

# TECHNOLOGY FOR GOVERNANCE: A BOON OR A BANE?

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## ABSTRACT

*This is a conceptual paper that sheds light on the ways in which technology helps or hinders improving the quality of governance. Though it sounds great to think about technology for governance, in reality, technology has opened ways to do unethical things in ethical ways (Roland L., Christof R., and Jacqueline M., 2023). Having been inducted into various types of technology-based tools and gadgets, the common man had to either accept or keep himself aloof from the mainstream for various purposes of personal and social life. The common man's reality is to either go with the flow or revert to the previous era. Are we really prepared enough for such a change? Have we reached the appropriate level of development in terms of the usage of technology-bound tools and mechanisms for our day-to-day affairs? If yes or no, were the outcomes or results achieved as promised? This paper deals with seemingly trivial things that, if not addressed properly, can even devastate the entire ecosystem of business, personal life, and social life with regard to governance and professional integrity. The methodology used in this study is summative content analysis using the PRISMA Protocol based on selective reduction principle studies chosen from the scholarly works that were published in the last decade. This paper differs from existing knowledge in terms of its approach to the common governance and ethics-related issues that are involved in making technology a tool for governance and expected to satisfy the common man's needs. The results are discussed in terms of failure types such as ethical failure, governance failure, technology failure, and human failure.*

**KeyWords:** Technology for Governance, Governance, Goodness Breeds Badness, Bad Barrel Approach, Ethical Failure, Governance Failure, Technology Failure and Human Failure, Fraud, Scam, Scandal.

## Technology for Governance: A Boon or Bane?

## INTRODUCTION

In recent times, technology has taken up a full range of its space irrespective of its application and advantage in all the fields of a common man's life, such as applications expanding from automatic driving and smart manufacturing to personal healthcare and algorithm-based social media utilization.

The trio model of governance through technology encompasses the relationship among the government, its citizens, and the technology that unites the other two. But it is a harder reality to believe that the extent to which technology is expected to unite the other two is also the reason for the divide between them.

Earlier, for everything, a common man had to depend on the people involved, and due to the same reason, there was a human touch in everything, i.e., governance, transparency, accountability, and service delivery that is expected in a transaction. Now, being technology-inducted, we tend to get more dependent on the technology than the human element in all our transactions. What is the essentiality of the human elements in such transactions? If anything goes wrong, the parties involved in the entire transaction are supposed to be humans, and they come into contact with each other and try to resolve the issues across the table. But if this vital element called 'human' is removed or replaced with technology, what happens? Technology happens to be no man's responsibility. Then, whose responsibility is governance through technology? Transparency and accountability rest on whose shoulders? Who

executes service delivery if technology is involved? Though there are mechanisms to check and monitor the end-to-end processes, there are still lakhs and lakhs of cases of non-settlement (Al Lee-Bourke, 2023). What is the reason behind those cases? Are they technology failures, or are they failures in the techno-ecosystem? Here, the author distinguishes the failures as either technology failures or failures in the techno-ecosystem, i.e., failures in ethics, governance, or human involvement.

This paper sheds light on the ways in which technology helps or hinders improving the quality of governance. Though it sounds great to think about technology for governance, in reality, technology has opened ways to do unethical things in ethical ways. Having been inducted into various types of technology-based tools and gadgets, the common man had to either accept or keep himself aloof from the mainstream for various purposes of personal and social life. The common man's reality is to either go with the flow or revert to the previous era. Are we really prepared enough for such a change? Are we really capable of handling such change mechanisms? Have we reached the appropriate level of development in terms of the usage of technology-bound tools and mechanisms for our day-to-day affairs? If yes or no, were the outcomes or results achieved as promised? This paper deals with seemingly trivial things that, if not addressed properly, can even devastate the entire ecosystem of business, personal life, and social life with regard to governance and professional integrity to a greater extent. The paper sheds light on those issues that were the promises of the technology giants as outcomes of the proposed projects but failed in implementation or failed to give the promised results. Having all these doubts and assumptions in mind, the author tries to identify the basic reasons for which the technology, though invested in huge amounts of money, goes wasted or less utilized when compared to the promises assured during project proposal, project funding, project initiation, and project implementation (Muria-Tarazón, J.C.; Gil-Gómez, H.; Mesa-Gresa, P.; and Gil-Gómez, J.-. 2023; and Olesen, K.; Narayan, A.K. & Ramachandra, S. 2013). This paper contributes to the literature in ethics, governance, and technology, with a specific focus on technology-based governance.

## Objectives

The paper aims at the following objectives:

1. To disseminate knowledge on what and why aspects of governance are at stake with the advent of technology.
2. To explain the causes for failures, i.e., ethical failure, governance failure, technological failure and human failure in technology adoption and technology-based governance basing the existing theories of ethics, governance and technology with reference to certain recent frauds, scams and scandals that came into limelight.

