Digital transformation for inclusive growth in South Africa: challenges and opportunities in the 4th industrial...

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21. Digital transformation for inclusive growth in South Africa: challenges and opportunities in the 4\textsuperscript{th} industrial revolution

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Abstract
In a connected and smart society, digital transformation has become one of the key strategies governments are adopting to promote inclusive growth. The 4\textsuperscript{th} industrial revolution, a digital driven revolution has brought with it many opportunities but developing countries continue to lag behind due to various challenges explored in this study. This is a case study of South Africa, one of the few African countries that have embraced the ‘smart’ agenda through promoting the digital transformation of government, business and society among other things. Using institutional theory, we explore the opportunities and challenges confronting the South African government in implementing policy reforms aimed at leveraging the benefits of the digital driven 4\textsuperscript{th} industrial revolution.

Keywords: digital transformation, e-government, institutional theory, 4\textsuperscript{th} industrial revolution

1 Introduction
The future of governments, business and society in the 4\textsuperscript{th} industrial revolution driven by information and communication technologies (ICTs) will depend on their ability to embrace digital technologies (World Economic Forum, 2016). The 4\textsuperscript{th} industrial revolution is “characterised by a fusion revolution of technologies that is blurring the lines between the physical, digital, and biological spheres” (Schwab, 2016:1). In the digital and smart era, ICTs are increasingly being recognised as a tool for facilitating socio-economic transformation and inclusive growth (World Economic Forum, 2016; United Nations, 2016). The Organisation for Economic Co-operation and Development (OECD) defines inclusive growth as “economic growth that creates opportunity for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society (OECD, 2016:1).

Governments, including the South African government, are responding to opportunities and challenges brought by the 4\textsuperscript{th} industrial revolution with policies and strategies that address inclusive digital transformation. In South Africa, for example, the journey to digital transformation of government began in 1998 when the presidential review commission on the transformation of the public service identified digital transformation as essential in transforming the public service. The policy and legislative decisions thereafter reflected government’s goal of using ICT as a tool for inclusive growth. This is reflected in the 2001 e-government policy framework, the National Development Plan (NDP) of 2012, the National Broadband Policy of 2013 and the Integrated ICT Policy White paper of 2016.

The purpose of this study is to explore government responses and some of the challenges confronting the South African government in its bid to achieve its goal of an inclusive digitally transformed government and society. We pose the following questions:

1. What policy reforms has government implemented to advance digital transformation?
2. What challenges are confronting government in the implementation of policy to promote inclusive digital transformation?

In discussing the policy reforms and challenges, we focus on digital inclusion, digital access and the digital transformation of government identified by the South African government as key pillars for
inclusive digital transformation (South Africa, 2016). The impact of the socio-historic, political and socio-economic context central in developmental issues and socio-economic-transformation are also discussed.

In contributing to theory, we move beyond the traditional focus of neo-institutional theory of only focusing on isomorphic pressures to understand institutional transformation by exploring the role of power and politics in the evolution or transformation of institutions. Findings from this study will also help e-government practitioners, policy makers and researchers in understanding the nature of challenges as well as practical solutions for facilitating digital transformation in a developmental state. This will assist governments to develop appropriate and context-relevant strategies.

2 Review of literature: Digital transformation in the 4th industrial revolution

The 4th industrial revolution; which is characterised by a fusion of technologies that is blurring the lines between the physical, biological, and technological dimensions, has brought with it opportunities and challenges (Schwab, 2016). The ability of government systems and public authorities to adapt to the changes brought by the 4th industrial revolution will determine their survival (World Economic Forum, 2016:1). Below we summarise some of the key features of the 4th industrial revolution identified in literature; that require that governments digitally transform in order to thrive.

