The effect of political neuromarketing 2.0 on election outcomes

The case of Trump's presidential campaign 2016

Islam Mohamed Hegazy
Department of Political Science, Faculty of Economics and Political Science, Cairo University, Giza, Egypt

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Abstract

Purpose – The purpose of this paper is the better understanding of the increasing relation between big data 2.0 and neuromarketing, particularly to influence election outcomes, along with a special aim to discuss some raised doubts about Trump's presidential campaign 2016 and its ability to hijack American political consumers' minds, and to direct their votes.

Design/methodology/approach – This paper combines deductive/inductive methodology to define the term of political neuromarketing 2.0 through a brief literature review of related concepts of big data 2.0, virtual identity and neuromarketing. It then applies a single qualitative case study by presenting the history and causes of online voter microtargeting in the USA, and analyzing the political neuromarketing 2.0 mechanisms adopted by Trump's political campaign team in the 2016 presidential election.

Findings – Based on Trump's political marketing mechanisms analysis, the paper believes that big data 2.0 and neuromarketing techniques played an unusual role in reading political consumers' minds and helping the controversial candidate to meet one of the most unexpected victories in the presidential elections. Nevertheless, this paper argues that the ethics of using political neuromarketing 2.0 to sell candidates and its negative impacts on the quality of democracy are and will continue to be a subject of ongoing debates.

Originality/value – The marriage of big data 2.0 and political neuromarketing is a new interdisciplinary field of inquiry. This paper provides a useful introduction and further explanations for why and how Trump's campaign defied initial loss predictions and attained victory during this election.

Keywords Big data, USA, Social media, Political marketing, Trump, Online microtargeting, Political campaign, Political neuromarketing 2.0

Paper type Case study

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1. Introduction

All over the world, politicians are seeking political consumers' data and insights that will propel them to win elections and keep political support. The current technological era is mainly characterized by the tremendous growth in the relationship between big data 2.0 and neuromarketing. Facebook, Google and most other leading technology firms are now seen as key players in the recent political processes, offering a wide range of neuromarketing 2.0 tools and techniques, along with some complex advertising platforms designed to facilitate online microtargeting for political use (Bond, 2017). In his dystopian novel entitled *Nineteen Eighty-Four*, George Orwell coined the idiom of "Big Brother is watching you" to describe how a totalitarian regime keeps citizens' lives and identities under constant surveillance, mainly by telescreens (Orwell, 2008, p.1). But the ongoing phenomenon of the big data 2.0 presidents may be more dangerous than Orwell's coined term of "Big Brother," because of its great potential to manipulate political consumers' daily online activities and emotions and refine sophisticated psychological models of a controlled political behavior. Gorton (2016) argued that the use of these new scientific tools and modeling techniques in political marketing are often highly effective for political success, but may be big troubling issue for the quality of democracy.

On November 9, 2016, the world woke up to an unexpected political surprise which many considered could change the political marketing studies forever. Donald Trump was able to win the US presidential election in contrast to all the predictions and polls that preceded the elections (Valentino *et al.*, 2017). This victory that prompted Trump to the White House raised immense confusion about the tools and techniques followed by his political marketing team to reach the American political consumers and convince them to give him their votes. One of the most famous and controversial players in this election campaign was Cambridge Analytica (CA), a prominent data analytics and communication firm that was later honored with a gold prize in big data category from the Advertising Research Foundation (Chester and Montgomery, 2017), which has become a subject of much debate and concerns about its used data from 50 million Facebook profiles, political marketing methods, and surely its ability to influence the election outcomes (Cadwalladr and Graham-Harrison, 2018). More seriously, this situation has opened eyes and doubts about the role that big data 2.0 hunters can play in acquiring intelligent marketing information systems, providing politicians with an accurate scan of political consumers' brains to develop their catch-all marketing strategy and increase their positioning in the political markets.

This paper attempts to provide a deeper insight into the growing relationship between big data 2.0 and neuromarketing, and to see how this new marketing approach affects the election outcomes. The main question is: How did political neuromarkeing 2.0 tools and techniques, mainly developed and offered by CA, challenge Trump's initial loss predictions and help him win the 2016 presidential election? To fulfill these requests, the paper was divided into several sections. First, it discussed the politics of big data 2.0 and illustrated three major approaches of using it in building, implementing and evaluating political marketing strategy. Second, it combined deductive/inductive methodology to define the term of political neuromarketing 2.0 through a brief literature review of related concepts. Third, and based on neuropolitics research, it tried to develop some theoretical foundations for the expected relationships between the political neuromarketing 2.0 and congruency voting behavior. Fourth, it traveled through the history and causes of online voter microtargeting in the USA, to identify the marketing environment in which Trump's campaign worked. Finally, it traced the origins and mechanisms of the political neuromarketing 2.0 in Trump's presidential campaign 2016, to understand its ability to capture subconscious of the American political consumers and direct their votes.

