



AI & POLITICAL ELECTIONS

THE POTENTIAL IMPACT ON DEMOCRATIC PROCESSES

Introduction:

In recent years, democracies worldwide have faced challenges, with notable examples including the Trump administration in the US, Bolsonaro in Brazil, and concerns over the rule of law in Hungary and Poland within the European Union. The increasing use of Artificial Intelligence (AI) in political campaigns has raised new possibilities for manipulating voter opinions, voting processes, and outcomes. Notably, AI-driven tactics have also influenced events like the Brexit referendum. However, this fast-evolving field requires continuous scrutiny and adaptation.

Collaborative Approach:

This workshop encourages collaboration and knowledge-sharing. All content is freely downloadable; other authors can join as contributors. Participants are encouraged to share their experiences and results with the Democracy Rally Team (team@democracyrally.eu) for the benefit of future participants.

Objectives:

The workshop has three primary objectives:

- Enhance knowledge of democratic procedures in different countries.
- Explore the scandals involving Cambridge Analytica and its role in the 2016 US elections and the Brexit referendum.
- Foster a discussion on how AI can impact elections and democratic development globally.

Output:

By the end of the session, participants will have a general understanding of:

- Microtargeting principles and their use in political campaigns.
- Cambridge Analytica's claims and involvement in the 2016 US elections and the Brexit referendum.
- An overview of digital voting systems and their advantages and disadvantages, including countries where it is implemented.
- Explore the role of AI in decision-making, understanding the significance of data quality and the risks of algorithmic bias in shaping our democratic future.

Target Groups:

This workshop is tailored for people aged 16 and older interested in AI & politics.



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Recommendations for Facilitators:

Facilitators should be familiar with governance, democratic procedures, social sciences, political sciences, and Artificial Intelligence. They can collaborate with resource persons to ensure comprehensive knowledge coverage.

Knowledge Hub:

Microtargeting in Political Elections :

Microtargeting is a campaign strategy used by political parties and campaigns to tailor messages, advertisements, and campaign efforts to specific groups of voters based on their unique characteristics and preferences. It involves the use of data analytics, AI algorithms, and voter profiling to identify and understand the preferences, behaviors, and attitudes of individual voters. Microtargeting can be highly effective in reaching voters with personalized messages, maximizing engagement, and influencing voter behavior. However, it has also raised concerns about privacy, data protection, and the potential for manipulation. Critics argue that microtargeting can lead to the creation of filter bubbles, where individuals are only exposed to information that reinforces their existing beliefs, contributing to polarization and the spread of misinformation.

Microtargeting steps :

- **Data Collection:** Political campaigns gather vast amounts of data from various sources, including voter registration databases, public records, social media platforms, online interactions, and other data providers. This data may include demographic information, voting history, online behavior, interests, affiliations, and more.
- **Voter Profiling:** Using AI and data analytics, the collected data is analyzed to create detailed profiles of individual voters or small groups of voters who share common characteristics or interests. These profiles help campaigns understand the preferences and concerns of specific voter segments.
- **Segmentation:** Based on the voter profiles, the electorate is divided into various micro-targeted segments, such as young voters interested in climate change, seniors concerned about healthcare, or urban professionals with specific economic interests.
- **Tailored Messaging:** Campaigns craft personalized messages and campaign materials for each micro-targeted segment. These messages are designed to resonate with the interests and values of each group, increasing the chances of garnering support and engagement.
- **Targeted Advertising:** With the advent of social media and digital advertising platforms, microtargeting has become even more effective. Campaigns can use AI-powered algorithms to deliver tailored advertisements directly to specific voter segments on platforms like Facebook, Twitter, or Google.
- **Get-Out-the-Vote Efforts:** Microtargeting is also used to identify potential supporters who may be undecided or less likely to vote. Campaigns can then focus their resources on mobilizing these individuals to turn out on election day.



