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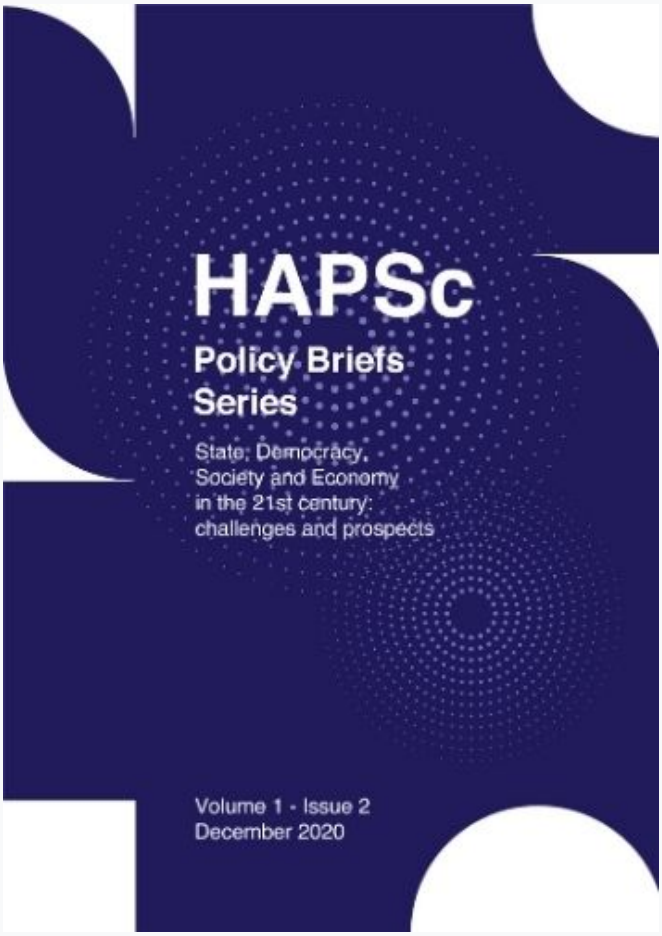

Big Data and Democracy

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Big Data and Democracy[1]

Theoharris-William Efthymiou–Egleton[2], Symeon Sidiropoulos[3], Evangelos Spanos[4], Elli Stougiannou[5]

Abstract

One of the biggest questions in the digital age pertains to the relevance of democracy in the era of big data. Unquestioningly, the digital revolution is growing at a rapid pace and many are being caught unaware by its impact in various avenues. The amount of data available has been doubling year on year, and the conditions of usage have been evolving at a pace faster than the policies are being provided to ensure proper usage. Many have started looking for ways of turning big data into big money, an aspect that is coming at the expense of the democratic values countries have upheld for generations. Instead, it is becoming a huge problem as the history of humankind is becoming more documented now and messages are easier to send compared to a century ago. Understanding the impact of big data on democracy can help accentuate the best way of improving democratic institutions and their ability to overcome the pressure coming from evolving technology.

Keywords: Big Data; Democracy; Artificial Intelligence; Politics; Governments; Institutions; Social Media.

Introduction to Big Data and its Importance

Big data is a discipline that provides analytical programs that extract information with data sets that could be considered complex for traditional data processing software. In many instances, the use of big data is a reference to the user behavior analytics, predictive analytics, or specific methods of analysis that utilize personal information to project the various ways people view their surroundings. The amount of information that is released is currently increasing at a fast rate and the majority of this is personal (Mavriki & Karyda, 2020). Thus, companies have managed to capitalize on this as a way of targeting various groups through messaging attached to what they would consider appropriate to them. However, this happens albeit using underhand deals such as buying data from companies or infiltrating databases and using software to capture the information sought (Mavriki & Karyda, 2020). Big data is mainly associated with three main concepts of variety, velocity, and volume. The internet

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provides the most essential link between the sought user and the party seeking to take advantage of the attained information.

