

# WHAT IMPACT DO SOCIAL NETWORKS HAVE ON DEMOCRACY IN SUB-SAHARAN AFRICA? AN ANALYSIS THROUGH THE PRISM OF DOWNS (1957) ECONOMIC THEORY

**Mpouamze Mbatounga Hervé**  
University of Douala, Cameroon

**Mbondo Georges Dieudonné**  
University Of Douala, Cameroon

Received: December 8, 2023      Accepted: July 13, 2024      Online Published: July 19, 2024

## Abstract

*This study examines the effect of social networks on democracy in Sub-Saharan Africa. Although the subject is not new in the literature, the study has the particularity of taking into account the effect of information asymmetries in determining the utility that citizens hope to derive from democracy. From analyses conducted using the instrumental variables method, it appears that the effect of social networks on democracy is differential depending on whether one is in a situation of information asymmetry or not. In a situation of information symmetry, the rationality of the citizen is optimal, he makes good decisions in electoral matters and social networks contribute to improve the usefulness he derives from democracy by 20%. On the other hand, in a situation of information asymmetry, it is deceived by the political system and its decisions tend to reduce its usefulness by 7 points. Results, although attached to some limits, challenge governments in the direction of promoting transparency of information for a good democracy.*

**Keywords:** Social networks; Democracy; Sub-Saharan Africa; Downs.

## 1. Introduction

Based on events such as the Arab Spring that affected many North African countries in the early 2011's and the yellow vest movement in 2019, in France, the role of social networks on democracy remains controversial in the literature. At this level two main currents are

opposed: that of skeptics and that of supporters of social networks in the promotion of democracy.

For skeptics, social media is more of a threat than an opportunity to promote democracy. Couturier (2022) argues that democracy is sick of social networks. Previously celebrated for its capacity for democratic vitalization, social networks are today strongly criticized. By helping to polarize opinions, they facilitate manipulation and exacerbate social tensions. The problem of the truthfulness of the information relayed constantly arises, notes the author. Palano (2019) and Mounk (2018) also point out that with the advent of social media, the standard methods of traditional media have been questioned. Information is no longer only reported by specialists in the field, but anyone who witnesses an event can decide to relay it as it happened, or to launch a rumor, or to report the facts according to his own opinion. This approach, with the disadvantage of increasing the risk of information manipulation and thus contributing to the deconsolidation of democracy. For Sunstein (2018), social networks, while useful for solving other types of social problems (such as vulnerability, depression following the loss of a job or the loss of a loved one, etc.), have a detrimental effect on democracy. The author talks about the proliferation of information «cocoons» and the risk of circulation of fake news. Focusing on the American electoral context, he points out that social media users are usually led to believe a lot of things that are false and thus fail to learn a lot of things that are true. And that's terrible for democracy. Especially since those who have specific interests (including politicians or some nations like Russia) can use social networks to disrupt (through false information) or promote their interests (Acemoglu *et al.*, 2021).

For Downs (1957), who analyses democracy as a commodity traded on a market (the political market), social networks have a positive effect on democracy. The author explains his argument by the fact that citizens who are consumers of democracy are rational and use social networks to improve their level of information on the programs of politicians and political parties that are providers of democracy. Once informed about a number of elements, citizens will react at the time of the vote in the direction of improving their level of utility. This is the same opinion shared by Najar (2013), who notes that in the Middle East, Eastern Europe, and Latin America, Citizens have exploited social networks to overthrow regimes where the dynamics of democracy had become ineffective in meeting the needs and aspirations of its populations. Godin (2010), who agrees, notes that the arrival of social networks has contributed to the emergence of new democratic practices. The latter go beyond state governance (government and political party), since they now invest the different places of social participation: association of all kinds, discussion groups, forum of exchanges, personal or professional blogs, etc. Thanks to social networks, citizens can constantly debate in groups, get information, and collect all the information that can facilitate their choice at the time of voting.