2. Politics of big data 2.0

Before defining the concept of big data 2.0 and identifying its political use, especially in political marketing, this paper must first distinguish between data and information, where data usually refer to raw picture of the information before re-sorting, rearranging, analyzing and otherwise moving into knowledge phase. According to their organizing degree, data vary to structured, unstructured and semi-structured data. All of these data cannot be used in making decisions and policies without technical manipulation processes. More than 49 years ago, in a book entitled *Future Shock*, Toffler (1970) had an early future approach about the importance of information and knowledge in politics, when he pointed out that the triangle of power consists of three main sides: knowledge, wealth and violence. Moreover, he predicted that knowledge, not wealth nor violence, would be the essence of power in an era of the global competition and information technology revolution as he observed "info-wars" raging in such.

Big data 2.0 can be simply defined as "general term for the massive amount of digital data being collected from all sorts of sources" on the Web 2.0 era. These data "is too large, raw, or unstructured for analysis through conventional relational database techniques" (Kim *et al.*, 2014, p. 78). Most of the data-mining scientists assert that big data 2.0, in this form, is based on three intrinsic indicators – volume, velocity and variety – or what is commonly known as the "3 Vs" of big data (Lycett, 2013). Some other scientists just added veracity and value alongside the three other indicators on which the big data definition is based (Rajaraman, 2016). Joseph Hellerstein, a professor of computing at Berkeley University, Berkeley, California, USA, was one of the first to point to the coming "Industrial Revolution of Data" (Hellerstein, 2008). According to IBM's estimations, almost 90 per cent of the globe's data today generated were generated during only 2 years, with 2.5 quintillion bytes of data added each day (Jacobson, 2013), which has certainly increased tremendously over the years following these estimations.

Some of data analytics experts, in another recent technical report by the International Data Corporation, predicted that globe revenues for big data business analytics will grow from nearly $122bn in 2015 to more than $187bn in 2019, with an increase of more than 50 per cent over only a 5-year forecast period. Indeed, they also emphasized that the main sectors in the future data-industrial complex, with the largest revenue opportunities, will be discrete manufacturing, banking and process manufacturing. At the same time, they argued that four other sectors – federal/central government, professional services, retail and telecom – will generate more than $10bn revenues from big data investments in 2019. As mentioned in this report, the data-industrial complex with the fastest revenue growth will be utilities, resource industry, health care and banking, although nearly all of the worldwide industries will have gains of more than 50 per cent from the big data 2.0 industry over the 5-year forecast period (IDC, 2016).

For a long time, many scholars have discussed the impact of the internet, especially in Web 2.0 age, on politics, and they coined "Virtual Politics" as a term referring to parallel politics, that most of its phenomena occur within the new digital societies. One of these phenomena was the virtual social identity (Wood and Solomal, 2009). Today, in political marketing terms, it can be said that every political consumer:

> [...] on the surface of our planet has a virtual copy to his real personality, leaving distinctive digital fingerprints for his simplest everyday activities, through which he interacts with intelligent applications on the Internet. The words we search for by famous search engines like Google, the pictures that we share with our friends on Instagram, the products we buy from various e-shopping websites, the pages and comments we record on Facebook, the places we go

> with the navigation maps applications in our smart phones, the short tweets we express by it our opinions and feelings on Twitter, and the jobs that we are looking for on LinkedIn, all of these normal activities and more, leaving digital fingerprints that big data 2.0 hunters seek to trace (Hegazy, 2018, p. 8)

to sort, arrange, and manipulate with advanced techniques, and transform into high-value information, benefiting politicians all over the world. Therefore, big data 2.0 can be addressed as the new driving oil for all of political marketing processes.

The ongoing success of the big data 2.0 revolution has unfortunately led to a paradigm shift in political marketing at several levels. Many political marketing consultants, such as Hankey (2019), and his team in Tactical Tech, for example, now believes that there are three main approaches about the use of personal data, mainly collected by social media applications, in building, implementing and evaluating political marketing strategy that ensures continuous and effective communication with political consumers:

- *Big Data 2.0 as a political asset*: Valuable personal big data sets exiting on potential political consumers and voters by the way, exchanged between political marketers, and acquired from big data hunting companies or some governmental agencies, sold or exposed to those who want to leverage them. This category includes a wide range of personal big data 2.0 available on the open space of the internet.
- *Big Data 2.0 as a political intelligence*: Personal big data 2.0 that is accumulated and analyzed, with deliberate methods, by political marketers to identify the political consumers' preferences and attitudes, to inform marketing strategies and tactics with hot updated information, and to rearrange their priorities. This category includes a wide list of artificial intelligence and machine learning technologies such as digital listening, face detection, image recognition, machine-generated copy and other advanced techniques for observing, testing and analyzing political consumers' emotions and behavior.
- *Big Data 2.0 as a political influence*: Big data 2.0 that is collected and analyzed from political consumers, and used to microtarget them with the aim of influencing or manipulating their political values, views and behaviors. This category includes a different set of microtargeting technologies, designed to identify political consumer desires and needs without asking them directly by traditional polling techniques, and deliver it to them through direct microtargeting, from predictive psychometric modeling to addressable TV technology.

