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INTERSECTIONALITY OF USER-CENTRIC CONTENT, DEEPENING BIASES AND POLICY MAKING ON SOCIAL MEDIA

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Abstract: The use of Artificial Intelligence in content modulation by the social media platform has made information more personalised. The selective information exposure to the users has created an information asymmetry. As the content is getting more user-centric, individuals are getting deeply biased in their views as they are living in echo-chambers, where their pre-existing ideas are getting amplified rather than diversifying. Under these circumstances, the increasing use of social media by policymakers should be properly investigated before these platforms are utilised by policy makers to discuss the policy-issues. This paper, using reflective research methodology to analyse the intersectionality of user-centric content, deepening biases and policymaking.

Index Terms: Social Media, Artificial Intelligence, Algorithms, User-centric Content, Echo-Chamber, Policy Making, Policymakers, Deepening Biases.

INTRODUCTION

The role of social media has been pivotal in promoting freedom of speech, and in accessing knowledge and ideas. The advent of social media has brought the world much closer. In the real sense, it has ushered to a globalised world where there is constant sharing and shaping of ideas, between individuals, and by individuals. But social media is a paradox, in which both, good and evil; right and wrong, coexist. Since 2008, social media has been at the forefront of many social movements. It helped people and organisations to join in their voices for the cause they sincerely held dear to their hearts. However, it has also been used as a platform for recruitment for the terror groups and anti-social movements. Social media, therefore, is dual-use technology which can turn the course of humanity by either diversifying the knowledge and creating a more shared experience or amplifying the pre-existing ideas and deepening the polarisation.

Given that the current operational and financial model of these social networks are groomed by big data and customer-centric models, it is essential to look at how information is channelised, towards users and what impact it has on opinion building. The artificial intelligence-driven operations focus on pre-existing ideas to build on new ideas or information. It employs mathematical algorithms to direct the future behaviour of the user based on their past experiences. For example the world's leading media companies like the New York Times and BBC channelized information to their users based on their past reading history. (Personalised News, n.d.) Similarly, the financial model which is heavily ad-based motivates more user engagement while rewarding attention-grabbing. As a consequence of this, knowledge is becoming more personalised and exclusive to individuals' prejudice, resulting in building more walls than it can tear down.

The news personalisation by selective filters and algorithmic calculation by the media companies on Web 2.0 helps their users to deal with information in a better way. But according to Randy Bush, Internet hall of fame member, the algorithms used for channelising the content on social media, are designed to cater to an individual's needs, thereby reducing the homogeneity in access to information. (ANDERSON, 2017). Similarly, Jean Garcia Periche, Co-founder of GENIA Latinoamerica and a fellow at Singularity University Silicon Valley, believes that Artificial Intelligence (AI) undermines the capacities of the multilateral systems by giving rise to nationalism and disruption. (Periche, 2020) There are many research papers that focus on the role of social media in radicalisation and nationalism, but there are only a few studies that focus on the effect of user-centric content generation powered by AI. Therefore, this paper will explore how the distribution of content on social media impacts shared knowledge and enhances deep biases. This reflective paper aims to understand the intersectionality of user-centric content, deepening biases and public policy.

INFORMATION CHANNELISATION AND ECHO-CHAMBERS

Today, the majority of people are using social media to access information, including national and international news. Although the social media platforms have been lauded for their role in democratising information, the user-centric content generated by Web 2.0, has made each individual a possessor of their own knowledge, creating echo-chambers where the formation of new ideas and knowledge is limited to like-minded people. (Florian Justwan, 2018) These echo-chambers are narrow in their approach as they function as a 'closed community' where the new ideas are built on pre-existing ideas. They only create and deepen the dominant perception rather than forming a new opinion. (Mutsvairo, 2019) It acts as an amplifier of ideas rather than a diversifier. Within these echo-chambers people are restricted to their limited ideas and knowledge. They interact with the same content in different ways, which results in supporting what they already know rather than informing them about something new.