Sub-Saharan Africa, the area covered by this study, reports that more than 40 countries have adopted democracy as a model of political development (Gueye, 2009; Harding and Stasavage, 2014; Van Hoek and Bossuyt, 1993; Mbondo *et al.*, 2023). However, the extension of the democratic process suffers from some resistance that has often resulted in political takeovers by the military juntas (in Burkina Faso, Chad, Guinea, Sudan, Mali, Gabon). Takeovers are often facilitated or dubbed from social networks by populations (according to Statcounter statistics (2017)) the 03 most used networks in Africa are Facebook (168 million users), Instagram (31 million) and LinkedIn (24 million)). Anything that, despite the multiple questions of researchers in other geographical areas such as Latin

America or the United States (Goirand, 2010; Wormser, 2017), continues to provoke controversy. The effect of social networks on democracy in sub-Saharan Africa remains ambiguous.

Taking into account these theoretical and contextual elements, the main question of this study is:

*Are social networks an opportunity or a threat to democracy in Sub-Saharan Africa?*

The objective of this study is to examine the impact of social networks on democracy in Sub-Saharan Africa. Specifically, it will: i) examine the significance of the effect of social networks on democracy and ii) decide on the meaning of this effect. The study aims to shed light on the controversy surrounding the effect of social networks on democracy.

In order to achieve the above objectives, we formulate the following hypotheses regarding the above literature: Because individuals are rational and use strategies to maximize their usefulness in the political market, i) “social networks have a significant effect on democracy”; and (ii) “this effect is positive” (Downs, 1957; Najjar 2013; Enke and Graeber, 2023).

The above hypotheses will be examined using the instrumental variable method depending on whether the individual is in complete or limited information. The rest of the study will be organized as follows: Section 2 presents the literature review; Section 3 is devoted to the methodology; Section 4 the results of the study; Section 5 to the discussions and Section 6 concludes the study.

## **2. Interaction between social networks and democracy**

### ***2.1 From a theoretical perspective***

For Downs (1957) democracy is like a commodity that is traded on a market (the political market). In this market, citizens are consumers of democracy, while politicians and political parties are producers, suppliers of democracy. All players in this market are rational. While politicians and political parties seek to maximize their political support, citizens seek to maximize its usefulness from government activity. In his work, the author links the concept of democratic government to the role of political parties and the interests of voters. It shows that the voters, who have access to a certain level of information via for example social networks apprehend the actions of the government and use their rationality to the best of their ability to support the candidate or political party that will be able to sustain their aspiration. This interdependent circular relationship between the government that plans actions and the voters who decide on the vote underlies the proper functioning of democracy (Mitropolitski, 2014). Finally, Downs notes that the occurrence of uncertainties affects political decision-making. A view shared by Enke and Graeber (2023).

### ***2.2 From a practical perspective***

McKinnon (2012), which focused a lot on the Chinese context, shows that because of uncertainties about each other's attitudes, and the risk of manipulation of information relayed on social networks such as Facebook and others, governments are increasingly using censorship. What is ultimately to oppress the freedoms of individuals. The author

also criticizes the anti-anonymity policy of web giants such as Google and Facebook, which instead of protecting users, through the confidentiality of their data, make the latter more accessible to governments, who can thus control activists and, where appropriate, restrict freedoms (Crouzet *et al.*, 2023).

Boukary (2014) points out that in Mali, the social network Facebook was used during the 2012 Malian crisis in the direction of promoting democracy. The author who was interested in a dozen groups on the social network Facebook, notes that the members of the latter were informed in real time about the situation of their country and could therefore, freely supported the various political actors they felt were able to protect the gains of democracy. The author also notes that this social network (Facebook) would have played a similar role in the context of the Arab Spring and the Ivorian crisis. Blilid and Favier (2018) who agree, argue that in the specific case of Amazigh, a community of North Africa, the social network Facebook, through, among others, the platform «Amazigh visualization» contributed to the promotion of democracy in this locality in the dynamics of the events of claims that triggered in this part of Africa in 2011. For the authors Facebook has facilitated the genesis of a new form of cultural activism, itself carried by the constitution «dreamed identity» after debates between the members of this community.

Kahi (2018), who focused on the Ivorian context, stresses that in this country social networks have also had an influence on democracy. This influence tends to favor politics more than citizens. The author points out for example in the various uprisings that the country has experienced in recent years (whether on the political or social level (strikes of the employees, demand of all kinds)), social networks have often been used by political actors to influence youth in the desired direction. To achieve these results, the author conducted a documentary data collection/ interview with a population of young people aged 30 to 35. The author mentions that 14 blogs linked to Facebook and Twitter were mobilized in this direction.

