



Improving Citizen Services through Digital Transformation in Local Government Post COVID-19: Voices of Graduates, South Africa

Hlengiwe Phetha¹  & Joram Ndlovu² 

¹ University of Zululand, Faculty of Humanities and Social Sciences, Zululand, South Africa.

² University of KwaZulu-Natal, School of Social Sciences, Durban, South Africa.

ABSTRACT

The Covid-19 pandemic hit in 2020 and quickly spread across the world resulting in millions of deaths. The efforts to curtail the spread of the virus during the pandemic resulted in governments across the world pronouncing measures to restrict the movement of people, introducing curfews, instilling travel bans and encouraging people to stay at home. These unprecedented restrictions have resulted in the disruptions of the global economy. Faced with a global menace, the public sector in South Africa is slowly adopting ICT in its operations to improve service delivery. Despite a series of ICT innovative initiatives conducted by corporations during covid-19 environment, local government has been reluctant to adopt ICT in its operations. To understand the role of ICT in creating employment opportunities in the local government during the coronavirus pandemic a qualitative approach was adopted where twenty participants were interviewed. Participants comprised 10 key informants from the public sector and tertiary institutions in KwaZulu-Natal. The results showed that the public sector has failed to transform structurally in major areas to deal with a health crisis. Given the weak transformation of the South African economy due to COVID-19, high numbers of graduates entered the labour market, most of whom were shunning the public sector. To address graduate employability in the public sector, policymakers need to involve graduates in decisions that are attractive to them and use ICT to bring about stability in the public sector and make it an integral part of the well-being of graduates. The failure to integrate graduates into the public sector was found to be due to a lack of certain attributes, serious skills mismatch and a general lack of capacity. Therefore, the public sector should bridge this gap by adopting ICT to meet labour market needs and individual graduates' attributes. Although the data in this work came from a small sample of key informants, it contributes significantly to expanding the scholarship on Digital Transformation in Local Government post-COVID-19.

Correspondence

Joram Ndlovu

Email: Ndlovuj1@ukzn.ac.za

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INTRODUCTION

The respiratory system can suffer significant harm from the Covid-19 which was discovered recently. Millions of people died as a consequence of the pandemic's worldwide expansion. The efforts of Governments to curb the spread of the pandemic pronounced strict measures to prevent unnecessary movement of people. Every country in the world, including South Africa, has seen economic disruptions as a result of these unprecedented restrictions. The COVID-19 pandemic has induced a process of digital acceleration and has likely changed the

attitudes of local public managers toward information and communication technology (ICT).¹ Digital services have long been encouraged by policymakers and researchers as the main interface for information exchange between citizens and local government organizations, enabling self-service for citizens as well as improving data quality for local governments.² Despite a series of ICT innovative initiatives conducted by corporations during the COVID-19 environment, local government has been reluctant to adopt ICT in its operations. In order to address the requirements of South Africans, the public sector, particularly the local government (LG), is currently experiencing a time of continual transformation and instability.³ Faced with a global menace, the public sector is slowly adopting New digitally-enabled public services in its operations to improve service delivery.⁴ Covid-19 has changed the economic structure and demographics of business today which has resulted in a number of challenges. In some cases, businesses have closed down, some have downsized and others have relocated to other places. The past decade has seen a steady increase in ICT and policy discourse on the absorption of graduates in the labour market.⁵ There is evidence that shows an increase in education in Africa's labour force. However, unemployment remains extremely high with educated unemployed graduates contributing significantly to the unemployment statistics. Covid-19 has set a tone for the use of ICT by both corporations and the public sector. Despite a series of innovative initiatives on the absorption of graduates into local government, unemployment among graduates remains a challenge. Using a qualitative approach this study addresses the following questions:

- What are the perceptions of graduates on the institutional changes and degree of digital maturity that have been made as a result of the use of new digital tools?
- What are the main outcomes of digital transformation in improving Citizen Services in Local Government post-COVID?
- What are the challenges faced by the graduates and the youth as a result of digitalization thus far in Local government?

LITERATURE REVIEW

ICT processes and the implementation of e-services in the public sector is a nuanced reality that is difficult to define.⁶ The COVID-19 pandemic has hit the youth hardest with those under the age of thirty-five accounting for 80% in the previous year. Employment figures for the youth are falling despite a rise in the number of people going to work. The statistics reflect the accumulative impact of lockdowns resulting from non-pharmaceutical measures to contain the virus. COVID-19 has provided significant windows of opportunity for this radical transformation in the public sector.⁷ The young workers bear the brunt of job cuts, some face pressures as they try to get food hold on their jobs due to the economic downturn. Some graduates have spent over two years after graduation without a job forcing them to live with their parents.⁸ As the COVID-19 pandemic evolves, unemployed graduates are unlikely to find jobs in the near future. The available jobs do not match the graduate skill set, so, youths end up applying for every job that they come across without any hope. On completion, graduates search for jobs related to their degrees. For instance, graduates who have done Politics and International Relations would be hoping they would be employed in the Department of International Relations or in local government as Political administrators and some dream of working for the United Nations or AU. After applying to several institutions related to their career prospects to no avail, the unemployed graduates will

¹ Jose M Barrutia and Carmen Echebarria, "Effect of the COVID-19 Pandemic on Public Managers' Attitudes toward Digital Transformation," *Technology in Society* 67 (2021): 101776.