The use of big data has grown in the past decade as more people are finding the internet as an essential marketing platform for ideas, products, and policies. The advancement of data analytics has made it easier to provide correlations to the prevention of diseases, spot business trends, deal with crimes, and influence ideas on various products among other things (Mavriki & Karyda, 2020). Governments, business, and healthcare practitioners can gain from the data because it will provide different demographic pointers that will be useful in shaping the outcomes of the way one views the issue in the discussion (Mavriki & Karyda, 2020). Big Data and artificial intelligence are one of the main technologies contributing to a real step forward in the administration and management of health care and services (Efthymiou, 2020), and (Efthymiou, 2016). Additionally, it also provides a better way of improving on the targeted marketing procedures that work in that environment.

Big data is an assemblage of data that is increasing exponentially over time. It does not seem to stop as people have become more invested in the way they meet their daily conditions. Big data is providing information assets that demand innovative yet cost-effective forms of information process that will enhance decision-making and insight as a means of making sense of the collected data (Macnish & Galliott, 2020). The source of data has increased as more people discovered ways of taking advantage of the information they have and the accessibility of the internet. Data sources are from wireless sensors, RFID's (radio frequency identification), web servers, and traditional applications (O'Neil, 2017). Non-traditional data types like system logs, texts, blogs, videos and images, and chats are now an important source as well (Macnish & Galliott, 2020). Technologies have increasingly become scalable as they accommodate different hardware, allowing more innovations that provide room for the provision of data. The economies now require optimisation of business analytics as the solutions hope to meet company demands.

Big data is becoming important as part of developing different levels of engagement in augmenting the need to sustain such information flowing to the entities and people that need it. Data has become a political and social issue because of its capability to reconfigure relationships and determine how people interact (Macnish & Galliott, 2020). The acquired data is now very sensitive, yet policies do not seem to match these demands as people continue to shape the critical interventions needed to address common practices and theories needed to establish and shape the changes in everyday life. Politics has become one of the biggest gainers in the use of this big data, as they continue to benefit from the laxities in the implementation of tight protection against big data misuse (Macnish, & Galliott, 2020). The governance programs today reflect the high level of engagement needed to

explore the capacities needed to build critical interventions that could be useful in shaping the algorithms in place.

Digital Politics

For billions of people across the globe, the digital transformation has brought with its numerous benefits and anadromous convenience. However, policymakers and market stakeholders seem to be more aware of the significance of the data as they examine the political and economic implications (Allcott & Gentzkow, 2017). The hindsight they have in this case became more endearing when discussing the influence that Cambridge Analytica and Facebook had in various global events such as the 2016 American elections and the 2014 Brexit campaign (Allcott & Gentzkow, 2017). With the new ability to skew information to fit a specific narrative, it has become quite easy to define the measures intent on defining democratic societies (Bigo et al., 2019). Reviewing some of the attributes that link the use of big data in politics can be influential in determining the essence of growth in the utility of services across the globe.

The current excitement of big data in political science is palpable despite the obvious effects of using it in providing an undue advantage on one side of the political divide. Gorham (2017) notes that the use of social media platforms like Twitter and Facebook has seen an increase in better mobilizations and political actions towards certain avenues that present important algorithmic inferences to suit a person's feed. The information collected plays a role in this case because it embodies the changes needed to define the way people use the internet as a medium of engagement. For instance, Gorham (2017) notes that negative attitudes expressed towards countries like Iran or those in the Middle East highlight the dangers of having a single view of interactions and the power of expressing such sentiments on a whole generation of people miles away. The creation of such attitudes helps in capitalizing on the various foreign policies while defeating the importance of globalization. Such sentiments can be dangerous since they can endanger the lives of innocent people who suffer from the rising vitriol against them despite their noninvolvement in such activities.

The complication arises when the big data boom is used for political attributes. Although it is not wrong for one to capitalize on such information, the obvious challenges are evidenced by the elements of such utilization. The majority of the information is gleaned from content generated by users through corporate services (Helbing et al., 2017). Social media platforms are quite useful in this instance, implying that the illustration of such insufficiency remains an essential attribute in determining what standards to employ (Gorham, 2017). The current regulatory regime is weak, and

the political environment is thriving from this ambiguity, an attribute that continually prevents a better understanding of the influence that such data can have on decision-making processes.

