The Evolving Roles of Artificial Intelligence and the Future of Democracy: Comparative Study on Germany, France, U.S. and U.K.

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ABSTRACT

It is a well known fact that democratic system of government is on the increase across many states, especially after the end of the Cold War rival, and it is assumed by many who use the lens of democratic peace theory that democratic societies don't fight among each other; therefore, democracy should be preserved and protected in any possible way. With this in mind and considering the rapid development of artificial intelligence and how it was used to disrupt the democratic processes in societies like Germany, France and United States, and U.K. many scholars, politicians, individuals tend to disagree on the kind and degree of impact of the evolving roles of AI in democratic societies; some perceive AI as a threat to democracy while some see it as a welcome development that comes with enormous benefits. However, using qualitative research method, and through description, analysis and comparison, this study will provide ideas and arguments from interviews, books, news papers and journal articles to answer the research questions: How can we address the challenges that Artificial Intelligence poses on democracy? Can AI be used as an instrument that enhances democratic system? This study also tries to argue how AI's influence on democracy in the above mentioned democratic states is likely to increase or decrease the chances of conflict among each other. Finally, the study provides how the future of democracy in these societies (Germany, France, U.S. and U.K.) can be secured from the threats of AI in as much as they have effective regulative policies guiding the roles of these AIs and preventing them from infringing on people's right.

Keywords: Artificial Intelligence, Democracy, Democratic Peace Theory, Threat

ÖZ

Demokratik yönetim sisteminin birçok eyalette, özellikle Soğuk Savaş'ın sona ermesinden sonra artmakta olduğu iyi bilinen bir gerçektir ve demokratik barış teorisinin merceğini kullanan birçok kişi tarafından demokratik toplumların savaşmadığı varsayılmaktadır. birbirleri arasında; bu nedenle demokrasi mümkün olan her şekilde korunmalı ve korunmalıdır. Bunu akılda tutarak ve yapay zekanın hızlı gelişimini ve Almanya, Fransa, Amerika Birleşik Devletleri ve Birleşik Krallık gibi toplumlarda demokratik süreçleri bozmak için nasıl kullanıldığını göz önünde bulundurarak birçok bilim insanı, politikacı ve birey, etkinin türü ve derecesi konusunda fikir birliğine varmama eğilimindedir. demokratik toplumlarda yapay zekanın gelişen rollerinin; Bazıları yapay zekayı demokrasi için bir tehdit olarak algılarken, bazıları bunu muazzam faydaları olan hoş bir gelişme olarak görüyor. Bununla birlikte, nitel araştırma yöntemini kullanarak ve açıklama, analiz ve karşılaştırma yoluyla, bu çalışma araştırma sorularını yanıtlamak için röportajlardan, kitaplardan, gazetelerden ve dergi makalelerinden fikir ve argümanlar sağlayacaktır: Yapay Zekanın demokrasi üzerinde yarattığı zorlukları nasıl ele alabiliriz? ? AI, demokratik sistemi geliştiren bir araç olarak kullanılabilir mi? Bu çalışma aynı zamanda yukarıda bahsedilen demokratik devletlerde yapay zekanın demokrasi üzerindeki etkisinin birbirleri arasındaki çatışma olasılığını nasıl artıracağını veya azaltacağını tartışmaya çalışıyor.

Son olarak, çalışma, bu toplumlarda (Almanya, Fransa, ABD ve İngiltere) demokrasinin geleceğinin, bu AI'ların rollerine rehberlik eden ve ihlallerini önleyen

etkili düzenleyici politikalara sahip oldukları ölçüde AI tehditlerinden nasıl korunabileceğini göstermektedir. insanlar haklı.

Anahtar Kelimeler: Yapay Zeka, Demokrasi, Demokratik Barış Teorisi, Tehdit

DEDICATION

To My Family

ACKNOWLEDGEMENT

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Chapter 1

INTRODUCTION

The rate with which artificial intelligence (AI) is taking over most of the activities that were once done by humans is alarming and can be considered as revolutionary seeing that it is dramatically changing the ways or patterns of some lifestyles, not just in the developed world but in the developing world as well. Therefore, the way AI is changing the world today can be likened to the type of change the industrial revolution brought to the world, in other words, the 21st century is witnessing what can be considered as an AI revolution. A critical look at the evolving roles of AI, one might be tempted to assume or think that AI is actually the instrument that is now being used to control some societies, though, in a sense, this cannot be far from the truth considering the major role AI played by psychologically manipulating the outcomes of election in democratic states as will be seen under reviewed literatures in chapter two, as well as in chapter three. Again, seeing the roles it plays in the economic and financial sectors, health sectors, media and information sectors, security sectors, political and governmental sectors, even in our cultural and social lives, one cannot but accept the fact that AI as a powerful instrument has come to stay. Which is why this study will argue that if this instrument is properly manage, it will enhance and solidify any political system of government – especially democracy, but if not properly manage, it then becomes a big threat that system of government.

Democratic system of government which kind of proliferated across in post-Soviet space and Eastern Europe after the end of the Cold-War rivalry, has won the heart and mind of the people as the best system of government, because in a democratic system, not only the opinions of the masses as well as minorities are significant but it also tries to be transparent in its dealings of government, in other words, it is a system that allows peoples voices to be heard. This study will only analyze well-known democracies like Germany, France, the United States (U.S.) and United Kingdom (U.K.) to understand and explain the impact of AI on their democracies and it will attempt to address the challenges of AI. The researcher is interested in these countries because they have in one way or another experienced an AI attacks on their democracies and they happen to be good promoters of democracy in the international stage. Again, while some considered them to be well-established democracies following the argument of Stephane Dion who claims that "well-established democracies are those with at least ten consecutive years of universal suffrage,"[1] however, according to 2020 democracy index, U.S. which happens to be the main promoter of democracy in the international stage and France are now currently on the level of "flawed democracy,"[2] and Manhein and Kaplan claimed that "increasing deployment of AI is at least partly to blame for this trend."[3]

Concerning the impact of AI on democracy, many scholars, intellectuals, politicians, professionals, and even ordinary people on the streets have taken different positions about the challenges of AI and its influence on the future of democracy – some argue

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[1] Dion, Stephane. (1996). *Why is Secession Difficult in Well-Established Democracies? Lessons From Quebec*. British Journal of Political Science, Vol. 26 No. 2, Cambridge University Press. P. 2

[2] A Report by The Economist Intelligence Unit. (2020). Democracy Index 2020: In Sickness and In Health. Pg. 11

[3] Manheim, Karl. & Kaplan, Lyric. (2019). *Artificial Intelligence: Risks to Privacy and* Democracy. 21 Yale J.L & Tech, 106. Pg. 81

that AI is a threat to democracy while some perceive it as a technological development with enormous benefits; as it helps to facilitate most of the activities of the government and in the state at large.

In order for this work to achieve a clear understanding, the work will employ a qualitative research method, and make use of primary and secondary sources. The researcher will analyze official reports and documents, and make use of arguments from books, newspapers and journal articles to answer the research questions: How can we address the challenges that Artificial Intelligence poses on democracy? Can AI be used as an instrument that enhances democratic system? In addition, the researcher will also argue that the future of democracy in societies such as Germany, France, U.S. and U.K. can be secured in as much as they have effective regulative policies guiding the roles of these AIs. In other words, if regulations prevent them from infringing on people's right, then it can be used for the benefit of the society – Nonetheless, the failure of managing AI development can challenge democratic system. Thus, the hypothesis of this study is that proper and effective regulations on the uses of AI and its development in our society will put most of AI challenges on democracy in check, thereby, upholds the existing democracy which consequently secures the future sustainability of democracy. This means that the failure to properly regulate the excesses of AI will put the future of democracy in danger, thereby increasing the chances of war among democratic states by disrupting the unity that was made possible by democracy, which is why this study assumes that democratic peace theory holds true; that is, the idea that democracies or rather democratic societies tend not to fight each other simply because they share common values and norms, and decisions are made by people through their representatives – and since decisions are made by the people who of course would not want to engage in war

with other states knowing full well its consequences on their basic lives. Thus, if democratic states turn into totalitarian states then these states may tend to fight with each in an all-out war such as the First and Second World War, and this will affect the relations among these states to a great extent.

Chapter one will give an overview of what the research is all about and why it is important to seek an answer to the research questions – it will provide the general understanding of the research questions. Chapter two will elaborate on the different contributions by many scholars on the subject matter, as well as their recommendations on the way forward, while chapter three will seek to find out how these democratic countries adapt to the new technological developments in AI, its negative influence on their democracies and how AI influence can affect relations with other states. Chapter four will focus on what kind of regulations or efforts they have made in order to manage the challenges of AI. Finally, chapter five will sum up the study.

1.1 Background of the Research

Taking a critical look at what is happening around us, one cannot but notice the impact of AI in our societies especially in well-known democracies such as Germany, France, U.S. and U.K. One cannot but concur to the fact that the world is going digital, and it has gotten to the level that many now see a world without computer as a place worthy of not being habited. The rate with which these evolving technologies especially AI are taking over some of the human functions is worrying and disturbing. AI is created in these countries to help facilitate the activities of the state and better still to assist human intelligence in improving the community, but it looks like everything that has advantage also has its disadvantage. Considering the

advantages and disadvantages AI played in Germany, France, U.S. and U.K., many

people from different classes have questioned the dependability and reliability of AI

in bettering societies.

French Prime Minister, Macron, warns about the possibility of AI jeopardizing

democracy in his country. Dieter Janecek, who happened to be a lawmaker in the

German parliament and member of the Greens, warns that "such technology could

lead us straight into a total surveillance state,"[4] thereby, depriving everyone their

Europeans' civil rights. Amy Webb in an interview with Karen Hao highlighted the

scandal caused by Cambridge Analytica during U.S. 2016 presidential election

through peoples' data gotten from Facebook without peoples' consent when she said

that:

> Pieces of the AI ecosystem are already impacting our Western democratic
> ideals in a truly negative way. Obviously, everything that's happened with
> Facebook serves as an example. Our American traditions will say freedom of
> speech, platforms are platforms, and we need to let people express
> themselves. Well, the challenge with that is that algorithms are making
> choices about editorial content that are leading people to make very bad
> decisions.[5]

All these issues coupled with many others motivated the zeal to embark on this

research. Democratic system of government may not be perfect but so far as long as

the researcher is concern, it is still the best system of government because of its

character of transparency and taking into account the concerns of every member of

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[4] Kinkartz, Sabine. (2019). *Skeptical Germany lags behind on artificial intelligence*. (DW) para. 6.
<https://www.dw.com/en/skeptical-germany-lags-behind-on-artificial-intelligence/a-51828604>
accessed 9:12 09-06-2020

[5] Hao, Karen. (2019). *Why AI is a threat to democracy—and what we can do to stop it*. MIT
Technology Review, Para. 13. It is an interview with Futurist and NYU professor Amy Webb on an
impending artificial intelligence catastrophe—and why there's still hope it can be averted.
<https://www.technologyreview.com/2019/02/26/66043/why-ai-is-a-threat-to-democracyand-what- we-
can-do-to-stop-it/> accessed 11:20 06-06-2020

the society. Therefore, a threat to this type of system of government is like a threat to every member of the society, and knowing full well that if proper care is not taken, AI in a way might pose a threat to this system, and which is why many were prompted to argue outrightly that AI is nothing but a threat to the future of democracy, however, this study will find ways to manage it rather than to disprove it. Therefore, it is pertinent to hearken to Steven Feldstein who advises that "policymakers in democracies should think carefully about the risks of AI systems to their own societies".[6]

1.2 Statement of the Problem

A research on this subject matter is a crucial one and should be taken very seriously because the rate with which AI is proliferating across many states cannot be over emphasized; it has become a matter of serious importance, if the roles these AIs are playing in our societies, especially in the democratic systems of the aforementioned states, are not properly investigated in order to be managed properly and effectively, then it will stand as a big threat before these states and us all.

AI displaces jobs in Germany, France, U.S. and U.K., sometimes invades people's privacy, and as many claim – it cannot be trusted because it is simply an artificially created intelligence in machine (sometimes seen as algorithm), and can easily be manipulated because it has a high tendency of being recreated, reprogrammed or better still hacked. In addition to AI invading people's privacy, it can be used by notorious individuals to pass false information to the public for their selfish purposes – in general AI can said to be affecting democratic system. As man can be bribed, on

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[6] Feldstein, Steven. (2019). *How artificial intelligence systems could threaten democracy*. The Conversation Academic Rigour Journalist Flair, Para. 16. <https://theconversation.com/how-artificial-intelligence-systems-could-threaten-democracy-109698> accessed 4:51 06-06-2020

the other hand, AI can be hacked or used to manipulate the outcome of any results; for instance, AI can be used to assist electoral process in any democratic societies since it is fast in gathering and giving out information, but at the same time, the possibility of using it to manipulate and achieve a desired but untrue outcome/result is high – therefore, the future of democracy even in well-known democracies are at stake.

