ICT and Social Media for Fighting Against Corruption: Case of Tunisia

Chaima Chaieb[1], Hadhemi Achour[2], and Ahmed Ferchichi[3]

Abstract— To contain corruption, the digitalization of anti-corruption initiatives is gaining significant attention. This paper explores the role of ICT and social media in combating corruption,focusing specifically on Tunisia. It provides an overview of various platforms and evaluates their usage and effectiveness in promoting citizen engagement. Based on a survey of citizens, the study reveals significant challenges in user engagement and platform effectiveness. The findings highlight the need for improved visibility, feedback mechanisms, and strategic integration to enhance their impact on corruption reduction.

I. INTRODUCTION

Corruption poses a significant barrier to development, undermining the efficiency and quality of public services, deepening poverty, reinforcing inequalities, and increasing societal fragility [1]. It undermines the relationship between governors and citizens and can therefore fuel political and social instability, reducing the legitimacy of the regime [2].

As a result, combating corruption remains a critical issue for governments, with an ongoing debate about the best approaches to tackle this pervasive problem [3]. In this context, technological advancements particularly in Information and Communication Technology (ICT), have opened new avenues for combating corruption. The rise of digital platforms and social media presents an opportunity to empower citizens in the fight against corruption, allowing them to report misconduct, access information, and engage directly with governmental processes [4]. These tools offers the potential to foster greater transparency, accountability, and citizen participation.

The purpose of this research is to explore the effect of Information and Communication Technologies (ICT), specifically the use of digital platforms in Tunisia. We analyze how these technologies are deployed to counter corruption and assess their effectiveness in engaging citizens and promoting good governance. Additionally, the study examines citizens' perceptions of these platforms, providing insights into their potential for reducing corruption and enhancing democratic participation. This paper is structured into 5 sections: including an Introduction; Section 2 defines corruption; Section 3 reviews digital efforts and strategies to combat corruption; Section 4 focuses on emerging trends, with a special emphasis on Tunisia, including an exploratory study on the role of social media; Section 5 concludes the paper. This paper is structured into 5 sections: including an Introduction; Section 2 defines corruption; Section 3 reviews digital efforts and strategies to combat corruption; Section 4 focuses on emerging trends, with a special emphasis on Tunisia, including an exploratory study on the role of social media; Section 5 concludes the paper.

II. CORRUPTION

Understanding corruption and its drivers is essential to determine how ICT tools can enhance anti-corruption efforts. Transparency International defines corruption as*"Corruption as the abuse of entrusted power by political leaders or a bureaucracy for personal gain or specific group interest."* [6]. It includes bribery, election manipulation, money laundering, and fund diversion—activities that undermine the rule of law and hinder development.

Several organizations and experts report on corruption losses.

- IMF: Bribery alone costs 1.5–2 trillion dollar annually [7].
- UN: Corruption costs over 5% of global GDP—around 2.6 trillion dollar [8].
- EU: Annual losses of €120 billion in tax revenue and investments [9].

In response, various organizations have emerged, including Transparency International, the International Anti-Corruption Academy, and GOPAC. To measure corruption perceptions, tools like the World Bank's Control of Corruption Indicator (CCI) are widely used, assessing the misuse of public power for private gain across sectors [10].

TABLE I
CORRUPTION PERCEPTIONS INDEX 2024 [11]

Country	CPI Score 2024	Rank
Denmark	90	1
Finland	88	2
Singapore	4	3
Tunisia	39	94
Zambia	39	95
Gambia	39	96
Venezuela	10	178
Somalia	9	179
South Sudan	8	180

The Corruption Perception Index (CPI) by Transparency International ranks countries based on perceived public

[1]Chaima Chaieb is with the Institut Supérieur de Gestion, Université de Tunis, Tunisia.chaiebchaima@gmail.com

[2]Hadhemi Achour is with the Institut Supérieur de Gestion, Université de Tunis, Tunisia.hadhemi_achour@yahoo.fr

[3]Ahmed Ferchichi is with the Institut Supérieur de Gestion, Université de Tunis, Tunisia.ahmad.ferchichi@gmail.com

sector corruption. Over time, global anti-corruption efforts have intensified, notably with the UN Convention Against Corruption (UNCAC) in 2003, now ratified by 177 countries.

