu/sites/default/files/publications/theory-of-political-transitions.pdf

Acemoglu, D., & Robinson, J. A. (2005). Economic Origins of Dictatorship and Democracy. Cambridge: Cambridge University Press.

Acemoglu, D., & Johnson, S. (2023). Power and Progress. Basic Books. https://basicbooks.uk/titles/daron-acemoglu/power-and-progress/9781399804455/

Acemoglu, D., J., Naidu, S., Restrepo, P., & Robinson, J. (2019). Democracy does cause growth. Journal of Political Economy (pp. 1–48). The University of Chicago. https://economics.mit.edu/sites/default/files/publications/Democracy%20Does%20Cause%20Growth.pdf

Aghion, P., Jones, B.F., & Jones, C.I. (2017). Artificial Intelligence and Economic Growth. https://web.stanford.edu/~chadj/AI.pdf

Ahmed, M., Khan, M. A., Attique, A., Khan, M. A., Haddad, H., & Al-Ramahi, N. M. (2024). Democracy's limited impact on innovation: Panel data evidence from developing countries. PLoS ONE, 19(3), e0297915. https://doi.org/10.1371/journal.pone.0297915

Alexander, S. (2020). The Anti-Reactionary FAQ. https://slatestarcodex.com/2013/10/20/the-anti-reactionary-faq/

Andersen, D. (2018). Violent Democratizations and Scandinavian Exceptionalism. V-Dem Institute. https://v-dem.net/media/publications/users_working_paper_19.pdf

Ansell, B., & Samuels, D. (2014). Inequality and Democratization: An Elite-Competition approach. https://cpd.berkeley.edu/wp-content/uploads/2014/12/AnsellSamuelsFinalMSFeb14.pdf

Applebaum, A. (2020). Twilight of Democracy: The Failure of Politics and the Parting of Friends. Allen Lane.

Bauer, P. C. (2018). Unemployment, Trust in Government, and Satisfaction with Democracy: An Empirical Investigation. Socius Sociological Research for a Dynamic World, 4, 237802311775053. https://doi.org/10.1177/2378023117750533

Beckman, L., & Rosenberg, J. H. (2022). The Democratic inclusion of Artificial Intelligence? Exploring the patiency, agency and relational conditions for Demos membership. Philosophy & Technology, 35(2). https://doi.org/10.1007/s13347-022-00525-3

Benaich, N., & Chalmers, A. (2024). Data, oil, Uber and the peril of easy analogies. Air Street Press. https://press.airstreet.com/p/peril-of-analogies?utm_source=profile&utm_medium=reader2

Berger, N., & Fisher, P. (2013). A Well-Educated workforce is key to state prosperity. Economic Policy Institute. https://www.epi.org/publication/states-education-productivity-growth-foundations/

Berg-Schlosser, D. (2015). The Emergence of Democracy: forces and Counter-forces. Government and Opposition, 50(3), 336–363. https://doi.org/10.1017/gov.2015.1

Berman, S. (2007). How Democracies Emerge: Lessons from Europe. Journal of Democracy 18(1), 28-41. https://www.journalofdemocracy.org/articles/how-democracies-emerge-lessons-from-europe/

Bermeo, N. (2016). On Democratic Backsliding. Journal of Democracy 27(1), 5-19. https://dx.doi.org/10.1353/jod.2016.0012.

Biddle, S., & Long, S. (2004). Democracy and Military Effectiveness: A Deeper Look. The Journal of Conflict Resolution, 48(4), 525–546. http://www.jstor.org/stable/4149807

Blades, R. (2024). AI generates hypotheses human scientists have not thought of. Scientific American. https://www.scientificamerican.com/article/ai-generates-hypotheses-human-scientists-have-not-thought-of/

Boese, V. A., Edgell, A. B., Hellmeier, S., Maerz, S. F., & Lindberg, S. I. (2021). How democracies prevail: democratic resilience as a two-stage process. Democratization, 28(5), 885–907. https://doi.org/10.1080/13510347.2021.1891413

Boix, C. (2003). Democracy and redistribution. The University of Chicago.

Boyle, M. J. (2020). The Drone Age. Oxford University Press.

