

GovTech Solutions for 2020 Elections: US Case Study

Teaser

December 2020

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- **Advancements in science and engineering are intended to make our lives better and bring more transparency to various aspects of human activities.** While modern technologies provide solutions for multiple administrative problems, they are still not a panacea against unfair practices during elections. **The advancement of the 21st century's GovTech (Government Technologies and E-Governance) solutions is promising in terms of reevaluating our views on modern political administration,** however, the general population is still concerned about them as most attempts to introduce various electronic technologies in the administrative processes (including elections) failed to produce transparency (with few exceptions where the voting technology was rather basic). The problem at hand is that technologies are a 'black box' for a majority of population. For politicians this is not only a 'black box' but also an issue as these technologies may directly influence the election process.
- **With the rise of computing power and the wide usage of smart devices, several threats to the modern democracy came into the spotlight.**
- **In 2016,** during the Presidential election in the United States, Big Data analytics tools and methods were utilized by one of the competing sides to microtarget voters based on the personal data collected from their social media profiles.
- **In 2020 (in the US),** there was a large number of controversies and doubts related to the electronic voting machines. This clearly demonstrates that technologies became an integral part of the electoral process both as agents which are limits the data transfers and tools aiming to influence the election process.
- **Artificial Intelligence and Blockchain technology have yet to reach the level of maturity needed to execute transparent democratic elections.** At this time, they can only support the electoral process by helping eliminate misinformation and to provide more details about the candidates to the general public.
- **The past few presidential elections in the United States presented a number of concerns regarding the ethical usage of digital data.** The main conclusion that can be derived here is that technologies can be easily used to get ad hoc results or blamed for the failure of modern democratic institutions. People lacking basic scientific understanding still see modern technologies as a 'black box' allowing manipulative techniques to be used to influence public opinion.
- **Negative sentiments towards GovTech hinder technological initiatives and developments** having the potential to enhance democracy making electoral process more secure and inclusive.
- In 2019, [American AI Initiative was created](#) in the US to increase the government awareness and involvement in AI industry development.
- **After the 2020 election AI may be subject of more attention and regulation by the US government** as well as may lead to the adoption of additional legislation (similar to General Data Protection Regulation in the EU).
- **To prevent manipulations, authorities need to implement new strategies to inform the population** about the use of GovTech. The purpose of this report is to provide information on corresponding policy-making decisions.

**GovTech / E-governance
Industry in the US 2020**

**Companies - 30
Investors - 40**

**Digital
Participation**

**Voting
Machines**

Companies

Investors



**Blockchain-Based
Solutions**



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Timeline of Key Events: 2016-2020

Big Data Analytics played a crucial role in the US Election and may have been used in a non-transparent way.

2016

2017-2018

The period between elections was an attempt to comprehensively understand new technologies with the potential to disrupt politics across country. There was also a push to describe in detail their ethical use in the electoral process.

In February 11, 2019 American AI Initiative, the AI government body, was established with the purpose to stimulate the technological development and implementation in the field.

2019

Government may aim to increase their level of involvement in Artificial Intelligence development. Establishing AI usage ethics. Establishing Private Data Security regulations.

2020

US 2020 Presidential Elections became a litmus test for the perception of technologies, mainly AI and machine voting. The problem at hand is that technologies are a 'black box' for a majority of population. For politicians this is not only a 'black box' but also an issue as these technologies may directly influence the election process.