Moroianu (2023) stresses that social media platforms have an influence on democracy, through among other things the spread of messages of hatred, tribalism, and disinformation. People who are marginalized, misinformed and without access to relevant sources of information are struggling to make the most of democracy. These people also have a hard time defending their fundamental rights, says the author. Priambodo (2023) notes that with the advent of social networks, the political world is forced to readjust, because many debates are generally held on these platforms. The author points out that some voters prefer to obtain information on these platforms rather than using conventional means of communication (television, radio, etc.). This is all the more so since the data sought are more quickly accessible. Qodir (2023), which agrees with the same point, emphasizes however in the Indonesian context the low coverage of the Internet which does not always allow all voters to have access to all the facilities that social networks could offer, and so are often content with information gathered from traditional sources to make their decision at the time of voting.

Ali *et al.* (2024) point out that in Pakistan, social networks have had the effect of increasing (by about 48%) the participation rate of young people aged 18 to 29 in the 2024 elections. The authors also point out that this participation of young people went beyond voting and was also reflected in their involvement in speeches and political campaigns. Puka and Beshiri (2013), explain this phenomenon by a modification of the political education models that prevailed until then. Pradipta *et al.* (2023) point out that social networks have helped to further polarize the political landscape through a fragmentation of

support groups for individual candidates. Musso (2023), speaks of the intersection between artificial intelligence and decision-making processes that would have emerged as a transformative force on both economic and political spheres.

### 3. Methodology

#### 3.1 Model Specification

The theoretical model of this study is inspired simultaneously by the work of Acemoglu *et al.*, 2021 on democracy and the work of Von Neuman and Morgenstern (1944) on the expected utility functions, and presents the citizen's reaction function as a function of utility stemming from the satisfaction it derives from democracy.

$$FR(citizen) = U(Democracy)$$

However, the utility that the citizen derives from depends itself on the vector of the means at his disposal to appreciate the effects of democracy.

$$FR(citoyen) = U(démocratie) = \sum_{i=1}^n (\alpha_i m_i) ,$$

With  $U(democracy)$  is the expected level of usefulness of democracy. And  $\alpha_i$  the sensitivity with which the medium  $m_i$  is chosen to improve the level of utility  $U$ .

Given that democracy can be seen as a representative, pluralistic and competitive system (Marchesin, 2004), these means can be: the use of social networks; freedom of expression; freedom to participate in political discussions; freedom of press; existence or not of external influence ("manipulability").

By replacing the  $m_i$  with their expressions, we have:

$$U(democratie) = \alpha_1 UsageRS_i + \alpha_2 Expressfreedom_i + \alpha_3 politicdiscussion_i + \alpha_4 mediasfreedom_i + \alpha_5 manipulabilité + u_i, (I)$$

At this level, starting from the work of Downs (1957) and Enke and Graeber (2023), we distinguish two cases:

- a. Information is symmetrical between politicians and the citizen (lack of "manipulability" / certain environment).

Equation (I) becomes:

$$U(democratie) = \alpha_1 UsageRS_i + \alpha_2 Expressfreedom_i + \alpha_3 politicdiscussion_i + \alpha_4 mediasfreedom_i + u_i ,$$

- b. Information is asymmetrical between politicians and the citizen (presence of "manipulability" / uncertain environment).

But as Acemoglu *et al.*, 2021, the «manipulability»  $G$  from the government or political parties depends on the level of exposure of the citizen, in this case in our case, the level of exposure on social networks that we note  $E$  and the sensitivity of the citizen to external influences that we note  $\beta$ . We then have:

$$G = \beta \ln(E)$$

With  $E$  = average number of days of connection per month;  $\ln$  = logarithm neperian.

By replacing  $G$  by its value in (I), we finally obtain:

$$U(\text{democratie}) = \alpha_1 \text{UsageRS}_i + \alpha_2 \text{Expressfreedom}_i + \alpha_3 \text{politicdiscussion}_i + \alpha_4 \text{mediasfreedom}_i + \alpha_5 * \beta * \ln(E) + u_i$$

Where:

UsageRS = the citizen's use of social networks;

Expressfreedom = freedom of expression;

Politicdiscussion = participation in political discussions;

Mediasfreedom = the freedoms of the press.

Without limiting generality, in this study, we will arbitrarily choose  $\beta=2$ .