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"This Is Your Digital Life":

"This Is Your Digital Life" was a personality quiz app developed by Aleksandr Kogan, a researcher and data scientist. The app was available on Facebook and presented itself as a fun quiz that users could take to learn more about their personalities. However, behind the scenes, the app collected vast amounts of personal data from not only the users who took the quiz but also from their Facebook friends. When users agreed to take the quiz, they granted the app access to their Facebook profiles, including their public profile information, friend list, and other data their friends had shared with them. This allowed the app to gather a significant amount of personal information not only about the users themselves but also about their entire social networks. The app's data collection practices were not transparent, and many users were not aware that their data, along with that of their friends, was being harvested in this manner. As a result, the app collected data from millions of Facebook users, creating a large database with detailed information about their interests, likes, and interactions.

Cambridge Analytica scandal:

The data collected by "This Is Your Digital Life" was later shared with Cambridge Analytica, a political consulting firm that used it to build psychographic profiles of voters. These profiles aimed to understand individuals' personalities, preferences, and behaviors, with the goal of targeting them with specific political messaging and advertisements tailored to their psychological characteristics.

In the 2016 US presidential election, Cambridge Analytica worked for the campaign of Donald Trump, the Republican candidate. It used the data it obtained to identify and target potential Trump supporters with tailored political advertisements on social media platforms like Facebook. The goal was to influence voter behavior and, ultimately, the election outcome.

Similarly, in the 2016 UK Brexit referendum, Cambridge Analytica was involved in the Leave.EU campaign, which advocated for the UK to leave the European Union.

The firm reportedly provided data analysis and targeted advertising services to influence voters and promote the "Leave" campaign's messages.

The Cambridge Analytica scandal came to light in 2018 when reports revealed how the data collected by the app was misused and improperly obtained without the explicit consent of the affected Facebook users. The incident raised important questions about the ethical use of personal data and the responsibility of technology companies and developers to ensure transparent and secure data handling practices. It also highlighted the potential risks associated with the widespread collection and misuse of personal data in the digital age. In response to the scandal, Facebook implemented various measures to improve user data privacy and strengthen its data protection policies.

Sources for Further Reading:

- Harvard Carr Center for Human Rights Policy: AI and Democracy
- Heinrich Böll Foundation: Artificial Intelligence and Democracy
- The Washington Post: Ukraine Takedown Requests and Russian Propaganda



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Overview of Digital Democratic Procedures:

Many countries (like the US, Philippines, etc) demand a voter's registration before granting the right to vote, Some countries are exploring the use of online voting to replace pen and paper ballots. Electronic voting, also known as e-voting (or online voting), involves using electronic systems to cast and count votes in elections. Several countries around the world have implemented electronic voting (e-voting) to varying degrees. The use of e-voting can range from online voting to electronic voting machines used in polling stations. While there are potential benefits to electronic voting, there are also several problems and concerns associated with its implementation.

Advantages of Electronic Voting in Terms of Democracy:

- **Accessibility and Convenience:** Electronic voting can make it easier and more convenient for citizens to cast their votes, potentially increasing voter turnout. It allows people to vote from remote locations, which can be especially beneficial for voters with mobility issues or those living far from polling stations.
- **Faster Vote Counting:** Electronic vote counting can be faster and more accurate than traditional manual counting, which may expedite the election results and reduce delays and uncertainties.
- **Potential Cost Savings:** Electronic voting systems have the potential to reduce the costs associated with printing paper ballots, staffing polling stations, and transporting election materials.
- **Improved Accuracy:** Electronic voting systems can minimize errors in vote counting and help prevent issues like overvoting or undervoting, which can occur with paper ballots.
- **Accessibility for Voters with Disabilities:** Well-designed electronic voting systems can offer improved accessibility for voters with visual or physical impairments, ensuring a more inclusive democratic process.