The problem with these close communities or the echo chambers is that they are reinforcing the group identities and individuals' pre-existing value system rather than challenging them. The cross-cutting along the line of conflict between ideas have weakened; this is because the interaction patterns on social media platforms, Facebook and Twitter, are more homophilic. (Moran Yarchi, 2020) These platforms are failing in creating a shared experience which can be employed to tackle societal challenges. In 2017 a survey by Pew Research Centre found out that, more American are becoming partisan in their opinion regarding some crucial social issues, like immigration, race and homosexuality, than they were in the past years. They either hold conservative or liberal beliefs rather than a mix of two due to high social media influence. (KILEY, 2017)

Another reason for this divide is the user-centric information dispersals. Maya Mirchandani, in her research on digital media's role in radicalisation, has also pointed out that the algorithm-based social media platforms distort the realities by moderating the content to users' belief system and opinions. (Mirchandani, 2018) Similarly, Justwan Florian et al., in their paper, to evaluate the effect of social media echo chambers on satisfaction with democracy in Republicans and Democrats Election, used empirical data to investigate the role of social media in forming peoples opinion. They concluded that social media, rather than diversifying the views, has resulted in amplifying the pre-existing ideas. It acts as an ideological congruent than a tool for behavioural change. (Florian Justwan, 2018) The paper focuses on people's indulgence with the content on social media, which is mostly biased towards their already existing knowledge but lacked any explanation on how social media itself plays a part in content modulation. It is, therefore, essential to look at how these platforms interact with the users to reinforce their beliefs and ideas.

The channelisation of content on social media is explained by Vian Bakir & Andrew McStay in their paper. They argue that in 2010, Facebook introduced the newsfeed algorithm, Egderank. (McStay, 2018) This machine-learning algorithm, since then, has prioritised and presented the content based on users preferences, by studying their reactions in the form of likes, comments, shares, and even, viewing time, clicks and pauses. (McStay, 2018) The machine learning algorithm after analysing the reactions categorise the content to priority content similar to users' previous preference. Furthermore, as the content is prioritised based on past choices, the knowledge of the user only gets amplified on the particular topics, but not diversified.

Balazs Bodo in his research paper has concluded that the problem with these machine learning algorithms is that they make suboptimal choices for humans by exploiting human weakness for profit making. (Webster 2010; Boczkowski and Mitchelstein 2013; Bucher 2017; Hanusch 2017; Wendelin, Engelmann, and Neubarth 2017. (Bodo, 2019)) Besides, people are less informed due to automatic filters that are applied by Artificial intelligence on social media. Therefore, the problem with personalised content is that it manipulates the demand in such a way that it serves the goal of the organisation rather than of society as people engage more with the content as they are personalised and aligned with their past experiences and beliefs. (Bodo, 2019) Current channelization of content powered by machine learning cater to peoples filter bubble and impede their access to different views that can provide them with holistic framework rather than fragmented information due to selective exposure.

USER-ENGAGEMENT AND KNOWLEDGE FORMATION

Eleonora Pauwels, a senior fellow at Global Centre on Cooperative Security, New York, argues that 'Artificial Intelligence is trained to predict many aspects of our lives by making sense of massive data sets but, in manipulative ways.' (Pauwels, 2019)

The biases are not new to the human brain. Humans have always been subjected to prejudices, may it be cultural, racial, religious, historical or geographical. Human brains are trained to filter out the necessary information from the unnecessary to make sense of their surroundings. However, when these filters are automatically applied by a non-human to personalise the information, it becomes a matter of concern. It would be wrong to say that social media networks are worse than traditional media networks in advancing social discontent. (Sunstein, 2018) But, their role in deepening the discontent should properly be investigated, to assert their role in public policy and consensus-building conclusively.

Besides, content distribution through traditional media is more homogenous. It is usually disturbed along the horizontal axis; for example, when individuals use Newspaper A, they will get similar content which may result in enhancing shared experiences concerning a particular matter, as the content will be less personalised. Social media, on the other hand, distributes content along the vertical axis by filtering out the irrelevant information to make the content more personalised and user friendly. For instance, two people living in the same house may find different sets of information on the same matter. Here, the Like, Dislike, Follow, Unfollow, Subscribe and Unsubscribes buttons plays a significant part in filtering out content from peoples' social media platforms. These buttons are like the black box of the human thought process that enables Artificial Intelligence to make decisions on behalf of humans. Researchers, from Stanford University and the University of Cambridge in 2015, claimed that the data from Facebook, in the form of likes and dislikes, can be used to predict human behaviour with high accuracy. (Moffat, 2019) This claim later resulted in the scandal of 'Cambridge Analytica' where questions about data privacy were

raised. But surprisingly, not much was said, about its insistence on behaviour prediction and modulation through the use of this data. Moreover, some scholars believed it to be a false claim. (LAPOWSKY, 2019)

