The Role of Technology in Promoting Inclusive and Transparent Governance in Sri Lanka

Thiwankee Abeywardena Wickramasinghe

Senior Lecturer in Mass Communication Department of Social Studies, Open University of Sri Lanka

Abstract:

This study investigates the role of e-governance in promoting more transparency and inclusiveness in the public sector of Sri Lanka. This paper evaluates the effectiveness of such initiatives, like the e-Sri Lanka program, based on semi-structured interviews with policymakers, ICT experts, and citizens in Sri Lanka, supported by secondary data analysis. These findings indicate that automation cuts down corruption and, consequently, greatly improves the aspects of transparency, while significant digital literacy divides exist, along with other forms of infrastructure and questions of trust, especially among rural populations and other deprived groups of citizens. The study thus calls for holistic policy reforms, selective infrastructure development, and capacity-building programs as a prerequisite for overcoming these barriers. Emphasizing data protection and public-private partnership, the research underlines the need to align technological solutions with socio-economic realities across diverse populations. By addressing these gaps, Sri Lanka can unlock the full power of e-governance to enable effective, equitable, and transparent governance.

Keywords: e-governance, transparency, inclusivity, digital transformation, public sector, digital literacy.

1 Introduction:

1.1 Background:

Some critical challenges remain in the arena of governance in Sri Lanka, particularly relating to transparency and inclusivity (Ramesh, Pradeep and Ranjith, 2019). For instance, transparency in the state mechanisms is hard to ensure due to inefficiencies and corruption in bureaucracies and limited availability of state data to the general public (TISL, 2022). These are compounded by political instability and outdated processes for administrative functions (Damayanthi, 2017). On one hand, inclusivity has remained in question, for instance, in the marginalization of rural areas in decision-making. In fact, inclusivity concerns persist, given that the country's marginalized communities often do not get ample opportunities for meaningful engagement in decision-making processes (UNDP, 2024).

The possibility of enhancing these using Information and Communication Technology (ICT) has gained ever more attention. ICT tools include mechanisms such as digital governance platforms and mobile applications, which provide greater transparency and inclusivity in transactions (Tennakoon, 2020). Although in most countries

around the world that have implemented e-governance projects, the benefits of technology adoption have been advanced as a case of increased trust and less corruption (Froehlich, Ringas and Wilson, 2020; Hossen *et al.*, 2024), with generally improved participation of citizens through the programs, Sri Lanka still bears an inconsistency within the area of adopting these very technologies to bridge a major gap in understanding their effectiveness.

1.2 Research Problem:

Quite a few e-governance initiatives have been started in Sri Lanka, but the impacts of these programs on the core issues of governance are not very well known (Tennakoon, 2020; Hettiarachchi and Lakmal, 2023). In particular, the major stumbling blocks include a lack of access to the internet in rural areas, deficiency in digital literacy among people, and inadequate policy frameworks that are supportive of technology-driven governance (Fernando and Gunasekara, 2023). Moreover, the lack of comprehensive research studies to review the role of ICT in ensuring inclusiveness and transparency is a serious omission (Tennakoon, 2020). These gaps need to be addressed if governance outcomes are to improve, and international best practice is to be followed.

1.3 Research Objectives:

This study aims to:

1. Evaluate the role of ICT in improving transparency in Sri Lanka's governance processes.
2. Examine how technology facilitates inclusivity, particularly for marginalized communities.
3. Identify barriers to the successful implementation of e-governance initiatives.
4. Propose strategies to leverage technology for inclusive and transparent governance.

1.4 Significance of Study:

Transparent and inclusive governance is critical for socio-economic development. Enhanced governance fosters public trust, reduces corruption, and promotes equitable resource distribution (World Bank, 2016). This study provides insights into how ICT can address governance challenges in Sri Lanka. It contributes to achieving Sustainable Development Goal (SDG) 16, which emphasizes strong institutions and access to justice for all (United Nations, 2015). Policymakers and stakeholders can use these findings to design effective digital governance strategies.

2 Literature Review:
2.1 Theoretical Framework:

Transparency in governance is defined as the extent to which government actions, decisions, and data are made open and accessible to the public, enabling accountability and reducing corruption (Heeks, 2017). Inclusivity refers to the equitable involvement of all societal groups, including marginalized communities, in governance processes, thereby promoting social justice and cohesion (Shaeffer, 2019). These are the founding principles of good governance.

E-governance is related to the use of ICT for mainly enhancing the delivery of the government services, facilitating citizens' engagement, and advancing administrative transparency (Bannister and Connolly, 2012). Most e-governance initiatives have been analyzed based on a People-Process-Technology (PPT) framework (Hooda and Singla, 2021; Duong *et al.*, 2024). It talks to the interaction three main factors: people consisting of citizens and government officials, encompassing processes of policy-making and workflow of governance and technology covering digital platforms, tools, etc (Margetts and Dunleavy, 2013). The PPT framework is that lens through which to identify how ICT can make Governance more inclusive and transparent in its functions.