² Ida Lindgren, Daniel Toll, and Ulf Melin, "Automation as a Driver of Digital Transformation in Local Government: Exploring Stakeholder Views on an Automation Initiative in a Swedish Municipality," in *DG. O2021: The 22nd Annual International Conference on Digital Government Research*, 2021, 463–72.

³ Pedro R. Palos-Sánchez et al., "Digital Transformation and Local Government Response to the COVID-19 Pandemic: An Assessment of Its Impact on the Sustainable Development Goals," *SAGE Open* 13, no. 2 (April 11, 2023): 215824402311673, <https://doi.org/10.1177/21582440231167343>.

⁴ D. Walcroft, G. Chiasson, and N. Murty, "Creating the Smart Cities of the Future. A Three-Tier Development Model for the Digital Transformation of Citizen Services," <https://www.pwc.com/us/en/industries/capitalprojects-infrastructure/library/assets/pwc-future-smart-cities.Pdf>, 2018.

⁵ M. Elnaghi et al., "Instigating Transformational Government at a Municipality Level: A Case Study," in *In Handbook of Research on ICT-Enabled Transformational Government: A Global Perspective*, ed. Vishanth Weerakkody (Brunel University, UK., 2009).

⁶ Palos-Sánchez et al., "Digital Transformation and Local Government Response to the COVID-19 Pandemic: An Assessment of Its Impact on the Sustainable Development Goals."

⁷ Cenay Babaoğlu, "Digitalization of Governments during the Pandemic: The Case of Türkiye," *Insight Turkey* 24, no.3(2022):151–66.

⁸ J. Brown, "Young People and Black Graduates Are Most Likely to Be Unemployed Because of COVID-19 Report Finds: Youth Unemployment an 'Urgent Problem' as It Can Permanently Affect Long-Term Earnings, Experts Warn," <https://www.peoplemanagement.co.uk/news/articles/young-people-and-black-graduates-most-likely-to-be-unemployed-because-of-covid#ref>, 2021.

end up applying for anything they can find but still without success. There is a feeling amongst graduates that being out of education means one cannot get a job which makes them very anxious. The COVID-19 pandemic presents the biggest challenge because organizations have frozen their recruitment programmes and internships have dried up. For instance, students who have trained in journalism have started working in corporations and banks as public relations officers and they are still struggling to strike an opportunity in the media. Those who have graduated in journalism have a limited range of job opportunities since some of the job openings are skills-specific. Journalism sometimes requires prospective employees to be first English speakers which adds a challenge to people of color.

Since the beginning of the pandemic, graduate opportunities have either been suspended or cancelled, so, there is no chance of gaining experience for the needed future job. In some cases, prospective employers need a certain number of experience before you can be shortlisted for a job. Thus, without the experience graduate's prospects of getting a job are minimal. The undesired decline in Science, Technology, Engineering and Mathematics (stem) students has led to an unfilled demand for ICT jobs and a very competitive environment for non-IT related jobs. Unlike other countries that have put in place technology and engineering programmes, South Africa is grappling with getting graduates who are highly skilled in software development and computer engineering.⁹ Graduates who have done marketing have become redundant since they are the first in line to be cut off when companies downsize. A tsunami of applications is hitting job openings and graduates are drowning in rejections amid a pandemic-induced economic slump with unemployed graduates fearing being Europe's lost COVID-19 generation.¹⁰ Business and engineering graduates have experienced harrowing rejections, which has created anxiety and a feeling of worthlessness among graduates. As the effects of covid-19 continue millions of young graduates across Europe have been scrambling in an over-crowded job market. For instance, youth unemployment now stands at 17% in the EU more than twice the general unemployment rate.¹¹ As employers halt the hiring plans during the pandemic there is fear that the entire generation would be left behind. Young people have become anxious and depressed since they are the hardest hit by the secondary effects of COVID-19. The number of people aged between 15 and 24 in the EU who are looking for a job or are under-employed rose by 5% in the past year.¹² Jobs have become unattainable, and applications for positions are attracting twice as many applicants as before. A lot of things have changed in the job market, entry-level jobs that did not require experience are now being taken by people with two or three years of experience.

The COVID-19 crisis has also been a new trigger for social change, lockdowns contributed to the deterioration of mental health and unemployed graduates are finding it difficult to remain hopeful.¹³ The risk of being a statistic of a loss generation is not surprising and this will not be temporal, young people are being forgotten since they are now forced to undertake unpaid contracts, and short-term contracts without receiving sufficient attention. The long-term effects of youth unemployment vary from permanent earnings to decreased optimism future.¹⁴ The greatest struggle young people face in South Africa is unemployment something that has worsened under the COVID-19 pandemic.¹⁵ Whilst, the youth unemployment problem remains the foremost priority for the government to support young people to access employment opportunities, tackling youth unemployment requires accelerating economic growth. One way of achieving this is the use of targeted interventions with a particular focus on labour-intensive sectors and building capacity for the state to fulfil its role. Therefore, to address youth unemployment, the government needs to develop a working model for skills development and flexible labour market policies. Ramaphosa's government recognizes young people as the greatest asset and the centre for boosting youth employment efforts.¹⁶ Young people have seen the worst rise in unemployment during the pandemic, according to new research with young Black workers nearly twice as likely as others of the same age to be unemployed.¹⁷ Statistics show that approximately 1.3 million people aged between 15-24 sit without work in South Africa for at least three months, while the vast majority of these people

⁹ Chen Anderson and Schroeder, "Innovation and Technology for Youth Employment," <https://www.un.org/esa/socdev/egms/docs/2013/ict/innovation-technology-youth.pdf>, 2015.