## Theoretical Framework

The study bases its arguments on three theoretical frameworks: ethics theories, governance theories, and technology theories. There are highly controversial debates, especially in an ethical environment. They explain how the perfectly ethical environment of an organization can lead to more unethical behaviors. This assumption goes with the theory that a more ethical environment triggers more threatening forces, due to which the employees of the organization get caught in these threats. Those threatening forces are listed as upward, downward, backward, and forward forces (Kaptein M, 2023). The aim of bringing in a perfect ethical environment and governance always finds the outcomes to be just opposite of the intention.

According to Leftwich, A. (1993), good governance entails a committed public service forum, a clear legal framework with an independent judicial system of contract execution, public funds management, and accountability; it also includes respect for local laws and encompassing human rights regardless of the levels of administration and service; and, above all else, an institutional structure and a

free press. Colebatch H.K. (2014) opined that the term governance means only two things, such as a set of rules and the whole process of governing. He also identified that the application of the term governance has taken a shift from a government-alone framework to a negotiation framework. The reason he posed it is that aspects of governance include not only government as a machinery but also all other stakeholders who are non-government participants. Due to the same reason, governance is not only a political and/or bureaucratic practice but also a social practice (Althaus, C., Bridgman, P., & Davis, G. 2013; Olesen, K., Narayan, A.K., & Ramachandra, S. (2013); and Pandey, N., Dé, R., & Ravishankar, M.N. 2022).

There are two varied but interlinked perspectives on good governance. They are governance without government, which necessitates the involvement of government as an essential element of governance, and network governance, which necessitates the involvement of other stakeholders as essentially as government. They place their connotations as follows: The former one lies on the rationalistic perspective that necessitates the involvement of government as principal and the others as agents—the principal-agent theory where the agent acts on behalf of the principal and should not have a conflict of interest in carrying out the act; Pandey, N., Dé, R., & Ravishankar, M.N., 2022). The latter one lies in the institutionalist perspective, wherein all the stakeholders' involvement in the business is considered essential (Srensen & Torfing, 2007; Torfing, J., Pierre, J., Peters, B. G., & Sorensen, E., 2012; Felipe, 2023; Srensen & Torfing, 2007).

In technology terms, the avalanche effect (facing the adverse effect in the place of anticipated effect) is natural as to the ethics theories such as the attention theory, where there are four interrelated attention regulators on the level of the organization that govern decision-makers' attention: structural positions, rules of the game, resources, and players. (Ocasio, 1997); the forbidden fruit theory explains that anything that seems to be unavailable is, as a result, more desirable (Bushman & Stack, 1996); the organizational trust theory holds that employees' attitudes and behaviors depend on the degree of trust and support they receive from the organization (Mayer et al., 1995); the resource dependence theory insists on the transactions among all the stakeholders essentially for resource creation (Durand et al., 2019); the social identity theory (Albert & Whetten, 1985); the theory of moral progress opines that the moral judgements that people make depends mostly on the changes in the socio-economic and epistemic conditions (Kaptein, 2021); the theory of organizational ecology examines how organizational populations change and develop over time through stages of founding, growth, transformation, decline, and death (Heine & Rindfleisch, 2013); and the status theory holds that status is not only beneficial, but also devastating to result in negative performance consequences (McDonnell & King, 2018). The forces need not be bad, but the associated organizational and environmental forces may lead the employees to bad behaviors, as shown in the picture below:

The technology determinism theory necessitates technology as an essential driver of social change as it plays a vital role in shaping and controlling human behavior and society. The social construction theory (SCOT) contends that because social factors like values, beliefs, and power dynamics shape technology, it is a product of social processes. The actor-network theory (ANT) opines that technology is a network of actors, both human and non-human, as they interact and influence each other. The design-in-use theory proposes developer-user differences and resulting issues in managing technologies (Mónica Salazar-Acosta and Adam Holbrook, 2008; Pandey, N.; Dé, R.; & Ravishankar, M.N., 2022).

This paper differs from existing knowledge in terms of its approach to the common governance and ethics-related issues that are involved in using technology as a tool for governance. It also differs in its attempt to connect the ongoing fraud, scams, and scandals to the failure of governance through technology. The theories that are taken into consideration for explaining their ideas in terms of

technology-enhanced governance are discussed hereunder.

## Methodology

The methodology used in this study is summative content analysis using the PRISMA protocol based on the selective reduction principle. Thus, the author has tried to keep the concerns of trustworthiness, credibility, or internal consistency intact (Hsieh & Shannon, 2005). Studies were chosen from the scholarly works that were published in the last two decades (from 2003 to 2023), which is the period of the technology era (GPCC, 2018).