2021

Trends and Tendencies in the US relations with AI 2020-2021

Increasing of government involvement in AI development and regulation

Establishing AI ethics

Establishing Private Data Security regulations



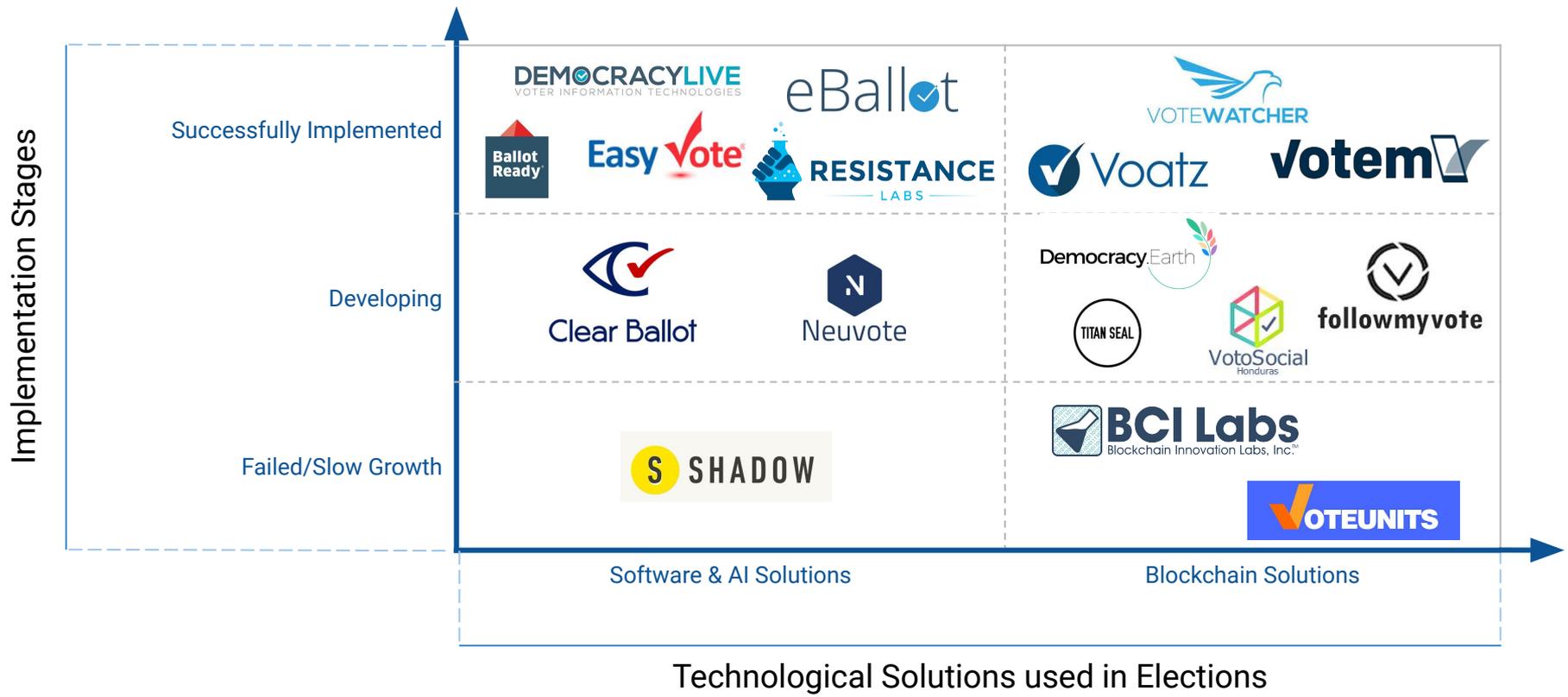
US in 2021

Increasing cybersecurity prevention mechanisms

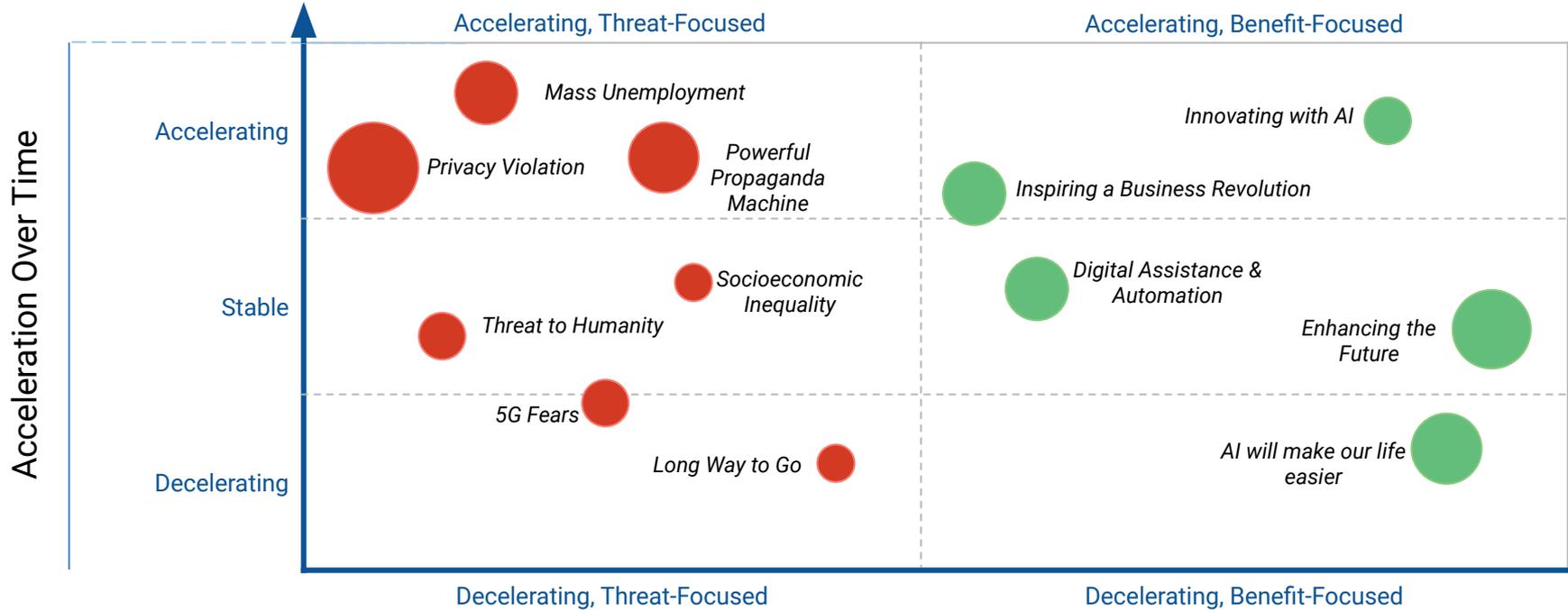
Dealing with China as a competitor and trading partner