¹⁰ M. Sina, "Unemployed Graduates Fear Being Europe's Lost COVID-19 Generation," <https://www.dw.com/en/unemployed-graduates-fear-being-europes-lost-covid-19-generation/a-57018647>, 2021.

¹¹ Sina, "Unemployed Graduates Fear Being Europe's Lost COVID-19 Generation."

¹² Sina, "Unemployed Graduates Fear Being Europe's Lost COVID-19 Generation."

¹³ Gerald Cloete et al., "Defining The Future of Instruction in Hospitality Beyond Covid 19: A Hybrid Approach in Higher Education," *International Journal of Academic Research in Business and Social Sciences* 12, no. 1 (2022): 306–18; Babaoğlu, "Digitalization of Governments during the Pandemic: The Case of Türkiye."

¹⁴ Sina, "Unemployed Graduates Fear Being Europe's Lost COVID-19 Generation."

¹⁵ S. Writer, "Ramaphosa on South Africa's 46% Youth Unemployment Problem," <https://businessstech.co.za/news/business/498177/ramaphosa-on-south-africas-46-youth-unemployment-problem/>, 2021.

¹⁶ Writer, "Ramaphosa on South Africa's 46% Youth Unemployment Problem."

¹⁷ Brown, "Young People and Black Graduates Are Most Likely to Be Unemployed Because of COVID-19 Report Finds: Youth Unemployment an 'Urgent Problem' as It Can Permanently Affect Long-Term Earnings, Experts Warn."

(1 million) are stuck without work for a minimum of twelve months.¹⁸ Factors that contribute to youth unemployment are low levels of education with the vast majority of unemployed youth having no matric or without any formal qualifications. Young people have sacrificed their livelihoods in order to save the lives of others from COVID-19 and putting their careers back on track must be a priority for the government in the months and years ahead.

The impact of COVID-19 is likely to be more on young people since they are overly represented in different sectors of the economy hard hit by the crisis. So, the government needs to minimize job losses and create benefit schemes in order to level the highly generationally unequal unemployment search.¹⁹ Policymakers should ensure that youths are given a focused education and labour market policies should be aimed at those furthest labour market.²⁰ Thus, the government should assist youth by providing training and education opportunities and investing in initiatives that will channel young people into quality work. There is a good body of evidence showing that when you are entering a job market in a downturn, it is not just transitional financial damage, it is enduring.²¹ Since most people do not have financial sources or wealth to wait for a better-paying job, new graduates find it better to be at the bottom of the totem pole than to have no job at all. One of the many soft skills that will always be in great demand in the post-Covid-19 is leadership. Critical thinking, creativity, inventive problem-solving, adaptability and flexibility, emotional intelligence and communication, self-awareness and self-management, negotiation, and relationship management are a few of these abilities.²² As a result, young adults of the next generation particularly those without family wealth will struggle to achieve the material milestones compared to their parents and grandparents. Nevertheless, graduates who cannot find jobs have little choice but to focus on the benefits of getting an additional degree.²³ Most graduates are becoming comfortable with the idea of taking a job that pays the bill. Whereas in the past, the unemployed and those in the formal sector in Africa were mainly uneducated, now the face of unemployment and the urban informal sector in lower-middle-income countries is becoming that of the secondary or tertiary school graduates. The unprecedented growth in unemployed educated youth is increased by the growing number of secondary-level graduates, increase in access to primary education and increased graduates' throughput. Unfortunately, there is a mismatch between increased job demand in the formal sector and graduation throughput. In some cases, graduates cannot meet the job market demands due to the poor quality of their education. The growing global trends have disrupted jobs significantly. For instance, the evolution of robotics, 3D printing, artificial intelligence and the Internet of Things is popularly known as the fourth industrial revolution. Governments have had to address this crisis and improve their public service performance.²⁴ However, countries need to ensure that people have the skills they need to minimize these future impacts and help drive transformation in the process.

The government in South Africa undoubtedly faces various challenges in delivering services including slow response rates to citizens' requests, lack of customer service orientation from public sector staff, limited and inconvenient hours offered by government institutions and long distances to reach government offices.²⁵ It can be argued that the fourth industrial revolution is likely to create new job opportunities through modernization of agricultural processes and export-led manufacturing, as well as revolutionizing some creative industries, modernized services, tourism and leisure. Furthermore, to ensure less integration of graduates into the labour market, there is a need for a collective shift in mindset towards more technical and vocational training across the entire education ecosystem, including teachers, parents, policymakers and the private sector, and this should have accompanied by innovative approaches to policy design.²⁶ Access to ICT has gone beyond activity issues, e-government has not yet adequately embraced human, economic and social recourses, institutional structures

¹⁸ Writer, "Ramaphosa on South Africa's 46% Youth Unemployment Problem."

¹⁹ Brown, "Young People and Black Graduates Are Most Likely to Be Unemployed Because of COVID-19 Report Finds: Youth Unemployment an 'Urgent Problem' as It Can Permanently Affect Long-Term Earnings, Experts Warn."

²⁰ J. Adcock, "Covid-19: The Uneven Impact on Youth Unemployment," <https://www.youthemployment.org.uk/covid-19-the-uneven-impact-on-youth-unemployment/>, 2021.