2.1 Digital readiness: innovative policy and legislation

Policy innovation is a key enabler of “smart” or digital innovation. In the study of smart cities as an urban innovation, policy innovation was found to be instrumental in the success of smart cities (Nam & Pardo, 2011). Policy facilitates digital transformation by enabling governments to develop social, economic, industrial and labour market policies that are responsive and can better prepare business, society and government to leverage the opportunities and address challenges of digital transformation. Policy innovation is also important in addressing skills, education, infrastructure and other needs that arise due to new innovations. To promote the success of the 4th industrial revolution in Europe, the European Commission, for example, developed innovative policies that address regulation, infrastructure, skills infrastructure and funding (European Commission, 2015).

Policy and legislation play an important role in governing the complex digital, connected and smart environment (Chourabi et al., 2012; Scholl & Al Awadhi, 2016). The 4th industrial revolution has also brought with it new innovations and changes that have given rise to new challenges such as security, trust, liability and personal data privacy issues; which call for stricter regulation (Zhou, Liu & Zhou, 2015). Emphasising the role of policy in innovation, Paraskevopoulou (2012:1058), wrote “the widespread perception of science and technological innovation as an imperative for economic development has resulted in the escalation of innovation in the policy priorities list”. New innovations associated with digital transformation such as smart cities, smart mobility and smart industries thus require that governments put in place regulative mechanisms that support their successful adoption.

2.2 Digital readiness: innovation

Organisational, product and service innovation in the 4th industrial revolution will demand that governments invest more in institutional mechanisms for innovation, research and development (Zhou, Liu & Zhou, 2015). A study by Mckinsey Global Institute (2016) concluded that South Africa needed to increase its innovation capability to grow into a globally competitive hub. South Africa is thus confronted by mimetic pressure to adopt the so called best practices brought by the 4th industrial revolution. In the manufacturing sector, for example, there is evidence of pressure to move with global trends in adopting advanced manufacturing techniques so as to compete with global manufacturing powerhouses like Germany and China. In 2016, the Manufacturing Indaba, one of South Africa’s biggest manufacturing conferences, brought together business, government, industry
and academia among other things, focused on the need to take advantage of the 4th industrial revolution to re-industrialise South Africa.

2.3 Digital readiness and inclusion: skills and intellectual capital
Skills and knowledge communities provide the much needed intellectual capacity to drive innovation in the digital and smart era (Abdoulaev, 2011; Scholl & Scholl, 2014). The 4th industrial revolution is projected to bring disruptive changes to the labour market. Demand for highly skilled labour is projected to increase (World Economic Forum, 2016). Digital transformation and innovations in the 4th industrial revolution thus demand a new breed of worker and citizen, one that is skilled, innovative and technology savvy. Governments are now focusing on developing the so called “future skills”, some of which are not yet in existence. According to the World Economic Forum (2016:3), “the ability to anticipate and prepare for future skills requirements, job content and the aggregate effect on employment is increasingly critical for businesses, governments and individuals in order to fully seize the opportunities presented by these trends and to mitigate undesirable outcomes”.

Despite increased fears that technology will replace humans, the 4th industrial revolution brings new opportunities that require human intelligence and skills. Shwab (2016:1) notes that, “the 4th industrial revolution may indeed have the potential to ‘robotise’ humanity and thus deprive us of our heart and soul. But as a complement to the best of human nature, creativity, empathy and stewardship-it can also lift humanity into a collective and moral consciousness based on a shared sense of destiny”. In the 4th industrial revolution, “only one type of organisation will thrive: a human one” (World Economic Forum, 2016:1). Creative working processes such as research and development, and strategic planning for example, will be in demand as they are key in conceptualising and implementing new and innovative business opportunities presented by the 4th industrial revolution (Deloitte, 2016).

Furthermore, e-readiness of citizens (e-literacy and e-skills) influences citizens’ ability to fully participate and benefit from a digitally transformed and smart society (Manda & Backhouse, 2016). Citizen participation was found to be higher in countries with higher levels of e-skills (Chan, Lau & Pan, 2008). Studies in developed countries like Singapore also found a direct link between information and communication infrastructure availability, broadband penetration and e-skills of citizens (Chan, Lau & Pan, 2008). Low e-literacy and e-skills have hampered digital transformation especially in developing countries where e-readiness remains low (International Telecommunications Union, 2015b).

