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Critically assessing the influence of the global digital policy industrial complex on the formulation of national digital policies

A South African perspective

Ade E. Camngca - 544365

A research report submitted to the Faculty of Humanities in partial fulfillment of the requirements for the Degree of Master of Art in ICT Policy and Regulation (MA ICTPR)

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School of Literature, Language & Media studies (SLLM)

Declaration

I hereby declare the following:

a) I hereby submit my research work (MA research report) in partial fulfilment of the requirements of the degree of Master of Arts in ICT Policy and Regulation (MA ICTPR). It has not been submitted before any degree or examination in any other University.
b) I hereby further declare that all sources have been acknowledged through APA referencing.
c) I declare that I have obtained an ethics protocol number (SLLM/19/02 – see Annexure C for the Ethics Clearance certificate) from the Research Office.
d) I confirm that my signed declaration is included in the research submission, in terms of rule G27.



Ade Ed Camngca
18, October 2021

Dedication

First and foremost, I give thanks to the Omnipotent, Omniscient and Omnipresent Celestial Being who knew me before the foundations of the earth were laid and knitted me together in the secrecy of my mother's womb.

To my loving wife, please accept the profound expression of my love, respect and honour for taking upon yourself the unenviable task of putting up with me during the time I was pouring myself into this body of work I take pride in.

I extend my gratitude to my loving mother and father who supported and encouraged me in my journey to becoming, I owe all that I am to you. To those who came before me and those to come, rejoice mazala'Nkosi. To my brothers and sister, thank you too for your support and motivation.

To Ethu, Malachi, Unikho/Tsibo, Yasha, Nozuko and Elema, my children let this be an example to live by, and one of what is possible when you apply yourself.

I would be remiss if I did not express my gratitude to the late Zane 'Abu' Ibrahim to whom I am eternally indebted for his teachings that we should never judge ourselves on the heights of others but on the depths of our convictions.

Acknowledgements

With deep humility I give thanks to bra Thabiso whose counsel led me on this journey and for being my intellectual compass.

I would also like to give special thanks to Dr. Lucienne Abrahams and Dr. Stanley Shanapinda for their advice, guidance, and encouragement.

Thank you all for reading this thesis at its various stages of its development and for tilling my receptive mind so that the intellectual seeds would germinate.

Abstract

Overview: Using South Africa as a case study, this report explores and critically appraises the extent to which national digital policies are influenced by, or insulated from, external actors, ideas, and discourses. The research examines the intersection between global digital policy and South Africa's digital policy priorities. It has done this to better understand how the South African government has attempted to harness the developmental potential of digital technologies through specific policies. The research also considers the interplay between international and intergovernmental institutions, *states of the core*, epistemic communities, donors, developed nations, technology drivers (equipment and software manufacturers) multinational corporations, and the composition of the relationships between and within these institutions – the bureaucracies within them, and the alliances that exist between policy networks and institutions that might influence South Africa's policy formulation processes. Finally, this research report demonstrates how certain institutions influence or constrain the extent to which the country's digital policies are a product of national debate, reflection, and determination.

Research Methodology: Leaning on Constructivism as a philosophical foundation, the research method prioritised the qualitative approach. The constructivist paradigm was used as a lens for analysing the responses from the interview respondents, who, through their individual experiences and reflections, have constructed their own knowledge on how the different aspects of the global digital policy industrial complex (GDPIC) operate (defined under sections 1.2.1 and 1.2.3). In addition to analysing the data obtained from interviews, the research also examined two policy documents and one discussion document to showcase textual evidence of the GDPIC's influence on South Africa's digital policy formation. The documents that were analysed are the South African National Broadband Plan- SA Connect (RSA, 2013), the National Integrated ICT Policy White Paper (RSA, 2016) and Enabling South Africa 4.0 Becoming 4IR Ready: A Government Led Approach (Accenture & RSA, 2019).

Key Findings: The research findings reveal that the global demands of the GDPIC have influenced two of the three documents that were examined. This has contributed to setting up the policy, and by extension, the country, for failure. Policy failure in South

Africa has usually been ascribed to improper or no implementation. Less explored is the idea that South Africa's digital policies have failed because the ideas and discourses that inform them serve the interests of the GDPIC rather than serving the country.