Organizations increasingly support Anti-Corruption Collective Actions to foster collaboration among governments, businesses, and civil society, promoting transparency and advancing UN Sustainable Development Goal 16 on reducing corruption [12]. Despite growing regulations, strong and effective anti-corruption frameworks remain essential for protecting democracy and ensuring sustainable development.

III. USING ICT AND SOCIAL MEDIA FOR FIGHTING AGAINST CORRUPTION

A. Related work: Role of technology in the fight against corruption

Information and Communication Technology (ICT) has emerged as a key driver in promoting transparency, accountability, and civic engagement. ICT enables the digitalization of public services, bridging the gap between governments and citizens [13]. It facilitates open communication, strengthens governance, and fosters citizen participation [14], [15], [16], [17].

Empirical studies show that e-government can reduce corruption by enhancing transparency and improving public service delivery [18]. Tools such as crowdsourcing, whistleblower platforms, transparency portals, big data, blockchain, and AI have proven effective in anti-corruption strategies [19], [20], [24].

Social media platforms like Twitter and Facebook also support anti-corruption by raising awareness and mobilizing citizens [21], [22]. For example, Indonesia's KPK used Twitter to engage the public. The COVID-19 crisis further exposed corruption in supply chains, underscoring the need for transparency in procurement [23].

While digital transparency reveals internal operations, studies highlight barriers that must be overcome to maximize impact [25]. ICT adoption has been shown to improve governance, political stability, and attract investment, contributing to sustainable development [26], [46].

B. Anti-corruption Crowd-sourcing platforms: an Overview

According to the International Monetary Fund (IMF) [27] , up to 1.8 trillion dollars annually is lost worldwide from the global economy in bribes. This huge amount of money is used for private interest. At this point where the digital solutions come into play – shining a light of transparency on state structures through apps and online portals, and getting citizens involved. A central element of good governance is the fight against corruption in which the social media and ICT, can become a powerful instrument to eradicate impunity and fight corruption at all levels [28].

According to [29] ICTs can help curb corruption: from improving access to information and reducing red-tape, to detection of potential cases of corruption and the identification of outliers and other anomalies.

Regarding the endless potential of ICTs to fight corruption, technologies, in the form of websites, mobile phones, applications etc., have been used to: facilitate the reporting of corruption. The anti-corruption reporting websites have taken advantage of the rapidly increasing internet and mobile technology to provide a solution to tackle corruption. To reap the benefits of ICTs, both governmental and non-governmental organization (NGO) are conceiving platforms to report corruption, where some of these tools are mentioned bellow (Table 2):

TABLE II
ANTI-CORRUPTION PLATFORMS

Platform	Country	Description
I Paid a Bribe	India	An Indian anti-corruption platform launched in 2010 by the NGO Janaagraha. Citizens report bribes paid or refused and commend honest officers. Awarded the ACE Award in 2017.
MexicoLeaks	Mexico	An independent platform since March 10, allowing citizens to anonymously report corruption to media outlets.
Corruption Watch	South Africa	Launched in 2012, this non-profit allows citizens to report corruption and holds leaders accountable.
Anti-Corruption Commission	Bangladesh	Established in 2004, this government portal enables citizens to report corruption cases.
E-People	South Korea	Developed in 2005, this online petition system allows citizens to report unfair treatment and suggest government policy changes.

As explained by [24], the idea behind these websites is straightforward: They are expected to assist in the fight against corruption by providing easy access to an instantaneous anonymous reporting tool, also it helps break the silence around the daily occurrence of corruption and to promote collective action.

Despite their usefulness, such kind of platforms and portals are nor usually well-known and do not have the popularity of social network. They indeed, remain less accessible and usable compared to social media sites which offer a great ease of use. Recent works such as [30] the authors show that access to government portal services is difficult even impossible for many citizens. It can be explained that its portals give administrations new ways to communicate information and consult with citizens, whilst neglecting citizens' preferences and opinions.

Authors in [31] highlight how digital networks like Facebook and Twitter foster interaction and raise key issues. These platforms have evolved from informal media into

official channels widely used by governments for public communication.

The central tenet of government policy nowadays is the digitalization of its practices by capitalizing on the potential of social networking sites (SNSs) as communication channels.