2.4 Digital readiness and inclusion: Information and communication infrastructure
Increase in the use of advanced information and communications infrastructure and technologies in industry, government and society are some of the key features of a digitally transformed society. Cloud computing technologies, the internet of things, the internet of services and smart logistics are some of the key technologies that are increasingly becoming prominent in the digitally driven 4th industrial revolution (Lom, Pribyl & Svitek, 2016).

Connectedness of government, citizens and business is one notable feature of digital and smart societies in the 4th industrial revolution. It is therefore critical to invest in telecommunications infrastructure and technologies- such as broadband and other internet technologies to provide digital connectivity for effective communication, collaboration and integration of people, systems and machines (European Commission, 2016). Emphasising the importance of reliable telecommunications infrastructure, Zhou and Zhou (2015:2148) argued that the 4th industrial revolution “requires the establishment of a comprehensive and reliable industrial broadband infrastructure. Industry 4.0 enforces strict criteria on communication networks, and its communication networks must meet these criteria and be reliable, comprehensive and of high quality”.

3
Broadband penetration remains low in developing countries due to supply side factors such as infrastructure, competition, legislation and regulation. Demand side factors such as its perceived value by citizens and business, affordability, e-readiness and socio-cultural factors such as acceptance of new technologies in society have also hampered penetration (Belloc, Nicita & Rossi, 2012). In developing countries, the low levels of economic development, poverty and poor social infrastructure have contributed to governments not recognising broadband as an immediate priority despite most acknowledging its benefits and potential to stimulate economic growth (International Telecommunications Union, 2015b).

3 Theoretical framework
In understanding the challenges and opportunities brought by the digital transformation of government and society, we use institutional theory as our framework of analysis. Institutional theory is a multidisciplinary theory which helps in understanding the interlinked and complex relationships inherent among institutional mechanisms, technology and socio-economic context in the organisation (Luna-Reyes & Gil-Garcia, 2011). Institutional theory can assist in understanding the role of regulative, normative and cultural-cognitive elements in the transformation of institutions. We also examine the role of isomorphic pressures from the internal and external environments identified by DiMaggio and Powell (1989) and how they influence transformation in institutions. Coercive isomorphism that stems from formal and informal political influence to institutionalise certain rules and practices by organisations is discussed. Mimetic isomorphism which results from pressure to imitate other organisations as standard responses to uncertainty and the need to minimise risk (DiMaggio & Powell, 1989) is also identified. Normative isomorphism associated with the proliferation of accepted standards is examined. Institutions’ legitimate actions and authority in making decisions that influence transformation are understood by examining the role of isomorphic pressures in such actions. In addition, we explore also explore how power dynamics and politics in highly political institutions such as government impact transformation.

4 Methodology
We adopted an interpretive case study research design so as to understand the social, economic and other contextual issues surrounding the implementation of regulative and other mechanisms for promoting digital transformation. We use South Africa as a single case study of an African country that has adopted digital transformation as one of the strategies for promoting inclusive growth. There are few such academic studies from developing countries, especially from Africa, that exist in literature. An initial literature search on various databases that include Google scholar, IEEE explore, Science direct, Ebscohost and Wiley retrieved few studies originating from Africa or writing about digital transformation and adoption of the “smart” agenda by African governments. Most studies we found were produced by international development bodies such as the United Nations and International Telecommunications Union as well as management consulting organisations. These often lack the rigour that is required for academic purposes as their reports more often than not, are targeting practitioners. This study therefore contributes towards closing that gap in literature.