Combining these levels of using personal big data 2.0 in political marketing may be too costly for political marketers. Nevertheless, the resultant impact of using them, especially with the advanced methods and techniques of neuroscience, on developing confidence-building political marketing strategies may be an almost certainly political success, as they will help the political marketer to accurately identify the values, interests and needs of political consumers without using traditional polling, and represent their self as the best, and may be the only perceived instrument to meet their desires and dreams (Niffenegger, 1988). Like it or not, these facts mean that the world now faces the most developed generation of the data-driven political marketing. Therefore, more research efforts should be made on the new political marketing approaches that can be used in the era of big data 2.0.

3. Conceptualizing political neuromarketing 2.0

In general, it can be said that "Neuromarketing Science" is the final business product of a medical research branch known as "Cognitive Neuroscience" (Lee *et al.*, 2010). Using

advanced human brain-imaging technologies, such as functional magnetic resonance imaging (fMRI), electroencephalography (EEG) and transcranial magnetic stimulation (TMS), neuromarketing aims to control consumers' brains by recognizing not only what they think or feel but also what they intend to do or what they want, through consumer microtargeting at the subconscious level (Andrejevic, 2012). As such, it can be said that the fundamental difference between the old marketing and the neuromarketing techniques is the direct influence on the consumer awareness, through trying to understand the decision-making mechanism in his brain. In other words, neuromarketing methods and techniques indicated the path to a relevant deep psychological analysis on the influences of the human being irrational part in his decision-making process, and then used it back in all of its marketing processes (Lindstrom, 2010).

One of the most famous studies on the mechanism of neuromarketing is the study published by McClure (2004) and his team at Baylor College of Medicine, Houston, Texas, USA. The main purpose of this study was to identify factors that affect consumers' preferences for a drink over another. In the first phase of this experimental study, two types of drinks (Pepsi and Coca-Cola) were offered to a group of consumers without informing them of what they taste. But in the second stage, they were informed by the drink type before tasting it, and in both cases the consumer's brain response was examined by using fMRI. The final results of this study showed that during the first phase of the experiment, there was no significant difference in the consumer's preference for a drink over another, which was normal because of the similarity between the chemical components of the two drinks. However, after the brand was disclosed before tasting, the results confirmed Coca-Cola's preference over Pepsi by most of consumers, where fMRI observed an increasing activity of some parts in the consumer's brain, which are commonly known to interact consistently in moments of bias behaviors. These empirical results were sufficient evidence that the consumer does not take most of his purchasing decisions through a rational process, and that the brand's reputation for a product could overshadow its actual quality.

In parallel to this rapid development, there have been persistent attempts, from some academics and political marketing consultants, to transfer the amazing results of the neuromarketing science from the commercial sphere to the political sphere, and to benefit from its new methods and techniques in understanding political consumers' minds (Lieberman *et al.*, 2003). One of these famous attempts was the experimental study, which tried to identify the emotional constraints on the partisan political judgment in the 2004 US presidential election. In this study, Westen (2006) and his colleagues from Emory University exposed 30 committed partisans from both of the Republican and the Democratic parties to subjects with reasoning tasks involving judgments about information threatening to their own candidate, the opposing candidate, or the neutral control targets. The neuroimaging of volunteers' minds through fMRI has proved the activity of the brain emotion-related areas when prompted to criticize the preferred political personality. Indeed, most of them have not been able to detect the inconsistencies in the official positions of each party. The results also confirmed that brain areas responsible for the objective thinking did not respond during this study.

In fact, the results of these empirical studies prompted many scientists to talk about the launching of a new political marketing branch, mainly based on the using of the advanced brain-imaging techniques to understand the political consumer behavior and his decision-making process. Political neuromarketing is then defined as a new subfield that helps political marketers to get more detailed information about the cerebral mechanism of the political consumers' minds, and their response to political marketing stimuli without requiring cognitive or conscious participation, by subjecting them to fMRI and other similar

neuroimaging technologies, generally to improve and involve their political marketing mix that meets with the political consumer's culture (Berger, 2011; Morin, 2011). Although some have argued that this new neural perspective on political marketing may lead to a breakthrough in manipulating the political and electoral behavior of consumers (Tingley, 2006), it has obviously not developed sufficiently in the past two decades.