²¹ T. Ngoyeni, "The Class of 2020 Was Full of Hope. Then the Pandemic Hit. Young Adults Are Failing to Launch Their Careers during a Pandemic. That Could Have a Lasting Generational Impact," <https://www.vox.com/the-goods/22158622/youth-unemployment-rate>, 2021.

²² Cloete et al., "Defining The Future of Instruction in Hospitality Beyond Covid 19: A Hybrid Approach in Higher Education."

²³ Ngoyeni, "The Class of 2020 Was Full of Hope. Then the Pandemic Hit. Young Adults Are Failing to Launch Their Careers during a Pandemic. That Could Have a Lasting Generational Impact."

²⁴ Babaoğlu, "Digitalization of Governments during the Pandemic: The Case of Türkiye."

²⁵ Tendani Mawela, Nixon Muganda Ochara, and Hossana Twinomurinzi, "E-Government Implementation: A Reflection on South African Municipalities," *South African Computer Journal* 29, no. 1 (July 8, 2017), <https://doi.org/10.18489/sacj.v29i1.444>.

²⁶ G. Muridzi, "Frameworks for E-Governance to Improve Service Delivery for Local Authorities in South Africa," https://dspace.nwu.ac.za/bitstream/handle/10394/35328/Muridzi_G.pdf?sequence=1&isAllowed=y, 2019.

and government networks which are central to developmental outcomes.²⁷ There is a growing tendency by the government public sector and organizations to rely on information and technologies in reforming the functioning of the system in order to provide better service delivery to their citizens. Most public sector organizations have employed e-governance, particularly through the use of web-based internet services in order to improve service delivery. The aim of using e-governance is to enhance accessibility to government services, improve service delivery and modernize day-to-day operations.²⁸ Studies have shown that the adoption of ICT in the public sector has the ability to cut the red tape and improve efficiency and effectiveness by public administrators. The use of ICT is an important element in reducing unnecessary human involvement in public service delivery. E-government strategy change to enable government departments and agencies to interact with private sectors sharing a common concern of security and cost reductions in transactions and speed of delivery.²⁹ Some of the local governments have adopted either a one-way or a two-way process of communication. One-way communication allows citizens to access local government websites which provide information, policies, regulations and programmes.³⁰ The information provided can be downloaded from the website. For instance, information on application forms and other government services. Two-way communication provides citizens an opportunity to request and receive information from the municipality and vice versa. The public sector has made it obligatory to implement e-government in order to meet global competition and the new demands of information edge. The use of online government services has helped municipalities to contain and cut costs in order to overcome budget trimming.

ICT tools have been incorporated in local municipal cities in order to improve the quality of life increase efficiency and transparency and respond to the needs and demands of citizens. However, the use of ICT often requires users to have technical skills with regard to the use of computers. It makes a pre-requisite for the user of e-services to be computer self-efficacy ie input processing and output.³¹ However, people who are less educated often lack the skills to make use of help menus or user guides. Seeing the high illiteracy rate in Africa the adoption of e-governance remains a dream. For instance, e-governance service is usually written in English which makes it a challenge for most African people who cannot read and write in their own mother tongue. There are a number of potential benefits and challenges of e-governance and e-government. For instance, the use of ICT is associated with the efficiency and modernization of government, thereby resulting in reduced cost, increased speed, greater coordination and reduced duplication of work.³² The use of e-governance can lead to the customisation of services thereby saving resources and time for customers and delivering services consistently. The adoption of ICT can lead to greater security/ reduce the abuse of the system where information is checked against multiple data and complete control data by the service users.³³ Some of the challenges associated with the adoption of ICT include re-engineering processes whereby the initial cost could be high, staff reskilling and possible relocation. There are many factors cited for why e-Government efforts failed. E-Government programmes are by their very nature risky, complicated, non-linear, and technical.³⁴ The e-governance requires ensuring the quality of access, acquisition of materials and knowledge resources and providing adequate delivery channels. The fact that e-government initiatives are frequently motivated by outside, primarily Western agendas is another factor in failure.³⁵ For the users to have confidence in e-governance appropriate safety protocols are to be put in place and users should be assured of their privacy and security. The global political climate is complicated and unstable,³⁶ and there are problems with change management³⁷ and citizen trust.³⁸ This paper uses stakeholder theory as an analytical lens to discuss automation

²⁷ Muridzi, "Frameworks for E-Governance to Improve Service Delivery for Local Authorities in South Africa."

²⁸ Muridzi, "Frameworks for E-Governance to Improve Service Delivery for Local Authorities in South Africa."

²⁹ Elnaghi et al., "Instigating Transformational Government at a Municipality Level: A Case Study."

³⁰ Vishanth Weerakkody et al., "E-Government Implementation: A Bird's Eye View of Issues Relating to Costs, Opportunities, Benefits and Risks," *Information Systems Frontiers* 17 (2015): 889–915.

³¹ Weerakkody et al., "E-Government Implementation: A Bird's Eye View of Issues Relating to Costs, Opportunities, Benefits and Risks."

³² Mawela, Ochara, and Twinomurinzi, "E-Government Implementation: A Reflection on South African Municipalities."