4.1 Data collection
For the purposes of collecting data, semi-structured interviews and documents were used as primary sources of evidence. For interviews, our sampling frame comprised of national government departments in South Africa. Using purposive sampling, a total of six national government departments were selected to participate in this study. This paper is part of an ongoing PhD study and we are presenting the results from the interviews conducted so far. Six officials in senior management and leadership positions responsible for e-government, ICT, information management, intergovernmental relations, policy and research from six national government departments participated in the interviews.
For documentary evidence, we analysed policy, legislation, international development reports, consultant reports and media reports published between 1998 and 2016; which is a period that saw the adoption of the digital transformation and ‘smart’ agenda in South Africa. The main policy documents used in our analysis are highlighted in Table 1. International development and management consultant reports on digital transformation and related subjects which supplemented the main policy documents used are found in the reference section.

<table>
<thead>
<tr>
<th>Policy/Strategy document</th>
<th>Relevance</th>
</tr>
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<tbody>
<tr>
<td>Report of the Presidential Review Commission on the Reform and Transformation of the Public Service in South Africa (1998)</td>
<td>This report contains the main findings and recommendations of the Presidential Review Commission (PRC) in relation to the operation, transformation and development of the South African Public Service, and in particular to the creation of a new culture of governance</td>
</tr>
<tr>
<td>Electronic government: The digital future: a public service IT policy framework (2001)</td>
<td>Spelled out the e-government vision, defined clearly how progress is to be measured and set priorities for ICT in government</td>
</tr>
<tr>
<td>National Development Plan (NDP) (2012)</td>
<td>A long term plan for development which provides a broad strategic framework to guide key choices and actions including inclusive digital transformation</td>
</tr>
<tr>
<td>Public Service Corporate Governance of ICT policy (2012)</td>
<td>To strengthen governance of ICT as an important resource in the public service</td>
</tr>
<tr>
<td>National broadband Policy (2013)</td>
<td>To connect and integrate people, government and business in the pursuit of inclusive economic growth</td>
</tr>
<tr>
<td>Cyber-security Policy Framework (2015)</td>
<td>To strengthen security and improve trust in the cyber environment by providing a safe and secure space for society, business and government to thrive</td>
</tr>
<tr>
<td>National Integrated ICT Policy White paper (2016)</td>
<td>Outlines the overarching policy framework for the transformation of South Africa into an inclusive and innovative digital and knowledge society</td>
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</table>

### 4.2 Data analysis

Thematic content analysis was used for analysing data. Initial themes (inductive coding) were identified from existing literature and theory, while new themes (deductive coding) were identified during the data collection and analysis. Examples of themes used include governance, technology, policy innovation, legislation, citizen participation, inclusion, transformation, politics, legitimacy etc.

### 5 Results: promoting inclusive digital transformation through policy

Policy has been identified as a key lever in transforming governments, business and society into digitally inclusive societies and governments (United Nations, 2016). Below we discuss four policies developed since 2012, to realise the vision of the NDP of a “digitally inclusive society by 2030” by promoting digital transformation of government, digital access and digital inclusion.

#### 5.1 Public Service Corporate Governance of ICT Policy Framework 2012

Digital transformation presents new challenges in governing the complex digital, connected and smart environment. To address this concern, the Public Service Corporate Governance of ICT Policy Framework was implemented in 2012 to promote the governance of ICT as an integral part of corporate governance within the public sector in a standardised and coordinated manner (South Africa, 2012b). ICT governance is important in managing risks, promoting quality, promoting monitoring and evaluation, promoting accountability and high ethical standards, especially in an integrated environment (South Africa, 2012b). Such mechanisms arguably assist in the institutionalisation of desired and acceptable institutional behaviour, practices, norms and standards (Manda & Backhouse, 2016).
To strengthen ICT governance in the public sector, the framework stipulates that all ICT decisions of importance should come from senior political and managerial leadership and should not be delegated to technology specialists. The management of information should be carried out on the same level as the management of other resources such as people, finance and material in the public service. The framework is also an important mechanism for monitoring and evaluating the progress that is being made by public entities in strengthening governance of ICT in the public service; an important element in promoting successful digital transformation.