In June 2016, Elizabeth Warren made a speech addressing the threat of consolidation and concentration of the big tech companies on American ideals, she claims that "Concentration threatens our markets, threatens our economy, and threatens our democracy."[7] In addition, Ian Myers in an interview with Fox Business Network admitted that though AI helps in discovering and gathering of information, yet it cannot be trusted because it cannot be seen or touched – you can only read the information presented to you without knowing how true it is. The fact that AI which is booming in Germany, France, U.S. and U.K. can be used to encroach people's privacy; distorting their political freedom and right, affects electoral processes, manipulates and controls people's thought through false information and many others influences makes it worthy of suspicion as well as being investigated upon to determine its influence on democratic systems of the aforementioned states. Emmanuel Macron understood the danger posed by AI on democracy which is why he warns that "artificial intelligence could jeopardize democracy,"[8] though he stated that "He guaranteed that all the AI algorithms created by his government will be

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[7] Lynn, Barry. (2019). *This man says Big Tech is "the greatest threat to democracy since the civil war.* <https://openmarketsinstitute.org/clippings/fast-company-man-says-big-tech-greatest-threat-democracy-since-civil-war/>. Para 1

[8] Smith-Meyer, Bjarke. (2018). *Macron: AI could threaten democracy*. Politico, para. 1. <https://www.politico.eu/article/macron-ai-could-threaten-democracy/> accessed 22:26 08-06-2020

transparent to reduce the threat to democracy which AI poses."[9] Nevertheless, algorithms are not always understood by users and it needs to be clearly explained how the algorithm analyzed the subject matter and came to that particular conclusion.

1.3 Purpose of Research

The main purpose of this research will be to look into the impacts that the roles of AI are having on the democratic system of Germany, France, U.S. and U.K., in order to **seek out whether democracies will run into a crisis because of AI, thereby, making the emergence of totalitarian regimes possible** in the future. Again, while looking into different arguments from different scholars' perspectives concerning whether the roles of artificial intelligence will serve as an instrument for improving or destroying the future of democracy in these well-known democratic societies, this work will aim at providing better substantial arguments that will disprove the idea of conceiving AI as a threat to democracy, and at the same time provides solutions or a way forward through which these democratic societies will manage the threatening roles of AI for a better future.

1.4 Significance of the Work

The significance of this research work is firstly to make known or create awareness about the permeating character of this novel evolving technology in the field of AI as it pervades and manifests itself in almost all the areas of our contemporary societies. Secondly, it is most wise to highlight the importance of maintaining a legitimate legislation or regulative policies that will guide and control the roles of these AIs in

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[9] Brugen, Isabel Van. (2018). *AI could threaten democracy: Macron issues warning*. Express Home of the daily and Sunday Express. Para. 4. <https://www.express.co.uk/news/world/939807/AI-artificial-intelligence-threat-democracy-Emmanuel-Macron> accessed 19:20 08-06-2020

order to prevent them from infringing on people's right and destroying the democratic system of government.

1.5 Scope of the Research

It is very essential to indicate that this research will be restricted mainly to its title "The Evolving Roles of Artificial Intelligence and the Future of Democracy: Comparative Study on Germany, France, U.S and U.K," therefore, this work will not consider the many influences of artificial intelligence in other fields or areas of the aforementioned societies, but mainly on its influence on democracy. This study is divided into five chapters; the first chapter will present the background of the study, statement of problem, purpose of research, significance of the work, scope of the research, methodology and of course explication of some important key words. Chapter two will be an overview of the opinions and contributions of some important authors and international actors who have in one way or the other contributed on the subject matter. While chapter three will be dealing with the main question as whether the evolving roles of AI is a threat to the future of democracy in the aforementioned societies or not? Chapter four will focus on what kind of efforts or regulations they have in order to manage the challenges of AI, and it will suggest ways and means to better manage technological developments in the field of AI. Finally, chapter five is the sum up of the analysis.

1.6 Methodology

The comparative method will be applied in chapter three during the comparative study on Germany, France, U.S. and U.K.

This research will make use of both primary documents on rules and regulations as well as interviews, and secondary sources namely books, newspaper and journal

articles. It will utilize qualitative research methodology with the application of descriptive, analytic and comparative methods in order to obtain a clear, distinct and accurate result or answer to the research question. It will descriptive and analytic because it will try to analyze and at the same time describe some compelling arguments found in many important authors' literatures concerning the subject matter of this work.

1.7 Explication of Concepts

This section will mainly focus not on definition but brief explanation of some key terms (AI and Democracy) as well as the theory (Democratic Peace Theory) being used to answer this study's research question and how the theory fits in. The reason why it will not try to define is simply because the term *definition* requires giving certain boundaries to the specified terms, thereby, making them static, and since AI is continuously evolving while Democracy is an ongoing process, it is therefore better to explain rather than to define.

1.7.1 Artificial Intelligence

AI being one of the key term is made up of two words; artificial and intelligence. Etymologically, the word artificial is derived from the Latin word "artificialis" which means "of or belonging to art" from "artificium" meaning "handicraft," while "intelligence" is derived from Latin noun "intelligentia" – from the Latin verb "intelligere" meaning "to understand." Therefore, according to Merriam-Webster Dictionary, artificial means "lacking in natural or spontaneous quality, or being humanly contrived often on a natural model (that is, man-made),"[10] while intelligence among its different meanings as an ambiguous term also means "the ability to learn or understand or to deal with new or trying situations, it also means

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[10] https://www.merriam-webster.com/dictionary/artificial?src=search-dict-box

the act of understanding or the ability to perform computer functions."[11] Generally, intelligence can be seen as "a general mental ability for reasoning, problem solving, and learning;"[12] that is to say, that any machine or artificially created agent exhibiting such features can be considered as possessing AI. Now, as a branch of study, "artificial intelligence is a branch of computer science dealing with the simulation of intelligent behavior in computers or the capability of a machine to imitate intelligent human behavior."[13] Concerning the explanation of AI, Prof Dalvinder in his article titled *A Critical Conceptual Analysis of Definitions of Artificial Intelligence as Applicable to Computer Engineering,* argued that considering the purpose of AI one will discover that many of its definitions are incomplete as they cover only 4% of what it should, he therefore, suggested that it would be best if AI is defined as "the mechanical simulation system of collecting knowledge and information and processing intelligence of universe: (collating and interpreting) and disseminating it to the eligible in the form of actionable intelligence."[14]Bartneck agrees with Kaplan and Haenlein by considering AI as "a system's ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation."[15] AI is present in almost all the smart technological devices being used across the

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[11] https://www.merriam-webster.com/dictionary/intelligence?src=search-dict-hed

[12] Dalvinder, Grewal. (2014). *A Critical Conceptual Analysis of Definitions of Artificial Intelligence as Applicable to Computer Engineering*, IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0661, p- ISSN: 2278-8727Volume 16, Issue 2, Ver. I, Pg. 1 <http://www.iosrjournals.org/iosr-jce/papers/Vol16-issue2/Version-1/C016210913.pdf>

[13] https://www.merriam-webster.com/dictionary/artificial intelligence

[14] Dalvinder, Grewal. A Critical Conceptual Analysis of Definitions of Artificial Intelligence as Applicable to Computer Engineering, IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0661, p- ISSN: 2278-8727Volume 16, Issue 2, Ver. I (Mar-Apr. 2014), PP 09-13 (http://www.iosrjournals.org/iosr-jce/papers/Vol16-issue2/Version-1/C016210913.pdf)

[15] Bartneck, Christoph et al. (2021). *An Introduction to Ethics in Robotics and AI*, Springer Briefs in Ethics, Chap 2: What is AI. Pg. 4 pdf <https://doi.org/10.1007/978-3-030-51110-4_2>

globe, and it is mainly made up of programmed algorithms, it cannot be seen but its operations can be seen in many devices like smart phone, smart wrist watch, computers, robotic machine as well as self driven cars. Presently, AI can be used by governments and big corporations because of its capability of handling huge data and speedy outreach. There is no perfect working definition of AI as agreed by many scholars, and bearing in mind that an attempt to define is a problem in itself, however, it is necessary to remember one common thing about AI; that it is an **artificially created intelligence** meant to achieve goals.

1.7.2 Democracy

Etymologically the term "democracy" is derived from two Greek words "demos" and "kratia" which mean "the people" and "power or rule" respectively, therefore, following its root words one can say that it has to deal with the rule of the people. A well-known definition of democracy was given by Abraham Lincoln as "the Government of the people, by the people, for the people."[16] Larry Diamond was cited by Nwogu as describing democracy as

> a system of government that has four elements:(i) A system for choosing and replacing the government through **free and fair elections**; (ii) **Active participation** of the people, as citizens, in politics and civic life; (iii) **Protection of the human rights** of all citizens; and (iv) A rule of law in which the laws and procedures apply equally to all citizens.[17]

The concept was rightly defined in Merriam-Webster as "a government in which the supreme power is vested in the people and exercised by them directly or indirectly through a system of representation usually involving periodically held free

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[16] https://www.quora.com/What-was-Abraham-Lincolns-definition-of-democracy

[17] Nwogu, G.A.I. Democracy: Its Meaning and Dissenting Opinions of the Political Class in Nigeria: A Philosophical Approach, Journal of Education and Practice ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol.6, No.4, 2015 (https://files.eric.ed.gov/fulltext/EJ1083739.pdf)

election,"[18] and according to Standard Encyclopedia of Philosophy, democracy refers "very generally to a method of group decision making characterized by a kind of equality among the participants at an essential stage of the collective decision making,"[19] as a result of this, electing a political actor as a representative requires a collective decision of majority of the people through voting process. Some of the common features of democracy are: "the right to vote; the right to be elected; free and fair elections; freedom of association; freedom of expression; alternative sources of information; and others."[20] In this study, it is important to remember that the practice of human rights flourishes very well in a well established democratic environment than in other system of governments, and the "legitimacy of democracy and its moral authority are usually defended because of the democratic inherent virtues, which include respect of human rights and freedoms, self-government, accountability, the rule of law and transparency."[21]

1.7.3 Democratic Peace Theory

The main assumption of this democratic peace theory is the idea that democracies or rather democratic societies do not fight with each other simply because they share common values and decisions are made by the people through their representatives – of course people would not want to engage in war knowing full well its consequences on their basic lives. This theory was rooted in the writing of Immanuel Kant in his work *Perpetual Peace*. In order to understand the liberal and realist

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[18] https://www.merriam-webster.com/dictionary/democracy

[19] https://plato.stanford.edu/entries/democracy/ accessed 11-05-2020

[20] Dalton, Russell J. et al. (2007). *Popular Conceptions of the Meaning of Democracy: Democratic Understanding in Unlikely Places*. CSD Center for the Study of Democracy An Organized Research Unit University of California, Irvine. Pg. 4 pdf

[21] Attia, Nibal. (2015). *The democratic peace theory: Validity in relation to the European Union and 'Peaceful' cooperation between United States and China*. International Journal of Peace and Development Studies, DOI: 10.5897/IJPDS2015.0234 Article Number: 1BC2EFE58946 ISSN 2141–6621. Pg. 1

perspective on this theory read "Democratic Peace Theory and the Realist-Liberal Dichotomy: the Promise of Neoclassical Realism?"[22]Since this theory posits that democracies do not fight with each other, and considering the fact that this study is trying to look at the future demise or sustainability of democracy in Germany, France, U.S. and U.K. which is dependent on the outcomes of the impacts of evolving roles of AI. Therefore, it would be better to view this study through the lens of democratic peace theory because if AI is actually a threat to democracy as some scholars argue, then it means that these democratic states mentioned above that serve as symbols of democracy will become less or undemocratic, thereby, creating rooms for future war among each other. On the other hand, if AI is not a threat to democracy but serve as a tool of improving democracy, then, it means that these states would sustain their democracies in the future, thereby removing any chances of future war with each other.

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[22] Coetzee, Eben. & Hudson, Heidi. (2012). *Democratic Peace Theory and the Realist-Liberal Dichotomy: the Promise of Neoclassical Realism*? <https://doi.org/10.1080/02589346.2012.683942>

Chapter 2

LITERATURE REVIEW

2.1 Elaine Kamarck

The author of the article *Malevolent Soft Power, AI, and the Threat to Democracy,* Elaine Kamarck "is a Senior Fellow in the Governance Studies program as well as the Director of the Center for Effective Public Management at the Brookings Institution."[23] She argues that within a period of less than ten years, the domain of social media has turned from being an upholder of democracy to becoming a threat to democracy. Even though the internet can be used to gather and encourage a good number of individuals into participating actively in a political movement, like the way Arab Spring which is a pro-democracy movement utilized the opportunity presented by information technology to organize and with time over thrown a longtime president in Tunisia, it can also be used to discourage voters, spread misinformation and so on. She accuses Russia, a foreign country, of attacking America's democracy by interfering in 2016 US presidential election, and Russia has been doing the same with some other countries "from elections in the Ukraine, to the Brexit vote in Great Britain, to Scotland, Austria, Belarus, Bulgaria, Czech Republic, France, Germany, Italy, Malta, Moldova, Montenegro, Netherlands, Norway and

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[23] https://www.brookings.edu/experts/elaine-kamarck/ (accessed 11/12/20)

Spain".[24] According to Elaine, the main aim of Russia's interference in democratic societies like the United States of America is not merely to support any political party but to ensure that people lose their trust in democracy itself. She stated that the system of deception by use of trickery and foreign intervention during election in America is not something new, that it can even be traced as far back as 1800 between John Adams and Thomas Jefferson, however, the Russian interference in 2016 ushered in something new, according to her: "The 2016 election ushered in a new era in election meddling—an era dedicated not just to helping elect one party or the other, but an era dedicated to disrupting democracy itself."[25] According to Elaine, the Russians used the internet, AI in particular, to discredit any political candidate they dislike in America, thereby accruing a kind of soft power to themselves – by covertly influencing their targeted individual voters in US and other democratic societies. From her view, political campaigns are like war between the two sides, and one secret to winning a war is having a good strategy and moving very fast to accomplish it, and since AI in politics offers this advantageous opportunity, this means that AI has the potential to do good or bad to democracy. She is of the view that AI should be controlled through government regulations in a way that would avoid the type of censorship that might trigger or lead to an emergence of authoritarian regime. Again, she emphasizes the importance of humans being at the driver seat of AI, she asserted that human evaluation of these technologies is an old fashion intelligence that never fades away or disappoint, therefore, it should be employed. Sanctioning of political

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[24] Kamarck, Elaine. (2018). *Malevolent Soft Power, AI, and the Threat to Democacy.* Brookings Institute. Para. 7, This report is part of "A Blueprint for the Future of AI," a series from the Brookings Institution that analyzes the new challenges and potential policy solutions introduced by artificial intelligence and other emerging technologies <https://www.brookings.edu/research/malevolent-soft-power-ai-and-the-threat-to-democracy/>

[25]*Ibid.,* Para. 10

campaign that uses AI to trick people or the opponent campaign should also be encouraged in order to protect democracy.