³³ M. Elnaghi and S. Alshawi, "A Leadership Model for E-Government Transformation," *Business Systems Research Journal* 2, no. 2 (2007): 13–24, <http://bura.brunel.ac.uk/handle/2438/8335> <http://bura.brunel.ac.uk/handle/2438/8335>.

³⁴ Mawela, Ochara, and Twinomurinzi, "E-Government Implementation: A Reflection on South African Municipalities."

³⁵ Richard Heeks, "E-Government in Africa: Promise and Practice," *Information Polity* 7, no. 2–3 (2002): 97–114.

³⁶ Tzu-Chuan Chou, Jau-Rong Chen, and Ching-Kuo Pu, "Exploring the Collective Actions of Public Servants in E-Government Development," *Decision Support Systems* 45, no. 2 (2008): 251–65.

³⁷ Stephen M Mutula and Janneke Mostert, "Challenges and Opportunities of E-government in South Africa," *The Electronic Library* 28, no. 1 (2010): 38–53.

³⁸ Merrill Warkentin et al., "Encouraging Citizen Adoption of E-Government by Building Trust," *Electronic Markets* 12, no. 3 (September 1, 2002): 157–62, <https://doi.org/10.1080/101967802320245929>.

as a driver of digital transformation in Local Government.³⁹ As a result, various academics have provided stakeholder types that can be used when talking about stakeholders in e-government projects.

METHODOLOGY

To understand the role of ICT in creating employment opportunities for graduates in the local government post-COVID-19, a case study approach was employed. Participants were selected purposively. The realization that the challenges of implementing evidence-based and other innovative practices, treatments, interventions and programmes are sufficiently complex that a single methodological approach is inadequate. Hence, a purposeful sampling technique was used in this study.⁴⁰ Purposive sampling was chosen because it enabled the researcher to select cases with maximum variation in order to document unique and diverse variations. Thus, the researcher was able to identify variations across common patterns. In some cases, homogenous cases were selected to reduce variation, simplify analyses and facilitate group interviews. Purposeful sampling allows the researcher to compare and contrast phenomena of interest and identify differences and similarities to narrow the range of variation and focus on similarities.⁴¹ Participants comprised employed and unemployed South African youths who graduated in South Africa and elsewhere. Thus, a qualitative approach was used where twenty youths were interviewed until a saturation level was reached. The data was analysed using thematic analysis. Thematic analysis involved data familiarisation and the generation of a set of codes from data. Themes were then developed across the entire data set. Regardless of whether that theme captures the majority experience, a theme systematically captures a salient feature of the data.⁴² Finding a pattern may involve noting frequencies, but the main goal was to emphasise significance rather than the number of frequencies. There is no hard-and-fast answer to the question of what proportion of the data set needs to display evidence of the theme for it to be considered a theme, nonetheless, the purpose is to answer the research question. However, getting information and reaching informants to cover the range of variations was difficult. Therefore, an iterative approach of sampling and resampling was drawn for a theoretical saturation to occur.⁴³ In this study, saturation was based on previous studies. Participants comprised 10 key informants from the public sector and tertiary institutions in KwaZulu-Natal. Emerging themes included digital maturity and employability, curriculum relevance, Digital Transformation in Improving Citizen Services and graduate skills in ICT challenges and opportunities for graduates and the youth resulting from digitalization.

RESULTS

Perceptions of Graduates on the Institutional Changes and degree of digital Maturity

Covid-19 has racked havoc on corporations and the business sector, profit margins have been squeezed, business corporations compromised and employees with key skills are dying. Most companies have retrenched their staff; some have closed shops with others relocating to other places. As a result, this has impacted negatively on the revenues for local authorities. The results show that local authorities bear the effects of COVID-19 since they provide essential services. When the country was put on alert level five, everything went to stand still, with no movement, but municipalities were compelled to provide electricity, water and sanitation services. In the process municipalities operated with bare minimal staff which affected service delivery. Some of the challenges that were encountered by local municipalities included billing and fault queries. The progression of lockdowns from level five down to level two eased the social and economic conditions.

Economic Recovery

The reconstruction of the economy has affected different sectors thereby impacting negatively on the formal jobs. In the absence of formal wage jobs, youths have found innovative ways to express and exploit their talents and capabilities in the informal sector. Most educated youths particularly those who are not employed have found it very difficult to be absorbed into the labour market. Lwazi, a twenty-eight-year-old Political Science graduate who has a Master's degree has found it difficult to get a job placement. Prospective employers are always turning him down since he is perceived to be overqualified. Lwazi was unfortunate that he finished his degree when COVID-19 started towards the end of 2020.

³⁹ Lindgren, Toll, and Melin, "Automation as a Driver of Digital Transformation in Local Government: Exploring Stakeholder Views on an Automation Initiative in a Swedish Municipality."

⁴⁰ Lawrence A Palinkas et al., "Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research," *Administration and Policy in Mental Health and Mental Health Services Research* 42 (2015): 533–44.

⁴¹ Palinkas et al., "Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research."

⁴² Kristina M. Scharp and Matthew L. Sanders, "What Is a Theme? Teaching Thematic Analysis in Qualitative Communication Research Methods," *Communication Teacher* 33, no. 2 (April 3, 2019): 117–21, <https://doi.org/10.1080/17404622.2018.1536794>.

⁴³ Palinkas et al., "Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research."

“I have applied to a number of organizations looking for various job openings as it is I can’t remember how many applications I have made but I’m positive that one day I will land on my dream job. Currently, I can take anything. I can’t choose because I have to put food on the table, my situation is dire I have to support my family and also I have a young daughter who is attending grade R,” says Lwazi.