Buss, T. B., Hofstetter, C. R., & Redburn, F. S. (1980). The Psychology of Mass Unemployment: Some Political and Social Implications. Political Psychology, 2(3/4), 95–113. https://doi.org/10.2307/3791003

Carothers, T. (2007). How democracies emerge. The Sequencing Fallacy. (Journal-Article No. 1; Vol. 18). https://www.journalofdemocracy.com/wp-content/uploads/2012/04/Carothers-18-1.pdf

Center for Security Studies (CSS). (2010). The Military Utility of Drones. CSS Analysis in Security Policy, July 1. https://www.files.ethz.ch/isn/118844/CSS_Analysis_78.pdf

Cheibub, J. A., Przeworski, A., Neto, F. P. L., & Alvarez, M. M. (1996). What makes democracies endure? Journal of Democracy, 7(1), 39–55. https://doi.org/10.1353/jod.1996.0016

Chenoweth, E., & Stephan, M.J. (2012). Why Civil Resistance Works. The Strategic Logic of Nonviolent Conflict. Columbia University Press.

Chiang, D., & Lin, J. (2023). China firms poach Korean semiconductor talent by setting up R&D centers in South Korea. DIGITIMES. https://www.digitimes.com/news/a20230620PD211/china-memory-chips-south-korea-talent-shortage.html

Coberly, C. (2020). Inequality and Democracy. YouTube Video. https://www.youtube.com/watch?v=fYn3TpnnNR8, last accessed on 11/02/2024.

Cornelli, G., Frost, J., & Mishra, S. (2023). Artificial intelligence, services globalisation and income inequality. (2023). BIS Working Papers, No 1135. https://www.bis.org/publ/work1135.pdf

Dahl, R. A. (1998). On democracy. Yale University Press. https://newuniversityinexileconsortium.org/wp-content/uploads/2022/08/Robert-A.-Dahl-On-Democracy-1998-1.pdf

Dargan, J. (2024). “Compute is the New Oil”: CEO of Groq Jonathan Ross on Pioneering AI’s Future. AI Insider. https://theaiinsider.tech/2024/04/10/compute-is-the-new-oil-ceo-of-groq-jonathan-ross-on-pioneering-ais-future/#:~:text=6%3A22%20pm-,%E2%80%9CCompute%20is%20the%20New%20Oil%E2%80%9D%3A%20CEO%20of%20Groq%20Jonathan,Ross%20on%20Pioneering%20AI%27s%20Future&text=Jonathan%20Ross%20stands%20as%20a,in%20computing%20speed%20and%20efficiency.+

Davidson, T. (2021). Could Advanced AI Drive Explosive Economic Growth? Open Philanthropy. https://www.openphilanthropy.org/research/could-advanced-ai-drive-explosive-economic-growth/

Deloitte (2020). The global semiconductor talent shortage. https://www2.deloitte.com/us/en/pages/technology/articles/global-semiconductor-talent-shortage.html

Drutman, L., & Mounk, Y. (2016). Will Robots Kill Democracy? The National Interest, 144, 18–31. https://www.jstor.org/stable/26557319

Dunlap, C.J. (1995). Revolt of the Masses: Armed Civilians and the Insurrectionary Theory of the Second Amendment. 62 Tennessee Law Review 643-677. https://scholarship.law.duke.edu/faculty_scholarship/2537/

Esarey, J. (2021). Did dictatorships outperform democracies against COVID-19? The Atlantic. https://www.theatlantic.com/ideas/archive/2021/10/dictatorships-democracies-coronavirus-vaccines-deaths/620272/

European Parliament. (2019). Economic impacts of artificial intelligence (AI). https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/637967/EPRS_BRI(2019)637967_EN.pdf

European Parliament (2020). Is data the new oil? Competition issues in the digital economy. https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646117/EPRS_BRI(2020)646117_EN.pdf

Everington, K. (2019). China poaches 3,000 chip engineers, but Taiwan winning from trade war. Taiwan News. https://www.taiwannews.com.tw/news/3829558

Farrell, H., Newman, A., & Wallace, J.(2023). Spirals of Delusion: How AI distorts Decision-Making and makes Dictators more dangerous. Foreign Affairs. https://www.foreignaffairs.com/world/spirals-delusion-artificial-intelligence-decision-making?check_logged_in=1&utm_medium=promo_email&utm_source=lo_flows&utm_campaign=registered_user_welcome&utm_term=email_1&utm_content=20240416