2.2 Paul Nemitz

In Nemitz view, western liberal constitutions are founded on three core elements which he called the Trinitarian Formula of western constitutionalist faith, and they are: democracy, human rights and rule of law, and he claims that it is very important that we take a good look on how the roles of artificial intelligence which is on the rise in western societies is really affecting this Trinitarian formula of western constitutionalist faith. According to Nemitz, one cannot deny the observable evidences that artificial intelligence is penetrating all areas of the modern societies, and since we cannot prevent the reformation or the shaping of our societies that is due to this evolving technology and its roles in our societies, however, it is pertinent to question its effects on constitutional democracy – because democracy, human rights and rule of law are the core elements or principles upon which the actions of government, legislators and societal realities are measured against. He said and I quote:

> The principle of rule of law, democracy and human rights by design in AI is necessary because on the one hand the capabilities of AI, based on big data and combined with the pervasiveness of devices and sensors of the Internet of things, will eventually govern core functions of society, reaching from education via health, science and business right into the sphere of law, security and defence, political discourse and democratic decision making. On the other hand, it is also high time to bind new technology to the basic constitutional principles, as the absence of such framing for the Internet economy has already led to a widespread culture of disregard of the law and put democracy in danger.[26]

Before Nemitz considered the effect AI is having on democracy, he first of all brought to our notice the past negative effects/consequences of AI when it was left

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[26] Nemitz, Paul. (2018). *Constitutional democracy and technology in the age of artificial intelligence*. *Phil. Trans. R.Soc. A* **376**: 20180089. <http://dx.doi.org/10.1098/rsta.2018.0089> pg. 2

unsupervised and unguided by the law. He suggested that there is need to develop a sort of new culture whereby the principles of democracy, rule of law and human rights by design will be incorporated in AI, in that way, the role of AI will be monitored and controlled by the societal rule of law for the maintenance of democracy. He claims there is need to frame a future relationship between AI and democracy because according to him

> We live in a world which is shaped at least as much by technology as it is by law and democracy. And in the same way that the people shape the law and the law shapes the behaviour of people, we need to get used to—and practice—that the law is shaped by technology and technology is shaped by the law[27]

Also, before one will be able to construct a future functional connection between AI and democracy, one need to understand the extraordinary power concentration in the hands of few Internet giants.

2.3 Steven Feldstein

Steven, in his view, after seeing the AI capability and what it can do claimed that these "New technologies are arming governments with unprecedented capabilities to monitor and surveil individual people. Even governments in democracies with strong traditions of rule of law find themselves tempted to abuse these new abilities"[28] He mentioned China as a prominent example of country whose leadership frequently abuse human rights because of her complete and total reliance on AI technologies, he further claims that "the exploitations of these technologies presents a chilling model

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[27] *Ibid.,* pg. 10

[28] Feldstein, Steven. (2019). How Artificial Intelligence Systems Could Threaten Democracy. (Carnegie Endowment for International Peace), para 1.<https://carnegieendowment.org/2019/04/24/how-artificial-intelligence-systems-could-threaten-democracy-pub-78984>

for fellow autocrats and poses a direct threat to open democratic societies."[29] He pointed out that many people fail to see the rate with which AI is expanding across the world as it helps in running smart phones, digital voice assistants, internet search engines and many others, governments are usually interested in it because it makes work easier for them like availability of more information, analysis of data and so on – and not just authoritarian governments but democratic governments as well – like the US. In Steven's view, U.S is increasingly relying on AI tools in most of its governmental operations – he claimed that U.S government agencies like CIA, FBI, and NSA "had set up expansive domestic surveillance networks to monitor and harass civil rights protesters, political activists and Native American groups,"[30] and these intrusive surveillances give them the capability to intrude in people's lives. He claims that AI helps in manipulating available information and spreading of disinformation either to promote or attack specific people or groups, and AI in a great way supports the technology known as 'Deepfake' which is use to create fake videos, photos or audios that can be used in a convincing manner to mislead the public – this is mostly used in electoral campaigns in democratic societies. He finally concluded with the view that "policymakers in democracies should think carefully about the risks of AI systems to their own societies before embracing it with two hands".[31]

2.4 Catelijne Muller

Muller, like many other scholars, argued in the same line with Steven Feldstein, following her arguments AI has a huge impact not only on democracy but on human

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[29] *Ibid.,* para. 4

[30] *Ibid.,* para. 6

[31] *Ibid.,* para. 16

rights and rule of law as well; and these are the core elements upon which European societies (which include Germany and France) are built. According to her, the adverse impact AI already had on democracy can be seen through democratic political and social discourse, voter influence, segregation and inequality, access to information and systemic failure. Muller argues that any well-functioning democracies should be able to maintain these requirements: "well-informed citizenry, an open social and political discourse and absence of opaque voter influence."[32] And some others but in reality AI seems to improve information personalization; "if AI determines which information is shown and consumed, what issues are suppressed in the flood of online information and which are virally amplified, this also brings risks of bias and unequal representation of opinions and voices,"[33] and it makes spreading of misinformation and deepfakes by some political campaigns in electoral processes very possible, thus "misleading and manipulating the public becomes easier and the level of truthfulness and credibility of media and democratic discourse may deteriorate."[34] And all these she claims, affect the social cohesion and understanding that is actually needed for the maintenance and growth of democracy. Muller also pointed out that note should be taken about the level of power that lies in the hands of the big AI techs like GAFAM, also known as the Big Five or the Frightful Five (Google, Apple, Facebook, Amazon and Microsoft), because "If too much political power is concentrated in a few private hands which prioritise shareholder-value over the common good, this can threaten the authority of

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[32] Muller, Catelijne. (2020). *The Impacts of Artificial Intelligence on Human Rights, Democracy and the Rule of Law.* Pg. 12

[33] *Ibid.,* pg. 12

[34] *Ibid.,* pg. 13

democratic states".[35] The author went further to present the possible strategies one can follow to address the adverse impact of AI on democracy, human rights and rule of law, and among them was the idea that there is need for AI registry and there should be obligation of transparency about the use of AI because most of its workings are hidden or unknown thereby making it difficult to be accounted for. She also agreed with the solution proffered by Steven Feldstein on the idea of developing a "new culture of Human Rights, Democracy and Rule of Law by design… and this should be backed up by a legal obligation to perform an AI Human Rights, Democracy and Rule of Law Assessment."[36] Finally and most importantly, in order to maintain a democratic structure and avoid a systemic failure, there is need for the recognition of human agency or human autonomy whereby human will be placed to oversee most of the decisions made by AI; this could be achieved through what she called HITL – human in the loop, HOTL – human on the loop, HIC – human in command.

2.5 Dirk Helbing, *et al.*

The article "Will Democracy Survive Big Data and Artificial Intelligence?: Essays on the Dark and Light Sides of the Digital Revolution" was written by a group of prominent German and Swiss scholars, in it the authors try to conscientize us about the need to make right decisions now that we are still on the path of digital revolution in order to prevent artificial intelligence from destroying the system of democracy. The article started with a quote from Immanuel Kant which says "Enlightenment is man's emergence from his self-imposed immaturity; Immaturity is the inability to

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[35] *Ibid.,* pg. 14

[36] *Ibid.,* pg 16

use one's understanding without guidance from another."[37] In other words, care should be taken to avoid becoming digital slaves where AI will indirectly be making decisions for us. The authors mentioned that the volume of data being produced in this era keep on doubling every now and then, and AI is very good when it comes to data analysis. The authors argue that current AIs are programmed in such a way that it can teach and develop itself, AI is making stunning and shocking advances not only towards controlling the individuals but the entire society as well. Some of these softwares know and understand us more than our families and friends; it is so because these softwares have our complete data that can tell how we feel and think. They write and I quote:

> It can be expected that supercomputers will soon surpass human capabilities in almost all areas—somewhere between 2020 and 2060. Experts are starting to ring alarm bells. Technology visionaries, such as Elon Musk from Tesla Motors, Bill Gates from Microsoft and Apple cofounder Steve Wozniak, are warning that super-intelligence is a serious danger for humanity, possibly even more dangerous than nuclear weapons.[38]

Again, at some point AI uses our collected data to predict and makes decision that tally or suits our expectations, thereby manipulating our decision-making and making it looks as if it is entirely our decision – in this way, AI deprives us of our freedom of choice by predetermining of choice. The authors argue that the world of politics now employ these technologies (AI) under the umbrella of "nudging." The authors argue that political candidates can use the manipulative influence of AI nudging to their advantage, "during elections, they might nudge undecided voters towards supporting them — a manipulation that would be hard to detect. Therefore, whoever controls

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[37] Dirk, Helbing. Frey, S. Bruno. et al. (2019). *Will Democracy Survive Big Data and Artificial Intelligence?: Essays on the Dark and Light Sides of the Digital Revolution.* Pg. 1

[38] *Ibid.,*pg 3

this technology can win elections—by nudging themselves to power."[39] The manipulative AI works in such a way that it customizes our collected data, resonant it back to us individually, and push us into an echo chamber, thereby polarizing everyone or party in the society – the drifting apart of the Democrats and the Republicans in American politics can be used as an example of this manipulation. The authors are of the view that for democracy to work perfectly well, then there is need for respect and recognition of those rights that AI is depriving the citizens; like freedom of choice and informational self-determination. Finally, each of the authors made conclusive remarks on how democracy will survive with AI; Dirk Helbing suggested that it is better to use Big-Nudging as a GPS route guidance system where the user freely choose to use or not, because Big-Nudging will do us more harm than good. Ernst Hafen brought the idea of "Right to a Copy," where the citizen will be entitled to possess the digital copy of all his/her data and decides who uses it. Bruno talks of active participation in the decision making process, while Jeroen suggested that this AI innovations need to reflect our democratic values. Gerd advised that in order to avoid being controlled by this AI, then it is proper to get those who have sufficient skill on how to control it in place. Andrej and Roberto advised that AI need to follow some ethical principles, while Yvonne warned that everyone should be careful when releasing personal data.

2.6 Eric Rosenbach and Katherine Mansted

Eric Rosenbach who happens to be an "American public servant and retired U.S. Army Captain who served as Pentagon Chief of Staff from July 2015 to January 2017 and as Assistant Secretary of Defense for Homeland Defense and Global

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[39] *Ibid.,* pg. 5

Security from September 2014 to September 2015,"[40] and Katherine Mansted who is "the Senior Adviser for Public Policy at the National Security College, and works across the public policy and executive education functions of the College,"[41] in their article titled "Can Democracy Survive in the Information Age?" argue that "Information technologies have not just revolutionized lives, societies, and economies; they are also reshaping the nature of 21st century politics and conflict."[42] According to the authors, there is a huge difference between information technologies that existed during the Cold War and the ones we have now, and these technologies are built in such a way to support democracy because "democracy is built on the crucial compact that citizens will have access to reliable information and can use that information to participate in government, civic, and corporate decision-making."[43] However, due to the tensions and conflicts between Russia and United States, some of these technologies have been built in such a way as to target democracies. The authors are of the view that the increase in the development of these data-driven technologies of which artificial intelligence is one of them, will give any enemy of United States an edge to attack its democracy as long as the tension/conflict between them continue. Some authoritarian states also detest internet because they believe that democratic states use it to advance pro-democratic narratives on their territories (authoritarian territories). They pointed out few times that China had interfered with information in democratic states, they pointed out that China has hijacked a lot of sensitive information from the United States which could

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[40] https://en.wikipedia.org/wiki/Eric_Rosenbach (accessed 05/12/20)

[41] https://crawford.anu.edu.au/people/professional/katherine-mansted (accessed 05/12/20)

[42] Rosenbach, Eric &Mansted, Katherine. (2018). *Can Democracy Survive in the Information Age?* Belfer Center for Science and International Affairs Harvard Kennedy School 79 JFK Street Cambridge, MA 02138. Pg. 22

[43] *Ibid*., pg 1

also be used against U.S. Though China has the tool to manipulate information and mislead people in U.S thereby distorting their democratic capabilities, social media companies on the other hand can control these manipulations as they (Facebook, Twitter and Google) promised to update their AI or algorithm in a way that it will detect and do away with fake news. Generally, the authors are saying that as long as there exist between democratic and authoritarian states, ideological and geopolitical tensions, then information technologies (especially AI) that would threaten "democracies' ability to govern and protect their national security, and to undermine people's trust in democracy as a system of government"[44] will continue to emerge (like the deep fakes). Finally, they advised that the United States and other leaders of democracies should understand the power of information and build a defensive system (AI) that would counter the aggressive information attacks from non-democratic states in order to protect and preserve their system of government (democracy), and they should also made it known to their adversaries that any information operations against their democracies will result in countermeasure. This shows that AI can be used to strengthen or destroy democracy.