In addition to the constant general debates on the ethics and limitations of the human brain-imaging techniques (Racine and Illes, 2007), it is clear that this traditional perspective of political neuromarketing has faced a wide range of epistemological and methodological challenges that have prevented its development from being demonstrated over the past few years. One of these greatest challenges was the lack of familiarity with medical neuroimaging techniques for most of the political scientists all over the world. Schreiber (2011, p.277) argued that "this unfamiliarity leads" those political scientists "to be then poor consumers of the results, overreacting to methodological controversies or believing spurious results merely because there is a pretty brain picture attached." The second challenge was that most of the traditional neuromarketing studies and applications based primarily on laboratory experiments, which necessarily need a group of volunteers to do. In fact, getting such volunteers is not an easy process as there is a growing debate about the potential negative effects of the used neuroimaging techniques on the human health.

It can be said that the increasing use of personal big data 2.0 in today's political market, as discussed before, have reduced most of the traditional neuromarketing challenges. In the midst of the big data 2.0 revolution, political marketing scientists and experts no longer need to understand and use the medical neuroimaging techniques such as fMRI, EEG and TMS to know what is going on in the political consumer's mind, nor may they need volunteers to conduct their experiments with the daily presence of millions of political consumers on the social media applications, which may be seen as a permanent laboratory for the next generation of political neuromarketing. Based on this truth, political neuromarketing 2.0 can be defined as the process of pursuing a meta-psychometric analysis of the political consumers' big data 2.0 for neuroimaging their brains and identifying their response to political marketing stimuli without requiring cognitive or conscious participation from them, generally to develop and involve the most effective political marketing mix that meets with the political consumers' desires and needs.

4. Political neuromarketing 2.0 and congruency voting behavior

Political neuromarketing 2.0 seems to have given political parties and leaders a golden way to overload voters' amygdalas, so that they can bypass the conscious political decision-making process and induce more desire into their subconscious. This complex process is often achieved through highly emotional online political microtargeting and advertisements, which cultivate political values and products into voters' subconscious without finding any real legitimate need for them. Some scholars stated that "emotion appears from the subconscious mind and it is absolutely the real reason why brands exist" (Persaud *et al.*, 2007, p. 257). Heath (2012) discussed "subconscious seduction" as a new approach in which advertising works and distances this from any relationship to subliminal effects. He also argued that the subconscious seduction works in full view, unlike subliminal exposure which voters cannot legislate against. Once subconscious seduction occurs, many voters become completely irrational, which in this case may lead to a series of unsettled political values, attitudes, and behaviors on their part. More seriously, some neuromarketing scientists have coined the term "buy button" voters (Lee *et al.*, 2007), which means that, in the near artificial emotional intelligence future, lots of voters may turn into some buying robots driven by the will of political neuromarketers all over the world.

Bruter and Harrison (2017) pointed out that understanding the voting behavior requires more thinking about the bodies, minds and feelings of voters, and how they interact with the complex arrangements and functions that elections serve in democracies. All of these goals, and more, are effectively occurring in the political neuromarketing 2.0 processes through the main reliance on the "congruency principle," which argues that voters "select politicians whose traits match their own traits" (Caprara and Zimbardo, 2004, p. 581). This congruency model of political preference is used extensively in attempts to accurately identify the personality traits of voters by reading their big data 2.0, and reintroducing them back in the candidates' personalities, electoral messages, and political products offered to them during election campaigns. Some social psychologists have referred to the "personalization of the electoral process" idiom (Vecchione *et al.*, 2011, p. 260), to describe such similarity-attraction relationships between political leaders and voters, which occur in a more advanced manner with political neuromarketing 2.0, showing the growing significance of politicians' effect on voting behavior.

In other words, asking political consumers how they intend to vote through the traditional polling techniques is no longer reliable. This, in the end, is a rational question to subconscious and emotional condition. On the contrary of these old techniques, pursuing of a meta-psychometric analysis on the personal big data 2.0 helps political marketers to gather political consumers' impressions and draw brief versions their "Big Five" personality inventory, thus predicting and addressing their congruency voting behavior. In their congruency model of political preference, Caprara and Zimbardo (2004, p. 584) explained that:

> [. . .] a crucial skill for politicians is learning to speak the language of personality, to navigate properly in the domain of personality attributes by identifying and conveying those individual characteristics that are most appealing at a certain time to a particular constituency.

This political skill has become very easy for politicians in the era of political neuromarketing 2.0. Some experimental research findings suggested that the similarity-attraction relationships in political communication may create a state of deeper admiration between voters and candidates at a physiognomic level. If voter is unfamiliar with the politicians, he seems to prefer the candidate who recognizes himself in his face (Bailenson *et al.*, 2008).