Filson, D., & Werner, S. (2004). Bargaining and Fighting: The Impact of Regime Type on War Onset, Duration, and Outcomes. American Journal of Political Science, 48(2), 296–313. https://doi.org/10.2307/1519884

Frantz, E., Andrea Kendall-Taylor, & Wright, J. (2020). Digital repression in autocracies. Working Paper. The Varieties of Democracy Institute. https://www.v-dem.net/media/publications/digital-repression17mar.pdf

Frey, C.B., Chen, C., & Presidente, G. (2020). Democracy, Culture and Contagion: Political Regimes and Countries Responsiveness to Covid-19. Oxford Martin School. https://www.oxfordmartin.ox.ac.uk/publications/democracy-culture-and-contagion-political-regimes-and-countries-responsiveness-to-covid-19

Gao, Y., Zang, L., Roth, A., & Wang, P. (2017). Does democracy cause innovation? An empirical test of the popper hypothesis. Research Policy 46(7), 1272-1283.

Gitmez, A.A., & Sonin, K. (2023). The Dictator's Dilemma: A Theory of Propaganda and Repression. Research Brief: The University of Chicago. BFI. https://bfi.uchicago.edu/insight/research-summary/the-dictators-dilemma-a-theory-of-propaganda-and-repression/

Giustozzi, C., & Gangl, M. (2021). Unemployment and political trust across 24 Western democracies: Evidence on a welfare state paradox. Acta Sociologica, 64(3), 255–273. https://doi.org/10.1177/00016993211008501

Gries, T., & Naudé, W. (2018). Artificial intelligence, Jobs, inequality and productivity: Does aggregate demand matter? In IZA Institute of Labor Economics, IZA Discussion Paper Series. https://docs.iza.org/dp12005.pdf

Guo, S. & Stradiotto, G. (2014). Democratic Transitions: Modes and Outcomes. 10.13140/2.1.3550.7845 https://www.researchgate.net/publication/264171542_Democratic_Transitions_Modes_and_Outcomes

Hale, E. (2022). Taiwan cracks down on China poaching tech talent. Al Jazeera. https://www.aljazeera.com/economy/2022/5/4/taiwan-is-trying-to-thwart-chinas-efforts-to-poach-tech-talent

Harari, Y. N. & Yoshi Sodeoka. (2018). Why technology favors tyranny. The Atlantic.

Hariri, J.G., & Wingender, A.M. (2023). Jumping the Gun: How Dictators Got Ahead of Their Subjects. The Economic Journal 133(650), 728–760. https://doi.org/10.1093/ej/ueac073

Herre, B. (2022). The world has recently become less democratic. Our World in Data. https://ourworldindata.org/less-democratic

Herre, B. (2024). One in five democracies is eroding. Our World in Data. https://ourworldindata.org/data-insights/one-in-five-democracies-is-eroding

Herre, B., Rodés-Guirao, L., & Ortiz-Ospina, E. (2013). Democracy. https://ourworldindata.org/democracy

Hobson, C. (2015). The Rise of Democracy: Revolution, War and Transformations in International Politics since 1776. Edinburgh University Press Ltd. https://library.oapen.org/bitstream/handle/20.500.12657/25999/1004083.pdf

Horwitz, J., & Anderson, C. (2009). Guns, democracy, and the insurrectionist idea. In University of Michigan Press eBooks. https://doi.org/10.3998/mpub.180934

Houle, C. (2009). Inequality and Democracy: Why Inequality harms consolidation but does not affect democratization. World Politics, 61(4), 589–622. https://doi.org/10.1017/s0043887109990074

International Monetary Fund (IMF). (2024). AI will transform the global economy. Let's make sure it benefits humanity. https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity

Ingesson, T., Lindberg, M., Lindvall, J., & Teorell, J. (2017). The martial origins of democracy: a global study of military conscription and suffrage extensions since the Napoleonic wars. Democratization, 25(4), 633–651. https://doi.org/10.1080/13510347.2017.1405935

Jain, V. (2022). Opinion: Stronger democracies have seen fewer excess deaths during. UCL News. https://www.ucl.ac.uk/news/2022/jul/opinion-stronger-democracies-have-seen-fewer-excess-deaths-during-covid-new-research