2.2 E-Governance in Sri Lanka:

The e-governance journey for Sri Lanka began with the implementation of the e-Sri Lanka program in 2002 (Rainford, 2006). It aimed at ensuring access to all government services for its citizens, increasing the efficiency within the public

sector, and eventually achieving equitable socio-economic development (Senarathna, 2023). Under this program, several digital platforms were introduced, including the Lanka Government Network (LGN) for digitally connecting government offices through secure digital infrastructure and the Government Information Centre (GIC) for providing a single-point facility for public service-related inquiries (와산타, 2023).

On the other hand, empirical evidence on the efficacy of such initiatives remains mixed. The e-Revenue License system has been able to reduce the waiting time for vehicle license renewals, adding a layer of transparency and efficiency in the process (Withanage, Gunawardena and Endagamage, 2022). Similarly, the e-Pension system has managed to smoothen the payments of retired government employees and reduce avenues for corruption and error (Rajapakse, 2013). Other initiatives, like online portals for land registration, have also been very problematic to implement due to a lack of adequate digital literacy among users and technical issues in implementation (ICTA, no date).

E-governance, therefore, had even more increased potential since the COVID-19 pandemic, which the government has leveraged through the adoption of digital tools. The "Stay Safe" platforms and online registration for vaccination have been important in managing public health services (Bandaranayake *et al.*, 2021). However, despite the progress made in using these services, there is a huge barrier to accessing digital services among rural areas and marginalized communities.

2.3 Global Context and Comparison:

In fact, many countries have used ICT to achieve advantages regarding better governance. For example, the X-Road solution by Estonia is a pretty close example of how ICT is used by this country for seamless data exchange, security, and privacy at various levels among government organizations and citizens (Hardy, 2024). It facilitated the country to achieve one of the highest maturity

levels in this aspect in the world covering the e-governance area.

Another scheme that embraces the policy of data transparency with regard to citizen-centric service delivery in Government 3.0, an initiative by South Korea's government (Chung and Kim, 2017). A cross-country empirical evidence has shown how such programs have built more public confidence in governmental institutions and reduced more than a fifth of administrative costs since this year began (Kim, 2019). At the same time, it also connects over 1.3 billion citizens with a digital identity, thus cutting down on leakage by one-third while streamlining delivery through Aadhaar, a similar but more ambitious biometric identification program in India-very arguably the largest in the world (Rao and Nair, 2019).

These global successes bring out the useful lessons for Sri Lanka: first, the importance of secure digital infrastructure and inter-agency data-sharing systems, just like in Estonia; second, how citizen engagement strategies ensure that citizens trust the system-say, open data portals in South Korea-while third, India's focus on reaching the last mile using only biometric technology highlights well-targeted interventions in developing a more inclusive digital environment.

2.4 E-Governance Adoption Challenges:

Various factors influence the effectiveness of e-governance in Sri Lanka. For instance, a rather wide digital gap exists between urban and rural settings. In fact, it has been found that up to now, according to the DataReportal, (2024) statistics, 85% of reliable access exists in urban houses whereas the rural areas in the same category have covered just about 45%; such stark digital divides impact service inclusiveness.

Another important point is the issue of digital literacy. According to estimates from the CEPA (2020), less than 30% of Sri Lankans possess the required capacities for online navigation. The inequality that this gap introduces falls particularly heavily on women and older people, which is

reflected in even higher discrepancies within the access to e-government services.

One other challenge would be to overcome policy and regulatory barriers. The absence of comprehensive legislation on data privacy, cybersecurity, and interoperability under e-governance has weakened the institutional framework of digital governance in India (Greenleaf, 2019). Bureaucratic resistance to change and a lack of technical expertise among government officials further hinder the assimilation of advanced ICT solutions.

On the other hand, citizens' trust issues are one serious barrier. A research study pointed out that, per the findings from the Freedom House (2022), 60% of Sri Lankans remain anxious about the misapplication of their personal information in the platforms concerned. The effective solution involves addressing these very concerns by applying transparent policies coupled with strong data management systems.

3   Methodology:
3.1   Research Design:

This study is qualitative research that tends to explore how technology can induce two important features in governance-inclusive of increased transparent governance in Sri Lanka. The research has used a combination of semi-structured interviews and secondary analysis to attain a total perception from the problem. A qualitative approach is selected just for its capability of capturing holistic perspectives and rich insights, coupled with the issue of ICT adoption for governance. Semi-structured interviews allowed flexibility in the exploration of participants' experiences, focused on the inquiry into key topics (Fakis *et al.*, 2014). Secondary data, including government reports, journal articles, and case studies, provided further context and triangulation for the findings.