2.7 Christian Djeffal

The chapter "AI, Democracy and the Law" in the book: "The Democratization of Artificial Intelligence: Net Politics in the Era of Learning Algorithm" was written by a German professor Christian Djeffal, who happens to be the "project leader of the project IoT and eGovernment at the Humboldt Institute for Internet and Society, Berlin".[45] According to Djeffal, the government of Germany recognizes the importance and dignity of the human person over technology which was why they

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[44] *Ibid.,* pg. 1

[45] https://policyreview.info/users/christian-djeffal (accessed 06/12/20)

made it clear in the 1947 constitution of Bremen following article 12 section 1 that machines and technologies are in no way higher in ranks than human beings – this was done during the time of industrialization, and now the author is of the view that AI should be democratize because we are in the age of digitization. He started this chapter by elaborating the concept of "AI" which by nature its open, he views AI as a general purpose technology (GPT) with the attribute of openness; this openness has to do with its continuous learning capability as well as supporting augmentation and automation at the same time – as a result of being an open general purpose technology, the author argue, as AI can be used to invade someone's privacy (personal information), it can also be used as privacy enhancing technology (it can be used as a weapon and as an assistant). In Djeffal's view, the connection between democracy and technology cannot fully be stated with certainty as it continues to change, but what is known for sure is that AI affects democracy and vice versa. Though, initially internet was considered as a powerful democratic tool which will help to improve and strengthen democracy, but now many have perceived AI from different perspective – as one of the major threat to democracy, mainly because its potentials of interfering with electoral process and misinformation, notwithstanding these claims, the author argues that AI can also improve one's potential in decision making during election. However, the author argues that the AI is completely neutral when it comes to its impact on the future of democracy; whether it affects democracy positively or negatively depends on how that particular AI is constructed and how the society chooses to use it. That is to say that some measures need to be considered while constructing AI so that it will be in line with the process of democracy. Democracy according to the author is a process, a process that can be constantly realized, therefore, AI considering its nature of openness and serving as a general

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purpose technology can be used in constantly realizing a better future of democracy. Finally, through limitation, motivation and design, the author presented a way to democratize AI by law; Limitation – using the appropriate public authorities in limiting the use of AI with Human Rights standard, Motivation – by encouraging good use of AI which was also supported by The United Nations Convention on the Rights of Persons with Disabilities according to Art. 4 para. 1 (g) "to undertake or promote research and development of, and to promote the availability and use of new technologies, including information and communications technologies, mobility aids, devices and assistive technologies, suitable for persons with disabilities, giving priority to technologies at an affordable cost".[46] Design – the "constitutional principles such as human rights, the rule of law and democracy also should be included in the process of designing AI".[47] This is how the relationship between law and democracy can put AI in the right place to help improve the future of democracy, and put human like the Bremen constitution in the centre of any technological development.

2.8 Hans Kundnani

Hans claims that the debate about liberal democracy being in crisis due to increase in the development of digital technology has been going on for a while, and many perceived this digital technology as the main driver of this crisis, although that is not entirely true according to the author, because this technology can as well be part of the solution. Hans supports the position of Larry Diamond that this new tool (AI) "would empower citizens to 'report news, expose wrongdoing, express opinions,

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[46] Djeffal, Christian. (2019). *AI, Democracy and the Law* "The Democratization of Artificial Intelligence: Net Politics in the Era of Learning Algorithm" ed. A.Jahn Sudmann. ISBN: 3839447184, 9783839447192. Pg 263

[47] *Ibid.,* pg 264

mobilize protest, monitor elections, scrutinize government, deepen participation, and expand the horizons of freedom",[48] in other words, this tool will support and strengthen democracy. The U.S and Europe, according to him, were busy promoting democracy elsewhere around the world until it dawn on them that their very own democracies have been under attack by digital technology and need protection – this they realized following the incident that took place during US 2016 presidential election and the referendum of the British people demanding to leave EU. The think tanks of U.S and Europe's policy makers initially focused on tackling the challenge as an external problem until they realized that interior forces are also contributing to the problem. According to Hans, one should bear in mind that democracy in itself is not something static; it is not something that has been achieved and should be maintained in one form, instead, it is always evolving. Therefore, democracy should not be limited because of the threat posed by AI, instead, democracy should be deepened further to include AI in its evolutionary process; in other words, democratization of AI. In Hans' view, much care and attention should also focus on the development of new AI technology to make sure it supports and promote democracy.

2.9 Khari Johnson

Johnson who happens to be a senior AI staff is of the view that AI should not be seen as a threat to democracy, instead, it should be seen as a tool to empower communities and strengthen democracy in United States and other democratic societies. He claims that AI has what it takes to impact democratic societies positively, like protecting individual's privacy, freedom, and at the same time promoting public good. He mentioned some persons like Dr. Safiya Noble who pointed out that "Artificial

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[48] Kundnani, Hans. (2020). *The Future of Democracy in Europe: Technology and The Evolution of Representation*. Research Paper, Chatham House. Pg. 11

Intelligence is one of the critical human rights issues of our lifetime, AI is also, as Microsoft CTO Kelvin Scott asserted, a critical part of being an informed citizen in the 21st century."[49] Johnson focused on pointing out how AI can improve democracy and overcome all the wrongs that are being caused by the same AI, it can be used to detect racial bias between officers of the law and individuals, just like following the examination of recorded conversations that took place between police officer and some persons that violated traffic in United States, researchers from Standford university with the help of NLP's (Natural Lan abilityguage Processing) ability, detected that black citizens were paid less respect than white citizens. According to Johnson, AI can to encourage and protect individual's freedom of choice through the idea of *algorithmic bill of rights*:

> A core tenet of the idea is transparency, meaning each person has the right to know when an algorithm is making a decision that affects them, along with any factors being considered. An algorithmic bill of rights would include freedom from bias, data portability, freedom to grant or refuse consent, and a right to dispute algorithmic results with human review.[50]

Concerning the November 2019 election of the United States, he mentioned that some of the things that many people were worried about are the issues of deepfakes and misinformation, but then he argue that AI can be used to tackle these challenges because AI can be considered as fact-checker. He went to argue that AI can be used to tackle bias that leads to injustice, and he advised that government should enact and implement ethical guidelines for AI. At the end, he maintained the position that AI could be use to better democracy or destroy it, though it is more advisable to look for and explore the good part of AI.

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[49] Johnson, Khari. (2020). *How AI Can Empower Communities and Strengthen Democracy.* (aws. Leverag the AI & Machine Learning Imperative). Para. 2 <https://venturebeat.com/2020/07/04/how-ai-can-empower-communities-and-strengthen-democracy/>

[50] *Ibid.,* para. 18

2.10 Carole Cadwalladr

Carole Cadwalladr, a British investigative journalist and author, claims that AI through the use of data analytics played a major role during the 2016 Trump campaign as well as Brexit campaign and these made her to argue that U.S and U.K democracies were hijacked. Here, she argued that

> British democracy was subverted through a covert far-reaching plan of coordination enabled by a US billionaire, and we are in the midst of massive land grab of power by billionaires via our data: data which is silently amassed, harvested and stored, and whoever owns this data owns the future[51]

According to the author, there is no difference between the political campaign of Trump in 2016 and the Leave group campaign of UK to leave the EU, the same psychological manipulation of people's behaviour and decision through micro-targeting which was made possible by their available data and which lead to Trump's victory in 2016, was also used in UK during brexit referendum. Carole blames Mercer, a billionaire computer scientist, for using Cambridge Analytica and AggregateIQ, who used AI's capability to disrupt the democratic electoral process of United Kingdom even without notice during the Leave campaign referendum. Carole mentioned that she was not the only one perplexed on how a Canadian company (AggregateIQ, which is like a subset of Cambridge Analytica) could maneuver UK's electoral law to play such a crucial role in UK's referendum, Moore, a director at the centre of study of communication at King's college London, was also confounded, as she writes that "Moore contributed to an LSE report published in April that concluded UK's electoral laws were weak and helpless in the face of new form of

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[51] Cadwalladr, Carole. (2017). *The Great British Brexit Robbery: How Our Democracy was Hijacked.* (Guardian online news 7/5/2017). Para. 10<https://www.theguardian.com/technology/2017/may/07/the-great-british-brexit-robbery-hijacked-democracy>

digital campaigning."[52] The author also blames Facebook for letting this manipulation took place because AggregateIQ got people's data through Facebook, so "Facebook was the source of psychological insight that enabled Cambridge Analytica to target individuals and it was also the mechanism that enabled them to be delivered on a large scale."[53] Carole claims it was reveal to her by Tamsin Shaw, an associate professor at New York University, that the use of AI in this psychological manipulative manner is actually a military-style technology. Finally, she argues that since most of these AI companies are in the hands of few individuals who are billionaires and governments, then how can UK's democracy be guaranteed, and she warns that if something is not done about it, then UK whose democracy currently looks like 'managed democracy' will become an undemocratic world.

2.11 Vyacheslav Polonski

Polonski in this article "How Artificial Intelligence Silently took over Democracy" mentioned the importance of AI, the good and bad sides of AI, and finally how to put AI in use. He started by arguing that this is the best time for one to be a politician, because in the previous years political candidates never had the privilege to handle all the pressures of the electorate due to limited tools, but now, with the help of AI, effectiveness of campaigns and political life will be guaranteed based on insight, and not instinct anymore. Citizens of democratic societies, with the help of AI, can be well informed of any current political issues and even have the knowledge of the political interest of any political candidate before voting. Polonski pointed out how artificial intelligence had affected democracy in United States, UK and France; according to him, during the 2016 US presidential election, AI was used by

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[52] *Ibid.,* para. 19

[53] *Ibid.,* para. 33

Cambridge Analytica to manipulate individual voter through some types of advertising campaigns that try to convince or rather persuade each voters based on the person's psychology – AI has the ability to monitor and determine individuals' psychology or behavior through their social media, and use it to develop a type of psychological profile that will be used to manipulate the person's decision during election. He explained better in the following way:

> Using big data and machine learning, voters received different messages based on predictions about their susceptibility to different arguments. The paranoid received ads with messages based on fear, while people with a conservative predisposition received ads with arguments based on tradition and community. The problem with this approach is not the technology itself but the covert nature of the campaigning and the insincerity of the political messages being sent out.[54]

He went further to explain that like Donald Trump will be a good example in this case because of the flexibility of his campaign promises, with a case like this "every voter can be sent a tailored message that emphasizes a different side of a particular argument and each voter will get a different Trump – The key is simply to find the right emotional triggers to spur each person into action."[55] Concerning the UK, the author claims that during the 2017 UK general election, a large number of political bots were utilized to disseminate misinformation and fake news on social media with the intent to manipulate voters' decisions, and the same thing happened in US when those in favour of Trump used bots to surreptitiously penetrate Pro-Clinton's Facebook pages in order to disperse automated content, and their Twitter hashtags as well. The author claims that the same method was also used during 2017 French

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[54] Polonski, Vyacheslav. (2017). *How Artificial Intelligence Silently took over Democracy.* (World Economic Forum, Global Agenda). Para. 8 & 10 <https://www.weforum.org/agenda/2017/08/artificial-intelligence-can-save-democracy-unless-it-destroys-it-first/>

[55] *Ibid.,* para. 10

presidential election when a great flood of Macron's leak emails flooded the internet through social media in order to pull Macron down at the eleventh hour of the election. Finally, he argues that though AI can be used to misinform, mislead and manipulate people, it can also be redirected/remodel to uphold democracy because the technology is not inherently harmful. AI will help the electorate to know their representative better and vice versa, it can help voters to disentangle and free themselves from the malicious plan of echo chamber, and at the end he advised that in order to avoid abuse of AI in political context, then there is need for a stricter regulation of AI, though he claims this would affect the innovation of AI for good. He also encourage the use of some AI start-ups that can be used to detect and tackled most of the malicious behaviours of weaponized AI, AIs like: Factmata and Avantgarde.

2.12 Kevin Korner

The main argument of the author in this article "AI, Big Data and the Future of Democracy" is that AI is politically neutral, though its application cannot be said to be neutral – it can be used in a democratic state to strengthen government accountability or in an authoritarian state to strengthen repressive capability. Owing to its (AI) fascinating capability of spreading and exchanging information, it has giving room to proliferation of misinformation and propaganda as well as echo chambers, and all these, the author argues, contribute to the growth of social polarization in democratic societies which destabilizes state or national cohesion. According to Kevin, AI has posed a threat to the mechanisms that protect democracy, mechanisms like: freedom of the media, independent courts and separation of power, thereby undermining the foundation of democracy. Challenges from AI, like misinformation, manipulation, invasion of privacy and others, all affect

the individual citizens whose commitment to politics uphold democracy. The author

claims that the level of threat this technology (AI) poses to our democracy is evident

in Cambridge Analytica's and Facebook's connection with Brexit referendum and

US 2016 presidential election. Again, is the case of Russian inference, he presented

Mueller's report and argues that

> The Russian government interfered in the 2016 presidential election in sweeping and systematic fashion. According to the report, the Russian-based "Internet Research Agency" had the ability to reach out to millions of US social media users through social media accounts (Facebook, Twitter, Instagram) that pretended to be controlled by US activists.[56]

In this way Russian were able to manipulate voters thereby disrupting America's

democracy. According to him, following Oxford University research, it was

discovered that this manipulation of voters through AI is becoming a common

practice in many democratic societies "this includes national elections in Germany,

France and Sweden, as well as the Catalonia referendum in Spain and yellow vest

protests in France."[57] However, he also claims that the importance of this new

technology cannot be overlooked because it is one of the driving factors of human

history – the level of coordination it provides both within the state and worldwide is

nothing to write home about. He finally presented AI as a double edge sword which

can be used for good or for bad, and claims that the hope presented by this

technology in the nineties as a means of strengthening democracy through informing

and empowering the individual citizens is not yet lost. He finally advised that

governments in democratic societies should update regulations and supervision of

this technology, and emulate EU's AI and Data Regulation.