The study into the role of information dispersal by social media platforms and its impact on opinion building is relatively new. A comparative study on information distribution during the Ebola outbreak has thrown some light into how people interact with the information dispersed through social media and traditional media. The study concluded that when information is spread through the traditional medium, the opinions are less affected by prejudice, for instance when traditional media disseminated the information about the Ebola epidemic and its mismanagement was blamed on non-localised sources. But when this information was distributed through social media networks, the blames were localised. The reason for localised blaming, as suggested by the paper may have been the pre-existing frustration. (Melissa Roy, 2019) The author of the paper asserts that people engaged with social media posts by using a frame of familiarity. They try to make sense of new information, in this case, the Ebola epidemic, by using the pre-existing information. (Melissa Roy, 2019) But, as the approach of the paper is limited to public health management information dispersion, by traditional and social media, and how they impact opinion building, it is difficult to assert what role the selective information distribution plays in opinion building.

The network structures of social media are designed to exclude deviant voices that don't interest users. It provides selective exposure. (Moran Yarchi, 2020) The increased homophilic interactions, where the group consist of like-minded people, deepen the belief system by reinforcing the same belief from different sources and creating a less diverse shared experience. Whereas, the increased heterophilic interactions loosen the tightly held beliefs as people differ in opinion from one another, thus, creating a more diverse shared experience. Social Media Platforms, like Facebook and Twitter, rely on users' self-curated network of social interaction along with algorithms to prioritise content based on user's interest. (Moran Yarchi, 2020; Naho, 2016) Additionally, highly personalised and emotional experience derived by the user keeps them more immersed with these platforms. Thus, increasing their popularity amongst users. (Moran Yarchi, 2020) and reducing the diversity of knowledge.

In a comparative study, Balázs Bodó et al. states the dispersion of information being uniform by traditional media rather than social media. The effect of the uniform distribution of content is that people are able to diversify their opinion. (Balázs Bodó, 2019) They move beyond their biases to understand a particular issue with different perspectives. The purpose of traditional media, which generally functions with a purpose of public mission is to educate, inform and build social cohesion. (Hindman, 2017; Balázs Bodó, 2019) While, the personalised information distribution on social media is mostly profit seeking and tends to please users by obeying their preferences. It tends to limit the diversity of information and relies on short-term goals of user- engagement for profit making. (Balázs Bodó, 2019)

ECONOMY OF EMOTIONS

Policymakers, like the private sectors, are harnessing social media to communicate and connect with people. The idea is to make the process of governance and policy-making more participatory and evidence-based. They are using social media to propagate information and communicate with the citizens. Consequently, with the growing influence of social media in the area of public policy and governance, it seems imperative to look at how social media affects the process of consensus building, which is vital not just for policy creation but also for policy implementation. The lack of diversity in opinion on social media restricts people to their old beliefs and ideas. The algorithm feedback loop reinforces these same ideas by presenting content similar in nature to previous beliefs. As a consequence of this people become more intolerant, polarized and less accommodative of others' views. (Helberger, 2019)

The social media platforms with an aim to enhance user engagement relies on emotion rather than on facts, they distort the reality and hinders public policy implementation by spreading fake news and deepening polarisation by creating echo-chambers.