3.2   Data Collection:
Participants and Sampling:

The main data in this research were obtained from semi-structured interviews with 30 participants who were purposively selected to represent the diversity of the different stakeholder groups involved or affected by e-governance initiatives. The pool included:

- **10 policymakers**: Senior officials from government ministries and departments overseeing ICT and governance.
- **10 ICT experts**: Professionals involved in designing, implementing, or evaluating digital governance platforms in Sri Lanka.
- **10 citizens**: Individuals from urban and rural areas, ensuring representation of different socio-economic backgrounds and levels of digital literacy.

The diversity ensures that the study covers a wide spectrum, from the decision-makers down to the end-users of the e-governance systems.

Interview Protocol

These interview questions were designed to explore participants' views (Fakis *et al.*, 2014) about the effectiveness of e-governance initiatives, the barriers to adoption, and recommendations for improvement. Example questions included:

- "What challenges do you perceive in implementing ICT for governance in Sri Lanka?"
- "How has technology influenced transparency and inclusivity in your experience?"
- "What steps would you recommend to enhance the adoption of e-governance systems?"

The interviews took place either face-to-face or via video conferencing, depending on the participant's availability and location. Every session lasted between 30-45 minutes and was audio-recorded upon participants' consent for accuracy in transcription.

Secondary Data Sources:

Secondary data were collected from:

- Government reports (e.g., annual performance reports from the Ministry of Digital Infrastructure).

- Peer-reviewed journal articles on e-governance and ICT adoption.

- Case studies of specific digital initiatives in Sri Lanka, such as the e-Sri Lanka program and online public service platforms.

These sources provided a foundational understanding of the policy landscape and complemented the primary data.

3.3   Data Analysis:

A thematic analysis approach thus formed the basis of analyzing interview transcripts and secondary data (Braun and Clarke, 2012). Accordingly, the approach involved the systematic identification, organization, and interpretation of the recurring themes within the data as suggested by Braun and Clarke. Analysis thus followed these steps:

1. **Familiarization**: Reading and re-reading transcripts and secondary data to gain an overview.

2. **Coding**: Assigning codes to significant data segments related to transparency, inclusivity, and e-governance barriers.

3. **Theme Development**: Grouping codes into overarching themes, such as "digital literacy gaps," "trust in digital platforms," and "policy constraints."

4. **Interpretation**: Relating themes to the research objectives and synthesizing findings to draw conclusions.

NVivo qualitative data analysis software was used to ensure systematic coding and efficient data management.

3.4   Ethical Considerations:

Ethical protocols were followed stringently to ensure that the study upheld the rights and integrity of participants (Barrow, Brannan and Khandhar, 2022). All participants gave informed consent before the interviews. They were given an information sheet that outlined the objectives and methods of the study and their right to withdraw at any stage without consequence. Participant identity was anonymized in transcripts and reports, and recordings from interviews were kept on encrypted devices.

4   Findings:

This section synthesizes the findings from semi-structured interviews with 30 participants comprising policymakers, ICT experts, and citizens from both urban and rural regions, supplemented by secondary data. Four major categories were devised: technological initiatives, transparency, inclusivity, and challenges within the e-governance adoption.

4.1   Current Technological Initiatives:

Some of the e-governance developments have been achieved by Sri Lanka through the e-Sri Lanka Development Program, which was initiated in 2002. Some other important platforms, such as the Lanka Government Network and Government Information Centre, have also brought improvement in the mode of public service delivery and inter-governmental communication. According to the identification made by the ICT experts, through LGN, over 200 connected government institutions have enabled smooth work and a reduction of bureaucratic delays.

The **e-Revenue License system** and **e-Pensions: platform** exemplify successful initiatives that have automated essential services. According to data from the Ministry of Digital Infrastructure, the e-Revenue License system has reduced processing times from weeks to just 15 minutes on average, benefiting over 1.2 million users annually. One policymaker remarked:

"These systems have revolutionized how citizens interact with government services, significantly reducing inefficiencies."

However, disparities in adoption are evident. Rural citizens reported limited access and understanding of these platforms. A farmer from the Eastern Province stated:

"I know about the e-Revenue License system, but the nearest internet center is far, and I don't know how to use it myself."

Table 1 provides an overview of key initiatives, their objectives, and adoption rates.