C. Fighting corruption through Social Networks

Today, the number of social media users is around 5.17 billion [32]. Social networks as an anticorruption approach have a panoply of definitions. Among them as mentioned below: *"Social network is a website or computer program that allows people to communicate and share information on the internet using a computer or mobile phone."* [33].

Social network users create their own profiles and can add friends, send messages (texts, audios, videos, photos) and leave comments, providing building blocks for creating online communities. Typical users of social networks are: Citizens, Governments and Non-Governmental Organizations (NGO). In this section, we present three Facebook communities dedicated to fight corruption (Table 3):

TABLE III
FACEBOOK COMMUNITIES DEDICATED TO FIGHTING CORRUPTION

Community	Country	Description
United Against Corruption	United Nations	Launched in 2016 by UNODC under #UnitedAgainstCorruption to raise awareness and mobilize people against corruption worldwide [34].
Winou Ettrottoir	Tunisia	A Tunisian activist-led community exposing corruption affecting daily life. Citizens can report violations, and the platform promotes transparency through institutional agreements [35].

In the digital era, civic engagement through technology enhances transparency, accountability, and efficiency in public institutions. Online platforms promote citizen participation by leveraging collective intelligence—defined as the enhanced capacity of people collaborating through technology to generate diverse insights [36].

These tools help cities make better, faster, and cost-effective decisions with citizen input. Social media campaigns, such as the "United Against Corruption" initiative on Facebook, engage users through messages, visuals, and hashtags to raise awareness.

Research confirms a negative correlation between Facebook penetration and corruption levels [37], [38]. Studies also show that greater social media use in a country is linked to lower corruption [39].

IV. CASE STUDY: USING ICT AND SOCIAL MEDIA FOR FIGHTING CORRUPTION IN TUNISIA

Fighting corruption, boosting economic growth, and improving citizens' quality of life are major global challenges. According to the 2024 World Democracy Audit, Tunisia's corruption ranking dropped from 69th in 2020 to 94th [11], highlighting the need for regime reform.

In response, various Tunisian anti-corruption agencies have emerged, including IWATCH [40] which has a large Facebook following—and BAWSALA [41], all aiming to protect public institutions.

Both the government and civil society recognize the importance of transparency to combat corruption effectively.

A. Tunisian anti-corruption Crowdsourcing platforms

With advances in technology, there are more opportunities to combat corruption than ever before, a central tenet of this strategy is the digitalization of such process by relying on the power of the internet. In this order Information and communication technologies (ICT) are a means that can be used to fight corruption. In this regard, Tunisia has launched several national anti-corruption portals.

BILL'Kamcha: The Tunisian anti-corruption platform BILL'KAMCHA [42], launched in 2013 by I Watch Tunisia, combats corruption and fraud. Between 2013 and June 7, 2017, it received a total of 490 complaints (see Table 4). During the 2020 COVID quarantine, Bill'kamcha

TABLE IV
BILL'KAMCHA COMPLAINTS SUMMARY

Corruption type	Subgroup	Number of complaints	Total
University elections	-	8	8
	Advertising	1	2
Corruption of election	The use of government resources	1	
Overflow in the natural resources sector	-	34	34
Other	-	184	184
Corruption	Bribe	45	262
	Intervention	68	
	Lack of information	19	
	Forgery	28	
	Come back later	12	
	Conflict of interests	35	
	Tax evasion	8	
	Embezzlement	47	
Total			**490**

received 92 complaints [43]. Today, fewer citizens use the site, favoring growing Facebook communities. A key challenge remains the administration's follow-up on these complaints.

FixKairouan[44]: Launched in May 2013 by Press Club Foundation, this platform features an interactive map

of Kairouan, enabling citizens to report neighborhood issues. The collected reports are sent to local authorities for action. **E-people** Launched on March 23, 2018, by

TABLE V
FixKairouan Reports

Country	Report	Problem Solved
Road	25	7
Pollution	37	16
Nature	6	1
Uncontrolled Implanting	16	9
Uncontrolled Construction	5	1
Other	20	5

the Tunisian government, this portal enables citizens to anonymously report corruption. Civil society and citizens are key partners, using digital tools to support reforms by enhancing corruption detection, prevention, and analysis.