In the situation of low using logical persuasion and expansion of subconscious seduction in political advertising, voters find not only the right words in the electoral messages, but also his right personality and congruency political behavior. The elective affinity model developed by Jost *et al.* (2009) can add an additional dimension of how political neuromarketing 2.0 microtargeting voters' personalities and political behaviors. This model presents the need for a "functional match" between politicians and their supporters in the symbolic nature, substance of the belief system and psychological dispositions. Many neuropolitics studies suggested that understanding the nonverbal cues and personality traits of political consumers may help to achieve the functional match between candidates and their supporters, and are used successfully to predict electoral outcomes (Ballew and Todorov, 2007; Olivola and Todorov, 2010). Certainly, political neuromarketers 2.0 are seeking this important goal, trying to employ the candidate's appearance and his nonverbal behaviors, alongside the electoral messages texts, to be more matching large segments of people's voting behavior and how they judge the candidate's personality.

Emotional persuasion appears to play a central role in all of the political neuromarketing 2.0 mechanisms, and how they affect people's voting behavior, especially at low levels of political awareness or when voters do not collect much information about candidates and

their positions. For many years, there has been a consensus about the power of the emotional appeals and how they affect the elections outcomes. The affective intelligence theory, adapted by MacKuen *et al.* (2007), stresses that emotions may help politicians through their preconscious effect on political and voting behavior, which is usually by addressing and activating different human biological systems for political consumers. Some neuropolitics research argued that employing the positive emotions, such as enthusiasm, pride, or hope in political advertising, may touch the real feelings of many voters and push them to a kind of emotional voting. On the other hand, using negative emotions, such as anxiety and fear, may perform the same functional match, but under different conditions or even with various segments of voters in the same conditions (Brader, 2005; Isbell and Ottati, 2002; Panagopoulos, 2010). Once again, emotional persuasion has shown that it works primarily and effectively in influencing the congruency voting behavior, but the shift between using negative and/or positive emotions in political neuromarketing 2.0 mainly depends on the psychographic analysis of voters' big data and online microtargeting each of them with his language, behavior and emotions.

5. Online voter microtargeting in USA

A major way in shaping and implementing the political neuromarketing 2.0 strategy, whether by branding politicians or their political products, is through the online microtargeting. A lot of research on the political microtargeting has been adapted it as a strategic process intended to influence political consumers through the direct transmission of stimuli, which are mainly formed based on their personal characteristics and preferences. Rubinstein (2014, p. 882) considered the online political microtargeting as a new "form of political direct marketing in which political actors target personalized messages to individual voters by applying predictive modeling techniques to massive troves of voter data." In addition, Gorton (2016) argued that the online political microtargeting makes it easier for political marketers to avoid contacting certain categories of political consumers, thus helping to "redline" them out of political marketing focus. He also suggested that under the influence of online political microtargeting campaigns, political consumers' values, opinions and behaviors become increasingly manufactured, especially as it enables the spread of false or misleading information.

Despite the current focus of this paper on Donald Trump's 2016 campaign, political microtargeting was first used to a limited extent in the US 2000 elections by the Republican Party (Panagopoulos, 2015). Since then, political microtargeting has become the centerpiece of an increasing new type of political neuromarketing in USA. In 2004, as Gorton (2016) noticed, George W. Bush's political marketing consultants used data of 5.7 million Michigan political consumers, brought from one of the world's largest data brokers known as Acxiom, and combined it with their own polling data to categorize Michigan's political consumer into 34 microtargeting segments. The complex analysis of such data helped Bush's political campaign to read the brains of Michigan's political consumers accurately, and enabled him to develop a wide range of advertisements and scripted messages targeting very narrow categories of political consumers through different kinds of telephone and direct-mail messages. For the Democratic Party, the big awakening about the importance of political microtargeting came in 2006 when Democrats used more advanced microtargeting techniques to neuro image the brains of 15,000 Montana's political consumers who had never been contacted by the party, but appeared likely to give their votes to the party's Senate candidate that year, Jon Tester. On the last day before the voting day, and with focusing on analyzing the collected data of these potential political consumers and

microtargeting them, Tester's political marketing strategy managed to win the election by 3,000 votes (Wayne, 2008).

In 2009, there was another striking example of using accurate online political microtargeting, when Chris Christie, then a candidate for governor in New Jersey, launched an online ad targeting Republican women who had searched online for more information on breast cancer. This online political ad came as a quick response to the accusations against Christie, by his opponent in the election and the Governor of New Jersey, John Corzine, that Christie supported reduced funding of the mammogram. This online political ad also showed him sitting at a kitchen table with his wife and telling her the story of his mother's long struggle with breast cancer (Vega, 2012). The 2012 presidential race was another milestone in the extensive use of social networks and online political microtargeting in the USA. During this election, some media reports proposed that Obama and Romney presidential campaigns used many of these new political microtargeting techniques to neuro image political consumers' profiles, and to help them in identifying potential voters and formulating their own optimal political marketing mix strategy. Moreover, this elections seem to have opened the door to a new era of "big data-driven political marketing" around the world, not only in the USA, in a way that raises many questions about the use of these new political marketing technologies by many domestic, foreign, and non-state actors seeking to influence elections (Anstead, 2017; Kim *et al.*, 2018; Kruschinski and Haller, 2017).