Jansson, F., Lindenfors, P., & Sandberg, M. (2013). Democratic revolutions as institutional innovation diffusion: Rapid adoption and survival of democracy. Technological Forecasting and Social Change 80(8), 1546-1556. https://www.sciencedirect.com/science/article/abs/pii/S0040162513000267

Joshi, S., & Nykvist, B. (2023). Anticipating Futures: How Artificial Intelligence acts as an Amplifier of Inequity. Policy Brief. https://sdgs.un.org/sites/default/files/2023-05/A8%20-%20Joshi%20-%20Impact%20of%20AI%20on%20Inequality.pdf

Jumper, J., Evans, R., Pritzel, A., Green, T., Figurnov, M., Ronneberger, O., Tunyasuvunakool, K., Bates, R., Žídek, A., Potapenko, A., Bridgland, A., Meyer, C., Kohl, S. a. A., Ballard, A. J., Cowie, A., Romera-Paredes, B., Nikolov, S., Jain, R., Adler, J., . . . Hassabis, D. (2021). Highly accurate protein structure prediction with AlphaFold. Nature, 596(7873), 583–589. https://doi.org/10.1038/s41586-021-03819-2

Kaag, J., & Kreps, S. (2013). Drones and Democratic Peace. The Brown Journal of World Affairs, 19(2), 97–109. http://www.jstor.org/stable/24590823

Kakkar, H. (2017). Why we prefer dominant leaders in uncertain times. Harvard Business Review. https://hbr.org/2017/08/why-we-prefer-dominant-leaders-in-uncertain-times

Karlan, P.S. (2020). World War I strengthened women's suffrage, shifted public attitude, Stanford scholar says. Stanford Report. https://news.stanford.edu/stories/2020/08/world-war-strengthened-womens-suffrage

Karlinsky, A., & Kobak, D. (2021). Tracking excess mortality across countries during the COVID-19 pandemic with the World Mortality Dataset. eLife, 10, e69336. https://doi.org/10.7554/eLife.69336

Kaufman, R. R. (2009). The Political Effects of Inequality in Latin America: Some Inconvenient Facts. Comparative Politics, 41(3), 359–379. http://www.jstor.org/stable/40599229

Keating, J. (2013). Guns don't kill dictatorships, people do. Foreign Policy. https://foreignpolicy.com/2013/01/09/guns-dont-kill-dictatorships-people-do/

Kleinfeld, R. (2020). Do authoritarian or democratic countries handle pandemics better? Carnegie Endowment for International Peace. https://carnegieendowment.org/posts/2020/03/do-authoritarian-or-democratic-countries-handle-pandemics-better?lang=en

Knutsen, C. H., & Nygård, H. M. (2015). Institutional characteristics and regime survival: Why are Semi-Democracies less durable than autocracies and democracies? American Journal of Political Science, 59(3), 656–670. https://doi.org/10.1111/ajps.12168

Korinek, A., & Bell, S. A. (2024). AI's economic peril to democracy. Brookings. https://www.brookings.edu/articles/ais-economic-peril-to-democracy/

Krugman, P. (2003). Lumps of labor. http://tankona.free.fr/krugmanfallacy.pdf

Lake, D. A. (1992). Powerful Pacifists: Democratic States and War. The American Political Science Review, 86(1), 24–37. https://doi.org/10.2307/1964013

Lamensch, M. (2021). Authoritarianism has been reinvented for the digital age. Centre for International Governance Innovation. https://www.cigionline.org/articles/authoritarianism-has-been-reinvented-for-the-digital-age/

Lia, L. (2022). Economics minister vows to help retain talent in semiconductor industry. Radio Taiwan. https://en.rti.org.tw/news/view/id/2008210

Lin, B. (2023). In Race for AI Chips, Google DeepMind Uses AI to Design Specialized Semiconductors. Wall Street Journal. https://www.wsj.com/articles/in-race-for-ai-chips-google-deepmind-uses-ai-to-design-specialized-semiconductors-dcd78967

Lipset, S. M. (1959). Some Social Requisites of Democracy: Economic Development and Political Legitimacy. The American Political Science Review, 53(1), 69–105. https://doi.org/10.2307/1951731

Mainwaring, S. (1989). Transitions to Democracy and Democratic Consolidation: Theoretical and Comparative Issues. Working Paper. https://kellogg.nd.edu/documents/1324