Keywords: global digital policy industrial complex, policy formulation, national digital policies, national ICT policies, influences, external actors, local actors, local factors, external factors, epistemic communities, policy networks, advocacy coalitions, technological determinism, policy hegemony, policy colonialism, policy imperialism, policy harmonisation, International Telecommunication Union (ITU), Bretton Woods institutions (International Monetary Fund (IMF), World Bank and World Trade Organisation (WTO)). South African National Broadband Policy South Africa Connect, National integrated ICT Policy White Paper, Enabling South Africa 4.0- Becoming 4IR Ready: A government lead approach.

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List of Acronyms

4IR	Fourth Industrial Revolution
A4AI	Alliance for Affordable Internet
ADI	Affordability Drivers Index
ANC	African National Congress
AU	African Union
AusAID	Australian Agency for International Development
BEREC	Body of European Regulators for Electronic Communications
CIDA	Canadian International Development Agency
CRASA	Communications Regulatory Association of Southern Africa
CTO	Commonwealth Telecommunications Organisations
DIIDC	Dutch International Institute for Development and Communication
DCDT	Department of Communications and Digital Technologies
DST	Department of Science and Technology
ECA	Electronic Communications Amendment Act
FDI	Foreign Direct Investment
G8	Group of Eight Industrialised Nations/Countries
GATT	General Agreement on Tariffs and Trade
GBDE	Global Business Dialogue for Electronic Commerce
GDPIC	Global Digital Policy Industrial Complex
GIIC	Global Information Infrastructure Commission
GSA	Global mobile Suppliers Association
GSR	Global Symposium for Regulators
HSRC	Human Sciences Research Council
ICANN	Internet Corporation for Assigned Names and Numbers
ICASA	Independent Communications Authority of South Africa
ICT	Information and Communications Technology
IDI	ICT Development Index
IDRC	Canadian International Development Research Centre
ILO	International Labour Organisation
IMF	International Monetary Fund
ITU	International Telecommunication Union
ITU-D	International Telecommunication Union Development Sector
ITU-R	International Telecommunication Union Radiocommunication Sector
ITU-T	International Telecommunication Union Standardization Sector
ITU-RR	International Telecommunication Union Radio Regulations
MNC	Multinational Corporation
NBAC	National Broadband Advisory Council
NBPs	National Broadband Plans
NDP	National Development Plan
NICI	National Information and Communication Infrastructure
NGO	Non-Governmental Organization
NRI	Network Readiness Index
NWICO	New World Information & Communications Order
OECD	Organization for Economic Co-operation and Development
PICC	Presidential Infrastructure Coordinating Commission
SADC	Southern Africa Development Community
UKDID	United Kingdom's Department for International Development
UNECA	United Nations Economic Commission for Africa
USAID	United States Agency for International Development
UNSC	United Nations Security Council
WEF	World Economic Forum
WIPO	World Intellectual Property Organisation (WIPO)

WRC	World Radiocommunication Conferences
WTDC	World Telecommunications Development Conferences
WTO	World Trade Organisation

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Chapter One - Setting the scene: South Africa as a case study

"As the world economy in particular is transformed by new modes of production and trade, and as transnational corporations and institutions come to exercise more influence and power, so the capacity of national policymakers to frame their own agendas is diminished." (Parsons, 1996, p. 234)

1.1. Dressed in borrowed robes? South Africa's position in global digital indices

Despite being categorised as a developing country, South Africa exhibits some characteristics of advanced economies (van Greunen et al., 2018). It has moderately strong and stable institutions, the most efficient tax collection regime on the continent, a world-class stock exchange, a varied economy (sophisticated telecommunications, financial, legal, energy, tourism, and transport sectors) and robust civil society. Furthermore, South Africa is the only African country to be a founding member of the Bretton Woods Institutions (International Monetary Fund (IMF), World Bank and the General Agreement on Tariffs and Trade (GATT), later renamed to the World Trade Organisation (WTO)). It is also the only African country that is a member of the G-20 (Yanacopulos, 2012; Cogburn, 1998; van Niekerk, van Der Waldt & Jonker, 2002). The country currently serves as a non-permanent member of the United Nations Security Council (UNSC) for the third time (2019 - 2020) and has sat on the Council on two previous occasions, 2007–2008 and 2011–2012. Kuziemko and Werker (2006) found that a country's access to United States aid increased by 59 percent and to United Nations aid by 8 percent when it sits on the Council.