### 3.2 Estimation Methods

Taking into account that in the literature it is mentioned that social networks can have an effect on democracy and vice versa, it would be wise to resort to an instrumental variable model, which allows to control the endogeneity biases often encountered in this model type with simultaneous equations. However, in this study, without limiting generality, we have a model with incomplete information, because only one of the equations. Then the double least squares method, which is one of the instrumental variable methods, will be used in this framework to estimate the effect of social networks on democracy.

### 3.3 Verify that there is indeed an endogeneity bias in the study model

The Hausman test makes it possible to check whether there is indeed a difference between the estimator of the instrumental variables and the estimator of the Ordinary Least Squares (OLS). The conclusions of this post-estimation test are given by the values of the Durbin-Wu-Hausman (DWH) statistic at the 5% threshold for the following hypotheses:

*H0: No difference between the two estimators (exogeneity)*

*H1: Significant difference (endogeneity)*

If the DWH statistic is not significant at the 5% threshold,  $H_0$  is retained, otherwise the alternative hypothesis ( $H_1$ ) is retained.



Table 1 – Haussman Test

Variables	coefficients	Std.err	Z	P> ZI	[95% conf. interval]
UsageRS	0.19	0.03	6.24	0.000	0.12-0.24
Constante	1.1	0.04	30.41	0.000	1.03-1.18
Durbin Wu-Haussman statistic	DWH=36,4511***				

Number of observations 45823 ; Wald chi2(1)=39.92\*\*\*

Note : \*\*\* significant threshold1%

Source: authors from the study data

Table 1 shows that the value of the Durbin-Wu-Hausman (DWH) statistic is 36.4511. It is significant at the 1% threshold. This leads us to reject the H0 hypothesis. So, there is indeed endogeneity in the model. The instrumental variable method is therefore more appropriate than the OLS method for estimating model variables.

Table 2 – Comparison of the results of the multiple linear regression model (without taking into account endogeneity questions) with those of the instrumental variable model taking into account these endogenous effects.

Variables	Initial Model	Revised model
Social Network	0.015*** (0.05)	0.2*** (0.003)
Politicdiscussion	-0.02*** (0.05)	-0.04*** (0.006)
Expressfreedom	0.04*** (0.004)	0.04*** (0.004)
mediasfreedom	0.14*** (0.004)	0.016*** (0.004)
observations	45823	45823
Number of instruments	/	04
Wald chi2	27.79***	146,85***
Number of countries	29	29

\*\*\* significant threshold1%

Parenthèses denote standard deviation

ns: not significant

Source: authors from Afrobarometer data (2018)

### 3.4 Data source and lists of variables

#### 3.4.1 Data Source

The data in this study come from Afrobarometer's Round 7 survey conducted in 2018 in 34 African countries. Afrobarometer is a comparative series of surveys on issues of democracy and local governance. These surveys are conducted at regular intervals in several African countries, including sub-Saharan African countries. Starting in 1999, Afrobarometer was only interested in 12 countries, but since Round 6, it covers more than thirty countries. Afrobarometer is a collaborative initiative of the Institute for Justice and Reconciliation (IJR) in South Africa, the Center for Democratic Development (CDD-Ghana), the Institute for Development Studies (IDS) at the University of Nairobi in Kenya and the Institute for Empirical Research in Political Economy (IREEP) in Benin. The network also has technical support from Michigan State University (MLSU) and University of Cape Town (UCT).

Afrobarometer collects and disseminates information on African views on democracy, governance, economic reforms, civil society, and living standards. Regarding the methodology, Afrobarometer obtains the information collected from individual respondents through personal interviews. The same questionnaire with identical or functionally equivalent points is administered to each respondent in each country. Since the questions are standardized, the answers can be compared from one country to another and from one period to another. It should also be noted that Afrobarometer surveys are based on national random samples. Therefore, the aggregate results are representative of larger groups. Nationally, sampling sizes range from 1200 to 2400 individuals. Samples of 1200 and 2400 are all large enough to draw conclusions about all citizens of voting age with a large average error due to sampling of plus or minus 2.8 percent at the 95 percent confidence level.

### 3.4.2 List of variables

#### *Dependent variable*

The dependent variable of this study is the usefulness that the citizen derives from democracy. In this study we will use the variable Q36 of the Afrobarometer database that captures the level of satisfaction that the citizen (the head of household) gets from democracy. For practical purposes, this variable has been renamed to democracyhappy.