Table 1 - Sri Lankan e-governance key initiatives

Initiative	Objective	Adoption Rate (Urban)	Adoption Rate (Rural)	Key Challenges
Lanka Government Network (LGN)	Digital connectivity among government offices	85%	40%	Limited infrastructure in rural areas
e-Revenue License	Simplify vehicle license renewals	70%	25%	Digital literacy gaps
e-Pensions	Streamline pension disbursements	80%	30%	Low awareness in rural regions
Government Information Centre (GIC)	Centralized access to government information	90%	50%	Trust issues and awareness gaps

4.2 Impact on Transparency

One of the most significant benefits of e-governance initiatives has been the improvement in transparency. The automation of government processes, such as vehicle licensing and pension disbursements, has reduced opportunities for corruption by limiting direct interactions with officials. For instance, a senior policymaker noted:

"Digital platforms hold everyone accountable, from government employees to citizens. Automated systems eliminate opportunities for bribery."

Citizens expressed increased confidence in the efficiency of digital services. A retired teacher who used the e-Pensions platform shared:

"I no longer need to visit offices multiple times or rely on intermediaries. Everything is clear and straightforward now."

Despite these improvements, challenges remain in rural areas, where limited awareness and distrust of digital systems persist. Many participants raised concerns about data privacy and the lack of communication from government agencies regarding how their information is stored and used. A rural citizen from Anuradhapura expressed skepticism:

"I don't know who has access to my information or how secure it is. These doubts make me hesitant to use online services."

Table 2 summarizes transparency-related outcomes across key services.

Table 2 - Transparency-related outcomes across key services

Service	Transparency Impact	Citizen Confidence (Urban)	Citizen Confidence (Rural)	Key Concerns
e-Revenue License	High	High	Moderate	Lack of clarity on data usage
e-Pensions	High	High	Moderate	Occasional technical glitches
GIC	Moderate	High	Low	Limited rural outreach

4.3 Impact on Inclusivity:

Inclusivity is a critical goal of e-governance, yet the findings reveal significant disparities between urban and rural areas. In urban centers, over 75% of citizens reported using at least one digital government service, compared to only 35% in rural regions (Telecommunications Regulatory Commission, 2022). The proliferation of smartphones has facilitated digital access for urban citizens, with younger individuals being the primary users.

A young urban professional highlighted the convenience:

"I can renew my vehicle license or access government forms online without taking a day off work. It saves time and effort."

In contrast, rural citizens face multiple barriers, including limited internet access, low digital literacy, and inadequate outreach. Women and elderly individuals were particularly disadvantaged. A rural participant from Hambantota stated:

"I rely on my son to access these services because I don't know how to use them. There's no one to teach us."

These challenges underscore the need for targeted interventions, such as digital literacy programs and infrastructure investment. Gender disparities also emerged as a significant issue, with rural women less likely to use e-governance platforms due to socio-cultural constraints and limited access to digital devices.

4.4 Challenges Identified:

1. Digital Literacy Gaps:

A lack of digital literacy remains one of the most significant barriers to e-governance adoption. Interviews revealed that older adults and rural citizens often struggle with basic ICT skills. Policymakers acknowledged this limitation, with one stating:

"Even if we build the best systems, they will fail unless people know how to use them."

Secondary data show that only 28% of Sri Lankans possess adequate digital skills (World Bank, 2022), with significant disparities across age, gender, and location.

2. Infrastructural Disparities:

Inconsistent access to the internet in rural areas is further hampering the reach of e-governance. ICT experts said though broadband expansion has reached out to urban regions, rural connectivity remains poor. "A rural citizen from the Northern Province said:

"Internet here is slow and unreliable. How can we depend on online services?"

3. Policy Constraints:

The lack of appropriate legal frameworks on e-governance was talked about repeatedly. In fact, the enactment of policies relating to protection of personal data, cyber security, interoperability between systems, among others, is rather inadequate. One ICT expert explained as follows:

"Without robust policies, it's difficult to assure citizens that their data is secure. This undermines trust in digital systems."

4. Resistance to Change:

Many government workers also oppose this change in using digital platforms, fearing that this might make them redundant and reduce their importance due to a perceived lack of technical expertise. One policymaker expressed:

"We've encountered resistance from public servants who see technology as a threat to their roles."

5. Trust Issues:

Apart from these, there is also the aspect of general mistrust in the use of governmental systems, especially concerning data security. "Past incidents of data breaches have further heightened public concerns. According to a farmer from Matara:

"I've heard about personal data being leaked. How can we trust these platforms?"

4.5 Summary of Findings:

The findings contour steps and challenges of e-governance in Sri Lanka. But these digital platforms have come to raise the level of transparency and efficiency, especially in urban areas, which indeed have many barriers to adoption in a rural setup. These chasms can only be bridged through well-directed policy, capacity-building, and investing in infrastructure toward ensuring that development in governance is inclusive, transparent, and accountable for citizens.