Lwazi’s situation is not unique. It is common among graduates who have studied courses in Humanities, these students pursue programmes that do not equip them with industry-specific skills. Most of these students get rejected by prospective employers because they do not have the technical know-how expected by employers. Another graduate Sinenhlanhla a twenty-five-year-old lady who graduated with an Honours degree in Sociology raised concerns about their curriculum that fails to equip them with relevant skills to learn jobs in the public sector. Sinenhlanhla was worried that universities are churning out thousands and thousands of graduates with majors in Sociology without matching the curriculum with the available job prospects. Sinenhlanhla indicated that COVID-19 presents a lot of challenges to them as graduates. She was concerned that the Sociology curriculum had not moved with the times to integrate the basic principles of the fourth industrial revolution. So, it becomes very difficult for them as students to get jobs in the public and private sectors.

“I have applied for a number of jobs and I have been rejected right left and centre and I really feel that I am unemployable. Covid-19 has even complicated this whole thing because even internships in municipalities are limited. To make things worse, it depends on whom you know. Those with political connections find it easy to get internships but for us, it is really a challenge”, says Sinenhlanhla.

Sinenhlanhla's situation presents a unique problem of unemployed graduates. The increasing number of educated youths presents a new challenge to the government and policymakers. Whilst universities are concerned with knowledge production, curriculum development should be driven by national development needs and programmes such as Sociology should embrace the call for incorporating the principles of the fourth industrial revolution. Due to boredom, the majority of uneducated youths are spending most of their time on social media chatting which presents a challenge in the informal social space than the formal learning environment. The results show that there is a steady growth in the number of students graduating with postgraduate qualifications in humanity-related fields thereby increasing graduate unemployment.

Economic Transformation

Given the weak structural transformation of the South African economy with the high numbers of youths entering the labour market. Most graduate has found their way into the informal economy. Whilst a concerted effort has been made to address unemployment, policymakers are battling with finding imperatives that would address youth development challenges particularly those that are less skilled and less educated. Even though there is an acknowledgement that counterbalancing economic events is difficult, a collaboration between universities and corporations can assist in aligning strategic initiatives that can alleviate large-scale youth unemployment. Thus, the results show that youth are not digitally literate which affects their opportunities for employability and overall participation in economic activities. Most youths pursue programmes that will make them community activists instead of equipping them with soft skills that are relevant to the world of work. As a result, the unemployed educated youths lack the required attributes and skills that can enhance their employability profile. Recently, in line with the fourth industrial revolution, local government municipalities have adopted e-government after the realisation that service delivery can be transformed through ICT. In local government, one can now use mobile applications and social media platforms which has quickened the response rate from municipalities.

Digital Transformation in Improving Citizen Services in Local Government post-COVID

The development of new technologies in local government has resulted in improved service delivery. Citizens can now use a mobile application to access several functions that can inform and empower them. These applications provide easy access to search for news bulletins, and contact details for relevant departments, tenders, and vacancies. The application can enable citizens to interact with their elected councillors thereby having a platform to receive up-to-date information regarding their concerns.

Importance of Digital Transformation

Citizens can now upload and send images, videos and photos directly to their councillors. The use of social media has created a platform to bring local government closer to the community. So, in engaging with their councillors through social media local government has attempted to provide better service delivery. So, ICT has gone a long way in enhancing service delivery. ICT has the potential to create integrated databases and common programme delivery which can enable citizens to faceless government in their daily needs programmes and services.⁴⁴ ICT offers the possibility of close and ongoing interaction between government and citizens. Thus, online platforms provide opportunities for the empowerment of previously disadvantaged groups. Hence, e-governance is non-discriminatory, faceless and consistent. Therefore, ICT has enabled local government transformation through customized and interoperable technology solutions through building connections, driving performance, improving service and addressing critical needs efficiently. Duduzane who is a thirty-year-old Computer Science graduate, had a different opinion about COVID-19. To him, the COVID-19 pandemic presents an opportunity for local governments. He was concerned that a number of municipalities were reluctant to adopt the principles of the fourth industrial revolution. In his opinion, COVID-19 has shown the need to accelerate the implementation of e-government. He sees that as an opportunity for graduates to be absorbed into local government. To him, COVID-19 presents an employment opportunity.

“I did Computer Science at one of the universities and I completed my degree in 2018. After university, I joined the private sector as a data scientist, but when COVID-19 started, it was an opportunity for me to join the local government as a web developer where I was responsible for designing and developing website applications for the municipality. I am so excited about this new development since this has tripled my package” says Duduzane.

The above notion shows that COVID-19 has presented better opportunities for graduates who have majored in computer and computer engineering. Local municipalities have seen the advantages of investing in ICT. Information technologies can assist local municipalities in geo-spatial mapping where virtual maps are used to show areas that need basic intervention. Geospatial mapping can also assist in measuring performance against planned targets. So, the adoption of e-governance can help local municipalities increase performance by using dashboards and scorecards to show non-performing areas and report on progress and successes.