They further found that a country that sits on the UNSC also enjoyed considerable diplomatic importance, especially with permanent UNSC members (Kuziemko & Werker, 2006). While a member state whose term comes to an end after two years, is not eligible for immediate re-election, it is conceivable that South Africa might not be elected to serve on the UNSC for the next couple of years. Another reason for this might be the country's support and stance on the Chinese telecoms company, Huawei, the latest casualty of the United States – China trade war (at the time of writing).

Considering the combination of these variables and the fact that South Africa was an early adopter of telecommunications liberalisation initiatives in Africa during the 1990s, one would expect it to register considerably higher on the global digital indices (Gillwald, Moyo & Stork, 2012). Indeed, it is difficult to reconcile South Africa's profile with its position in the indices as shown in Tables 1.1 to 1.4, indicating that South Africa's position in global digital and ICT indices has stagnated. This research examines South Africa's relative position to understand why, despite having digital policies that were lauded, the sector and country underperformed. Table 1.1 shows that the country has not advanced significantly since 2015, with only one increase in rank in 2016 before returning to the 2015 ranking in subsequent years. Table 1.2 shows South Africa to have dropped substantially since 2015/2016 in terms of global competitiveness, based on factors that include the performance of institutions, policies, ICT adoption, innovation capability, and level of productivity.

The World Economic Forum (WEF) Networked Readiness Index sometimes referred to as the Technology Readiness index, measures a country's ability to take advantage of the opportunities offered by digital technologies. The Networked Readiness reports, which cover 148 countries, indicate how countries perform in the digital world. They also measure how well an economy is making use of digital technologies to boost global competitiveness. Though it does not cover 2017/2018, Table 1.3 shows some improvements in readiness from 2013.

Table 1.1: South Africa's ranking out of 79 Countries (2015–2018)

2015	2016	2017	2018
46	45	46	46

Source: Huawei's Global Connectivity Index (GCI) 2015-2018.

Table 1.2: South Africa's Global Competitiveness rankings out of 140 countries (2015–2018)

2015	2016	2017	2018
49	47	61	67

Source: World Economic Forum (WEF), The Global Competitiveness Reports.

Table 1.3: South Africa's Rankings in the Networked Readiness indices (2013–2016)

2013	2014	2015	2016
70	70	75	65

Source: World Economic Forum (WEF), The Network Readiness Index Rankings.

Table 1.4: South Africa's performance: WEF e-Readiness Indices (2013–2016)

Overall & sub - index/Pillars	2013	2014	2015	2016
Overall	70	70	75	65
A. Environment sub-index	33	31	31	33
1. Political & Regulatory environment	21	20	24	**26**
2. Business & innovation environment	55	53	55	65
B. Readiness sub-index	95	98	102	69
3. Infrastructure	59	68	85	**44**
4. Affordability	104	112	107	74
5. Skills	102	97	95	**95**
C. Usage sub-index	72	70	67	75
6. Individual usage	81	78	68	**77**
7. Business usage	33	30	30	32
8. Government usage	102	103	105	**105**
D. Impact sub-index	91	89	92	93
9. Economic impacts	51	49	58	57
10. Social impacts	112	113	110	**112**
Participating countries	144	148	143	139