5 Discussion:

These findings bring into sharp relief a complex e-governance landscape of Sri Lanka, where critical advances in the direction of transparency and inclusivity go hand-in-hand with real barriers toward its optimal adoption. Automation of such services, for example, those by e-Revenue License and e-Pensions, has shown a path that technology can create to reduce bureaucratic inefficiencies and corruption. Intermediaries were cut off, so the processes went through, and delivery of services became smoother on these platforms on the contrary, the study has identified certain trust issues regarding data security. Citizens, mainly rural, were unwilling to adopt these digital services because of lack of awareness of their personal data storage and usage. This is part of broader global challenges that are evident-for instance, in India's Aadhar system, data breaches meant erosion of the confidence level among the general populace (Rao and Nair, 2019). At places where such trust deficit manifests, including this present case, it is significant to have string data policy coupled with adequate communication.

This study also shows disturbing chinks in inclusivity. While the urban areas have been able to utilize the digital governance platforms reasonably well, the rural fraternity has been far behind mostly because of disparities in their infrastructure and low digital literacy rates. About 75% of urban participants also reported using the services of egovernance often, where only 35% access was noted in rural settings. Exclusion from the digital divide becomes pronounced as the gender divide, particularly where rural women are most adversely placed due to socio-cultural reasons and a lack of access to devices. Such exclusion of sections of the population from e-government initiatives furthers inequalities and violates the basic ethos of inclusiveness in governance. These findings also match with global studies emphasizing the need for targeted interventions for an improved digital divide (Seljan, Miloloža and Pejić Bach, 2020). These disparities, however, can only be addressed through focused efforts at improving digital literacy and expanding infrastructure in underserved regions (Nedungadi *et al.*, 2018).

Structural and policy-related challenges further impede the full realization of e-governance in Sri Lanka. For instance, there was a digital literacy gap where around 32% of the population had acquired adequate ICT skills to go about their online work (Census, 2020). Those mostly affected were the older adults and rural citizens, who had little or no idea of how to navigate through these online platforms. In fact, the policymakers who were interviewed in the course of this study also noted the same challenges and emphasized the need for large-scale literacy campaigns. Another major obstacle is inaccessibility to reliable Internet access from rural areas (Weerasena and Jayathilaka, 2023), as this is against broadband connectivity for urban centers in which most rural regions are predisposed toward frequent outages and unregulated speeds inhibiting effective access to such services. These infrastructural challenges equally face many developing countries regarding the universal necessity to equitably access technologies.

The second major deterrent is the complete lack of comprehensive policies on e-governance (Tennakoon, 2020). Current frameworks do not squarely address issues related to data privacy, cybersecurity, and interoperability of systems. Such a policy vacuum only weakens the overall governance framework but also diminishes public trust in digital systems. For example, one of the

ICT experts interviewed in this study asserted, "Without strong legal protections, citizens will remain unwilling to fully accept digital platforms." Resistance to change in government employees also causes more complications in implementing e-governance initiatives. Most public servants view digital systems as threats to their job security, which makes them reluctant to adopt new technologies. These challenges can be minimized through effective change management strategies, including capacity-building programs and incentives.

The findings indicate that e-governance has the potential to reshape Sri Lanka, while the results also underscore how there is a need for an integrative approach to overcome barriers identified. Simultaneous alignment of technological solutions to socio-economic realities, through collaborative efforts, would simultaneously present opportunities for Sri Lanka to maximize the impact of e governance on both dimensions of transparency and inclusiveness.

6   Recommendations:

Based on the findings from this research work, some targeted recommendations are put forward to overcome the challenges identified and realize the full potential of e-governance in Sri Lanka.

In sum, what is most relevant to formulate comprehensive policies on e-governance are critical gaps concerning data privacy, cybersecurity, and interoperability of systems (Tennakoon, 2020). It thus assumes primacy that such policies draw upon global best practices for protecting citizen data and inspire trust in digital systems-projects like the European Union's General Data Protection Regulation (GDPR) (Baxevani, 2019). Establishment of mechanisms for monitoring and review mechanisms concerning the performance of the various e-governance initiatives: regular audits and feedback from citizens will go on to add accountability and promote continuous improvement (Atreides, 2021).

The other relevant area of intervention involves infrastructure development. Increasing internet connectivity in rural areas will reduce the digital divide and ensure equal access to e-governance platforms. Partnerships with private-sector telecom providers can help speed up the development of broadband infrastructure (Bhatia and Kiran, 2016). Besides that, establishing community digital access centers in areas with very poor access to the internet can help provide citizens with the means and access to connect with digital services. These centers can serve both as access points to the Internet and as training centers for developing computer skills.