4.1 Social Media and Public Sentiments

Social Media has enhanced the democratic governance, it has also helped policy makers to identify the early warning signs of distress on critical policy matters. Likewise, it has also improved the delivery of public services, particularity at local level. (Leavey, 2013) Yet, it cannot be asserted, with surety, how helpful has social media been in countering the ideological bend in policy making, particularly when there is a sudden rise of populism in policy making. The 2016 Brexit referendum where campaigners heavily depended on social media stands testimony to the fact the people prefer emotions over facts. The campaign of Brexit was based on the appeals that prompted the feeling of nostalgia and patriotism. (R.C., 2019)

In a paper on Political Polarization on Twitter, the authors' highlighted that the politicians with extremist ideological positions on twitter have more followers than those with liberal views. (Kim, 2016) In another paper on Populism, Globalization and Social Media, the writer claims that the rise of these new media tools have strengthen the idea of nationalism than that of cosmopolitanism, as was expected from these platforms (Iosifidis, 2020) The isolated nature of information provided through social media has weaken the rational persuasion and given way to affective persuasion where emotions dominates. (Iosifidis, 2020)

4.2 Social Media and Fake News

Today another big problem that policymakers face is fake news. The prevalence of fake news on social media hampers the consensus-building exercise. The circulation of fake news on social media is, thus, an ever-growing challenge. It impacts evidence and distorts reality. Moreover, the homophilic nature of conversation on social media platforms strengthens false facts to the extent that people may start believing in a conspiracy theory. In the time of COVID-19 the wide circulation of conspiracy theories about 5G network, face masks and the virus itself, have inhibited governments' efforts to implement public health measures. Dr Daniel Allington, the senior lecturer in Social and Cultural Artificial Intelligence at King's College London, stated that the study by his team suggested that false claims about COVID-19 on social media led to flaunting of social distancing rules and failure of lockdown in the United Kingdom. (McNamara, 2020)

4.3 Social Media and Echo-chambers

Moreover, guided by profit, these social media companies use 'economics of emotion' (McStay, 2018) as they lack public mission. Here, the information is manipulated, in such a way, that it generates maximum user attention and viewing time. (McStay, 2018) Therefore, the facts within policies are overpowered by the emotions to influence peoples' decision-making process. Users mostly watch, listen or read one side of the story as algorithms prioritise information for them based on their past behaviour. Under these circumstances, it is imperative that the researchers should focus on investigating the increasing role of social media in policy making and governance by evaluating social media's impact on consensus building and knowledge diversification.

According to Kevin Wagner, professor of political science at Florida Atlantic University, on social media, people tend to consume information based on their pre-existing beliefs while shunning the competitive narratives. This result alters the balance of information that individuals can use to decide on an issue. (LegBranch Team, 2018) In the last 20 years, the percentage of American holding liberal or conservative beliefs have increased from 10% to 20%, while the mix of views has reduced substantially. (LEE DE-WIT, 2019)

Additionally, confirmation bias, a psychological experiment of the 1960s asserts that individuals are more likely to agree to beliefs or opinions that are aligned with their pre-existing ideas. (LEE DE-WIT, 2019) In a more recent study by Joseph Mark et al. it was concluded, that people prefer the views of politically like-minded people over experts, even on issues that do not relate to politics. Most staggering result of this experiment was that individuals tend to ignore the evidence that suggests anything other than their own conviction, particularly their political conviction. (Joseph Mark, 2018)

Therefore, the impact of echo-chambers on policy making is that it provides only one point of view to individuals to which they already agree on, rather than providing different or deviant views which may not be in alignment with their own pre-existing views. It results in deepening the divide as other views are blocked by the selective filters, thus strengthening the conformational bias.

Conclusion

Social media has, in the past, democratised the information, but user-centric dispersion of information has amplified the existing biases rather than diversifying the knowledge, it has resulted in deepening of biases, and affecting process of policy making. From the above discussion it is evident that there is a strong intersectionality between user-centric content, deepening biases and public policy on social media. The algorithms used by social media to decide on content distribution based on people's past preferences has blurred the line of agreement on a different issue and has resulted in creating different realities for each individual rather than enhancing a shared experience. It has deepened the biases by building on same knowledge and ideas. The problem of post truth and fake news has further complicated matter for policymakers as large number people are either influenced by political ideologies or starts to believe in conspiracy theories, which as affect the process of policy making and implementation. As more and more policymakers are using social media, as a tool to inform people and discuss policies, it is important that research should be done into the role of social media on policy building. Moreover, as these platforms are guided by corporate motives rather than public missions it is imperative that a mechanism of accountability should be put in place to regulate their information dispersion mechanism which currently is guided by users' reactions to previous content.

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