5.2 The National Broadband Policy and Strategy 2013

Broadband is at the heart of achieving government’s vision of a digitally transformed government and society. In 2013, the National Broadband Policy and Strategy (SA Connect) was developed to increase digital connectivity of government, business and citizens. SA Connect is government’s initiative for realising the NDP’s vision of “a seamless information infrastructure by 2030 that will underpin a dynamic and connected vibrant information society and a knowledge economy that is more inclusive, equitable and prosperous” (South Africa, 2012a:190). Broadband is set to play an important role in connecting and integrating people, government and business in the pursuit of economic growth and social cohesion (South Africa, 2012a). The goal of the policy and strategy is to ensure affordable broadband access for all by addressing demand-side issues such as infrastructure, regulation and competition; and supply-side issues such as e-readiness, skills and availability. The strategy aims to bridge the gap between the currently poor status of broadband in South Africa, and the country’s vision of a seamless infrastructure network that will make broadband universally accessible at an affordable cost to all.

The current poor state of broadband penetration in South Africa is a threat to government’s vision of an inclusive and digitally connected “smart society”. An estimated 10.8% of the population for example, has access to internet services at home (Statistics South Africa, 2014). The National Broadband Policy and Strategy addresses both supply-side issues such as regulation, infrastructure and competition, and demand-side issues such as affordability and digital literacy. Various government programmes have been launched to address the supply-side and demand-side challenges. The Strategic Infrastructure Projects (SIPs) implemented in 2012 for example, through project 15, expanding access to communication technology, aims to enhance connectivity and access to information by providing for 100% broadband coverage by 2020. Demand-side issues such as digital literacy are being addressed by the establishment of institutions such as the Ikamva National e-Skills Institute (iNeSI), to co-ordinate the development of an e-skilled and e-empowered society. The effectiveness of such programmes remains questionable as there are no proper monitoring and evaluation mechanisms in place to assess their impact (South Africa, 2016).

5.3 Cyber security Policy Framework 2015

Security and privacy concerns constrain governments in advancing digital transformation due to an increase in cyber crimes. Legal and policy frameworks are some of the measures that are used in the prevention and combating of cybercrime through criminalisation, procedural powers, jurisdiction, international, cooperation, and internet service provider responsibility and liability (United Nations, 2013). The International Telecommunication Union’s Global Cyber-security Index (GCI) which seeks to measure the level of cyber readiness of countries also identifies policy and legal frameworks as key indicators. The GCI thus looks at the level of commitment of countries in five key areas: legal measures, technical measures, organizational measures, capacity building and international cooperation (International Telecommunications Union, 2015a:1).

In 2015, the South African government approved a Cyber-Security Policy Framework for protecting the national information and communication infrastructure and citizens from cyber attacks (South Africa, 2015:6). Despite the presence of a cyber security framework, challenges in cyber security still remain due to the inadequacy of the legislative framework. According to the State Security Agency (2015:14), “Currently there are various pieces of legislation, some with overlapping mandates administered by different Government Departments and whose implementation is not coordinated.
Furthermore, the legislation when viewed collectively does not adequately address South Africa's Cyber security challenges”. The legislation referred to includes the Electronic Transactions and Communications Act (2002), the Regulation of interception of Communications Act (2002) and National Strategic Intelligence Act (2002). In response, in 2015 the Cybercrimes and Cyber- security Bill was promulgated to address some of the challenges. Regulative mechanisms such as policies and legislation play a complementary role in the implementation of programmes aimed at transforming government. There have however been delays with the finalisation of the cyber security legislation which leaves South Africa vulnerable, given the rise of incidents of cyber crime and terrorism globally. Delays in the implementation of legislation to complement new policy developments is likely going to compromise the effectiveness of policy as a regulative mechanism. Poor harmonisation and coordination of policy and legislative mandates also creates problems of conflicting policies and legislation which often fails in its role of regulating behaviour.