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[56] Korner, Kevin. (2019). *AI, Big Data and the Future of Democracy.* (Deutsche Bank AG Deutsche Bank Research Frankfurt am Main Germany). Pg. 5

[57] *Ibid.,* pg. 5-6

2.13 Karl Manheim and Lyric Kaplan

The authors argue that AI to some extent contributes to the dissatisfaction with the issue of privacy and democracy, though they are of the view that AI in itself is not to be blamed for the very fact that it is a mere technology, and can be considered neutral just like electricity, therefore, as a tool which AI is, more concern should be on how it is used, who uses it and for what purpose. They claim that weak regulatory environment provides room for people to exploit AI capabilities for economic purposes, in this way, surveillance capitalism tends to make gains because people's privacy rights are not well protected, and they blamed the government for not updating law to keep up with technology. The authors recommend emulating the EU data protection law and advocate for the enactment of a comprehensive Federal Law that will especially deal with AI in order to control its uses because they believe that "AI could erase many practical advantages of democracy, and erode the ideals of liberty and equality. It will further concentrate power among a small elite if we don't take steps to stop it".[58]

2.14 Nicholas Wright

Wright claims that the two main debates about AI is firstly the fear that AI will overcome human intelligence and exceed human control, thereby causing a lot of disastrous damages and secondly, the issue of AI displacing humans in terms of activities of work and other areas in the society which includes transport, military and healthcare. He went further to add the third debate, which is how AI might contribute to reshaping the world, according to him, AI is "allowing governments to monitor, understand, and control their citizens far more closely than ever before, AI will offer authoritarian countries a plausible alternative to liberal democracy, the first

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[58] Manheim, Karl. & Kaplan, Lyric. Pg. 82

since the end of the Cold War."[59] he argues that these new technologies are giving authoritarian regimes some high levels of social control which he termed *Digital Authoritarianism*, and through this means government (authoritarian regime) will censor everything like topics and behaviours that will oppose or try to obstruct the functions of the regime and control it – this type of censorship or monitoring will affect the behavoiurs of the people who will pretend to be acting responsible simply because he or she is being monitored, here he mentioned China as a good example.

In his view, the challenges AI will pose on democracies depend on how democratic societies deal with them internally and "partly on how they deal with the authoritarian alternative externally – In both cases, grounds exist for guarded optimism."[60] However, he claims that "Liberal democracies are unlikely to be won over to digital authoritarianism. Recent polling suggests that a declining proportion in Western societies view democracy as "essential," but this is a long way from a genuine weakening of Western democracy."[61] He concluded that digital authoritarian state like China has come to stay and for liberal democracies to compete with them, they need to develop clear strategies by limiting domestic surveillance and put regulation in place as well as having a good control over all internet giants companies.

2.15 Justin Haner and Denise Garcia

These authors main argument is that autonomous weapon system (AWS) is rapid increasing in different countries without proper accountability and public scrutiny, and they finally suggested that the development of AWS across many countries

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[59] Wright, Nicholas. (2018). *How Artificial Intelligence Will Reshape the Global Order The Coming Competition Between Digital Authoritarianism and Liberal Democracy*. Foreign Affairs. Pg. 1

[60] *Ibid.*, Pg. 5

[61] *Ibid.*, Pg. 6

should be proper regulated with international norm. They argue that AWS will not only empower terrorists and authoritarian regimes but will also undermine democratic peace since it is vulnerable to bias, hacking and malfunction. They claim that despite the obvious proliferation of this AWS, yet public debate on how to maintain its development accordingly is lacking, and according to them, "Sixty-one per cent of citizens polled across more than twenty countries oppose the development of lethal AWS, and yet billions of their tax dollars are being spent on their development each year."[62] They mentioned that 28 other countries together with some African states have advocated for the ban of this AWS technology which is mainly AI-powered, China wishes to ban its uses on the battlefield but not its development, France and Germany advocated that its uses and development should be guided by the existing international law, while United States is not ready to ban the use of this AWS with its America First Policy. Finally, these authors suggested that these new technologies should be regulated under international law because if the development and use of these technologies are left unchecked, then it would cause serious damage to democracy.

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[62] Haner, Justin. & Garcia, Denise. (2019). *The Artificial Intelligence Arms Race: Trends and World Leaders in Autonomous Weapons Development*. International Committee for Robot Arms Control and Northeastern University. Global Policy Volume 10. Issue 3. Pg.

Chapter 3

THE EVOLVING ROLES OF ARTIFICIAL INTELLIGENCE AND THE FUTURE OF DEMOCRACY: COMPARATIVE STUDY ON GERMANY, FRANCE, U.S. AND U.K.

Many AI have been programmed in such a way that its roles, following a systematic way, understand the psychology of many internet users through their online searches, comments, likes and dislikes, and in that manner AI will know how to relate to any particular internet user individually and differently. This knowledge and capability of AI has given it the ability to influence the individual in an unprecedented way, consequently democracy since democracy depends on the individual citizens. And that is why this part among other things will mention how AI affected democratic processes in well-known democracies like Germany, France, U.S. and U.K., the researcher considers these countries to be well-known democracies because they have truly practice democracy over a period of ten years just as Stephane Dion claims that "well-established democracies are those with at least ten consecutive years of universal suffrage,"[63] again, these countries happen to be good promoters of democracy in the international stage.

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[63] Dion, Stephane. Pg. 2

3.1 Democracy, Individual and AI

Since the emergence of democracy as a system of government, many have worshipped and consider it to be one of the best achievements in human history; this is mainly because the system has transferred power and control of the society from the powerful few to the entire masses, and it is perceived as a system of government that would eliminate any forms of antagonism between or among countries that practice the same system of government, as they would share the same democratic values which would not allow them to fight each other. One thing that should be noted is that democracy is built upon principles that recognize and empower the individual citizens in such a way that democratic process cannot work without the individuals, otherwise, it will not be considered democratic – and for this reason, democracy is considered as "that government in which the people retain the supreme power."[64] The importance of individuals cannot be over emphasized in a democratic setting as they have the power to make changes and affect the decisions of the government; this shows that individual has a role to play by continuously participating in any political discourses. Now, for individuals to actively participate in any political discourse or take a stand/position concerning any political issues, he or she has to be well informed on the matter before making a decision, and this has contributed in raising the importance of means of communication. The means of acquiring and disseminating information in this 21st century are far more in number and easily accessible compared to the past when we have only radios, televisions and newspapers, the rise in the development of technology especially information technology has provided greater opportunities for the spread of information, not just within Germany, France, U.S. and U.K. but across the globe. An individual in a

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[64] Birch, H Anthony. (1993). *The Concept and Theories of Modern Democracy.* (Mackays of Chatham PLC, Chatham, Kent, Great Britain), pg. 49 ISBN: 0-415-09108-x

democratic society, with the help of internet, can be in one place and access current information about any ongoing political discourse through social media, and if need be, make a move in favour or against the issue at hand. These means of information have been improved with artificial intelligence to give us better experiences, also these platforms have provided means for the individuals to access information about any political candidate that wishes to represent them; information like the person's history, political life, political interest and so on, in this way they can decide whether to vote for the person or not. Currently, "search engines, social media feeds, recommender systems and many news sites employ AI to determine which content is created and shown to users (information personalization),"[65] and the big question now lies on the reliability and validity of information that these means (social media) provide since the same AI which is meant to serve us better can also be used to create fake news and manipulate the individual, thereby, misleading the individual towards making a decision that otherwise would not make when given the right information. The fact that AI has the power to take away individual's freedom of choice, infringes on individual's right, control the outcome of elections in democratic societies, means that AI has the capability to destroy democracy by taking away the power that democracy bestowed on the individual citizens back to the powerful few. Again, if AI has this capability of destroying democracy just like Ezeogu Apollos, the author of *Design Principles of SRAM Memory in Nano-CMOS Technologies* claimed in an interview with him, then, it means that it possesses the power to increase the chances of war among democracies; because by undermining democracy and making democratic countries less democratic, it increases the chances of war among them.

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[65] Muller, Catelijne. Pg. 13

3.2 The Advantages and Disadvantages of AI on Democracy

3.2.1 The Advantages

Among the many advantages of AI on democracy, this study will only consider but few of them as explained below.

3.2.1.1 Easy Access of Information

Easy access of information is one of the main reasons why "the internet was first hailed as genuinely democratic technology and ultimate enabler of democracy"[66] because it helps the citizens of democratic societies to have a meaningful and personal relationship with their governments; "Social media such as Facebook and Twitter have become standard tools for citizens, representatives and governments to reach out to each other and exchange views, opinions and policy proposals."[67]AI has not only made access to information easier but has also improved strength of democracy by empowering the citizens of democratic states to become well-informed citizenry, since workings of democracy depend on the active participation of well-informed citizens. As a result of this, individuals can easily access and understand the personality of the political candidate running for election, know his/her prioritized political interest, also know if the person will represent them and their interest well, and improve their relations with other states, understanding all these have been made easier through the help of AI-Powered information. Again, "machine intelligence solutions are also now carefully deployed in election campaigns to engage voters and help them be more informed about important political issues"[68] – Its capability and speed of providing enough information help

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[66] Djeffal, Christian. Pg 255

[67] Korner, Kevin. Pg. 1

[68] Polonski, Vyacheslav. Para. 5

the citizens to participate very well in political discourse by being well informed; "Artificial Intelligence is one of the critical human rights issues of our lifetime, AI is also, as Microsoft CTO Kelvin Scott asserted, a critical part of being an informed citizen in the 21st century."[69] AI in smart phones has made information accessibility very easy that even a disable person without fingers can operate phones using digital voice assistant – in this way, he or she will be carried along and be well equipped to participate democratically as a citizen of the country. Again, it can help broaden one's knowledge about a particular topic of interest by using a personalized search engine.

3.2.1.2 Accountability and Data Security

The ability of AI to handle very large amount of data and complex calculations has made it an acceptable tool in many organizations as it helps minimize the work load and pressure due to large amount of data, governments of democratic societies can use it to run a transparent administration and present a meaningful accountability. As a data security, it can be used to protect important data (confidential information) belonging to the government as well as individual's privacy against any unwarranted invasion.

3.2.1.3 Detection of Fake News

The same AI algorithm which is used to generate fake news can also be reprogrammed to serve as fake news detector, in this way, many fake contents that is meant to manipulate and deceive the citizens of democratic societies would be detected – that is to say, that the "algorithmic tools that are used to mislead, misinform and confuse could equally be repurposed to support democracy."[70]

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[69] Johnson, Khari. Para. 2

[70] Polonski, Vyacheslav. Para. 14

Although "advances in AI are also making digital manipulation of audio and video cheaper and harder to detect,"[71] some AI tools have been developed to identify and tackle the issues of fake news; tools like Factmata, Avantgarde and Grover's Algorithm, nevertheless, more efforts are being put in by AI researchers to develop better AI tools that will guarantee 100 percent accuracy in fake news detection, which is good because this threatens the foundation of democracy.

3.2.2 The Disadvantages

Below are the few disadvantages of AI on democracy.

3.2.2.1 Disinformation

The use of AI in spreading disinformation is one of the major challenges that AI poses to democracy; one of the new evolving roles of AI is its ability to generate fake news and manipulate already existing information with the intention to deceive. This particular role of AI has given many enemies of democracies like Russia and China a huge opportunity to interfere with the democratic processes in democratic societies like Germany, France, U.S and U.K, in order to undermine their democracies. This role is responsible for the creation of 'deepfake' which can be used in a democratic political election to create fake audio and video content about the opponent in order to deceive and turn the masses against the candidate.

3.2.2.2 False Result

The fact that AI is instrumental in solving a lot of challenging problems does not mean that it is entirely and consistently correct all the time; the results it produces can be said to be valid most of the time – that is being logically correct based on how it was internally programmed, but that does not mean that it is always true all the time – in that it might not reflect the true realities at hand. Despite the high

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[71] Rosenbach, Eric &Mansted, Katherine. Pg. 15

sophisticated level that any AI might be operating on, one must not forget the widely known fact that it is artificially created – meaning that it serves the purpose(s) of its creators. This shows that if the creators made it to be bias in giving out results, then it will be; for example, it is now known that United State police sometimes use some of these AI tools to predict where crime might took place, however, it has been established that "these systems show the data on which those systems are trained are often biased, leading to unfair outcomes, such as falsely determining that African Americans are more likely to commit crimes than other groups."[72] Most of the time, algorithm bias in AI system are not intentionally created, it could be as a result of negligence or improper training of the AI; a good example is the problem that was uncovered by a specialist about the bias exhibited by Amazon's recruitment AI-system which prefer men to women simply "because it was trained on profiles of successful Amazon employees, which happened to be men."[73]

3.2.2.3 Social Polarization and AI

One of the wrong uses of AI is that it can be used to cause social polarization within a democratic state, and this hinders to a great extent, the smooth working of the state as well as the relation of that state with others. Considering the fact that AI can be used as a tool for manipulation through micro-targeting, personalized advertisements and dissemination of fake news, means that AI can be used by adversaries of Germany, France, U.S, U.K., and democracy itself, to socially polarize each of these democratic societies in order to (a) undermine and destabilize their democracies, (b) weaken their alliances and (c) instigate chaos within that democratic society. If these adversaries succeed in polarizing any of these democratic states, thereby, creating

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[72] Feldstein, Steven. para 7.