In this context, some political scientists have been interested in discussing the reasons behind this growing phenomenon. Bennett (2015) highlighted four trends that can help to explain the expected increase in the use of online political microtargeting in USA:

- the move from political consumer management databases to integrated political consumer management platforms;
- the shift from mass-messaging to political microtargeting by employing personal data from commercial data brokerage companies;
- the dramatic increase in data analysis techniques for social networking sites and the social graph; and
- decentralization of the political campaigns through smartphones applications to keep voters up-to-date with latest information and activities.

All of these trends are clearly met with another fundamental reason associated with the loose legal framework, which allows political marketers to almost freely create, access and use databases containing personal information. Although there are some legal frameworks such as the Federal Trade Commission Act, the Electronic Communications Privacy Act and the Health Insurance Portability and Accountability Act, which are already designed to regulate and protect the using of personal data in their respective areas, the managing of big data 2.0 takes place usually in indirect ways, with significant legal gaps concerning the protection of individual privacy (Boehm, 2015; Panagopoulos, 2015). Consequently, it can be said that all these technological factors and legal contradictions have helped to rapidly move towards the new age of big data-driven political marketing and online microtargeting in the USA.

6. Trump as a big data 2.0 president

Benefiting from all these factors and experiences already mentioned in the previous section, Donald Trump and his political marketing consultants seemed to have succeeded in doing the best combination between big data 2.0 mining and political neuromarketing. To understand the origin of Trump's political neuromarketing 2.0 strategy, and how it affected

the final result of the 2016 US election, the paper needs to go back in order to identify the underlying pillars of his political marketing strategy. In the 1980s, some psychologists began a research project aimed at capturing the personal characteristics of individuals from the answers they record on a psychological model trying to measure five main keys of personality: openness, conscientiousness, extraversion, agreeableness and neuroticism (McCrae and Costa, 1989). For many years, the main problem facing this measurement, widely known as Ocean or Big Five personality test, have been how to collect personal information, because it requires answering a very complex and private questionnaire (McCrae and John, 1992). But this problem seems to have been solved with the arrival of the internet, social media applications, and psychologist Michal Kosinski.

At The Psychometrics Centre at Cambridge Judge Business School, Cambridge, UK, Kozinski collaborated with his colleague David Stillwell, who created a small application called "MyPersonality" and runs on Facebook to collect information from users through an online questionnaire based on the Big Five personality test. At the beginning of their experiment, they expected that it would be limited to a specific number of university colleagues and students in Cambridge, but the surprise was that six million of Facebook users were freely trying to discover depths of the personality details through their application (France-Presse, 2018), suddenly to find themselves in front of the greatest database that integrates psychometric measurements with Facebook profiles. By relying on these data and integrating them with the available data about Facebook users, such as their place of residence, age, gender, and groups, they published a famous scientific paper developing a generic digital footprint model from Facebook likes, and highlighting that people's personalities can be predicted automatically and without involving human social-cognitive skills (Youyou *et al.*, 2015).

Furthermore, the results of Kozinski's research project confirmed that it is not only a matter of creating a psychosomatic-profiling to the individual from his available digital activities, but being able to work in the reverse way to search people sharing similar values, attitudes, and behaviors (Kosinski *et al.*,2016). In fact, if this digital footprint model is applied in the field of political marketing, this may mean easy access to specific segments of the political consumers and online microtargeting them, such as searching for unemployed youth, conservative women, urban poor or voters who have not decided to choose their candidate. Therefore, Kozinski and his team seem to have been questioning in most of their research about the potential misuse, which could pose a threat to the political consumers' freedoms, or even their personal lives, especially with the increasing ability of "their government, internet provider, web browser, online social network, or search engine" to "infer their personal characteristics more accurately than their closest family members" (Youyou *et al.*, 2015, p. 1039).

In 2014, Kosinski and his team in "MyPersonality Project" were approached by Aleksandr Kogan, a Moldovan-born data scientist and lecturer at the department of psychology, who was involved at work with the Strategic Communication Laboratories (SCL), the parent company of CA. At this time, Kogan said that he was interested in the workings of the research team and wanted to share their project database with the company he represents. Although this cooperation did eventually not emerge at the end, there is still a contradiction about the reasons behind, where Kogan stated that there was a dispute about the payment allegedly claimed by Kosinski and Stillwell from SCL (Lewis *et al.*, 2018), while other sources argued that the researchers had real ethical concerns regarding SCL's data practices and objectives (Grassegger and Krogerus, 2016; Richterich, 2018). Regardless of this controversy, the failure to complete the deal did not make Kogan and his business partner in the Global Science Research (GSR), Joseph Chancellor, who later went on to work

for Facebook, back down from their main goal. Through their new designed personality quiz app "This is your digital live," they harvested data belonging to more than 50 million Facebook users. Some media outlets, such as *The Guardian*, stated that this data were later passed to SCL through the newly founded company GSR (Grassegger and Krogerus, 2016). While Kogan insisted that he had never received a salary from his work with SCL, saying that his reward was "to keep the data" and using it for his academic research, he confirmed in UK parliament investigations that SCL paid to GSR £230,000 at one point during their project (Lomas, 2018).