The fragmentation of ICT policy prompted South Africa to begin developing an integrated ICT Policy in 2013. The fragmentation contributed to inefficiencies in the implementation of strategies aimed at promoting digital transformation of government and society by failing to provide an integrated and holistic approach to the use of ICT in government, business and society. The Integrated ICT Policy White Paper is the overarching policy framework for the transformation of South Africa into an inclusive, innovative, digital and knowledge society, and was approved in October 2016. This white paper reinforces and extends existing strategies such as the national broadband strategy, the National Cyber security Policy framework and National Development Plan (South Africa, 2016). It identifies three pillars for digital and inclusive growth for transforming South Africa into an inclusive digital society. They are three pillars (i) digital inclusion, (ii) digital access and (iii) digital transformation in government. ICT is thus set to transform the way the society and economy work, the way citizens interact with government, how government delivers services and how consumers access goods and services (South Africa, 2016). The three pillars for digital and inclusive growth are summarised in figure 1.

![Figure 1: Three Pillars of digital transformation in South Africa](image)

Various initiatives, some discussed above, are being implemented by government to achieve the outcomes of a digitally transformed and digitally inclusive society where citizens enjoy digital access. These include efforts to implement the new e-strategy framework, infrastructure projects, strengthening cyber security and e-readiness programmes. In the next section we discuss some of the issues surrounding the implementation of these policy initiatives.
6 Discussion

6.1 Leadership, power, politics and legitimacy in inclusive digital transformation

In this section we explore how power dynamics and politics in government have impacted the implementation of policy aimed at promoting inclusive digital transformation. According to Lawrence (2008:170), “the relationship between power and institutions is an intimate one. Institutions exist to the extent that they are powerful - the extent to which they affect the behaviours, beliefs and opportunities of individuals, groups, organizations and societies”.

6.1.1 Social obligation and inclusive digital transformation

Innovations brought by digital transformation are projected to cause massive job loses (World Economic Forum, 2016). This has the potential to cause problems especially in developing countries like South Africa that are already struggling with high unemployment figures of nearly 30% (Manda & Backhouse, 2016). This is a potential threat to government’s priority of addressing the triple challenges of poverty, inequality and unemployment. This also threatens government’s use of social obligation as a basis of achieving legitimacy. Since the achievement of democracy in 1994, the current government has used social obligation among other things as a basis for attaining legitimacy through its promises of ending poverty, historical social injustices and inequality. However, the legitimacy of the current government has been questioned by civil society, on moral grounds, due to setbacks in delivering on its promises. This has the potential to threaten the legitimacy of the current government which is also derived from their ability to meet their social obligations.

6.1.2 Balancing domestic and international priorities in inclusive growth

Governments often find themselves having to choose between domestic social priorities and international development priorities. Governments, especially in developing countries, are at times coerced into adopting priorities, norms and standards acceptable to the international community as a basis of maintaining their legitimacy internationally (Manda and Backhouse, 2016). Some of the domestic priorities at times clash with internationally acceptable norms, practices and standards. Moreover, domestic policy decisions and domestic political developments often attract the attention of international communities. A significant example is a decision taken in April 2017 by two international ratings agencies, Fitch and Standard & Poor to down-grade South Africa to junk status (below investment grade), citing political events, including a recent major cabinet reshuffle, as a risk that will weaken standards of governance and public finance. This was received with mixed reactions with some economic analysts saying it was justifiable given the recent political events while others felt it was a direct attack against government’s move to implement policy measures aimed at accelerating radical economic transformation.

6.1.3 Politics and power dynamics in policy prioritisation and implementation

Power and politics are evident in the prioritisation of policy initiatives in South Africa. The dominance of the so called “super departments” such as the National Treasury and the Presidency that influence the prioritisation of policies was confirmed by the majority of the interview participants. Commenting of on the role of power and politics in policy implementation one participant argued: “There are powerful ministries such as the presidency and treasury who influence the success of policy. National Treasury for example, controls the national fiscus and when we develop polices from time to time, we negotiate with the treasury to convince them to see the value”. The national Treasury as an institution thus derives its power from its control of the national fiscus, while the Presidency influences what is prioritised as it responsible for driving South Africa’s development agenda. Moreover, there was also an indication that politically motivated decisions, in some instances, supersede national interests. Prioritisation of policy in some instances is driven by political ambition and populism, which compromises the success of certain policy initiatives that are deemed insignificant for gaining political mileage. One participant noted for example noted, “The challenge is that political interests of political leadership influence the prioritisation of policy in South Africa”.
Institutional mechanisms are bound to fail in the face of self-interest in those holding legitimate power. This is a setback in government’s vision of a digitally inclusive society.