As shown FixKairouan successfully resolved 39 reported issues as of 2017, there is no available public data on complaint resolution rates for the other major platforms. The absence of such data hinders a comprehensive understanding of these platforms' real impact on fighting corruption and improving public administration.

We can note however, that in Tunisia, these digital efforts have not been very successful since after a short period of activity these websites enter into hibernation. Moreover, the existence of 3 or 4 official or semi-official sites in the fight against corruption sends a confused message and reduces the attractiveness of each of them; thus, it seems that these online initiatives were taken without strategic reflection on how to use Information and Communication Technologies adequately in the fight against corruption. The consequences aroused some debate about the impact of social networking site.

In this regard, with the growing access to social media, an increasing number of governments now proactively use networking opportunities to engage with people, it is therefore important to rethink how to get use of all the data published on social network to decrease corruption levels.

Related to the fight against corruption, many Facebook pages and groups aiming to deter corruption, have been launched. Mainly to mention the Tunisian association for fighting against corruption, anti-corruption Tunisia, Winou etrottoir and many others.

B. Tunisian anti-corruption crowdsourcing platforms

The Tunisian legal definition of corruption is the following: *"The abuse of power, authority or position to obtain personal advantage. Corruption specifically includes the offences of bribery in all its forms in the public and private sectors, embezzlement of public funds or their mismanagement or waste, abuse of authority, illicit enrichment, breach of trust, misappropriation of funds of*

legal persons, and money laundering" [45].

Thus, through this research we emphasize on the idea that ICT can play an effective role to deter corruption.
To do so and to explore the use of ICT and social media in Tunisia, empirically, we have developed an online questionnaire. We were able to gather more than 120 participants; This investigation was conducted from December 2024 to January 2025. The sampling strategy employed was random sampling, to ensure a broad and representative sample of the population.

A key objective of this questionnaire was to understand the use of social media and the anti-corruption portals in Tunisia, and citizens' involvement in the use of these tools to deter corruption. We mainly tried to answer the main following questions:

- Do participants or properly to say Tunisians know about the anti-corruption platforms, have they used them? if yes, how and why? if no, are they willing to use them?
- Social network applications have deeply penetrated into our lives and continues to gain more and more importance. How Tunisians are they using such tools and for what purposes? Are they willing to use them counter corruption?

This study shows an important use of internet, since 43% of participants use internet more than 6 hours per day. Most respondents (79%) reported however, that they haven't an idea about the existence of anti-corruption websites in Tunisia such as Bill'kmacha, FixKairouan, e-people, this number may be explained by the lack of efficient strategy to publicize platforms. (89%) of participants didn't visit these websites ever.

A vast majority (99.1%) of respondents reported never filing a complaint on such platforms. This raises questions about their effectiveness. Once media attention fades, public interest declines. Additionally, limited interaction and lack of feedback discourage citizen engagement, making these platforms less impactful.

As shown in Fig. 1, 40% of participants are willing

Fig. 1. Participants' readiness to use anti-corruption websites
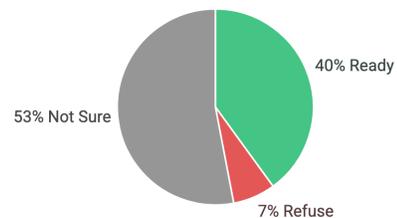
to use anti-corruption websites, 7% are not, and 53% remain unsure. These platforms often attract only a tech-savvy minority, making broader citizen engagement difficult. A key weakness is the lack of feedback, leading 50% of

respondents to doubt their effectiveness.

Among users, French is the most common language (68%), followed by Arabic (Standard and dialect, 32%), mixed languages (24%), and English (16%).

Despite Tunisia's strong internet access (67%) of the population), only (9%) prefer anti-corruption websites to denounce misconduct, compared to 84% who favor social media especially Facebook, which dominates with (99.2%) of users. Other popular platforms include Instagram (68%), LinkedIn (48%), and Twitter (16%).

Social media is mainly used to share cultural content (65%), news (57%), personal posts (52%), and to denounce behaviors (45%). Facebook, in particular, is seen as a more effective space for citizen-government dialogue, offering instant feedback and broader visibility.