## Data Collection and Analysis

For possible inclusion, every Scopus article published between 2003 and 2023 underwent evaluation, and if it satisfied the criteria, it was included in the study. The PRISMA Protocol (2020) was used to screen and choose the articles scientifically. The strategies adopted in the study to finally select 51 articles from among 1265 are discussed as follows:

### Article Inclusion criteria

#### Subject Content

- a. Governance Approach (80)
- b. Governance (73)
- c. It Governance (47)
- d. Information Technology Governance (24)
- e. Decision Making (28)

**Journal category:** Only open access (51) - as the researcher has intended to read the full articles for the purpose of retrieving the contents, the closed access journals were exempted from the study.

**Journal Articles:** (Out of 605 due to the reasons mentioned above 554 was eliminated and finally 51 articles were chosen).

- 1. Regulation and Governance - 9
- 2. Corporate Governance (Bingley) - 2
- 3. Corporate Governance: An International Review - 2
- 4. Politics and Governance - 6
- 5. Journal of Management and Governance - 2
- 6. International Journal of Disclosure and Governance - 2
- 7. Developments in Corporate Governance and Responsibility - 2
- 8. Annals of Corporate Governance - 3
- 9. Law, Governance and Technology Series - 9
- 10. Corporate Governance and Organizational Behavior Review - 2
- 11. CSR, Sustainability, Ethics and Governance - 15
- 12. International Journal of Regulation and Governance - 4

### Article Elimination Criteria

- \* Technology including blockchain and investment (42)
- \* IT (47)
- \* Innovation (39)
- \* Country specific journal titles

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| * Article in press (26) | * Book chapters (192)                      |
| * Books (47)            | * Editorial (29)                           |
| * Notes (10)            | * Erratum (7)                              |
| * Conference review (4) | * Short survey (1)                         |
| * Report (1)            | * Could not retrieve the full version (12) |

### Domains Covered in the Chosen Articles (6)

1. Governance in finance, banking and taxation
2. Governance in education
3. Governance in sales and marketing

### Technology - as a part of Governance

In terms of governance, even experts are of the opinion that the impact of artificial intelligence or a simple technological interface can also play a big role in turning positive human behavior into negative behavioral outcomes, especially due to the influence of algorithm biases. Managing these biases would require a deep understanding of the human ethical implications and the interface of technology to address them. This skill is generally lacking in the minds of those who are involved in managing the technology, especially the artificial intelligence tools. Only if the manager's awareness of ethical considerations is improved, the management of algorithmic ethical considerations shall be managed in better ways and implemented appropriately through the tools of technology (GP NGAI, 2019; Zeleti, F.A., Walsh, G.S., Ojo, A., & Mulligan, E., 2021; and Pandey, N., Dé, R., & Ravishankar, M.N., 2022). The paper classifies these kinds of failure reasons into four categories of failure and discusses their cause and effect in terms of the existing literature.

Governance is compromised due to ethical failure; lack of accountability, lack of appropriate user testing, or non-attended or poor feedback mechanisms are some ethical reasons due to which technology-based governance fails (Al Lee-Bourke, 2023; and Tom Burton, 2023). Risks of privacy invasion, bias, and accountability issues have also been taken as serious concerns of governance in ethical terms (Confederation of Indian Industry, 2023, and Felipe Berhau, 2023).

Governance is compromised due to governance failure; the decisions and the making of decisions also cause reasons for technology failure in governance. Matters like allocating technology assignments exclusively to the information technology department or excluding other departments create such issues of governance failures (Al Lee-Bourke, 2023). Shifting the risk and loss onus onto the users or consumers of digital services has been found to be a permanent menace that takes all the advantages of user ignorance (Tom Burton, 2023; and Rob Lilley, 2023).

Governance compromised due to technological failure, the project or process failure, especially in technology, and the menace of the concerned experts hiding the fact about failures while in operation and the absence of algorithmic transparency, inefficient technology, or technical glitches not being cared for is another reason for governance failure (Al Lee-Bourke, 2023; Tom Burton, 2023; and Marco Lancaster, 2023). According to the Chief of the United Nations, other aspects of technology failure include the availability of technology for free hate speech, widespread discrimination, and exacerbated economic inequality (UN News Global, 2023).