#### *Independent variables*

The table below lists the variables independent of the study. They are all available in the Afrobarometer database; their choice for this study is inspired by the work of Enke and Graeber (2023), Acemoglu *et al.*, 2021; Todd (2008) and Bedock (2014).

Table 3 – List of independent variables

Variables	Definitions	Source
Usage RS	Use of social networks	Available in Afrobarometer data (2018)
Politicdiscussion	Participation in political discussion	Available in Afrobarometer data (2018)
Expressfreedom	Expression of freedoms	Available in Afrobarometer data (2018)
Mediasfreedom	Press freedoms	Available in Afrobarometer data (2018)
G	Manipulation/influence of politics on citizens	Authors, from the variable Q12E of the database providing information on the frequency of use of social networks
AgeCM	Age of citizen	Available in Afrobarometer data (2018)

Source: authors

#### *Choice of instruments*

The instruments below have been chosen for their relationship to the independent variables of the study. Indeed, Krzatala (2013) stresses that the use of social networks depends on the age of Internet users. Gaxie (2007) notes that the level of education of the citizen is an element of power in political discussion. Turcotte (2001) notes that the level of expression of freedoms varies according to the environment and region of residence. Vidjinnagui



(2003) emphasizes that the living conditions of citizens can influence the level of press freedom.

Table 4 – List of independent variables and their instruments

Variables	Instruments	Source
Social Network	Age of citizens	Available in base Afrobarometer (2018)
Politicdiscussion	Citizen's instruction	Available in base Afrobarometer (2018)
Expressfreedom	home region	Available in base Afrobarometer (2018)
Mediasfreedom	living conditions	Available in base Afrobarometer (2018))

Source: authors

## 4. Results

### 4.1 Descriptive Statistics

Table 5 shows that we have a level of satisfaction with democracy that varies between 1 and 2, with an average of 1.34. At the same time the use of social networks varies between 1 and 2 with an average of 1.2.

Table 5: Descriptive statistics of key variables

Variables	Observations	Moyenne	Ecart type	Minimum	Maximum
Democracyhappy	45823	1,34	0,47	1	2
UsageRS	45823	1,2	0,4	1	2

Source: authors from Afrobarometer data (2018)

### 4.2 Model Estimation

Table 6 shows that social networks have a significant effect on the usefulness that citizens derive from democracy.

Table 6 – Results of estimates of the effect of social networks on democracy in symmetric and asymmetric information situations respectively

Variables	Model 1 (Information symmetry between politics and citizens)	Model 2 (Asymmetric information)
UsageRS	0,2*** (0,03)	-7,02*** (2,18)
Politicdiscussion	0,04*** (0,006)	0,05*** (0,002)
Expressfreedom	0,04*** (0,006)	0,01ns (0,001)
mediasfreedom	0,01*** (0,004)	0,007ns (0,0009)
G	/	-2,30*** (0,7)
Observations	45823	
Number of countries	29	29
Number of instruments	04	04
Wald Chi2	146***	38,46***

\*\*\* significant threshold 1%; parenthèses denote standard deviation; ns: not significant;

Source: authors from Afrobarometer data (2018)

In a situation of symmetrical information between the political and the citizen, it appears that the increase of one point in the use of social networks by the citizen translates into a 20% improvement in the level of satisfaction that he gets from democracy.

On the other hand, in a situation of asymmetry of information between the political and the citizen, it appears that the increase by the citizen of one point of his level of use of social networks translates into a reduction of the level of satisfaction that he gets from democracy by 7 points.

## 5. Discussion

The above analyses show that social networks have a differential effect on democracy in sub-Saharan Africa depending on whether one is in a situation of information asymmetry between the citizen and the political or not. In the absence of asymmetry of information, between these two actors, the reaction of the citizen is optimal, insofar as he uses to the maximum of his economic rationality to improve the utility he derives from democracy. On the other hand, when the environment becomes uncertain and characterized by a proven risk of manipulation from politics, the asymmetry of information between the actors, leads the citizen to make mistakes and make very bad choices at the time of the vote. These choices will in fact be very detrimental to the level of utility it derives from democracy.