Issues of privacy have become a major source of discontent from various activists who believe that a need for restrictions is necessary to prevent misuse of data. Dawson and Abuhamad (2019) argue that the Cambridge Analytica scandal led to a great privacy awakening for many policymakers and experts. Public outcry over the misuse of data by politicians was evident as the current state of the governance of big data and artificial intelligence systems become a source of concern. The basis of the data collection process has remained critical in examining what works in the search for better outcomes. Close to 87 million Facebook users had their data used to manipulate the 2016 United States election using targeted political advertisements (Dawson & Abuhamad, 2019). The data transfer occurred without any consent of the users or even, arguably, that of Facebook itself. Such information becomes more damning when affirmed as true because it is a violation of people's rights. It is an evident circumvention of the policies expected from such groups yet remains an important way of examining how governments can sustain the integrity of their democratic institutions. We also must consider the effect of AI, big data on gender especially women, a critical component of society that has a profound impact on social, political, and psychological life globally (Efthymiou, 2020).

The noticeable lack of accountability and transparency in the approach towards data governance provides an important way of understanding why an evaluation of this topic is relevant when seeking a democratic understanding of the way the internet has changed the mode of operation across the globe. Data collection in and of itself has become a major concern in determining the control protocols that remain eventful in sustaining such global attributes as part of ensuring information shared is within the specified element of growth. De Zwart et al. (2014) note that the collection of this information is not based on transparency, bringing into question the right to use the information in different environments. The collection of data according to De Zwart et al. (2014) is albeit ubiquitous as it is carried out in both private and public space, with or without consent. Some people or corporations gain access to private information using organizations that require one to fill online forms to provide more attention towards sustaining this protocol, an aspect that only creates a bigger challenge in sustaining such growth as part of sharing the information with the relevant groups. Nonetheless, volunteering does not necessarily mean giving consent to its usage for any particular activity. In fact, some companies use algorithms to target marketing emails towards the user's email or profile on social media (De Zwart et al., 2014). Some even go to the extent of asking one to link their social media accounts with the hope of gaining access to more private information. For those

who are not aware of this, they give more control to their data without knowing who will use it and for what reason.

Democracy seeks to be a system of governance that represents their agenda while sustaining the growth process intent on building a better control of the measures in place. Establishing such programs will enable them to build measures intent on providing better governance. Körner (2019) notes that the use of technology can be both useful in liberal and authoritarian societies. It can strengthen both accountabilities in governance while also creating repressive capabilities in the process. It has led to an unprecedented exchange of and access to information, amplifying the spread of many incidences of misinformation. Protection of democracy is based on the ability to understand that this could echo the propaganda that suits a particular group and could incite groups against each other (Körner, 2019). The rising polarization and populism in democratic societies remain a core concern. Big data has cast a lot of concern on the issue of data ownership and the unprecedented wealth of such platforms and their founders. The question is whether they will agree to make changes and alterations as a means of determining key factors and enhancing performance as part of intensifying competition in various avenues.

Using the applications to determine the value and essence of the political formations creates a renewed attention to the various discussions arising from the use of the internet as a way of eroding democratic governments and communities abroad. For instance, increased political microtargeting in 2016 led to hostilities directed to certain groups (Van Gils et al., 2020). On a platform like Twitter, computer bots were created to create a notion that interactions were happening online, yet they were being used to contribute to certain bits of information considered crucial in the election. The created bots played a huge role in skewing the information and creating the political division that arose and has continued since then. Outsiders can use these tactics to wage a war against a given country. As Cukier (2018) noted, attacking democracy is attacking the citizens of that nation, which is quite true and should be treated with greater tenacity to thwart such considerations in the future. Therefore, more needs to be done as a means of safeguarding the needs of the community as a whole.

Democracy hopes to hold power accountable while strengthening the various virtues that enhance respect for individual rights. Information is presented with the hope that people can utilize it with a better outlook that enhances and evaluates the different programs that stand out in the community (Van Gils et al., 2020). Information is necessary for people to form opinions and utilize this as a pedestal towards formulating their decisions on voting. Attacking this option means that the leaders are not keen on protecting individual rights but seeking to sustain continued attacks on the representation of democracies, which is the election (Van Gils et al., 2020). The level of credibility

of the information sent has become a source of concern as more people seek different ways of building the information protocols intent on improving the way communities view their present options. Microtargeting creates a deeper political and systemic concern because it distorts information to suit a particular ideology.