6.1.4 The role of political leadership in digital transformation
Political leadership in South Africa has played an important role in setting policy priorities and the successful implementation of policies. Significant steps in the journey to digital transformation were made during the government led by the then President Thabo Mbeki who before becoming president, as the deputy president in 1996, led the development of the African ICT for Development agenda after hosting the Information Society and Development conference in South Africa. As a sign of top political leadership commitment, the former president led the South African delegation to the World Summit on Information Society (WSIS) in 1995. During this time, when the ICT agenda was led by top political leadership, South Africa ranked 1st in the e-government development index a position it has since lost, slipping to 3rd according the latest 2016 e-government rankings. In the current government, the lack of prioritisation of the digital transformation agenda by top political leadership was cited by most participants as one of the constraints that has slowed progress in digital transformation. This highlights the role legitimate power held by individuals and the institutions they lead, plays in driving transformation in institutions. Commenting on the role of political leadership in influencing the success of transformation initiatives one participant for example argued, “Government is about politics and politics is about power, you can’t expect political light-weights to effectively influence policy transformation”.

Policy has also reiterated the need for digital transformation to be led by top political leadership. The Public Services Administration Act of 2014 and the corporate governance of ICT policy framework of 2012 assigned the responsibility of ICT management and governance in government to the political heads of government institutions. Top political leadership support and the recognition of information as an equally important resource is set to increase the prioritisation of ICT as a resource of strategic importance in government. Evidence collected in this study suggests that support for digital transformation from top political leadership remains low, despite policy’s identification of digital transformation as a priority. There are however pockets of excellence. The Department of Home Affairs, despite some of its challenges, is one of the few government departments that have embraced digital transformation through its modernisation programme led by the then minister of Home Affairs Malusi Gigaba. The programme is aimed at improving service delivery and security at the department through digital transformation (Department of Home Affairs, 2015).

The issue of leadership extends beyond individuals but institutions themselves, as centres of power that not only use their legitimate power, but also coercive power (rewarding and punishing) and expert power to influence change or transformation. The State Information Technology Agency (SITA), for example, which through the State Information Technology Act of 1998, has the legitimate authority to drive digital transformation in government, has to some extent failed to do as it does not have the coercive power to reward or punish non-compliance. SITA has also lost its credibility as an expert in leading digital transformation due to leadership and governance challenges since its establishment. This has dented its expert power which is key in influencing the perception of key actors about the institution’s capability to lead change. This is a major blow considering the fact that SITA holds little or no coercive power to influence digital transformation in government. In leading change, legitimate power alone is thus not adequate in influencing desired behaviour, if not complemented by other forms of power such as expert and coercive power.

7 Conclusion
The South African government has made significant strides in the digital transformation of society, government and business to stimulate inclusive growth. Digital inclusion, digital access and transformation of the public service are the three key pillars for promoting inclusive digital transformation. Policy and legislative reforms are being implemented to promote inclusive digital transformation. The implementation of policy is a positive step towards achieving the goal of an
inclusive digital society as this sets government’s priorities. This however needs to be complemented by an integrated approach to the implementation of policy priorities. Challenges still remain in policy implementation due to poor monitoring and evaluation, lack of political leadership support, governance challenges, and power and politics in the prioritisation of policies. These challenges threaten South Africa’s vision of an inclusive digital society by 2030. These challenges require government, business, higher education and civil society to collaborate in coming up with sustainable solutions to promote inclusive growth.

Future research
Future research should investigate how government, industry, higher education and civil society partnerships can foster social cohesion in addressing social, economic, governance and other challenges threatening successful inclusive digitally transformation.

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