In doing so, we can, in light of these analyses, accept the hypothesis that “because individuals are rational and use strategies to maximize their usefulness in the political market, social networks have a significant effect on democracy.” And to reject that which considers that «this effect is positive». These nuanced results are in opposition to extreme authors who believe social networks have either a positive effect on democracy or a negative effect. The two positive and negative effects are actually envisaged, it all depends on the risk of versatility of the political environment. The higher this risk, the more if «gambling» without repetition, citizens will tend to make bad decisions. However, if the game is repeated, in virtue of the principle of adaptive anticipations (Coutelet and Weil-Dubuc 2016), the citizen will tend to improve his performance. A position that is consistent with the predictions of Dows (1957) as well as those of Enke and Graeber (2023).

Indeed, for Downs (1957), the existence of asymmetries of information between voter and candidate is likely to create cognitive biases among voters, which in a decision-making process aimed at maximizing the usefulness that it drew from democracy, tend to make mistakes. These errors can be valued in monetary terms or in terms of opportunity cost. Enker and Graeber (2023) highlight the economic relevance of measuring cognitive uncertainty, including citizens' subjective uncertainty about their *ex ante* decision to maximize utility. In a series of experiments on risk choice, belief formation, and economic predictors, the authors have shown that systematic bias in economic decision-making exists. The asymmetries of information between voters and politicians thus weaken the decision-making capacities of voters, generating erroneous beliefs, and biased forecasts in their hope of utility.

## 6. Conclusion

This study showed that all other things equal social networks have a differential effect on democracy depending on whether one is in information asymmetry or not. In a situation of information symmetry between citizens and politicians, citizens tend to make good use of

social networks because of their economic rationality. On the other hand, when information becomes asymmetrical between him and the politician, he tends to make mistakes when making decisions. The decisions had a very negative effect on its level of utility. Concretely, in a situation of information asymmetry, the study showed that the increase of one point in the use of social networks reduces the usefulness of democracy by 7 point. Nuanced results that are however in line with the work of Dows (1957) as well as those of Enke and Graeber (2023). However, as recommendations we encourage policymakers to focus more on transparency of information for the sustainable improvement of democracy. Because the transparency of information makes it possible is an essential pillar of sustainability, because it makes it possible to create a kind of viable contract between the different actors involved.

A contract that thus allows to escape the bias that would be caused by the moral hazard of the actor able to manipulate information (Zakaria *et al.* 2021). Information transparency should also reduce not only the negative effects of social polarization, but also the risks of radicalization and recourse to fundamentalist systems of thought (Serfaty, 2022; Pradipta *et al.* 2023). Moreover, it is noted that the use of traversable data is positioned as a limit for this study which would probably lead to more nuanced results if the work had been done on cohorts. It would then be possible to observe a kind of adaptive anticipation mechanism on the part of voters, in order to reduce their cognitive biases

## References

1. Acemoglu, D., Ajzenman, N., Aksoy, C.G., Fiszbein, M., Molina, C.A., (2021), *Democracies breed in their owns support*. Working Paper 29167. National Bureau of Economic Research.
2. Ali, S.M., Sarwar, M., Ghani, M.U. (2024), Assessing the Progress of Youth Political Partipation and its Impact on Democracy: a case study of 2024 Elections of Pakistan. *Pakistan Social Sciences Review*, 8(2).
3. Bedock, C. (2014), Les déterminants politiques de la fréquence des réformes démocratiques: Europe de l'Ouest, 1990-2010. *Revue française de science politique*, 64, 929-954.
4. Blilid, A., Favier L. (2018), Les effets du réseau social Facebook sur le combat identitaire amazigh. *Le monde réel numérique*. 35(2).
5. Boukary, S. (2014), *Réseaux sociaux et communications en temps de crises au Mali: l'exemple des groupe de discussions*. CEI-CLN.
6. Coutellec L., Weil-Dubuc P.L. (2016), Les figures de l'anticipation: ou comment prendre soin du futur. *Revue française d'éthique appliquée*. 2(2), 14-18.
7. Couturier, B. (2022), *La démocratie malade des réseaux sociaux*. Cnstructif, 61, 37-40.
8. Crouzet N., Gupta A., Mezzanotti F., (2023), Shocks and technology adoption: evidence from electronic payment systems. *Journal of Political Economy*, 131(11), 3003-3035.
9. Downs, A. (1957), *An Economic Theory of Democracy*. Haper and Brother Publishers, New York.
10. Enke, B., Graeber, T. (2023), cognitive uncertainty. *The quartely Journal of Economics*, 138(4), 2021-2067.