Regarding language on social platforms, French is again most used (66%), followed by Tunisian dialect (45%), Standard Arabic (33%), English (24%), and mixed use (21%).

C. Discussion

ICT alone cannot combat corruption, but it can greatly support broader anti-corruption efforts. As noted in [18], the effectiveness of such platforms depends on sustained support from governments and civil society. Without ongoing commitment, these tools risk becoming outdated or abandoned, echoing [24]'s emphasis on the need for long-term engagement and regular updates.

Our study also underscores the need for stronger audience engagement and content curation, aligning with [17], who highlight the importance of proactive strategies and user incentives. Ultimately, sustaining these platforms requires not only technology, but also organizational efforts, partnerships, and active user interaction.

Additionally, protecting participants' anonymity is crucial, particularly in settings where participation may be hindered by concerns about discrimination. The increasing use of social media platforms to denounce corruption, as seen in the case of Tunisia in this study, mirrors findings by [21], where platforms like Facebook and Twitter have been used to create spaces for citizen participation and engagement.

This study explored the role of social media and digital platforms in combating corruption in Tunisia. Our findings emphasize that ICT tools can only be fully effective when integrated into a broader anti-corruption strategy, which includes institutional support, legal frameworks, and participant protection [26]. While these platforms have significant potential, their impact is limited without addressing issues like data privacy, content curation, platform sustainability, and the use of advanced analytics.

In summary, our study contributes to the growing body of research on the intersection of ICT and anti-corruption efforts by providing new insights into the role of digital platforms in empowering civil society, particularly in Tunisia. However, the effectiveness of these platforms ultimately depends on the broader context in which they are deployed, reinforcing the findings of previous research that highlight the need for a coordinated, long-term strategy.

V. Conclusion

In this paper, we provided an overview of ICT and social media usage in the fight against corruption, with a specific focus on Tunisia. We analyzed the dedicated anti-corruption platforms and portals and found that Tunisian Internet users, for the most part, are unaware of these platforms due to a lack of information. Furthermore, for those who are aware, there is limited confidence in their efficiency. However, the study highlighted that Tunisians, who are heavy users of social networks, particularly Facebook, see these platforms as more accessible tools for expressing themselves, posting complaints, and denouncing corruption.

Citizen participation is vital in fighting corruption, but underused reporting platforms are not enough. Enhancing them with automated tools—especially Text Mining—can help governments detect and analyze corruption-related content on social media more effectively, improving transparency and responsiveness.

However, future anti-corruption efforts would benefit from incorporating more sophisticated methods, such as more detailed analysis of the wealth of data available on digital platforms. As part of our future work, we plan to develop advanced Text Mining tools that automatically extract corruption-related information, categorizing it by topic, location, and organization. These tools will leverage Natural Language Processing (NLP) and will be tailored specifically to Tunisia's multilingual and code-switched context, which includes Modern Standard Arabic, Tunisian dialect, French, and English—along with varied scripts (Arabic vs. Latin transcription). While analyzing such complex textual data presents a significant challenge, doing so will result in powerful tools that will help government officials leverage citizen-generated content to enhance governance and communication.

Incorporating Artificial Intelligence (AI)-powered analytics into anti-corruption efforts, with a focus on detailed data analysis, will empower policymakers to better utilize the vast amount of information generated on digital platforms. This approach could vastly improve corruption detection, facilitate more effective citizen engagement, and ultimately enhance the impact of anti-corruption initiatives.

References

[1] A. Nikolaienko, O. Nikolaienko, H. Avanesov, S. Koshmal, and O. Lukashuk, "Corruption as a Threat to National Security: Analysis

of Anti-corruption Mechanisms and their Effectiveness," *Economic Affairs*, vol. 69, pp. 23–31, 2024.

[2] V. Tymoshenko, S. Bondar, and N. Ivanchuk, "Corruption as a threat to human rights and freedoms," *Scientific Journal of the National Academy of Internal Affairs*, vol. 4, no. 27, pp. 31–39, 2024.

[3] C. H. Park and K. Kim, "E-government as an anti-corruption tool: Panel data analysis across countries," *International Review of Administrative Sciences*, vol. 86, no. 4, pp. 691–707, 2020.