Covid-19 is a Blessing in Disguise

The results further show that the use of ICT has enabled citizens to interact and participate in government business, job seekers can also access local government websites for job applications and even facilitate business-to-business interactions with information technology. Nduduzo, an information technology graduate sees covid-19 as a blessing in disguise. He has been working for a local government for the past five years in various positions from a software developer to a programmer. He is now working as a network engineer. He says working from home has shown the power of computers, his job involves planning, constructing and managing networks to ensure the optimization and functioning of networks as intended. So, the adoption of ICT by local government will enhance transformation through intelligent self-service skills, business process management and the identification of management and customer relationship management requirements.

Challenges and Opportunities for graduates and the youth resulting from Digitalization

Mkhize who is a fifty-year-old man who has worked for a local municipality for the past twenty-five years indicated that ICT is a major driving force in the public sector for South Africa. He was of the opinion that in the next decade, environmental pressures and business drivers will increase the demand for electronic service delivery. In this case, he says it would be a ‘do-or-die’ scenario. Hence, electronic technology has created a new marketplace for governments and has been placed on policy agendas across South Africa. He indicated that an inclusive e-governance model to be developed for local government in order to close the gap between the wealthy and poor South Africans.

ICT as an Engine for Growth

ICT is a catalyst for economic and social growth in South Africa and the importance of the Internet in improving service delivery cannot be overemphasised. There have been a number of initiatives that have been undertaken by the municipality in promoting electronic service delivery. However, he was concerned about the ability and

⁴⁴ Brown, “Young People and Black Graduates Are Most Likely to Be Unemployed Because of COVID-19 Report Finds: Youth Unemployment an ‘Urgent Problem’ as It Can Permanently Affect Long-Term Earnings, Experts Warn.”

capacity to coordinate and understand the need for infrastructure underlying electronic model development. Some of his concerns included a lack of financial resources, a lack of infrastructure, a lack of leadership and a lack of socio-economic impact.

“the use of ICT has transformed the perceptions and experiences of citizens on access to government services. I remember when we used to offer manual services, it was difficult to manage queues. You find the municipality hall full of people, imagine how we would have dealt with such crowds during the COVID-19 pandemic. I strongly believe that COVID-19 presents an opportunity for local government to implement fully fleshed e-governance and employ skilled people in IT,” says Mkhize.

The above notion shows that the introduction of ICT in local government is creating opportunities for people with skills in software development, software engineering web development and others. The adoption of e-government implies that local government will be linked to the international community and be able to do business and interact with companies productively. The use of ICT will open new opportunities for local governments to compete on equal footing with big businesses.

Humanities to embrace ICT

The results have shown that most educated youth who have done programmes in Humanities lack ICT skills which impedes their access to support services careers. The study has shown that most job vacancies in local government are largely web-based, so, most of the educated youths fail to match their profile vis versa job requirements. Currently, the curriculum for programmes in Humanities is deficient in ICT skills needed in the labour market. The vocational skills and other general education skill requirements have not included ICT knowledge in their design. Therefore, programmes that lack ICT skills increase the risk of educated unemployed youths.

DISCUSSIONS AND IMPLICATIONS

Digital transformation in local government

The Covid-19 pandemic has created opportunities for local governments to use ICT to improve service delivery. Governments globally are demonstrating the advantages of electronic government, namely, by conducting transactions electronically as well as electronic service delivery.⁴⁵ There is tremendous potential to use ICT as a vehicle to create youth employment opportunities by ensuring that development agendas and policies include youths. The electronic model is vital for the public sector as it can open up new opportunities, namely a reduction in the number of paper transactions involved in government operations, public participation in decision-making, government purchasing of goods and services, electronic payments and improvements in service delivery.⁴⁶ Therefore, stability, social development of economies and economic growth are an integral part of the well-being of youth.

Adoption of ICT in local government

Local government will be linked at all levels within and across department lines, will also improve accessibility by its citizens and will adopt efficient and convenient methods for conducting government business.⁴⁷ With the use of online access to information and services through phones, faxes, self-service skills and worldwide web home pages, the government can provide higher quality and faster services to the public.⁴⁸ The adoption of ICT in local government will increase the demand for highly skilled and educated graduates. More people with computer knowledge and skills will be absorbed by local government to facilitate the implementation of e-governance. Whilst, COVID-19 has impacted negatively on educated graduates with Humanities qualifications, there is a steady increase in the number of graduates with web-related skills.⁴⁹ Therefore, COVID-19 sets the tone for the full implementation of e-governance. As the country goes towards the fourth industrial revolution

⁴⁵ J. Kuye and G. Naidoo, “Electronic Technology as a Mechanism to Improve Service Delivery in South Africa: The Case for an Innovative E-Delivery Strategy for the Public Service,” <http://uir.unisa.ac.za/bitstream/handle/10500/21061/electronic%20technology%20as%20a%20mechanism.pdf?sequence=1&isAllowed=y>, 2003.

⁴⁶ Kuye and Naidoo, “Electronic Technology as a Mechanism to Improve Service Delivery in South Africa: The Case for an Innovative E-Delivery Strategy for the Public Service.”

⁴⁷ Y.J. Wang, “Rethinking E-Government Services Session 3: Serving Citizens—Becoming User Focused in the Provision of E-Government Services,” <https://www.oecd.org/gov/digital-government/44590340.pdf>, 2009.

⁴⁸ Kuye and Naidoo, “Electronic Technology as a Mechanism to Improve Service Delivery in South Africa: The Case for an Innovative E-Delivery Strategy for the Public Service.”