Two years after the rejection of SCL's offer, Kosinski and his team at the University of Cambridge were surprised that their application may have been one of the main reasons for bringing Donald Trump to the White House. At the start of Trump's digital marketing strategy, most of its activities had consisted of more or less one person, Brad Parscale, a marketing specialist and start-up founder who created a primitive website for the campaign with $1,500. Many media observers, such as Grassegger and Krogerus (2017), have confirmed that this was a natural beginning, as the 70-year-old candidate was not known to have a strong relationship to technology. They also argued that his office desk did not even have a computer at this time. However, in June 2016, Trump signed a contract with CA, the following company of SCL, which succeeded in simulating Kosinski's application after leaking its work details through his colleague Kogan. This company has claimed to have collected "up to 5,000 data points on over 230 million American voters" (Zuiderveen Borgesius, 2018, p.83). According to *Diplomat Magazine*, the embedded team from this company, apparently only a dozen people, received $100,000 from Trump in July, $250,000 in August and $5m in September.

On November 9, 2016, Alexander Nix, CEO of CA at the time, said that he was pleased that his company's revolutionary approach to data-driven communication had played a key role in President Trump's extraordinary victory (Grassegger and Krogerus, 2017). Before this day, Nix talked about the power of big data 2.0 and psychographics in political communication at the Concordia Summit, and finished his interesting lecture by stating that traditional political advertising was dead (Gray, 2019). This claim means that political neuromarketing 2.0 techniques will have the most prominent future role in analyzing, in detail, the mass behavior and emotions of political consumers, and thus controlling them. In one of his old theoretical writings about the psychology of the crowd, French intellectual Le Bon (1982, p. 110) argued that:

> The masses have never thirsted after truth. They turn aside from evidence that is not to their taste, preferring to deify error, if error seduce them. Whoever can supply them with illusions is easily their master; whoever attempts to destroy their illusions is always their victim.

Using all of the modern online microtargeting techniques, Trump's political marketing team spent around $150m on digital promotion. "Every single dollar was being used to inform them important questions about what to message, what to say, where to hold rallies and who to target," Nix quoted (Gray, 2019). In fact, this means that all Trump's campaign movements were carefully calculated and closely tied to the rise of big data analytics made by his golden team from CA, whose claimed that their results were not only based on the hijacked Facebook data, but were mixed with recent polling data and millions of the available voting records over the history of the US presidential elections. To do this, for example, the Trump's political marketing team paid some American political consumers to complete a questionnaire through the Mechanical Turk website. To receive their payments, they had to download an application that had access to their Facebook profiles and even their friends' profiles. With so many similar techniques, CA's data team seems to have

succeeded in identifying Trump's potential voters and creating microtargeted electoral messages, to the extent that the most controversial candidate and the groups working on his behalf had spent a little more than half of the $1b their opponent, Hillary Clinton, and her allies took to win the election (Peters and Shorey, 2016).

Drawing on one of the largest data-driven political marketing, Trump and his political marketing consultants sought to rely mainly on political neuromarketing 2.0 approaches as the basis for their presidential campaign; they began to address each American political consumer's brain in his own language, behavior and emotions to win more voters day by day. The Facebook was a key area in their election battle to test new political neuromarketing 2.0 techniques. Gary Coby, Director of Advertising at the Republican National Committee, who worked on Trump's campaign, clearly stated that they ran an average of 40,000-50,000 different versions of advertisements per day to test how they were received, in order to reach the most suitable versions of potential voters (Lapowsky, 2016). These messages were designed very carefully by using several titles, colors and captions, with an image or video. Based on a meta-psychometric analysis of political consumers' response to these different messages, they were able to carry out one of the most important online microtargeting methods, or as Nix explained by himself in his interview with *Das Magazin*, they have the ability to "address villages or apartment blocks in a targeted way. Even individuals" (Grassegger and Krogerus, 2016). Among other technology tools, it is known that the volunteers in Trump's campaign have been provided with a smartphone application through which they had the ability to classify voters into multiple patterns, during door-to-door marketing, according to their political views and personality types.