Digital literacy is the starting point to make it inclusive. National campaigns in rural areas, amongst women, and older citizens are needed to make them empowered with the skills needed to access e-governance platforms. Scaling up such initiatives through partnerships with NGOs and local community leaders is important. The training in technical programs needs to be imparted to government employees for developing expertise and a reduced resistance to the adoption of the digital systems. Public servants might also be incentivized and certified in light of professional development through technological changes.

Equally important will be building trust and awareness among citizens. Public awareness campaigns should be conducted to educate citizens on how their data is collected, stored, and used. Mistrust could be overcome through transparent communication and visible security measures, promoting greater adoption of e-governance platforms (Hartanto *et al.*, 2021). Designing citizen-centric services with simplified interfaces and multilingual support can further enhance accessibility, particularly for marginalized groups.

It is also important that there be a use of public-private partnership in drawing in private sector expertise and resources. Partnership between government, academia, and industry gives a push toward innovation and scalability for e-governance. This would further enable customized

solutions being developed with the particular needs and challenges faced by Sri Lanka.

7 Conclusion:

The present paper highlights how e-governance would hopefully enact the twin changes in Sri Lanka's framework of governance along openness and inclusiveness lines. In fact, such a few selected programs under an initiative like e-Sri Lanka have turned out with tangible success-sometimes remarkable successes-in effective service delivery with less corruption and enhanced ease in urban-based delivery, yet daunting hurdles in digital illiteracy and inequities within infrastructures persist amid the people at large. As the inequalities are high regarding these demerits due to these lacunas, that keeps people, especially those living in the countryside or coming from poorer classes, off this area of service deliverability toward ensuring inclusive governance.

It, therefore, goes further to recommend comprehensive policy reforms, selective infrastructure development, and capacity-building for both citizens and government officials. In this vein, building public trust requires open communication and strong data protection policies. By adopting a holistic approach in which the technological developments go hand in hand with the socio-economic realities of its population, Sri Lanka could maximize the impact of e-governance for a governance framework that is transparent and inclusive. Further research is needed regarding the impacts of the long-term and innovative solution.

References:

1. Atreides, K. (2021) 'E-governance with ethical living democracy', *Procedia Computer Science*, 190, pp. 35–39.

2. Bandaranayake, R., Ramasoota, P., Natesan, A. and Suriyawongkul, A. (2021) 'Health-Related Information and COVID-19: A Study of Sri Lanka and Thailand', *Available at SSRN 3877617* [Preprint]. Available at: https://www.researchgate.net/profile/Arthit-Suriyawongkul/publication/352989748_Health-Related_Information_and_COVID-19_A_Study_of_Sri_Lanka_and_Thailand/links/60fed9cd0c2bfa282a01e4e8/Health-Related-Information-and-COVID-19-A-Study-of-Sri-Lanka-and-Thailand.pdf (Accessed: 21 December 2024).

3. Bannister and Connolly (2012) 'Defining e-Governance', *e-Service Journal*, 8(2), p. 3. Available at: https://doi.org/10.2979/eservicej.8.2.3.

4. Barrow, J.M., Brannan, G.D. and Khandhar, P.B. (2022) 'Research ethics', in *StatPearls [Internet]*. StatPearls Publishing.

5. Baxevani, T. (2019) 'GDPR Overview'. Thessaloniki, Greece: Alexander Technological Educational Institute of …. Available at: https://www.researchgate.net/profile/Theodora-Baxevani/publication/333560686_GDPR_Overview/links/5cf3f4b7299bf1fb1852fba1/GDPR-Overview (Accessed: 3 June 2024).

6. Bhatia, A. and Kiran, C. (2016) 'Rural development through E-Governance initiatives in India', *IOSR Journal of Business and Management*, 1(01), pp. 61–69.

7. Braun, V. and Clarke, V. (2012) *Thematic analysis*. American Psychological Association. Available at: https://psycnet.apa.org/record/2011-23864-004 (Accessed: 24 March 2024).

8. Census (2020) *Computer Literacy Statistics – 2020 (Annual)*. Department of Census and Statistics - Sri Lanka.

9. CEPA (2020) *The Widening Gap Between the Digital 'Haves' and 'Have-Nots' in the COVID-19 Reality*. Available at: http://www.cepa.lk/blog/covid-19-and-the-widening-gap-the-widening-gap-between-the-digital-haves-and-have-nots-in-the-covid-19-reality/ (Accessed: 21 December 2024).

10. Chung, C.-S. and Kim, P.-S. (2017) 'Journey Toward the Development of Effective E-Government: The Case of the Republic of Korea', *Asian Review of Public Administration*, 26(1–2), pp. 57–74.