⁴⁹ Muridzi, “Frameworks for E-Governance to Improve Service Delivery for Local Authorities in South Africa.”

all graduates should have ICT skills to enable them to function in the new norm. therefore, to address youth challenges, policymakers need to engage youths in decisions that will raise productivity rather than focusing exclusively on graduate employability.

Improvement of Citizen Services

Stronger measures should be put in place to ensure that youths are not exploited through insecure work arrangements and protect them from engaging in the informal sector with low earnings and little social protection.⁵⁰ Therefore, the use of ICT implies a new paradigm for the government's commitment to service delivery. Since many of the services in local government were made without considering electronic service delivery, advances in technology will help the government respond to service delivery challenges.⁵¹ The adoption of ICT means that municipalities will better communicate with their citizens and businesses will deliver better services, better procurement services and will work efficiently.

Summary

Since the start of the COVID-19 virus which damages the respiratory system, the pandemic has spread across the world and has resulted in a number of deaths. The efforts to curtail the spread of the virus have resulted in governments across the world pronouncing measures to restrict the movement of people, introduce curfews, instil travel bans and encourage people to stay at home. The study has discussed how COVID-19 has changed the economic structure and demographics of business today and the resulting challenges. In some cases, some businesses have closed down, some have retrenched downsized and some have relocated to other places. The past decade has seen a steady increase in ICT and policy discourse on the absorption of graduates in the labour market. The statistics reflect the accumulative impact of lockdowns resulting from non-pharmaceutical measures to contain the virus. The young workers bear the brunt of job cuts, some face pressures as they try to get a foothold on the jobs due to the economic downturn. Some graduates have spent over two years after graduation without a job forcing them to live with their parents. Since the beginning of the pandemic, graduate opportunities have either been suspended or cancelled, so, there is no chance of gaining experience for the needed future job. In some cases, prospective employers need a certain number of experience before you can be shortlisted for a job. The adoption of e-governance was motivated by the need to ensure the quality of access, acquisition of materials and knowledge resources and providing adequate delivery channels. For the users to have confidence in e-governance appropriate safety protocols are to be put in place and users should be assured of their privacy and security.

RECOMMENDATIONS

The paper has discussed the importance of Digital Transformation in Local Government to improve Citizen Services post-COVID-19. It demonstrated that young people are perhaps the most affected by COVID-19 due to their disproportionate representation in many economic sectors. The following recommendations are made:

- The government needs to minimize job losses and create benefit schemes in order to level the highly generationally unequal unemployment opportunities.
- ICT tools should be incorporated in local municipal cities to improve the quality of life, increase efficiency and transparency and respond to the needs and demands of citizens.
- Universities are concerned with knowledge production, thus, curriculum development should be driven by national development needs and programmes such as Sociology should embrace the call for incorporating the principles of the fourth industrial revolution.
- Currently, the curriculum for programmes in Humanities is deficient in ICT skills needed in the labour market. The vocational skills and other general education skill requirements have to include ICT knowledge in their design.
- Several youths are not digitally literate which affects their opportunities for employability and overall participation in economic activities. While it is acknowledged that it is challenging to counteract economic circumstances, cooperation between academic institutions and businesses can help to align strategic initiatives that can reduce youth unemployment on a global scale.
- There is a need to increase the capacity for understanding and coordinating the requirements for infrastructure underlying electronic model development.

⁵⁰ Mutula and Mostert, "Challenges and Opportunities of E-government in South Africa."

⁵¹ G. Boateng, "The Challenging Problem of Labour and Youth Education: A Wake-Up Call for Africa,"

<https://acetforafrica.org/media/the-challenging-problem-of-labour-and-youth-education-a-wake-up-call-for-africa/>, 2018; Anderson and Schroeder, "Innovation and Technology for Youth Employment."

- To address youth employment challenges, policymakers should engage youths in decisions that affect them rather than focusing exclusively on graduate employability.

CONCLUSION

The study has shown that Information technologies can assist local municipalities in geo-spatial mapping where virtual maps are used to show areas that need basic intervention. Geospatial mapping can also assist in measuring performance against planned targets. The adoption of e-governance can help local municipalities increase performance by using dashboards and scorecards to show non-performing areas and report on progress and successes. The results further showed that the use of ICT has enabled citizens to interact and participate in government business, job seekers can also access local government websites for job applications and even facilitate business-to-business interactions with information technology. The adoption of ICT in local government has increased the demand for highly skilled and educated graduates. More people with computer knowledge and skills have been absorbed by local government to facilitate the implementation of e-governance. Whilst, covid-19 has impacted negatively on educated graduates with humanities qualifications, there has been a steady increase in the number of graduates with web-related skills in local government. The study concludes that as the country goes towards the fourth industrial revolution all graduates should have ICT skills to enable them to function in the new norm, particularly in local government.

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ABOUT AUTHORS

Dr. Hlengiwe Phetha is a Lecturer in Political Science and International Relations at the University of Zululand with a keen interest in international relations, youth development, corruption, and ICT. She has researched extensively on peace, peacekeeping, and conflict resolution. She has also published on South Africa's foreign policy, access to education, employment, and unemployment.

Joram Ndlovu is an Associate Professor in Tourism Management and Academic Leader for Research in the School of Social Sciences at the University of KwaZulu-Natal. Professor Ndlovu has over two decades of teaching and research at different Universities in Southern Africa. His research interests are Environmental governance, Sustainable development, Digitalisation and Digital Transformation.