[73] Dastin, Jeffrey. (2018). *Amazon scraps secret AI recruiting tool that showed bias against women*. Reuters

different groups with extreme opposing views, then, it would be difficult for the polarized state to formulate and implement any strategic lasting policy decision that will benefit them all. As a matter of fact, their continuous inconsistency and disagreement due to their internal opposing views will affect the current stability and future sustenance of their democracies.

3.2.2.4 The Dangers of Echo Chamber

This is simply a type of chamber where one's perspective is echoed back to him or her. A lot of people in democratic societies can fall within this digital environment even without their notice or knowledge of it. This attributes of AI through personalized algorithm is a great tool for manipulation and is used by political campaigns in democratic societies. This type of chamber is a very dangerous environment to be in, because it does not give room for different perspectives or information other than the one you have, thereby, distorting one's chances of gathering enough information for proper understanding of the whole. Echo Chamber can be used to disrupt unity in democratic society through polarization of public dialogue.

3.2.2.5 Programmed Citizens/Society Equals to Programmed Foreign Policy

In this information age, many state-sponsored and private programmers have turned from programming computers to programming individual citizens of democratic societies just like it happened with many voters during U.S 2016 Presidential election and that of Brexit referendum by Cambridge Analytica and Russia. This simply indicates that if the citizens of these democratic societies can be manipulated into voting a political candidate, who is of interest to the manipulator by using AI tools, then it means that the society has been indirectly manipulated to support the interest of the individual or state executing the manipulation, since the manipulated-elected

candidate is likely to go for policy that will benefit the manipulator. Russia, for example, is well known in executing this kind of operations through the help of AI, and they "have used influence operations to affect political campaigns, candidates, and discourse to attack perceived opponents of Putin's Russia and support those more sympathetic to Russian interests."[74] Therefore, programmed citizens mean programmed society, and this can probably equals to programmed-foreign-policy.

3.3 Evolving Roles of AI and the Future of Democracy: The Cases of Germany, France, U.S. and U.K.

The three outstanding things that are common with these four countries following the interest of this research paper are: (a) they are all democratic societies, (b) they are technologically oriented and are making more efforts towards development of AI, (c) their democracies have in one way or another be threatened by AI. The roles of AI are indeed, without doubt, providing remarkable assistances that are eagerly needed to promote democracy in this information age; transparency, accountability, running of campaigns, dissemination of information, voting in election, individual's enlightenment and empowerment. However, just like a gun in the possession of a criminal can be dangerous and perceived differently from a gun in the hands of a security officer who of course has no intent to harm, in that same way, AI which is only but a tool can be dangerous in hands of those who intend to use it wrongly. As a matter of fact, it is evident in the cases of Germany, France, U.S. and U.K, whose democracies have been threatened by AI, and this has put the existing and consequently the future sustainability of democracies in these countries in question. The 2016 presidential election of the United States stands out as an evidence of AI's

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[74] Zarate, Juan. (2017). *The Cyber Attacks on Democracy.* The Catalyst, a Journal of ideas from the George Bush Institute, para. 2 <https://www.bushcenter.org/catalyst/democracy/zarate-cyber-attacks-on-democracy.html>

capability of destroying democracy, the election witnessed a massive interference and manipulation which was made possible by AI, as it is claimed that "Pro-Trump Bots infiltrated Twitter hashtags and Facebook pages used by Hillary Clinton supporters to spread automated content."[75] It is no longer new news about how "the data science firm Cambridge Analytica rolled out an extensive advertising campaign to target persuadable voters based on their individual psychology."[76] They were able to achieve this sort of manipulation through micro targeting because of the availability of people's data which they got from facebook; Cambridge Analytica used these data to determine the users' psychology and position on the election which was about to take place, then through micro-targeting will send a personalized messages, advertisements and misinformation meant to persuade the users and bring them to the political position they want. Again, this action of Facebook giving out people's data without their consent totally violate those people's right to privacy – therefore, this action by Facebook and manipulation by Cambridge Analytica undermined America's democracy because not only were citizens' right to privacy violated but were also psychologically manipulated to make a decision which in reality is not entirely theirs; thereby, taking away their freedom of choice. Russia is also known to have interfered with America's democratic processes on several occasions, and in one such occasion the U.S Department of Justice reported through Mueller that "the Russian government interfered in the 2016 presidential election in sweeping and systematic fashion"[77] and the report established that Russia interfered in two ways:

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[75] Polonski, Vyacheslav. Para. 13

[76] *Ibid.,* Para. 7

[77] U.S Department of Justice. (2019). Report On The Investigation Into Russian Interference In The 2016 Presidential Election Vol. I of II. (Washington, DC) Pg. 1

First, a Russian entity carried out a social media campaign that favored presidential candidate Donald J. Trump and disparaged presidential candidate Hillary Clinton. Second, a Russian intelligence service conducted computer-intrusion operations against entities, employees, and volunteers working on the Clinton Campaign and then released stolen documents.[78]

The same investigation by U.S Department of Justice confirmed that officers of GRU (currently known as "the Main Directorate of the General Staff of the Armed Forces of the Russian Federation"[79]) also sent "hundreds of spearphishing emails to the work and personal email accounts of Clinton Campaign employees and volunteers"[80]. Again, IRA (Internet Research Agencies: which is "a Russian company engaged in online influence operations on behalf of Russian business and political interests"[81]) employees used to create fake social media accounts which they use to manipulate American citizens using the "created accounts in the names of fictitious U.S. organizations and grassroots groups and used these accounts to pose as anti-immigration groups, Tea Party activists, Black Lives Matter protestors, and other U.S. social and political activists,"[82] and before the deactivation of these accounts controlled by IRA in 2017, Facebook claimed they have made up to 80,000 posts on social media. All these attacks on the American citizens and their democracy were made possible by the evolving roles of AI, Zarate warns that "The United States and its democratic allies around the world must now treat these kinds of campaigns as fundamental, persistent, and strategic threats to the integrity of the

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[78] *Ibid.,* pg. 1

[79] https://en.wikipedia.org/wiki/GRU_(G.U.)

[80] U.S Department of Justice. Pg. 37

[81] Prier, Jarred. (2017). *Commanding the Trend: Social Media as Information Warfare.* Strategic Studies Quarterly. 11 (4): 50–85. ISSN 1936-1815. JSTOR 26271634

[82] *Ibid.,* pg. 22

democratic political system."[83] In the U.K, an AI application known as bots; which are "autonomous accounts programmed to aggressively spread one-sided political messages to manufacture the illusion of public support,"[84] were used to disseminate incorrect information and fake news on social media with the intent to manipulate the outcome of Brexit referendum. The manipulative method used by Cambridge Analytica firm is what a former employee of Cambridge Analytica called psychological warfare according to Cadwalladr, it is called *Psyops*; "psychological operations – the same methods the military use to effect mass sentiment change,"[85] is what the Cambridge Analytica employee claimed that the firm used to win the hearts and mind of the people and at the same time, employ "it to win elections in the kind of developing countries that don't have many rules."[86] Concerning this, David Miller, "a professor of sociology at Bath University and an authority in psyops and propaganda, says it is "an extraordinary scandal that this should be anywhere near a democracy," and he advises on the crucial matter about transparency of information and their sources, as this would determine if we are still practicing democracy or not. The journalist, Cadwalladr, claimed that Cambridge Analytica and AggregateIQ worked together, using data and micro-targeting (individualized political messages) to help the Leave Campaign during Brexit referendum, and not only did the approach used by the leave campaign contradict democratic electoral process but the matter that a company (AggregateIQ) outside of U.K participated in executing this undemocratic method in U.K is also worrisome. France also has its own share of AI

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[83] Zarate, Juan. para. 5

[84] Polonski, Vyacheslav. Para. 12

[85] Cadwalladr, Carole. (2017). *The Great British Brexit Robbery: How Our Democracy was Hijacked.* (Guardian online news 7/5/2017). Para. 3 <https://www.theguardian.com/technology/2017/may/07/the-great-british-brexit-robbery-hijacked-democracy>

[86] *Ibid.,* para. 3

attack on its democracy, and one good example is the 'MacronLeaks,' during which the computers of Macron's campaign was targeted and hacked, and leaked at the crucial period of the election "simply to weaken the democratic process itself, irrespective of who wins (process electoral intervention)."[87] This leak "was promoted on Twitter by an army of trolls and fake accounts (bots), with the hashtag #MacronLeaks appearing in almost half a million tweets in twenty-four hours,"[88] and the "aim of #MacronLeaks was to build a narrative that Macron was a fraud and a hypocrite – a common tactic used by bots to push trending topics and dominate social feeds."[89] But "Macron's political movement said in a statement the hack was an attempt to destabilize democracy and to damage the party,"[90] and it said that "the hackers had mixed false documents with authentic ones to sow doubt and disinformation."[91] France electoral commission was wise enough to immediately "calls on everyone present on internet sites and social networks, primarily the media, but also all citizens, to show responsibility and not to pass on this content, so as not to distort the sincerity of the ballot."[92] In the case of Germany, Russia was blamed for Bundestag's hack of 2015, and the group, Sofacy/APT 28, which carried out the attack "has been blamed for a wide range of attacks on both governments and

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[87] Corstange, Daniel and Marinov, Nikolay. (2012). *Taking Sides in Other People's Elections: The Polarizing Effect of Foreign Intervention.* American Journal of Political Science, 655-670

[88] Vilmer, Jean-Baptiste Jeangene. (2019). *The "Macron Leaks" Operation: A Post-Mortem.* Atlantic Council, p. 1 ISBN-13: 978-1-61977-588-6

[89] Polonski, Vyacheslav. Para. 13

[90] Croft, Adrian and Geert, De Clercq. (2017). *France Fights to Keep Macron Email from Distorting Election.* Reuters Media Industry, para. 13 <https://www.reuters.com/article/us-france-election/france-fightsto-%20keep-macron-email-hack-from-distorting-election-idUSKBN1820BO>

[91] *Ibid.,* para. 14

[92] *Ibid.,* para. 6

financial institutions."[93] The hackers made used of booby-trapped document to penetrate Bundestag's network and stole most of the MP's data, and Merkel claims that "The hack was part of Russia's strategy, which includes hybrid warfare. . . and the distortion of facts"[94] – and by hybrid warfare she meant "a military strategy which employs political warfare and blends conventional warfare, irregular warfare and cyber-warfare with other influencing methods, such as fake news, diplomacy, law-fare and foreign electoral intervention."[95] Again, Ralph Brinkhaus, a German lawmaker openly notified the public that "many German lawmakers were flooded with messages during the recent debate on the UN migration pact, in what appeared to be the work of social media bots,"[96] which is why he, together with other German politicians claim that "social media bots are attacking the core elements of democracy and it's "high time" for Germany to fight them."[97] It was also gathered that these bots played a role in during "2017 German election."[98] Looking at these cases and many other attempts to interrupt the democratic processes in these countries (which are supposed to be models of democracies) through the use of AI, increase the doubt about the future sustainability of democracy, considering the speedy development of AI with its potential risks. However, it is also pertinent not to totally forget all the benefits of AI and the fact that it is merely a tool and therefore

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[93] Maassen, Hans-Georg. (2016). *Russia was behind German parliament hack.* BBC NEWS <https://www.bbc.com/news/technology-36284447> accessed 26/12/20 08:12

[94] Chazan, Guy. (2020). *Merkel claims Russia behind 2015 Bundestag hack*. Para. 13 FINANCIAL TIMES. <https://www.ft.com/content/264056c9-a13f-4421-9d35-f1bda82375af> accessed 26/12/20 09:02

[95] https://en.wikipedia.org/wiki/Hybrid_warfare#cite_note-5

[96] DW, Made for Minds. (2018). *Germany mulls crackdown on social media bots.* Para. 2 <https://www.dw.com/en/germany-mulls-crackdown-on-social-media-bots/a-46764545>

[97] *Ibid.,* para. 1

[98] Brachten, Florian. Et al. (2017). Strategies and Influence of Social Bots in a 2017 German state election – A case study on Twitter. Pg. 1

remains politically neutral, considering this fact, more efforts should be on how to make AI trustworthy and its activities well regulated. One cannot completely claim that the future development of AI will be beneficial to the entire democratic societies if those who it is their duty and have the good interest of the society at heart do not take supervision of this future development, therefore, it is advisable for other democratic societies to emulate the footsteps of these four countries by trying to define the boundaries and ethical limits of AI through legitimate regulations.