### Governance is Compromised due to Human Failure

The failure in acquiring and preserving the managerial capabilities to deal with the

technology embedded systems and processes, especially in the case of information technology governance issues (Singh, H.P., & Alhulail, H.N., 2023; & Zambrano-Vera, D., 2023; Elazhary, M.; Popovi, A.; Henrique de Souza Bermejo, P., and Oliveira, T. (2023); Zeleti, F.A.; Walsh, G.S.; Ojo, A.; Mulligan, E., 2021; and Marco Lancaster, 2023) happen to be one of the reasons for failure in governance through technology. Inefficient communication, poor planning and management of timelines, and attempting to solve the wrong problem without knowing what the right problem is are some other reasons for human failure in technology-based governance (Al Lee-Bourke, 2023; Felipe Berhau, 2023).

### **Discussions basing the Theoretical Conformity**

Based on the analysis done on the retrieved and chosen articles, it is clear that they are appropriately based on the intended theories and conform to the ideas and assumptions of the experts and theorists.

Ethical issues, like lack of accountability, lack of appropriate user testing, non-attended or poor feedback mechanisms, risks of privacy invasion, and bias, are human errors; with the advent of technology, they have turned into technology issues. Thus, they shall be understood as governance through technology matters to be addressed appropriately. This confirms to the organizational trust theory (Mayer et al., 1995), the theory of moral progress (Kaptein, 2021),

Governance failures such as decisions and the making of decisions, allocating technology assignments excluding other departments (Albert & Whetten, 1985), conforming to the principal-agent theory (Pandey, N., Dé, R., & Ravishankar, M.N., 2022), and shifting the risk and loss onus onto the users and consumers of digital services are issues of governance depending mostly on the use and abuse or misuse of technology. This confirms the attention theory (Ocasio, 1997), the forbidden-fruit theory (Bushman & Stack, 1996), the theory of organizational ecology (Heine & Rindfleisch, 2013), the status theory (McDonnell & King, 2018) and the institutionalization theory (Srensen & Torfing, 2007; Torfing, J., Pierre, J., Peters, B. G., & Sorensen, E., 2012 and Felipe Berhau, 2023).

Project or process failure, especially in technology, with technology experts hiding the facts about those failures and the absence of algorithmic transparency, inefficient technology or technical glitches not being cared for, the availability of technology for free hate speeches, proliferated discrimination, and amplified economic inequalities are mostly the failures of technology observed. This confirms the theories of the resource dependence theory (Durand et al., 2019), the technology determinism theory, the social construction theory, which highlights how concepts like race, gender roles, and beauty are not natural or normal (SCOT), the actor-network theory, which attempts to provide analytical tools for explaining the very process by which society is constantly reconfigured (ANT), and the design-in-use theory, which involves the emergence of unanticipated uses and transformations in the structure and characteristics of the product (Mónica Salazar-Acosta and Adam Holbrook, 2008; Pandey, N., Dé, R., & Ravishankar, M.N., 2022).

Failure in acquiring and preserving the managerial capabilities to deal with technology, inefficient communication, poor planning and management of timelines, and not knowing what the right problem is are mostly human failures in governance, according to theories such as the good governance theory (Leftwich, 1993) and the institutionalization theory (Srensen & Torfing, 2007; Torfing, J., Pierre, J., Peters, B. G., & Sorensen, 2012; Felipe Berhau, 2023).

### **CONCLUSION**

Irrespective of the sectors and domains, governance has been compromised, and

technology has been behind it, either enabling or inefficiently working as a reason or cause for such compromises. In these terms, it is for sure that technology, in whatever name, at whatever level, and whatever service it enables, is a bane if it does not address the issues of compromise on personal data, personal safety, personal security, personal and professional integrity, and the professional well-being of the common man. Though a series of debates arise here and there, even at the policy-making process and level, the resolutions are either not taking place or are not effective in curtailing such a menace.

### Suggestions

1. Technology should be made a domain of common business applications, not an exclusive department of information and technology.
2. Provisions for concrete legal requirements of responsibility and accountability have to be brought in.
3. Cross-industry codes to curtail the data breach issues and consumer privacy invasion issues have to be recommended by the Australian government.
4. Enforcement of strong bans on unsolicited marketing calls and emails as in the case of Britain has to be strengthened.
5. Strong enforcements against the media house creating a big hype about something not tested for its worth.

### Managerial implications

This article would help in dealing with ethical and governance issues pertaining to the common usage of technology in any domain such as sales, marketing, finance, banking, taxation, education, human resource management with a skill development focus, and most of the service sectors. For example, technology in sales should essentially be transparent. Technology in marketing should necessarily be trustworthy and reliable in terms of customer communication, and technology should not be used to hide these matters from the buyer. Technology in finance should be used for more customer-focused communication than the making of money. Thus, governance has to be executed as promised.

### Research Implications

This is qualitative research. Hence, the scope of this work is limited to a conceptual type. The scope for research in the areas of governance, especially with reference to the recently developed frauds, scams, and scandals, is very vast. Hence, the basis of this article has a good chance of being taken up as empirical research in the future.

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