Disadvantages and Concerns of Electronic Voting in Terms of Democracy:

- **Security Risks:** One of the most significant concerns with electronic voting is the potential for security breaches, hacking, or manipulation of votes. Ensuring the integrity and confidentiality of electronic voting systems is a complex challenge.
- **Lack of Transparency:** Electronic voting systems can be difficult to audit and verify, leading to concerns about the transparency and trustworthiness of election results.
- **Digital Divide:** Not all citizens may have equal access to technology or the necessary digital literacy skills, which could lead to a digital divide, disenfranchising certain populations.
- **Voter Authentication:** Verifying the identity of voters in electronic voting can be challenging, raising concerns about potential voter fraud or impersonation.
- **Technical Failures:** Electronic voting systems are vulnerable to technical glitches, system failures, or cyberattacks, which could disrupt the voting process and compromise election outcomes.
- **Loss of Paper Trail:** Unlike paper ballots, electronic voting may not leave a physical paper trail, making it harder to conduct post-election audits or recounts.
- **Lack of Backup Systems:** In case of technical failures or security breaches, it is essential to have reliable backup systems to ensure the integrity of the election, which can be challenging to implement effectively.



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Countries with E-voting system:

- Estonia: Estonia is widely recognized as a pioneer in e-voting. Since 2005, Estonian citizens have had the option to vote online in various elections, including parliamentary and local elections. The country's e-voting system has been well-established and widely used.
- Switzerland: Switzerland has introduced e-voting in some regions and cantons. However, the implementation of e-voting has faced some challenges, and not all cantons have adopted it.
- India: India has experimented with electronic voting machines (EVMs) in its elections since the early 2000s. EVMs are used extensively in the country's national, state, and local elections.
- Brazil: Brazil has used electronic voting machines in its national elections since the mid-1990s. The country's voting system is considered one of the largest and most successful implementations of e-voting in the world.
- Belgium: Belgium has introduced e-voting in specific regions and for certain elections. However, due to security concerns, the country has limited the use of e-voting in recent years.
- United States: Some states in the United States have experimented with electronic voting machines and online voting for military and overseas voters. However, the use of e-voting varies widely across states, and some have been cautious in adopting widespread e-voting due to security concerns.
- Philippines: The Philippines has introduced automated voting systems using vote-counting machines in its elections since 2010.
- Venezuela: Venezuela has implemented electronic voting machines in its elections since the early 2000s.

Questions for the discussion:

- How can we balance the potential benefits of AI in political campaigns with the ethical considerations of data privacy and voter manipulation?
- How can we empower citizens, especially young people, to be critical consumers of political information and navigate the complexities of AI-driven political messaging?
- What measures should be put in place to ensure the transparency of digital voting systems while safeguarding against potential cyber threats?





Can AI make democratic decisions?

Artificial Intelligence (AI) has become an integral part of our daily lives, influencing various aspects of society, including democracy and decision-making processes. In the pursuit of a democratic future, AI presents both promising opportunities and critical challenges. At the heart of AI's power lies data, and the quality of this data plays a crucial role in shaping AI applications. However, the reliance on historical data can lead to algorithmic bias, which can perpetuate existing inequalities and hinder democratic ideals. In this overview, we will explore a series of case studies that illustrate the impact of AI on democracy. From AI-powered systems facilitating healthcare diagnoses to the spreading of misinformation through AI bots, these case studies exemplify the complexities and implications of AI-driven decisions. By examining the successes and problematic applications of AI, we can better understand the transformative potential and ethical considerations in achieving a democratic future in our society.

Case Study 1: Algorithmic Bias and Credit Limits

In August 2019, Apple and Goldman Sachs launched the Apple Card, a credit card designed to simplify the application process using an algorithm to evaluate applicants' creditworthiness. When a customer applied for the Apple Card, the algorithm would analyze various factors, including the individual's credit score, income, debt-to-income ratio, payment history, and other financial information available from their credit report. The algorithm used this data to assess the customer's credit risk and determine an appropriate credit limit for the individual.

The algorithmic decision-making process aimed to streamline the application process and provide quick decisions for applicants however there were reports showing potential gender bias...