Defining the role of Tech Corporations in US economy

Elections Startups and Initiatives in the US



Americans' Major Fears Regarding Technologies in 2017



Source: NARRATIVE ANALYSIS RESEARCH PAPER Artificial Intelligence



Technologies are Reflecting Social Problems

American society today is polarised and exhibits mistrust towards technology solutions used in electoral process, warranting introduction of reliable information services and technologies.

Recent debates regarding unethical or non-transparent use of modern informational technologies by Big Tech companies sparked new demands for such companies and services. A number of companies and start-ups aim to challenge the major players in the field by prioritizing privacy and security, enhancing the interpersonal experiences of users, limiting the personal data gathered from the users, and allowing them access to information banned by the other media channels.

There is a potential trend that innovative media channels would cease this opportunity and challenge media giants and Big Tech companies, bringing diversity and competition to the marketplace which is currently exhibiting a shift towards monopolization.

The image displayed on this page reflects the emerging trend representing a migration of users from previously most popular media platforms and digital technologies to their new rivals in hopes of avoiding censorship.



General Conclusions

- The past decade of local and national elections clearly demonstrated that the US needs much stronger Data Privacy & Protection Regulation in the style of the European Union's General Data Protection Regulation (GDPR) adopted in 2016.
- Various authorities around the world need to help increase the level of trust in new technologies by educating the general public regarding their potential.
- The exponential growth of technological development will have the possibility to transform society in many ways. However, there are multiple challenges, such as: the rising gap between developed and underdeveloped countries and even between the rich and poor people within one society. It is up to the government to step up and provide the necessary directives and regulations in order provide stability and prosperity.
- The Artificial Intelligence (AI) development can be compared to the 19th century Industrial Revolution. It has the power to create new industries, eliminate the old ones and to pervade almost every aspect of our life. Therefore, there is a dire need for transparency and ethics regarding AI research and implementation.
- The future US presidential administration must address a multitude of problems related to the dynamic political environment (both external and internal). The American society is highly divided in the face of the uncertainties in both technological and political perspectives.
- Recent years demonstrated a sharp need for international cooperation in the sphere of AI. It is crucial for the US to keep and extend an international collaboration in order to improve the advancement of the field for a greater good.
- During the last several years the EU and the UK implemented several productive initiatives related to the establishment and regulation of AI ethics. International cooperation with leading countries of AI ethics development has the potential to strengthen the democratic institutions of the US.
- Tools and technologies used for government purposes (Big Data Analytics, Online Voting, Artificial Intelligence for Voting Automatization and Anti-Fraud Monitoring, Voting Machines connected to the Cloud) are still in their relatively primitive stage of development, and their transparency lacks a required level of security.
- The widespread suspicion towards technologies used for government purposes is driving away the much needed investment in the sector. Some of the current solutions are already too old and increasingly fault-prone. A new regulation and information campaigns are required in order to make the people trust them and to allow for the inflow of new investments and ideas in the domain that was hindered due to the virtual monopoly held by several voting machines corporations up until now.

GovTech Solutions for Elections in 2020 in US, Switzerland, Taiwan, Moldova, Singapore

Deep Knowledge Analytics
GovTech Division



GovTech Solutions for Elections in 2020
US, Switzerland, Taiwan, Moldova,
Singapore

January 2021

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In this upcoming report we will try to cover to cover Government Technologies (GovTech) used in various countries around the world some of them differing by a number of social and economic parameters. Countries like Moldova and Taiwan, while being on different levels of development, are trying to increase their elections' transparency in a similar way - by automating the process and lowering the chances of man-made mistakes.

Women in Governance 2021

Deep Knowledge Analytics
GovTech Division



Women in
Governance 2021



February 2021

www.govtech.global

Although women on a high-level public positions are not something new, in 21st century there is a sharp increase in the number of female politicians in leading roles. Many of the high-profile women in that report have been on their public positions for years while others are relative newcomers and this analysis aims to present their profiles in-depth and how they came to be those inspiring figures, that we can see in today's dynamic political environment.

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