11. Fomba, K.B., Kokam, D., Nchofoung T. (2021), *Social media and political instability: some empirical evidence*. [www.accessecon.com](http://www.accessecon.com).
12. Godin, R. (2010), *Réseaux sociaux et nouveaux espaces démocratiques*. Encyclopédie du patrimoine culturel des Amériques.
13. Goirand, C. (2010), Penser les mouvements sociaux d'Amérique latine: les approches des mobilisations depuis les années 1970. *Revue française de science politique*. 60, 445-466.
14. Gueye, B. (2009), La démocratie en Afrique: succès et résistances. *Pouvoirs*, 129, 5-26.
15. Harding, R. Stasavage, D. (2014), What democracy does (and doesn't) for basic services: schools fees, schools inputs and African elections. *Journal of Politics*, 76(1), 229-245.
16. Kahi, H. (2018), Participation politique en ligne et transformation des pratiques journalistiques en Afrique subsaharienne à l'ère des espaces socio-numériques. *Le monde réel numérique*, 35(2).
17. Mackinnon, R. (2012), *Consent of the networked: the worldwide struggle for internet freedom*. New York, Basic Books.
18. Marchesin, P. (2004), Démocratie et développement. *Revue Tiers monde*, 179, 487-513.
19. Mitropolitski, S. (2014), *Une théorie économique de la démocratie, d'Anthony Downs*. Volume 33, n. 1, Bruxelles, Editions de l'université de Bruxelles.
20. Moroianu, A. (2023), *Social media platforms and challenges for democracy, rule of law and fundamental right*. Drepturile Omului-Hein online.
21. Mounk, Y. (2018), Le peuple contre la démocratie. *L'observatoire*.
22. Musso, F. (2023), Decision Making and Artificial Intelligence: New Frontiers for Entrepreneurship and Management. *International Journal of Economic Behavior*, 13(1).
23. Najar, S. (2013), *Les réseaux sociaux sur Internet à l'heure des transitions démocratiques*. Paris, Khartala, coll. Hommes et Sociétés.
24. Palano, D. (2019), La fin du «public», la bubble democracy et la nouvelle polarisation, in Delsol, C., De Ligio, G. (ed.), *La démocratie dans l'adversité. Enquête internationale*, Cerf, Paris, pp. 2019: 699-715.
25. Paul, M., Leppelly, D., Smaoui H. (2013), Introduction à la théorie des jeux: les jeux non coopératifs. *Ecoflash*, revue du CNDP.
26. Pradipta, E.P., Rahman, T., Sukmono, F.G. (2023), *Analysis of Political Polarization Discourse on Social Media Ahead of the 2024 Election*. Conference Paper. HCI International Posters. Springer.
27. Priambodo, B. (2023), Political Marketing Towards the 2024 Local Elections in the Frame of Digital Democracy. *Social and Political Reviews*, 4(1).
28. Puka, E. Beshiri D. (2013), Political and Economic Aspect in Education: An Analysis of Citizen Formation Process Through Active Citizenship. *International Journal of Economic Behavior*, 3(1).
29. Qodir, Z. (2023), *Artificial Intelligent, Digital Democracy and Islamic Party in Indonesian Election 2024*. Conference Paper. Proceeding of Eighth International Congress on Information and Communication. Springer
30. Serfaty, I.N. (2022), Understanding grotesque transparency as a strategy for fundamentalist radicalization: implications for Social Marketing Theory and Practice. *Social Marketing Quarterly*, 28(4).

31. Sunstein, C.R. (2018), Is social media Good or Bad for democracy? *International Journal on Human Rights*. 15(27).
32. Todd, E. (2008), *Après la démocratie*. Gallimard.
33. Van Hoek, F., Bossuyt, J. (1993), Democracy in sub-saharan Africa: the search for new institutional set-up. *African Development Review* 5(1), 8-93.
34. Von Neumann, J., Morgenstern, O. (1944), *Theory of games and Economic Behavior*. Princeton University Press.
35. Wormser, G. (2017), *Facebook et la crise des élites*. Erudit.org.
36. Zakaria, M., Aoun, C., Linginlal, D. (2021), Objective Sustainability Assessment in the Digital Economy: An information Entropy Measure of Transparency in Corporate Sustainability Reporting. *Sustainability*, Vol 13, N. 3.