3.4 The Comparative Study of AI and Democracy in These Countries

Germany, France, U.S and UK seem to have something in common, despite the observable negative impacts of AI on their democracies and the various debates about the positive and negative impacts of AI among scholars, politicians and individuals, these countries never relent in making effort towards the innovation of AI – and one of the reasons for this, is the belief that to remain as the hegemon or among super powers or progressive and competitive in the future, one needs to equip oneself with more sophisticated AI than others, since it is obvious the world is turning digital; which was why Trump said that "continued American leadership in AI is of paramount importance to maintaining the economic and national security of United States."[99] These countries are making efforts to be at the forefront of digital revolution just as they did during industrialization, though, the degree of their efforts differ from one another just like the way the number of AI attacks on their democracies differ. The same methodological application of disruption of democratic process empowered by AI can be seen in both U.S an U.K by simply observing the connection of Cambridge Analytica in disrupting electoral processes in 2016 U.S

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[99] https://www.whitehouse.gov/ai/. Pg 1 (accessed 20/12/20)

Presidential election and Brexit referendum in U.K by way of personalized advertisements, micro-targeting and psychometric profiling using collected data from Facebook and other media. As a matter of fact, Russia has been using the same method to penetrate and undermine the democracies of Germany, France, U.S and U.K for a long time now, though Russia's way of getting data is mainly through hacking and creation of fake social media accounts.

Table 1: Different stances of Germany, France, U.S. and U.K. on AI

0	Overall	Australia	Canada	China	France	Germany	U/K.	U.S.
A	43%	49%	44%	16%	48%	29%	35%	46%
B	49%	46%	42%	54%	49%	51%	44%	50%
C	68%	72%	72%	51%	57%	62%	73%	68%

A: Major or extreme concern about AI risks
B: Cyber-security vulnerabilities of AI are a top three concern
C: Moderate to extreme AI skill gap[100]

Fully prepared to address potential AI risks
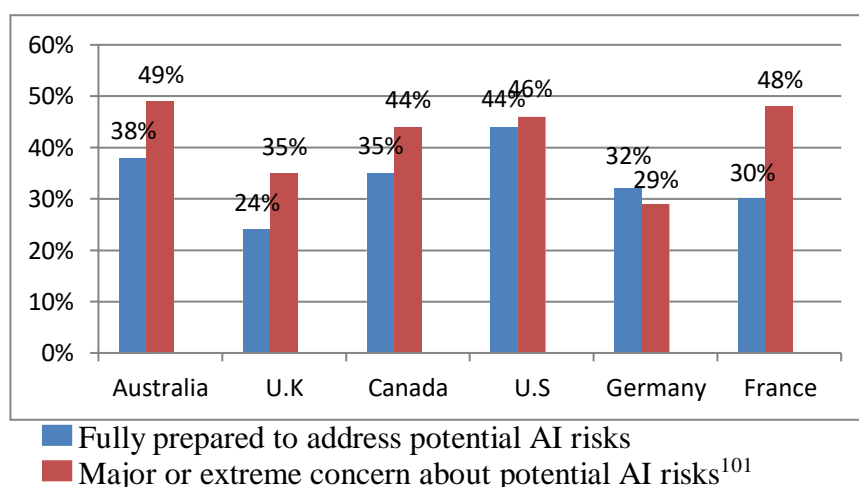Major or extreme concern about potential AI risks[101]

Figure 1: Different stances of Germany, France, U.S. and U.K. on AI

Following the above table and figure, it is clear that among the four countries under research in this paper, France and U.S are more concerned about the potential risks

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[100] Loucks, Jeff. Jarvis, David and et all. (2019). *Future in the balance? How countries are pursuing an AI advantage.* Insights from Deloitte's State of AI in the Enterprise, 2nd Edition survey

[101] *Ibid.,*

of AI than U.K and Germany; France and U.S have 48% and 46% respectively while U.K and Germany have 35% and 29%. When it comes to the issue of countries that are confident and fully prepared to address the potential risks of AI, The United States stands out among them with 44%, followed by Germany and France with 32% and 30% respectively, while U.K happens to be the last with just 24%. Considering the position of United States as the hegemon and the highest promoter of democracy across the globe, it is unsurprising that it recorded the highest number of information or cyber attacks when compared to the U.K, Germany and France, and then followed by the U.K. According to analysis done by Specops Software using data from CSIS (centre for strategic and international studies), it discovered that

> The United States of America has experienced the most significant cyber-attacks, totaling 156 between the period of May 2006 and June 2020… Following the USA is the U.K who has experienced 47 cyber-attacks classified as "significant" during this time, which included the large-scale cyber-attacks deployed across the Labour Party's digital platforms during the 2019 general election.[102]

In the same research, it was discovered that between the period of May 2006 and June 2020, Germany had only 21 number of significant cyber attacks while France had 11 numbers of attacks. This comparison shows that the democracy of each of these democratic countries has been threatened by AI in one way or another, but they never give up hope on the development of trustworthy AI as well as in making efforts to sustain their democracies. This is the white house says that "The United States has long been a champion and defender of the core values of freedom, guarantees of human rights, the rule of law, stability in our institutions, rights to

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[102] https://specopssoft.com/blog/countries-experiencing-significant-cyber-attacks/ (accessed 21/12/20 03:10)

privacy, respect for intellectual property... The AI technologies we develop must also reflect these fundamental American values and our devotion to helping people."[103]

3.5 How AI's Influence on Democracy Can Negatively Affect Relations among Democratic States

When AI is not properly regulated, greater chances are that the adversaries of these democratic states through AI manipulation will spread lots of disinformation that will instigate distrust and antipathy in the minds of the individual citizens of these states (just as Muller mentioned above, about how Russia interfered in U.S.) in order to prevent further cooperation among them, and could possibly lead to conflict. AI can also be used by manipulators or adversaries of these democratic states to socially polarized the entire state, thereby, distorting the unity and national cohesion of the state, and if that happens, then, the unstable nature of the state at that time will not allow to make a move towards cooperation with other democratic states as a result of disunity and disagreement, especially if the majority is against the move. For further understanding of how AI can affect relations among other democratic states: read subsection 3.2.2.3 and 3.2.2.5 above, under disadvantages of AI on democracy.

3.6 Tech Giants and Democracy

In this era which can as well be seen as information age, information is considered as the rarest of commodity, and the amount of information or data at the disposal of the tech giants popularly known as the Big Five; that is, Google, Apple, Facebook, Amazon and Microsoft, is something that even the government are afraid of. Following the above arguments about how AI was able to interfere with democratic processes in Germany, France, U.S. and U.K., of which some tech giants contributed

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[103] https://www.whitehouse.gov/ai/ai-american-worker/

to the inference, it is now obvious that those tech giants are wielding a lot of power in their hands, and their decisions on the way forward for AI affect not only the United States and the Western world but the entire human race. If the limited data gotten only from Faceboook can be used by Cambridge Analytica and AggregateIQ to command the outcomes of US 2016 presidential election and Brexit referendum, then how much damage can all the data from all the tech giants cause if they choose to use it illegally? This is why it is advisable for the governments of United States and the Western worlds to come together and put these tech giants under control before they give room for the absolute destruction of democracy. It should also be known that democratic political system is one major thing that is keeping governments of Germany, France, U.S. and U.K. in good relations with one together, and if the tech giants within their jurisdiction is not put under proper and effective regulations to respect and protect the data of their users, then these tech giants who care mainly for their profits will continue to misuse people's data, thereby giving room for destruction of democracy – if this happens, then these countries will have greater chance of fighting with each other in the future, therefore, democracy should be protected to prevent this from happening. Facebook and Google are currently adjusting their AI algorithm and promised to protect the privacy of their users by protecting their data, these are the type of things European Data Protection Law hopes to achieve. The founder of Microsoft Company, Bill Gates, advised that "it is time for the government to step in and regulate big tech companies; Gates expects that one area where we're likely to see additional government regulation of tech companies is around the issue of data privacy".[104]

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[104] Huddleston Jr, Tom. (2019). *Bill Gates: Government Needs to Get Involved to Regulate Big Tech Companies*. Make It: Power Players, para. 1 & 4

Chapter 4

THESE COUNTRIES' EFFORTS TO MANAGE THE CHALLENGES OF AI THROUH REGULATIONS

This part is mainly going to focus on the efforts made by Germany, France, U.S. and U.K. in order to manage the challenges or threats AI on their respective democracies, because preservation of democracy is of paramount importance since "democracies are more likely to be more stable and find one another attractive for alliance."[105] Considering the obvious challenges and attempts to disrupt democracy through the assistance of AI, as exposed in the previous chapter, it would be advisable for these four countries to put more efforts in securing this political system (democracy), just as the White House when referring to the threat and campaign against democracy notify that "The United States and its democratic allies around the world must now treat these kinds of campaigns as fundamental, persistent, and strategic threats to the integrity of the democratic political system."[106] It should be noted that the strength of democracy contribute a lot in keeping democratic states together, otherwise, if these countries in question become less democratic, then there would be greater possibility of emergence of antagonism among them, this avoidable antipathy should immediately be dealt with, because the democratic values which they all share together seem to be uniting them for a long time now. In agreement with the argument of the German philosopher, Immanuel Kant, as it appears in his writing in

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[105] Folarin, Sheriff. (2017). Student Feature – Foreign Policy. Pg. 2 <https://www.e-ir.info/pdf/72077>

[106] Zarate, Juan. para. 5

the *Perpetual Peace* which states that democracies do not fight each other because of their shared value and the reason that

> if the consent of the subjects is required to determine whether there shall be war or not, nothing is more natural than that they should weigh the matter well, before undertaking such a bad business, decreeing for themselves all the calamities of war.[107]

Therefore, it is completely necessary that Germany, France, U.S and U.K do everything legitimately possible to control the challenges of AI on their democracies in order to fully uphold that system (democracy) which contribute greatly in keeping them together and maintaining their relationship. The fact that they share the same democratic values make it looks as if they are one integrated states (The E.U is a good example here) with different indigenous cultures, because a British living in U.K. can go to Germany, France or U.S. bearing in mind that these countries would as well respect the same value that he or she respects at home and its already familiar with. Therefore, every legitimate measure should be employed to combat both external and internal threats of AI; that is, the threats coming from outside their territory which can be considered as foreign AI threats and the ones coming from within, which can be seen as domestic threats of AI. Proper regulation of AI will create a well functioning democratic environment which is the aspiration of most democratic societies, and that is why American's foreign policy states that "The Department's mission is to shape and sustain a peaceful, prosperous, just, and **democratic world** and foster conditions for stability and progress for the benefit of

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[107] Kant, Immanuel. (1795). *Perpetual Peace: A Philosophical Essay*. Trans, Smith M. Campbell. London: George Allen & Unwin Ltd. Ruskin House 40 Museum Street, W.C. New York: The Macmillan Company. Pg. 122 <https://oll-resources.s3.us-east-2.amazonaws.com/oll3/store/titles/357/0075_Bk.pdf>

the American people and people everywhere,"[108] and this is more likely to take effect and work well with Germany, France and U.K. than in China and Russia. Therefore, "It's so important to get AI right, policymakers can't leave it to computer scientists alone, as they develop policies, they should include legal experts, economists, ethicists, psychologists, philosophers and—of course—the populations that they serve".[109]

4.1 Germany's Efforts to Manage AI Challenge on Democracy

Germany as a democratic state has witnessed an AI-assisted attack on its democracy, yet the government is not giving up on its plan on becoming a leading AI country in Europe, instead of backing down before the challenges presented by AI, "the public sector, society, business, administration and science are all called upon to embrace the opportunities it provides and face up to the risks it poses."[110] The government of Germany in November 2018 presented a well developed strategy for the future development of AI, and to be executed with funds up to €3 billion, and the following are the main goals for this strategy:

a. making Germany and Europe global leaders on the development and use of AI technologies and securing Germany's competitiveness in the future,

b. safeguarding the responsible development and use of AI which serves the good of society, and

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[108] U.S. Department of State, Diplomacy in Action. Bureau of Budget and Planning <https://2009-2017.state.gov/s/d/rm/index.htm#mission>

[109] Rao, Anand & Cameron, Euan. *What is the Impact of AI on Government Policy and Society?: Balancing the potential with issues around regulation, ethics, privacy and equality.* (PWC Global) para. 5 <https://www.pwc.com/gx/en/issues/data-and-analytics/artificial-intelligence/government-reaction.html> accessed 27/12/20 08:43

[110] The Federal Government. (2018). *Key Points for a Federal Government Strategy on Artificial Intelligence.* Pg. 2 <https://www.bmwi.de/Redaktion/EN/Downloads/E/key-points-for-federal-government-strategy-on-artificial-intelligence.pdf?_blob=publicationFile&v=4>

c. Integrating AI in society in ethical, legal, cultural and institutional terms in the context of a broad societal dialogue and active political measures".[111]

In the effort to control the challenges AI pose on democracy and other aspects of the society, "the German government also tasked a new Data Ethics Commission with producing guidelines for the development and use of AI."[112] Germany, knowing full well that the deployment of AI technologies would not be a success without an effective regulatory framework accompanying it, advocates "using an 'ethics by, in and for design' approach throughout all the development stages and use of AI-based applications,"[113] and with this approach, it will be assured that the AI being developed is not a weaponized AI. Following the interest of this study, the important initiatives that appear in Germany's initial steps towards a legislative framework for AI are:

> The formation of a Workforce Data Protection Act to codify data protection regulation and privacy (i.e. safeguard the control on personal data), compliant with EU law; (b) Review and if necessary adaption of the legislation concerning the use of non-personal data as well as copyright and (c) Implementation of the cyber security directive."[114]

Despite the white paper presented by EU Commission on AI which the German government agreed with, they went further to tighten their own regulation because the government is "particularly bothered by the fact that only 'high-risk' AI

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[111] Future of Life. AI Policy – Germany <https://futureoflife.org/ai-policy-germany/?cn-reloaded=1>

[112] *Ibid.,* para. 5

[113] European Commission. (2019).National Strategies on Artificial Intelligence A European Perspective in 2019, Country Report – Germany. Pg. 3

[114] *Ibid.*, pg. 3

applications have to meet special requirements,"[115] this is to show the government's effort to make sure that AI is properly regulated in all aspects.

