Can social media and big data be a problem for democracy?

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After Eisenhower, you couldn't win an election without radio. After JFK, you couldn't win an election without television. After Obama, you couldn't win an election without social networking. I predict that in 2012, you won't be able to win an election without big data. (Alistair Croll, founder of Bitcurrent, 2012).

Introduction

The advent of social media changed the way people use to communicate with each others. At the same time, the development of new data analytics algorithms and platforms made possible to analyse massive amounts of data in a short time, starting the so called Big Data era. This deep transformation gave birth to new marketing strategies and created a complete innovative way to run political campaigns. Democracy is a highly complex concept and the rulers' decisions affect citizens in many different ways; such a profound twist created many opportunities for political participation and exchange of ideas, but at the same time many unexpected problems. These issues, if not contained properly, can mine democracy foundation and destabilise the political

spectrum. The goal of this paper is to find the biggest deals of social media and big data regarding democracy, to describe why they can be a problem and trace some possible solutions such as legislation.

1. Concepts and problems of democracy

Democracy can be crassly described and a method of group decision making where all participants are considered equal at an essential stage of the collective decision making process (Christiano). Different models design different systems: some are more centred on the individual decision making, some highlight the inclusion of citizens in the political community with an independent public sphere between state and society (Habermas as quoted by Bozdag and van den Hoven 250), others emphasise the necessity of a role of minorities in decision making as they are a marginalised group in the public debate (Young as quoted by Bozdag and van den Hoven 250). The influence of social media and data analytics in democracy may change in function of the different aspects analysed.

Liberal democracies are based on the values of freedom of choice, speech, media and public association. The fact that the majority has incentives to rule over minorities, becoming itself the next tyrant, shows that every democracy needs a set of regulations to protect citizens by limiting "their power over themselves" (Bozdag and van den Hoven 250).

Another important aspect of democracy, that has been at the centre of debate in the last years, is truth. Defining what truth is, and most of all which information is trustworthy and which is not, is becoming more and more difficult since internet opened the gates of communication enabling people to spread ideas all over the globe. This information hangover is now shaping the discussion about what can and cannot be tolerated, in function of the danger to society as a whole and not only about electoral systems.

It is important to notice that, in a functioning democracy, the different parties running for elections need to seek votes through electoral campaigns. Campaigns, even when financed by special funds defined by the state/country, always show contributions by different people and organisations. The need for contributors might change the political goals of a candidate and so the way in which certain facts and scenarios are described to the citizens. The subsistence of social media, and thus of "liquid" communication, is moving the subjects of electoral campaigns from "facts and solutions to problems" to "perception of facts and empathy about candidates". It is also important to notice that effective campaigns look for votes in the undecided set of voters: while the probability of changing perspective of a convinced opposer is really low, the probability to "get on the boat" somebody not attached to a certain party is much higher. At the same time long standing participants of the political debate develop a framework of thoughts that helps them identifying political truths and lies, on the other hand people who have never felt connected to the political system are much easier to be persuaded with lies and nonworking answers to complex problems.

2. Big Data and profiling

Political parties and companies in general rely on advertisements to persuade the public about their ideas and products. The advent of internet 2.0 and social media created one of the biggest opportunities ever: tons of personal data uploaded on the web shaped unconditionally the way marketing is thought and run.

Social media overtook the closed and opaque traditional marketing, changing it to a two-way conversation, open and transparent system. Social media marketing stopped the creation of advertisements for the mass, enabling people to develop one-to-one content shaped on the potential client available information and monitored by pertinent analytic software (Hausman).

For decades one of the biggest problems of a campaign, political or commercial, was the lack of data about their successes and the unlikelihood of having reliable predictions of how they changed the previous scenarios.

Barack Obama's team, during the 2012 campaign, understood how important it was to use social media and statistical models to monitor not only the potential votes but most of all people's opinions about policies, in order to apply the best possible strategy. It was the first example of how an election can be won vote-by-vote, overturning the long dominance of TV advertising and getting where individual voters' interest were addressed (Issenberg).

Nowadays the tools used by Obama's team and consultants are widely employed in every election. For example A/B testing is applied to most of the campaigns: instead of sending one single email to the newsletter the team creates different emails, sends them to a random selected set of subscribers and monitors which one results more engaging. The best email will be sent to all the supporters maximising the wanted effect and so optimising the output in function of expenses and time.

Data analytics tools have been useful for profiling voters and addressing special purposes during the campaigns in order to persuade them. Now, with better artificial intelligence models, profiling and marketing tools are getting more and more advanced in the execution and even in the data gathering process through social media APIs.

3. Social Media and critical issues

3.1 Social Media as interfaces

Social media platforms work as intermediaries between individuals, enabling them to share content and to advertise their products. Their business plan is based on the revenues from advertisement, optimised on users' data. Due to the intermediary function, social media tend to create interfaces: the way people behave on their profiles is often very different from how they act in the real life. Different emotions are spread on the network in different ways and velocity:

sadly, one of the fastest one is anger, therefore political contents against something (or someone) spread quicker than content regarding solutions. This creates a problem of visibility for the real answers and tends to move the campaign from a set of solutions for problems to a set of solutions against something (or someone). This fact points out why political campaigns are getting more and more aggressive against the adversaries running for the Presidency/Parliament rather than their ideas and also why fake news are proliferating all around the web in an uncontrollable way.