One of the easiest ways of subverting democracy is by providing misleading information. The problem with the current level of the electoral process is the notable data-driven voter research that helps in increasing political microtargeting. To achieve the expected goals, it becomes imperative to discuss some of the development processes that only increase the chances of consuming the growing numbers of information sources that do not seem to be clear on the need for originality (Van Gils et al., 2020). The amount of fake news has increased because social media platforms have allowed people to provide information without any way of determining the right aggregation of news and information. Fake information spreading in any democratic institution creates distortions that only lead to doubting the legitimacy of the democratic process across the country. It is important to discuss these items and determine the conventionalism of the election process (Van Gils et al., 2020). As noted earlier, big data provides information that asserts the need to sustain a specific level of relevance and accountability. The data also creates important means of determining the selection, sharing, and storage of important information, whether legitimate or not (Brayne, 2017). Conspiracy theories tend to dominate many political forums online as they attempt to discredit the other team regardless of the truth in such information. Social media platforms also make it easier for people to conceal their identities and continue posting information regardless of how untrue it is (Van Gils et al., 2020). It becomes more challenging as the common beliefs remain integral in sustaining such provisions as intended to ensure better outcomes. The continued utility of algorithm-driven platforms such as search engines, social media applications, and news aggregators have made it important to conduct in-depth research to understand what political issues are within a specific region. The aim is to spam users in that region with information that suits the needs of the sender, and ensure they remain confused to even notice whether the sender is legitimate or not (Van Gils et al., 2020). It serves the intended purpose of flocking information with the intention of subverting the role of democracy in a given country.

The falsification of information only hurts the chances of sustaining democracy. The aftermath of the United States election in 2016 showed how flawed systems could easily affect the measures intent on derailing the preferences of the electorate based on the need to define how to trust in democracy (Allcott & Gentzkow, 2017). Furthermore, being the largest democracy in the world means it has to set the right sentiments on this, but also provides room to understand who such disinformation can

lead to the contestation of the legitimacy of democracy as a way of seeking representation. Nonetheless, it also shows the importance of the digital revolution in the world and in line with the need to understand how to push towards securing the essence of such information (Allcott, & Gentzkow, 2017). News stories remain a façade that only satisfies a few people, and the involved firms seem only to respond when pressed to make better responses.

The concentration of decision-making power to a few digital firms is a major concern. Dawson and Abuhamad (2019) consider this a major challenge because the public does not share in the value of the data governance process. Allowing a few people to control the outcomes makes them more susceptible to pressure, making it easier to discourage oversight while protecting a few groups while abusing the rights of others, mainly the minorities. The problem is that these firms now become the custodians of the provided information while seeking different ways of sustaining the presented information. As Gaon and Stedman (2019) posit, any policy created must border on oversight and accountability. The growing uncertainty of the big data provisions highlights an important question on the need for bettering services offered across the globe. All governments need to protect democracies within their institutions as a means of safeguarding the rights of all involved parties.

Conclusion

Clearly, democracy is in danger because of unchecked big data management or lack thereof. In sustaining, the democratic virtues that countries need to ensure are essential in such a program. It helps in sustaining better election legitimacy as part of ensuring that the rights of all citizens remain in tandem with what is expected. Governments have to be keen on ensuring that they retain the level of focus that ensures the procedures on the safeguarding of the presented programs run within the expected protocols. Elections have to be safeguarded to improve democracy or else the social media craze coupled with misuse of big data will remain a key part of destabilizing nations. Taking time to build relevant policies creates an essential platform intent on safeguarding the key analyzed issues that will empower the various groups to fight for their democratic rights rather than watch helplessly as they are destroyed. Additionally, policymakers need to empower oversight authorities as a means of ensuring accountability in sustaining growth in the way the democracies run their various activities. It empowers them to remain in charge and control the dissemination of information at a time when everyone has assumed the role of a journalist despite lacing the credentials and know-how needed to ensure better service provision.

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