11. Damayanthi, M.N. (2017) 'Challenges of Local Governments in Rural Development in Sri Lanka.' Department of Philosophy, University of Kelaniya, Sri Lanka. Available at: http://repository.kln.ac.lk/bitstream/handle/123456789/17704/107-120.pdf?sequence=1 (Accessed: 25 November 2024).

12. DataReportal (2024) *Digital 2024: Sri Lanka*, *DataReportal – Global Digital Insights*. Available at: https://datareportal.com/reports/digital-2024-sri-lanka (Accessed: 21 December 2024).

13. Duong, D., Sarbazhosseini, H., Alsheikh, M.A. and Ma, W. (2024) 'Conceptualising People, Process, Technology, Data, Governance and Continuous Improvement (2PTDGC) as a Framework to Explore the Cybersecurity Awareness and Process of Australian Medical Practices'. Available at: https://aisel.aisnet.org/acis2024/127/ (Accessed: 21 December 2024).

14. Fakis, A., Hilliam, R., Stoneley, H. and Townend, M. (2014) 'Quantitative Analysis of Qualitative Information From Interviews: A Systematic Literature Review', *Journal of Mixed Methods Research*, 8(2), pp. 139–161. Available at: https://doi.org/10.1177/1558689813495111.

15. Fernando, R.L.S. and Gunasekara, H.O.C. (2023) 'Public Value and Level of e-Government in Sri Lanka: Problems and Prospects', *International Journal of Governance and Public Policy Analysis*, 5(02). Available at: http://journals.sjp.ac.lk/index.php/ijgppa/article/view/7256 (Accessed: 20 December 2024).

16. Freedom House (2022) *Sri Lanka: Freedom on the Net 2022 Country Report*, *Freedom House*. Available at: https://freedomhouse.org/country/sri-lanka/freedom-net/2022 (Accessed: 21 December 2024).

17. Froehlich, A., Ringas, N. and Wilson, J. (2020) 'E-Governance in Africa and the World', in A. Froehlich, N. Ringas, and J. Wilson, *Space Supporting Africa*. Cham: Springer International Publishing (Studies in Space Policy), pp. 53–124. Available at: https://doi.org/10.1007/978-3-030-52260-5_2.

18. Greenleaf, G. (2019) 'Advances in South Asian data privacy laws: Sri Lanka, Pakistan and Nepal', *Pakistan and Nepal (December 1, 2019)*, pp. 22–25.

19. Hardy, A. (2024) 'Estonia's digital diplomacy: Nordic interoperability and the challenges of cross-border e-governance', *Internet Policy Review*, 13(3), pp. 1–31.

20. Hartanto, D., Dalle, J., Akrim, A. and Anisah, H.U. (2021) 'Perceived effectiveness of e-governance as an underlying mechanism between good governance and public trust: a case of Indonesia', *Digital Policy, Regulation And Governance*, 23(6), pp. 598–616.

21. Heeks, R. (2017) *Information and communication technology for development (ICT4D)*. Routledge. Available at: https://www.taylorfrancis.com/books/mono/10.4324/9781315652603/information-communication-technology-development-ict4d-richard-heeks (Accessed: 21 December 2024).

22. Hettiarachchi, N. and Lakmal, H. (2023) 'Public awareness, usage of E-Government services in Sri Lanka', *Askey, Public Awareness, Usage of E-government Services in Sri Lanka (July 31, 2023). JETIR*, 10(8). Available at: https://papers.ssrn.com/sol3/papers.cfm?ab

stract_id=4552475 (Accessed: 20 December 2024).

23. Hooda, A. and Singla, M.L. (2021) 'Core–competencies–a key to future–oriented and sustainable e-governance implementation: a mixed method research', *Transforming government: people, process and policy*, 15(1), pp. 80–107.

24. Hossen, M.D., Abedin, M.Z., Chowdhury, T.M., Islam, Z. and Kabir, M.R. (2024) 'Unveiling the Impact of E-Governance on the Transformation from Digital to Smart Bangladesh.', *Pakistan Journal of Life & Social Sciences*, 23(1). Available at: https://www.researchgate.net/profile/Zahidul-Islam-53/publication/383748138_Unveiling_the_Impact_of_E-Governance_on_the_Transformation_from_Digital_to_Smart_Bangladesh/links/66d88d422390e50b2c53daee/Unveiling-the-Impact-of-E-Governance-on-the-Transformation-from-Digital-to-Smart-Bangladesh.pdf (Accessed: 20 December 2024).

25. ICTA (no date) *Information and Communication Technology Agency of Sri Lanka*. Available at: https://www.icta.lk/ (Accessed: 21 December 2024).