3.2 Filter bubbles

Another problem is that social media users seek confirmations and want to satisfy their egos: the services need to move that way in order to maximise profit. Therefore, even if it is said that internet and social media enlarge perspectives and points of view thanks to a wider amount of information, it is also criticised that search engines' algorithms and social networking platforms decrease the information diversity by forming the so-called "filter bubbles" and thus creating potential serious threats to democracy (Bozdag and van den Hoven 249).

Pariser (as quoted by Bozdag and van den Hoven 249) describe that users, because of their interests shown by their data, can get different search results for the same keyword and social media users with the same friend lists can receive different updates according to their interactions. Information can be prioritised, filtered and hidden depending on how a user use a certain system and other factors (Bozdag 211, 216). Bubbles become a problem for deliberative democrats because information decrease in quality and diversity. "If bubbles exist, the pool of available information and ideas will be less diverse and discovering new perspectives, ideas or facts will be more difficult." (Bozdag and van de Haven 252).

3.3 Bots

One particular aspect of social media that gave birth to an intense discussion during the last US Presidential election of 2016 and Brexit referendum is the rising of Bots. Bots are software

programmed to react to certain events and share content on social media. While bots were once almost used by journalist and programmers to share particular posts about certain topics, nowadays they are used for astroturfing. The definition of AstroTurf was first given by Howard (239) as "the process of seeking electoral victory or legislative relief for grievances by helping political actors find and mobilize a sympathetic public, a process designed to create the image of public consensus where there is none". Politicised social bots are used by politicians in a worldwide scale, not just in a couple of countries, simulating the massive purchase of followers made by celebrities in the past and disrupting civic conversation with noise, manipulation and spam (Howard et al. 86). This phenomenon is harmful for democracy, because it gives a distorted and dystopic view of society.

4. Who is paying?

Campaign financing in the US is regulated by complex legislation on federal, state and local level. The three main aspects are limitations of expenditures, limitations on contributions and rules requiring disclosure. While contributions - the act of donating money to someone for the purpose of influencing an election - can be regulated, expenditures - an expense sustained by a private citizen for influencing the electorate - cannot be. When there is coordination between candidates and contributors an expense can become a contribution, but law enforcement had mixed success in the effort of finding when a citizen stop to be independent (Howard et al. 88).

A second point about campaign financing laws is about disclaimers. Code of Federal Regulations, Title 11, sec 110.11 states: "A disclaimer required by paragraph (a) of this section must be presented in a clear and conspicuous manner, to give the reader, observer, or listener adequate notice of the identity of the person or political committee that paid for and, where required, that authorized the communication. A disclaimer is not clear and conspicuous if it is difficult to read or hear, or if the placement is easily overlooked."

Federal law requires that certain "public communications" and "electioneering communications" contain disclaimers (Code of Federal Regulations, Title 11, sec 110.11) but at the same time the FEC has excluded not paid Internet communications from the definition of public communications (Butrymowicz 1711). Bots are so exonerated by election laws and can share unlimited content without explicitly saying who paid for it. This problem needs to be addressed and corrected because it is not only a harm to democracy but also a huge problem for possible interferences made by other nations: if the most widespread tool to discredit politicians is paid by foreign governments every nation might potentially be exposed to a national security problem. At the same time social media companies need to act preventing the illicit financing of such actions by finding and closing the bots: while a law can be made, it is almost impossible to trace back the funds if they are sent to private US citizens and organisations.

5. The future is now

The recent Cambridge Analytica scandal made clear that legislators need to engage in debating and approving a new law to regulate privacy. European Union Parliament, after four years of preparation and debate, approved General Data Protection Regulation (GDPR) on 14 April 2016: all companies operating in EU and dealing personal data are obliged to notify if data are stolen, to guarantee the "right to be forgotten" (every user can ask to have their personal data erased) and most of all to apply the "privacy-by-design" principle (companies need to develop data protection structures) (De Rosa). During the Congress hearing Mark Zuckerberg, CEO of Facebook, invited US members of Parliament to apply GDPR even in US.

In order to avoid the previously explained problems, authorities need to fill the overall lack of legislation and prevent the clear main problem of today's politics: policies are not proposed anymore following a political ideal but following the daily trend, creating serious malfunctions in the democratic process.

Conclusions

The high complexity of democracy can be threatened by social media and big data in many ways because they tend to reduce minorities' share in public debate and they are subverting the social externalities of electoral campaigns. Big data is responsible for the innovative profiling tools created upon the massive datasets available nowadays: tools such A/B testing and micro profiling are interesting innovations but can be harmful for how social policies are thought and described to citizens. Social media, with their intermediary role, are creating interfaces between people and their algorithms, created to satisfy users' ego, can be dangerous because they build the so called "filter bubbles" making citizens live in different realities. The extensive usage of bots in social media is also harmful because of the astroturfing phenomenon widely used for discrediting public figures and sharing fake news.

Electoral campaign financing laws and privacy laws in the US seem outdated for the new complexities created by innovative instruments and they need to be improved in order to prevent future problems during the elections. An adaption of European Union regulations can be a first solution and thus a professional partnership between the two Parliaments. As John Locke said many almost 350 years ago "we cannot afford to tolerate the intolerants", because intolerance otherwise will win in the long run and tolerance will disappear.

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