[4] C. K. Jha and S. Sarangi, "How Advances in Information and Communication Technologies Impact Corruption?," in *The Political Economy of Corruption*, 2023, pp. 172–188.

[5] Transparency International, "Corruption Perceptions Index," 2020. [Online]. Available: https://www.transparency.org/en/cpi/2020/index/nzl.

[6] Transparency International, *Global Corruption Report: Climate Change*. Berlin: Transparency International, 2011.

[7] D. Lawder, "IMF: Global corruption costs trillions in bribes, lost growth," *Reuters Business News*, 2016.

[8] World Economic Forum, "Global Future Council on Transparency and Anti-Corruption," 2021. [Online]. Available: https://www.weforum.org/communities/gfc-on-good-governance/.

[9] R. Blomeyer, "Parliamentary integrity systems in Europe the personal responsibility dimension," *The Journal of Legislative Studies*, vol. 26, no. 2, pp. 558–577, 2020.

[10] World Bank, "Control of Corruption Indicator (CCI)." [Online]. Available: https://rm.coe.int/16806efb59.

[11] Transparency International, "Corruption perceptions index 2024," 2024. [Online]. Available: https://images.transparencycdn.org/images/Report-CPI-2024-English.pdf.

[12] United Nations, "17 Goals to Transform Our World," 2016. [Online]. Available: www.unglobalcompact.org/sdgs/17-global-goalssdg16.

[13] N. Kossow and V. Dykes, "Embracing Digitalisation: How to use ICT to strengthen Anti-Corruption," GIZ, 2018.

[14] M. U. Tariq, "The Role of Emerging Technologies in Shaping the Global Digital Government Landscape," in *Emerging Developments and Technologies in Digital Government*, 2024, pp. 160–180.

[15] D. A. Seiam and D. Salman, "Examining the global influence of e-governance on corruption: a panel data analysis," *The Journal of Legislative Studies*, vol. 26, no. 2, pp. 558–577, 2024.

[16] C. Castro and I. C. Lopes, "E-government as a tool in controlling corruption," *International Journal of Public Administration*, vol. 46, no. 16, pp. 1137–1150, 2023.

[17] S. Suherlan, "Digital Technology Transformation in Enhancing Public Participation in Democratic Processes," *Technology and Society Perspectives (TACIT)*, vol. 1, no. 1, pp. 10–17, 2023.

[18] P. Silal, A. Jha, and D. Saha, "Examining the role of E-government in controlling corruption: A longitudinal study," *Information and Management*, vol. 60, no. 1, p. 103735, 2023.

[19] C. H. Park and K. Kim, "E-government as an anti-corruption tool: Panel data analysis across countries," *International Review of Administrative Sciences*, vol. 86, no. 4, pp. 691–707, 2020.

[20] I. Ismail, A. Fathonih, H. Prabowo, S. Hartati, and F. Redjeki, "Transparency and corruption: does e-government effective to combat corruption?," *International Journal of Psychosocial Rehabilitation*, vol. 24, no. 4, pp. 5396–5404, 2020.

[21] J. Arayankalam, A. Khan, and S. Krishnan, "How to deal with corruption? Examining the roles of e-government maturity, government administrative effectiveness, and virtual social networks diffusion," *International Journal of Information Management*, vol. 58, p. 102203, 2021.

[22] M. Machmud, J. Fatimah, M. Sultan, and M. Farid, "Social media as communication tools for anti-corruption campaign in Indonesia," *International Journal of Data and Network Science*, vol. 8, no. 1, pp. 357–368, 2024.

[23] G. Saeed, J. C. Kohler, R. E. Cuomo, and T. K. Mackey, "A systematic review of digital technology and innovation and its potential to address anti-corruption, transparency, and accountability in the pharmaceutical supply chain," *Expert Opinion on Drug Safety*, vol. 21, no. 8, pp. 1061–1088, 2022.

[24] I. Adam and M. Fazekas, "Are emerging technologies helping win the fight against corruption? A review of the state of evidence," *Information Economics and Policy*, vol. 57, p. 100950, 2021.

[25] R. Matheus, M. Janssen, and T. Janowski, "Design principles for creating digital transparency in government," *Government Information Quarterly*, vol. 38, no. 1, p. 101550, 2021.