4.2 France's Efforts to Manage AI Challenge on Democracy

The French president, Emmanuel Macron, believes that AI is completely changing the world and is creating a bigger opportunities in the future, despite the fact he warned that "Artificial intelligence could 'totally jeopardize democracy' if left unchecked,"[116] he still went on to promote to a great length the development of the new technology, because according to him "My role is not to block this change, but to be able to train or retrain people for them to get opportunities in this new world."[117] While stating that the French government would invest up to €1.5 billion for the innovation of AI during his term, the president "guaranteed that all AI algorithms that his government creates will be open to scrutiny to mitigate the threat to democracy. That level of transparency will also apply to algorithms that are developed by firms that get cash from the French authorities."[118] Finally, the president advised that "We should have a policy of open data…and have to think on the subject from a political and ethical point of view … to come up with a common understanding and rules".[119] France can be said to be good in handling the challenges presented by AI, a good example is just how they dealt with MacronLeak of 2017 as already explained in the previous chapter.

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[115] Grull, Philipp. (2020). *Germany Calls for Stricter AI Regulation at EU Level*. EURACTIV, The German EU Council Presidency 2020. Para. 1

[116] Smith-Meyer, Byjarke. para. 1

[117] Isabel, Van Brugen. (2018). *AI Could Threaten Democracy: Macron Issues Warning*. EXPRESS: Home of the Daily and Sunday Express. Para. 2

[118] Smith-Meyer, Byjarke. Para. 5

[119] Isabel, Van Brugen. Para. 9

4.3 U.S. Efforts to Manage AI Challenge on Democracy

The U.S. is the world leading country in the field of AI, the presence of many tech giants like Facebook, Google, Microsoft, Apple, Amazon, Twitter and many others are all American companies, and they contribute a lot together with the government in making U.S. a lead country in the field of AI. These Tech Companies may have in one way or another involved in one data and privacy scandal or another, that made the founder of Microsoft Company, Bill Gates, to advised that "it is time for the government to step in and regulate big tech companies; Gates expects that one area where we're likely to see additional government regulation of tech companies is around the issue of data privacy."[120] Perhaps, because of the anti- trust investigation being carried out on the operations of these tech companies coupled with the backlash that they face, leaders of these tech companies: Apple, Facebook and already mentioned Microsoft, are even calling on the government to come and regulate them. Among many regulatory guidance that Trump administration issued on AI, the one that concerns this study most is the Executive Order that was signed by president Donald Trump on the 3rd of December 2020 which promotes the use of trustworthy AI on federal government, and this guidance directs the use of AI in a more effective way for the good of American people. This particular Executive Order acknowledges the ability of AI in promoting the operations of the government and "it also directs agencies to ensure that the design, development, acquisition, and use of AI is done in a manner that protects privacy, civil rights, civil liberties, and American values,"[121] again, it the order was made on the principles which "emphasize that AI

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[120] Huddleston Jr, Tom. para. 1 & 4

[121] White House.gov (2020). *Promoting the Use of Trustworthy Artificial Intelligence in Government.* Office of Science and Technology, para. 1 <https://www.whitehouse.gov/articles/promoting-use-trustworthy-artificial-intelligence-government/>

use by Federal agencies must be lawful; purposeful and performance-driven; accurate, reliable, and effective; safe, secure, and resilient; understandable; responsible and traceable; regularly monitored; transparent; and accountable."[122] Through this Executive Order, "the United States is signaling to the world its continued commitment to the development and use of AI underpinned by democratic values."[123] The White House is also being careful with regulations as they call on "U.S. lawmakers and businesses, as well as European nations and allies, to avoid overregulation of artificial intelligence,"[124] in order to prevent giving room for the emergence of authoritarian regime, however, they still maintain that "the best way to counter authoritarian uses of AI is to make sure America and our international partners remain the global hubs of innovation, shaping the evolution of technology in a manner consistent with our common values".[125]

4.4 U.K. Efforts to Manage AI Challenge on Democracy

Helen Warrell urge the British intelligent British spies to increase their pace in tackling the future challenges of AI because "a study into the use of AI for intelligence purposes, commissioned by signals intelligence agency GCHQ, suggests hostile states are likely to be making the most of AI conduct cyber attacks and use deepfake technology to generate disinformation and disrupt political system."[126] Meanwhile, U.K. already has a regulatory framework for AI which advocate for public trust and transparency, because for them "the role that **transparency** can play

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[122] *Ibid.,* para. 1

[123] *Ibid.,* para. 7

[124] Johnson, Khari. (2020). *White House urges Federal Agencies and European Allies to Avoid Over Regulation of AI.* VB: The Machine Making Sense of AI, para. 1

[125] Johnson, Khari. (2019). EU AI Experts urge nations to avoid mass surveillance. Para.2

[126] Warrell, Helen. (2020). *U.K. Intelligence Urge to Step Up Use to Counter Cyber Threats.* FINANCIAL TIMES: Cyber Warfare, para. 2

in building a trustworthy environment and ensuring fairness."[127] The U.K. through 'Centre for Data Ethics and Innovation' are reviewing   of online targeting and bias in algorithm to know how best to improve AI regulation, meanwhile, they have already down some principles of transparency to ensure intelligent accountability from organizations using AI, and the principles can be summarized as follows:

> (a) Overall details of the decision-making process in which an algorithm/model is used, (b)A description of how the algorithm/model is used within this process, (c)An overview of the algorithm/model itself and how it was developed, and (d)An explanation of why the overall decision-making process was designed in this way.[128]

Through this means and some other efforts like the use of Data Protection Act 2018 (DPA) and GDPR, U.K. continues to make efforts towards the management of AI challenges on democracy.

4.5 Other Possible Solutions to AI Threats on Democracy

4.5.1 Digital Literacy: It is now becoming clearer that this epoch is the era of digital revolution considering the speed-rate with which digital technologies are taking control over many aspects of societies. Therefore, individuals or states that are lacking behind in the digital know-how might not be able to cope or compete with others in the nearest future, and they are more likely to be victims of digital manipulation as this study elaborated; those that lack the knowledge of the working intricacies of AI algorithms are likely to fall victim. For this and many other reasons, like protection and improvement democracy as well as dealing with the challenges of AI on democracy in Germany, France, U.S., U.K., and other democratic states, it is suppose to be

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[127] GOV.UK *Public Trust and Transparency*. Centre for Data Ethics and Innovation Blog. Para. 2 <https://cdei.blog.gov.uk/2020/12/01/public-trust-and-transparency/>

[128]*Ibid.,* para. 1

of paramount importance that the individuals in these states be digitally enlighten, so as to know when people's rights are being digitally tampered with and know when one is becoming a victim of digital manipulation. As a matter of fact, digital literacy will not only help these countries to manage the threats of AI on democracy, it will also present them with many opportunities in the future as well, just as the French president Emmanuel Macron claimed above.

4.5.2 Proper Regulations: As it can be observed from these countries' efforts to control AI in the above cases, effective regulation is the number one key in tackling the challenges that AI pose on democracy. A state without effective regulations is bound to be chaotic most of the time, which is why proper and effective regulations are necessary for the maintenance of any society. This should be applied to AI, though from the efforts being made by the government of Germany, France, U.S. and U.K. already, it is clear that they understood the importance of regulations. Though, care should be taken not to over tighten the rules in order to avoid emergence of totalitarian regime, also not to prevent further and creative innovation of AI. Democracy should not be halted in order to improve innovation of AI, instead, AI should be incorporated into democracy; this is legitimate way to make AI to fit in democracy, as some scholars will call it *democratization of AI*.

4.5.3 Human Agency: There is need for humans to be in control, not leaving the entire workings and decision making process in the hands of AI, because in order to maintain a democratic structure and avoid a systemic failure, there is need for the recognition of human agency or human autonomy whereby human will be placed to oversee most of the decisions made by AI. Here, this

study strongly agree with Catelijne Muller, who suggested the idea of HITL –
human in the loop, HOTL – human on the loop, HIC – human in command.

4.5.4 Transparency: Transparency is one of the key features of democracy, and
considering the fact that most of the AI algorithms are invisible, there is need
for each of its functions to be made clear and known, in this way, it will be
known whether it is following the regulations being laid down for it, in order
to safeguard democracy.

Chapter 5

EVALUATION AND CONCLUSION

It is time to call a spade a spade, no need of overlooking the obvious challenges pose by AI, or pretending that it does not matter while in actual sense it matters a lot. Let's make hay while the sun shines; it is better to make decisions on how to make use of AI now than to allow AI make decisions for humans in the future. Considering the amount of information and data being produced on daily basis in Germany, France, U.S. and U.K., one without doubt would agree that there is need for AI to assist in analyzing these data both in the public and private sectors, that is relating to governmental agencies as well as private corporations, meanwhile, the fact that AI is data-driven technology should not encourage the idea of using these data for the development of weaponized AI or used as means of manipulation and dissemination of disinformation in order to destroy democracy; just like the way Cambridge Analytica and AggregateIQ illegally used people's data gotten from Facebook to manipulate and influence the outcome of U.S. 2016 Presidential election and Brexit referendum through micro-targeting and sending personalized messages and advertisements to individual voters, meant to psychologically positioned them to the interest of the manipulator. Therefore, a regulatory mechanism should be put in place for the protection of people's data as well as control over tech giants' usage of data since they are in control of huge amount of data – just like the way these countries used regulatory mechanism to control the challenges of AI, and in that sense turned

AI from destroying democracy to promoting it, and this will contribute in helping U.S. and France to reverse their position as flaw democracy to full democracy.

Though, AI capability of threatening democracy has been empirically observed, considering the cases of Germany, France, U.S. and U.K. in chapter three, this does not mean that AI in itself is a threat since it could also be repurpose to serve for the growth and improvement of democracy just as these democratic states acted with the belief that "AI can be used to strengthen democratic governance and institutions as long as the design, development and deployment of intelligent systems is done in a manner that upholds fundamental rights and core democratic values,"[129] and it is actually working for them. It is generally accepted that AI technology is politically neutral but its application is not, as it is totally dependent on the purpose of the created algorithm, which is more reason why its development and operations should be overseen by legitimate regulatory body to make sure it follows proper ethical, legal and democratic guidance. It is pertinent to bear in mind that Artificial Intelligence in question here, is not a moral and conscious agent, but merely an instrument, therefore would not be held culpable of any damage done to the existing or future democracy, therefore, binding regulations (with appropriate punishments for offenders) should be put in place for any individual or state that uses AI to disrupt any democratic process. Again, considering the rate at which AI is advancing and penetrating all aspects of our lives, then, it is absolutely necessary that the promotion of digital literacy not only within Germany, France, U.S. and U.K. but all across democratic societies around the world be encouraged, as this would empower and

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[129] Vaira, Vike-Freiberga. (2019). *Digital Transformation and the Future of Democracy: How Can Artificial Intelligence Drive Democratic Governance?* World Leadership Alliance Club De Madrid. Pg. 43

enable every citizen of democratic societies to be able to personally combat any digital challenges and avoid the risk of becoming a victim of any wrong uses of AI, while it will, at the same time help the individual to participate actively in democratic discourses, as he/she is now well informed through AI-Powered information. And in this way, these democratic states would be more united, however, the failure of these democratic states to effectively regulate the development and operations of AI now, as well as its challenges or threats on democracy, means that they will become less democratic in the future, and if this happens, then there will be greater chance that they will fight among each other because by then they must have lost those democratic values that keep them together. None of the critics of AI is advocating for total abolition of AI from democratic states, however, they are mainly of the view that proper effective regulations should be put in place as quickly as possible to control the excesses of AI, and this alone depicts their awareness that AI in itself is completely neutral while its application might not be. Manheim and Kaplan while addressing the challenges of AI on democracy argue that "AI is not itself the culprit, as a technology, it is no more inherently bad than, say, electricity. Rather it is how the tool is used, by whom, and for what purpose that generate concern."[130] Therefore, there is need for an update of regulations by legislators of these democratic states as to incorporate ethical and trustworthy guidelines that will put in check the roles of AI in the society in order to secure the existing democracy as well as its future sustainability. Even though France and U.S are more concerned about the potential risks of AI than U.K and Germany, The United States seems to stand out among them as the state that is most confident and fully prepared to address the potential risks of AI. Notwithstanding the differences in their concerns about the potential

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[130] Manheim, Karl. & Kaplan, Lyric. Pg. 81

risks of AI and their different preparedness in addressing these risks, these states keep making concrete efforts towards the development of trustworthy AI and to remain at the forefront of digital revolution, as it is now considered to be contributing to the progress of a society as well as giving that society a competitive edge over others. Considering the positions of U.S., U.K., France and Germany in the international community and serving as the flag bearers of democracy, it would be of outmost importance for them to lead by example by using any possible legitimate tools to curb the risks of AI and protect democracy as many are looking up to them; that is, to emulate them. What would be the fate of democracy in other democratic states if the democracy of the mightiest of democratic societies like U.S., U.K., Germany and France are currently considered vulnerable to the challenges of AI? A research in pursuit of the answer to the above question coupled with the outcome or answer to the research question of this study will enlighten and encourage other democratic states to make the right decisions towards the development and uses of AI in such a way as to safeguard their democratic system of government, having seen the potential risks of using AI without proper and effective regulations.

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