Mak, R. (2022). Taiwan digs trenches in battle for chip talent. Reuters. https://www.reuters.com/breakingviews/taiwan-digs-trenches-battle-chip-talent-2022-08-17/

McLean, W. (2014). Drones are cheap, soldiers are not: a cost-benefit analysis of war. The Conversation. Drones-are-cheap-soldiers-are-not-a-cost-benefit-analysis-of-war.pdf

Meltzer, A. H., & Richard, S. F. (1981). A Rational Theory of the Size of Government. Journal of Political Economy, 89(5), 914–927. http://www.jstor.org/stable/1830813

Michel, C. (2013). Owning Guns Doesn't Preserve Freedom. The Atlantic. https://www.theatlantic.com/international/archive/2013/04/owning-guns-doesnt-preserve-freedom/275287/

Miller, M. K. (2016). Democracy by Example? Why Democracy Spreads When the World's Democracies Prosper. Comparative Politics, 49(1), 83–104. http://www.jstor.org/stable/24886229

Miyamoto, I. (2020). Surveillance technology challenges political culture of democratic states. https://dkiapcss.edu/wp-content/uploads/2020/09/04-miyamoto-25thA.pdf

Moschella, D. (2023). Data isn't the new oil; that might be a good thing. Defending Digital Series, No. 18. https://www2.itif.org/2023-defending-digital-18-data-oil.pdf

Mounk, Y. (2018). Automation will crash democracy - open to debate. https://opentodebate.org/debate/automation-will-crash-democracy/

Muro, D., & Vidal, G. (2017). Is Unemployment the Worst Enemy of Democracy? Political Mistrust and the Economic Crisis in Southern Europe. Mediterranean politics 22 (2), 197-217. DOI: 10.1080/13629395.2016.1168962

Musser, M., Gelles, R., Kinoshita, R., Aiken, C., & Lohn, A. (2023). "The Main Resource is the Human". A Survey of AI Researchers on the Importance of Compute. CSET. https://cset.georgetown.edu/publication/the-main-resource-is-the-human/

Naudé, W. (2024). Will artificial intelligence cause an economic growth explosion? OECD.AI. https://oecd.ai/en/wonk/will-artificial-intelligence-cause-an-economic-growth-explosion

Niblett, R., & Vinjamuri, L. (2020). Why Democracies Do Better at Surviving Pandemics. Chatham House. https://www.chathamhouse.org/2020/05/why-democracies-do-better-surviving-pandemics

Nolsoe, E. (2021). Which political systems are good for handling a pandemic? YouGov. https://yougov.co.uk/politics/articles/34024-which-political-systems-are-good-handling-pandemic

OECD. (2024). Artificial intelligence and wage inequality. OECD. https://www.oecd.org/science/artificial-intelligence-and-wage-inequality-bf98a45c-en.htm

Oltermann, P. (2024). Success of far-right AfD shows east and west Germany are drifting further apart. The Guardian. https://www.theguardian.com/world/article/2024/sep/01/success-far-right-afd-shows-east-west-germany-drifting-further-apart

Onorato, M. G., Scheve, K., & Stasavage, D. (2014). Technology and the Era of the Mass Army. The Journal of Economic History, 74(2), 449–481. http://www.jstor.org/stable/24550879

Revel, Jean-François (1984). Can the Democracies Survive? Commentary; New York, N. Y. Vol. 77, Iss. 6, (Jun 1, 1984): 19.

Risotto, G. (2019). The data Dictatorship - Aspen Institute Central Europe. Aspen Institute Central Europe. https://www.aspeninstitutece.org/article/2019/the-data-dictatorship/

Robinson, B.. (2024). 77% of employees lost on how to use AI in their careers, new study shows. Forbes. https://www.forbes.com/sites/bryanrobinson/2024/09/09/77-of-employees-lost-on-how-to-use-ai-in-their-careers-new-study-shows/#:~:text=But%2C%20according%20to%20new%20research,use%20AI%20in%20their%20jobs.

Rogers, J. (2022). The third drone age: Visions out to 2040. Centre for International Governance Innovation. https://www.cigionline.org/articles/the-third-drone-age-visions-out-to-2040/

Russett, B. (1993). Grasping the Democratic Peace: Principles for a Post–Cold War World. Princeton, NJ: Princeton University Press.