[26] A. Hussain, "ICT-driven transparency: Empirical evidence from selected Asian countries," *Journal of Telecommunications and the Digital Economy*, vol. 11, no. 3, pp. 19–41, 2023.

[27] Reuters, "IMF: Global corruption costs trillions in bribes, lost growth," 2016. [Online]. Available: https://www.reuters.com/article/us-imf-corruption/imf-global-corruption-costs-trillions-in-bribes-lost-growth-idUSKCN0Y22B7.

[28] S. Wickberg, "Technological Innovations to Identify and Reduce Corruption," U4 Expert Answer, 2014. [Online]. Available: www.u4.no/publications/technological-innovations-to-identify-and-reduce-corruption/.

[29] I. G. Aghadiuno, J. U. Nwachukwu, F. A. Feyintoluwa, and B. A. Adedotun, "The Role of Information and Communication Technology (ICT) in Curbing Corruption in the Public Sector," 2022.

[30] R. Ayachi, I. Boukhris, S. Mellouli, N. Ben Amor, and Z. Elouedi, "Proactive and reactive e-government services recommendation," *Universal Access in the Information Society*, vol. 15, pp. 681–697, 2016.

[31] S. Arshad and S. Khurram, "Can government's presence on social media stimulate citizens' online political participation? Investigating the influence of transparency, trust, and responsiveness," *Government Information Quarterly*, vol. 37, no. 3, p. 101486, 2020.

[32] DataReportal, "Global Digital Insights," 2024. [Online]. Available: https://datareportal.com/social-media-users.

[33] Cambridge Dictionary, "Cambridge Dictionary," 2024. [Online]. Available: https://dictionary.cambridge.org/dictionary/english/social-network.

[34] United Nations Development Programme, "Let's stand UnitedAgainstCorruption!," 2017. [Online]. Available: https://www.unodc.org/unodc/en/frontpage/2017/December/lets-stand-unitedagainstcorruption.html?ref=fs3.

[35] WINOU ETTROTOIR, "Group Facebook Winou ettrotoir," 2016. [Online]. Available: https://fr-fr.facebook.com/groups/1008279892518211/.

[36] United Nations Development Programme, "What's Collective Intelligence," 2023. [Online]. Available: https://www.undp.org/acceleratorlabs/untapped/about-untapped/why-collective-intelligence.

[37] C. K. Jha and S. Sarangi, "Does social media reduce corruption?," *Information Economics and Policy*, vol. 39, pp. 60–71, 2017.

[38] M. M. Morshed and T. Mazumder, "Does Facebook penetration improve governance? A reflection on the World Governance Indicators of 185 countries," *Digital Policy, Regulation and Governance*, vol. 25, no. 1, pp. 1–14, 2023.

[39] C. Berti, R. Bratu, and S. Wickberg, "Corruption and the media," in *A Research Agenda for Studies of Corruption*, 2020, pp. 107–117.

[40] Iwatch Association, "Iwatch," 2011. [Online]. Available: www.iwatch.tn.

[41] Albawsala, "Albawsala," 2011. [Online]. Available: www.albawsala.com.

[42] Iwatch Association, "Bill'kamcha," 2013. [Online]. Available: www.billkamcha.tn.

[43] Iwatch Association, "Iwatch Facebook Page," 2020. [Online]. Available: https://www.facebook.com/I.WATCH.Organization/posts/2761306657257212/.

[44] Toile des associations pour le civisme et le développement, "Fix Kairouan," 2013. [Online]. Available: www.fixkairouan.org.

[45] Tunisian Legislator, "Law 2017-10 of the 7 March 2017 related to the denunciation of corruption and the protection of whistleblowers," 2017. [Online]. Available: https://legislation-securite.tn/latest-laws/loi-organique-n-2017-10-du-7-mars-2017-relative-au-signalement-des-faits-de-corruption-et-a-la-protection-des-lanceurs-dalerte/.

[46] A. Kwiliński, K. Szczepańska-Woszczyna, O. Lyulyov, and T. Pimonenko, "Government effectiveness and immigrant outflows: Their role in advancing greenfield investment globally and regionally," *Polish Journal of Management Studies*, vol. 29, no. 2, pp. 365-379, 2024.