Discussion Questions:

- How do they design an algorithm for credit card limits?
- What type of bias was observed in the limits of credit cards?
- Why did this bias exist in the historical data used for training the algorithm?
- What measures should be taken into account when developing decision-making algorithms to avoid algorithmic bias in financial services?



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Case Study 2: AI-Assisted Healthcare Diagnosis

In 2021, a healthcare institution in the European Union faced challenges in diagnosing a rare disease with ambiguous symptoms. To overcome these issues, they used AI technologies to develop an innovative diagnostic tool. The AI-powered system analyzed vast amounts of medical data, including patient records, genetic information, and diagnostic imaging. By applying machine learning algorithms, the system identified patterns and correlations that might be overlooked by human doctors, leading to more accurate diagnoses. The AI-assisted diagnostic tool improved the speed and accuracy of diagnosing the rare disease, allowing for timely treatment and better patient outcomes. Although there is a concern that over-reliance on AI in healthcare might reduce the human touch and personalized care that patients need.

Discussion Questions:

- What challenges did the healthcare institution face in diagnosing the rare disease before using AI?
- How did the AI-assisted diagnostic tool improve the diagnostic process?
- Are there any potential drawbacks or limitations to relying heavily on AI in healthcare?
- How can healthcare institutions strike a balance between AI technology and maintaining personalized patient care?
- In what other areas do you think AI could be applied to improve the quality of human life?



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Case Study 3: Bias in AI-Powered Hiring Systems

In 2018 Amazon company implemented an AI hiring system to expedite its recruitment process. However, they discovered a problem. The system showed a preference for male candidates, leading to a bias against equally qualified female applicants. This issue arose due to the historical data used to train the AI model, which contained biases and reflected gender imbalances in previous hiring practices. AI-powered hiring systems have the potential to facilitate the hiring process, saving time and effort for both employers and job applicants, but if it is not carefully developed and monitored, AI hiring systems can conserve biases and restrain diversity in the workplace. This is called "algorithmic bias," where the AI makes biased decisions based on unfair data. Algorithmic bias is a problem because it reinforces social inequalities and leads to unfair treatment. To address this, we need to ensure diverse and representative training data, transparent AI systems, and measures to detect and correct bias.

Discussion Questions:

- What problems did the bias in the AI hiring system create for female applicants?
- How did the historical data contribute to the bias in the AI model?
- Why do you think the historical data used in training the AI system contained biases?
- What solutions can be proposed to reduce bias in AI-powered hiring systems?
- In what other ways do you think AI can be used to promote diversity and inclusivity in the workplace?



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Case Study 4: Disinformation and AI-Powered Bots

AI-powered bots are computer programs that automatically perform tasks on social media. They have the potential to create personalized experiences on social media. They can analyze posts, comments, and user profiles to identify specific interests and opinions. Based on this analysis, the bots are programmed to respond in a way that aligns with the desired objectives of their creators, which can include spreading misinformation or promoting a certain viewpoint.

In the 2016 US election, these AI-powered bots were used to spread false information, manipulate public opinion, and create divisions among people. They would selectively engage with users, posts, and comments sharing misleading information or biased perspectives. This activity aimed to influence the way people perceived the candidates and the issues surrounding the election.

The presence of AI-powered bots in the election highlighted the challenges of combating disinformation and the importance of critical thinking when consuming information online. It raised concerns about the potential impact of automated systems on democratic processes and the need for transparency and regulation.

Discussion Questions:

- How can AI-powered bots influence public opinion during elections?
- Why is it important to be critical of the information we encounter on social media?
- What measures do you think should be taken to address the issue of AI-powered bots spreading disinformation?
- How can individuals differentiate between reliable and unreliable sources of information online?
- In what ways can technology be used to promote transparency and accuracy in election campaigns?





Case Study 5: Facial Recognition Surveillance and Privacy

Facial recognition technology is a system that uses AI to analyze and identify human faces. It learns to perform face recognition by being trained on vast amounts of data containing facial images. The AI algorithm extracts unique facial features and creates a faceprint, which is then compared to a database of known faces to make identifications.