Salomo, K., Helbig, M., & Marquardt, S. (2023). Radical right-wing support among urban voters in Germany: Disentangling the roles of immigration, immigration history, segregation, and poverty in the neighborhood. Journal of Urban Affairs, 1–18. https://doi.org/10.1080/07352166.2023.2224020

Sauer, F., & Schörnig, N. (2012). Killer drones: The 'silver bullet' of democratic warfare? In Security Dialogue 43 (4), 363–380. https://doi.org/10.1177/0967010612450207

Shahbaz, A. (2018). The rise of digital authoritarianism. Freedom House. https://freedomhouse.org/report/freedom-net/2018/rise-digital-authoritarianism

Share, D. (1987). Transitions to Democracy and Transition through Transaction. Comparative Political Studies, 19(4), 525-548. https://doi.org/10.1177/0010414087019004004

Siddarth, D. (n.d.). Taiwan: Grassroots Digital Democracy That Works. RadicalxChange Foundation. https://www.radicalxchange.org/media/papers/Taiwan_Grassroots_Digital_Democracy_That_Works_V1_DIGITAL_.pdf

Singer, P. W. (2012). Do drones undermine democracy? In NYTimes.com. https://www.warcosts.net/wp-content/uploads/drones/517S_1_2012_Do_Drones_Undermine_Democracy_January_21_2012_by_Singer_NYTimes_THE_ANSWER_IS_YES.pdf

Slater, P., & Bennis, W. (2024). Democracy is inevitable. Harvard Business Review. https://hbr.org/1990/09/democracy-is-inevitable

Stam, A., & Reiter, D. (2022). Why democracies win more wars than autocracies. https://batten.virginia.edu/about/news/why-democracies-win-more-wars-autocracies

Stasavage, T. (2020). The Decline and Rise of Democracy: A Global History from Antiquity to Today. Princeton University Press.

Tompa, R. (2024). Generative AI develops potential new drugs for antibiotic-resistant bacteria. Stanford Medicine News Center. https://med.stanford.edu/news/all-news/2024/03/ai-drug-development.html#:~:text=Generative%20AI%20develops%20potential%20new%20drugs%20for%20antibiotic%2Dresistant%20bacteria,-share&text=Stanford%20Medicine%20researchers%20devise%20a,the%20drugs%20in%20the%20lab.

Ticchi, D., & Vindigni, A. (2008). War and Endogenous Democracy. Forschungsinstitut zur Zukunft der Arbeit & Institute for the Study of Labor, IZA DP No. 3397. https://repec.iza.org/dp3397.pdf

Tripp, A. M. (2023). War, revolution, and the expansion of women's political representation. Politics & Gender, 19(3), 922–927. https://doi.org/10.1017/s1743923x2200037x

Tusalem, R. F. (2015). Democracies, Autocracies, and Political Stability. International Social Science Review, 90(1), 1–40. https://www.jstor.org/stable/intesociscierevi.90.1.01

Van Noort, S. (2021). Industrialization and democracy. https://preprints.apsanet.org/engage/api-gateway/apsa/assets/orp/resource/item/61bbcb3e02c2146464287888/original/industrialization-and-democracy.pdf

Walzer, M. (2016). Just & Unjust Targeted Killing & Drone Warfare. Daedalus, 145(4), 12–24. http://www.jstor.org/stable/24916780

Wang, Q., Feng, G.-F., Wang, H.-J., &Chang, C.-P. (2021). The impacts of democracy on innovation: Revisited evidence. Technovation 108 (C). https://EconPapers.repec.org/RePEc:eee:techno:v:108:y:2021:i:c:s0166497221001140

Watts, I.P. (2016). From War to Peace: When Democracy Prevails? Saint Louis University Public Law Review 35(2), Article 9. https://scholarship.law.slu.edu/cgi/viewcontent.cgi?article=1020&context=plr

Weart, S. R. (1998). Never at War: Why Democracies Will Never Fight One Another. New Haven, CT: Yale University Press.

Whiteley, P. (2021). COVID-19: how democracies have fared compared with authoritarian regimes. University of Essex. https://www.essex.ac.uk/blog/posts/2021/09/24/covid-19-how-democracies-have-fared-compared-with-authoritarian-regimes

Ziblatt, D. (2017). Conservative Parties and the Birth of Democracy. Cambridge: Cambridge University Press.