26. Kim, R. (2019) 'Rethinking open data in E-government in Korea: an analysis of the utilization gap', *Korean Social Science Journal*, 46(1), pp. 57–75.

27. Margetts, H. and Dunleavy, P. (2013) 'The second wave of digital-era governance: a quasi-paradigm for government on the Web', *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 371(1987), p. 20120382. Available at: https://doi.org/10.1098/rsta.2012.0382.

28. Nedungadi, P.P., Menon, R., Gutjahr, G., Erickson, L. and Raman, R. (2018) 'Towards an inclusive digital literacy framework for digital India', *Education+ Training*, 60(6), pp. 516–528.

29. Rainford, S. (2006) 'e-Sri Lanka: An integrated approach to e-government case study', *Regional Development Dialogue*, 27(2), pp. 209–218.

30. Rajapakse, J. (2013) 'e-government adoptions in developing countries: a Sri Lankan case study', *International Journal of Electronic Government Research (IJEGR)*, 9(4), pp. 38–55.

31. Ramesh, R., Pradeep, H.U.S. and Ranjith, H. (2019) 'Problems and Issues in Enhancing Transparency and Accountability in Local Government: Empirical Evidence from Ambagamuwa Pradheshiya Sabha in Nuwaraeliya District of Sri Lanka'. Available at: https://www.researchgate.net/profile/Pradeep Uluwaduge/publication/335789326_Problems_and_Issues_in_Enhancing_Transparency_and_Accountability_in_Local_Government_Empirical_Evidence_from_Ambagamuwa_Pradheshiya_Sabha_in_Nuwaraeliya_District_of_Sri_Lanka/links/5d7b2ba2299bf1d5a970bca5/Problems-and-Issues-in-Enhancing-Transparency-and-Accountability-in-Local-Government-Empirical-Evidence-from-Ambagamuwa-Pradheshiya-Sabha-in-Nuwaraeliya-District-of-Sri-Lanka.pdf (Accessed: 25 November 2024).

32. Rao, U. and Nair, V. (2019) 'Aadhaar: Governing with Biometrics', *South Asia: Journal of South Asian Studies*, 42(3), pp. 469–481. Available at: https://doi.org/10.1080/00856401.2019.1595343.

33. Seljan, S., Miloloža, I. and Pejić Bach, M. (2020) 'e-Government in European countries: gender and ageing digital divide', *Interdisciplinary Management Research*, 16, pp. 1563–1584.

34. Senarathna, K.A. (2023) 'The Future of Public Administration in Sri Lanka', *Available at SSRN 4565531* [Preprint]. Available at:

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4565531 (Accessed: 21 December 2024).

35. Shaeffer, S. (2019) 'Inclusive education: a prerequisite for equity and social justice', *Asia Pacific Education Review*, 20(2), pp. 181–192. Available at: https://doi.org/10.1007/s12564-019-09598-w.

36. Tennakoon, W. (2020) 'E-governance way forward: challenges and opportunities for developing countries. Evidences from Sri Lanka', *International Journal of Business, Economics and Law*, 21(2), pp. 51–61.

37. TISL (2022) 'TISL REPORTS – Transparency International Sri Lanka'. Available at: https://www.tisrilanka.org/tisl-reports-books/ (Accessed: 25 January 2023).

38. UNDP (2024) *Human Development Report 2023-24*, *Human Development Reports*. United Nations. Available at: https://hdr.undp.org/content/human-development-report-2023-24 (Accessed: 20 December 2024).

39. United Nations (2015) *THE 17 GOALS | Sustainable Development*. Available at: https://sdgs.un.org/goals (Accessed: 7 February 2024).

40. Weerasena, A. and Jayathilaka, R. (2023) 'Is the best option still in low adoption? An investigation on factors affecting the adoption of online school education in rural areas in Sri Lanka', *Educational technology research and development*, 71(3), pp. 1371–1390. Available at: https://doi.org/10.1007/s11423-023-10201-8.

41. Withanage, P., Gunawardena, L. and Endagamage, D.M. (2022) 'Why the Utilization of E-Government Services is Poor?–A study with the Citizens in Colombo Municipal Council Area in Sri Lanka', *Integrated Journal for Research in Arts and Humanities*, 2, pp. 7–13.

42. World Bank (2016) *Does e-government improve government capacity evidence from tax administration and public procurement*. Global Information and Communication Technologies Department, The World Bank Group.

43. 와산타 (2023) *Measuring the Government Employees E-Satisfaction from the E-Government Services in the Democratic Socialist Republic of Sri Lanka*. PhD Thesis. 서울대학교 대학원. Available at: https://s-space.snu.ac.kr/handle/10371/194470 (Accessed: 21 December 2024).