In recent years, companies like Clearview AI collected billions of images from social media platforms without users' permission. They built a comprehensive facial recognition database and offered access to law enforcement agencies. However, this raised concerns about privacy violations and the potential for mass surveillance.

While facial recognition technology has security benefits, such as aiding in identifying suspects and preventing threats, its unregulated use can pose significant risks to privacy. It is essential to strike a balance between public safety and individual privacy rights in a democratic society.

Discussion Questions:

- How does facial recognition technology work, and what are its main components?
- How can the unauthorized collection of facial images impact privacy rights?
- What measures should be in place to regulate the use of facial recognition technology and protect privacy?
- In an increasingly technologically advanced society, what measures can individuals take to protect their privacy?
- In what other domains can facial recognition technology be applied, and what ethical considerations should be taken into account?



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Case Study 6: AI-Powered Bots and Climate Change

AI-powered bots are computer programs that can perform tasks and interact with users. They are designed to analyze information and respond in specific ways to create a personalized experience for the users. However, sometimes they are used to spread misinformation or manipulate public opinion to align with the objective of their creators.

In the year 2022, an AI-powered bot named "ClimateBot" was created to spread misinformation about climate change. It was designed to manipulate public opinion and cast doubt on the reality of climate change and its causes.

ClimateBot worked by scanning social media platforms for posts and comments related to climate change. When it found such content, the bot would reply with misleading arguments and cherry-picked data. For example, if someone expressed concern about rising global temperatures, ClimateBot would respond with claims suggesting that climate change is a natural occurrence and not caused by human activities. It would use misleading statistics to support its arguments.

This use of AI-powered bots to spread misinformation about climate change poses a significant challenge. It can influence public opinion, create confusion, and undermine efforts to address this global issue.

Discussion Points:

- How do AI-powered bots work and what are they designed for?
- Why is the spread of misinformation about climate change concerning?
- How can individuals identify and critically evaluate information presented by AI-powered bots?
- How we can use AI-powered bots to increase public awareness about climate change?



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Case Study 7: AI for Good: Policy Priority Inference

In recent years, the AI for Good Foundation developed an innovative project called "Policy Priority Inference." This project uses AI algorithms to analyze large amounts of data and predict the potential impact of proposed policies. By examining historical data, public sentiment, and expert opinions, the AI system can provide valuable insights to policymakers.

For example, in the year 2023, several European countries adopted the Policy Priority Inference platform to aid in decision-making. When a policy proposal is introduced, the AI system processes relevant data and generates predictions about its potential outcomes. Policymakers can then use this information to make more informed decisions and prioritize policies that are likely to have positive societal impacts.

The Policy Priority Inference project has been successful in helping policymakers consider a wide range of factors and make data-driven decisions. It empowers them to address complex challenges and achieve better outcomes for their countries and citizens.

Discussion Questions:

- How does the Policy Priority Inference project use AI algorithms to support policymaking?
- What are the potential benefits of using AI in policy decision-making?
- Why is it important for policymakers to consider various factors and data when making decisions?
- What ethical considerations should be taken into account when utilizing AI in policy development?
- How can AI technology be further utilized to improve decision-making in other areas, such as education or environmental conservation?



Activity Steps:

1-Participants are divided into small groups

2-Participants are asked to discuss key questions about AI and ways AI could influence elections and threaten or improve democratic procedures.

3-After each question, each group is invited to shortly share the result of their discussion. Depending on the answers, facilitators can provide additional insights to the groups.

Workshop materials can be printed or shared digitally, allowing participants to delve into specific topics of interest.

By engaging in this workshop, participants can gain valuable insights into the complexities of AI's impact on political elections and democratic processes while fostering critical thinking and active engagement in the political sphere.

Activity on the potential influence & uses of Artificial Intelligence

Here we provide a series of pages that can be printed out or shared digitally with participants:

[Different AI Applications for Teenagers](#)

Participants can choose to focus on one or several of these topics in smaller working groups.

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