One important dimension of Trump's electoral success was its uncanny ability to develop an effective catch-all political marketing strategy. It was clear that the meta-psychometric analysis of the American political consumers' big data 2.0 helped him formulate an integrated political discourse capable of addressing the emotions and subconscious of both the right and the left during his election campaign. On the one hand, Trump's electoral messages were mainly based on the use of conservatives' language through certain proposed vocabulary and policies such as big government regulation, excessive taxes, banning Muslim immigrants and building a wall on the US–Mexico border. On the other hand, his electoral messages have been able to address a wide range of liberals and progressives by embracing some complaints about Wall Street bankers, free trade regimes, and talking about the damage caused by US-led wars in Iraq and Afghanistan. Green and Issenberg (2016) argued that Brad Parscale, Trump's Campaign Digital Director, had a key role in expanding the number of voters the campaign could microtarget, by using Facebook's Lookalike Audience ads feature, which is able to clone audiences that share certain attributes with the microtarget publics.

Another example for the effectiveness of using political neuromarketing 2.0 techniques form Trump's campaign was clear in its reliance on a technology called "dark posts" in most of their political ads. These nonpublic paid posts whose viewership controlled by Trump's campaign had a huge budget close to the $150m slot, three times the amount of money paid by Clinton and her allies for e-advertising (Lapowsky, 2016). By using this technology, Trump's political neuromarketing 2.0 team online microtargeted pre-determined voters based on psychological measures, including video microtargeted African-Americans, in which Hillary Clinton referred to black men as predators, for example, to discourage lots of her supporters from voting (Grassegger and Krogerus, 2016; Lapowsky, 2016). Here, it can be said that the

intensive use of the unique psychographic algorithms of big data 2.0 and neuromarketing seemed to have helped Trump's, in one way or another, to accurately understand American political consumers' minds and therefore online microtargeted them with effective mobilizing messages.

In the final weeks of the election, Trump's political neuromarketing 2.0 team heavily used advanced mobile location applications and other similar technologies to geo-targeting six crucial states that President Barack Obama had won just four years prior: Michigan, Wisconsin, Iowa, Pennsylvania, Ohio and Florida. Gonzále (2017) believed that CA's last-minute efforts on potential voters within these states helped Trump to determine which electoral messages work best and where, especially because most of these states are located in the rust belt, an area that was once the industrial heart of America, but has lost many thousands of jobs over the past 40 years because of automation and offshoring. Also it was clear that the Trump's electoral mobilizing messages in these six crucial states (Michigan, Wisconsin, Iowa, Pennsylvania, Ohio and Florida) focused on a careful analysis of voters' needs and desires, ultimately leading him to win the Electoral College vote to become the 45th President of the USA.

7. Conclusion

Big data-driven political marketing, and in particular political neuromarketing 2.0, have become main business in the USA. The 2016 Presidential Campaign of Donald Trump has been and will remain one of the most important signs for how much information the political marketers have about political consumers. Trump's campaign managers seem to have already succeeded in introducing a new type of political marketing through combining big data 2.0 mining with neuromarketing. By doing a meta-psychometric analysis of CA data's about millions of Facebook users, and mixing it with recent polling data and available voting records over the history of the US presidential elections, Trump's political neuromarketing 2.0 team was able to easily test their political marketing stimuli, and to online microtarget a wide range of the American voters with the most suitable and effective mobilizing messages through e-campaign, mainly depending on Facebook advertising platforms. Although the reliance on social media in the US presidential election is not entirely new, as it was strongly used by the former President Barack Obama in 2008 and 2012, its use from Trump's campaign was radically different from all the previous e-campaigns. In other words, if Obama has been declared as the "first social media president" by some scholars (Katz *et al.*, 2013), Trump can be addressed as the first big data 2.0 president in the history of the USA.

Many social researchers are constantly reiterating that technology is "a double-edged sword" (Bailard, 2014; Chan, 2014). Political neuromarketing 2.0 has not and will not be an exception to this rule, with its increasing influence on changing power structures and supporting decision-making processes, not just the seasonal gain of more votes in the elections. The political academic community is called upon to act quickly and seriously to develop more theoretical, methodological and empirical studies that attempt to discuss the challenges posed by this emerging political marketing approach on the quality of democracy in many countries, seeking to achieve the difficult balance between protecting personal privacy and respecting the future of political neuromarketing 2.0. In fact, this dream cannot be done without the real supporting of governments and big data 2.0 industries all over the world to develop a large-scale integrated scientific research system, and without their substantial helping

in formulating a coherent set of legal, ethical and technical frameworks to regulate the collection, storage and exchange of such data.

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Further reading

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About the author

Islam Mohamed Hegazy is an Assistant Lecturer of political science. He completed his master's degree with an excellent grade at Cairo University, and he is currently working on a PhD in Political Marketing. His research mainly focuses on political marketing, youth studies, virtual politics, social movements and public opinion. Islam Mohamed Hegazy can be contacted at: islamhegazy@feps.edu.eg