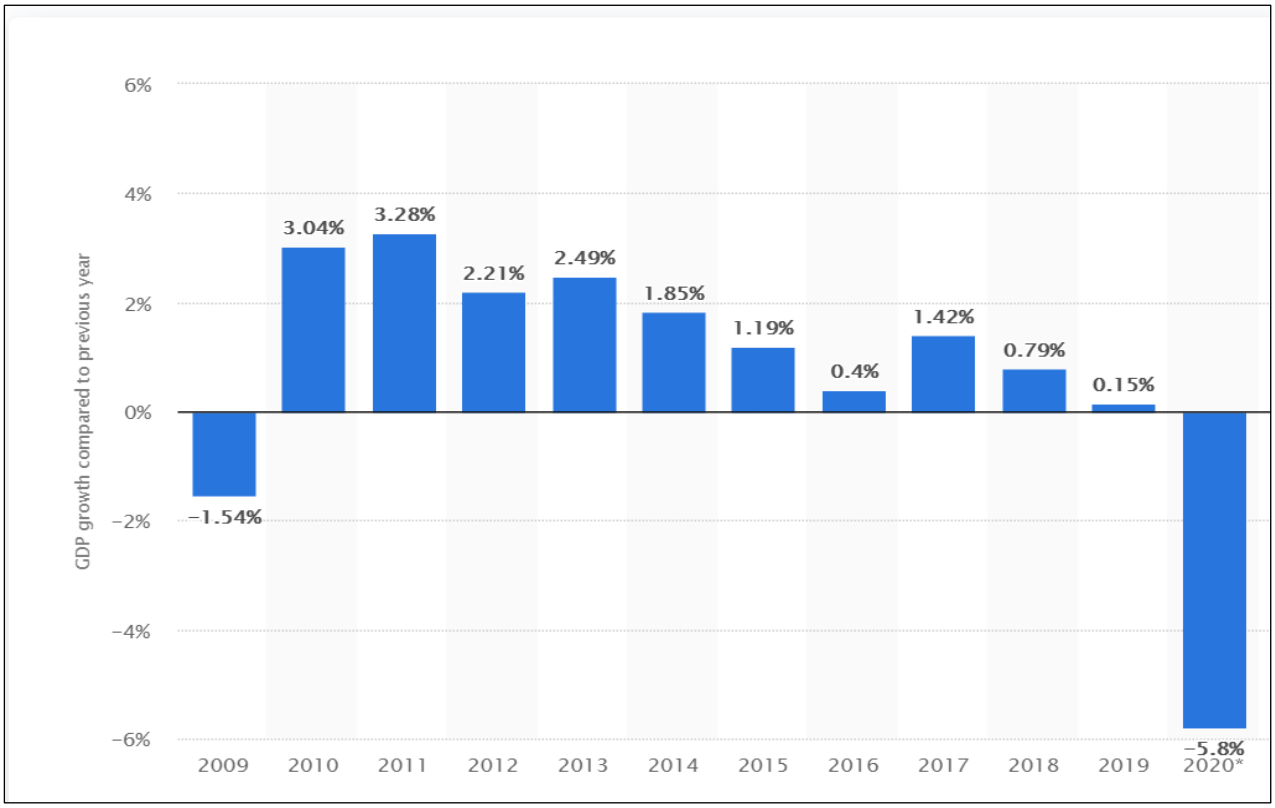
Source: Common Good First (2018).

Table 1.4 characterises the country as having a strong and stable regulatory and political landscape even though government makes little use of ICTs or digital technologies. The green indicators show an above-average performance, while the red numbers indicate below-average performance. According to the WEF 2016 report, South Africa's performance in the digital transformation space is predominantly driven by business while performing poorly in individual and government usage, as earlier mentioned. This stands in direct contrast to the commitments government has made with regards to the policy and discussion instruments represented in Figure 3.1. In the

2021 Inclusive Internet Index South Africa ranks 47th in the global rankings, a head of Kenya (71), Egypt (73) and Nigeria (75).[1]

Despite placing digital technologies at the epicentre of the country's social and economic development, the country's GDP growth is contracting (see Figure 1.1 below). According to Stats SA, ICT imports (products and services) far exceed exports, highlighting South Africa's over reliance on other countries for digital technologies (RSA, 2017). Currently, the country has no digital industrial policy and very little research, development or manufacturing of digital technologies (Creamer, 2018).

Figure 1.1: South Africa's gross domestic product (GDP) growth rate from 2009 - 2020



Source: Statista, 2020

One possible explanation for this shortcoming is that the South African government has not yet fully appreciated the intricacies and competing interests that impact policy formulation. An alternative explanation is the country's inability to articulate responses to digitization that are tailored to domestic conditions and based on local policy

[1] https://theinclusiveinternet.eiu.com/explore/countries/performance

considerations. Also, the South African policymaker's understanding of digital policy formulation might be too narrow. National broadband policies or digital policies should not only be formulated to address domestic conditions, rather it also presents an opportunity to realise a country's global ambitions. Lacey states (2015, p. 5) that national broadband policies for example "are generally part of a wider policy debate centred around national competitiveness and economic growth."

An example of a country acting in the interests of its economy was the United States government when it pushed for multilateral commitments like the 'Digital 2 Dozen' that sought to prohibit countries from implementing measures that support their local businesses in competing with the global technology giants from the United States. These measures included prohibiting customs duties for digital products (Roberts, Black & Barnes, 2019).

An extensive body of research illustrates how digital technologies can influence Foreign Direct Investment (FDI) opportunities, economic growth and society-wide efficiency gains (Asongu & Odhiambo, 2020; Dunne & Masiyandima, 2017; Boamah, 2017; Fanta & Makina, 2017; Hassan, 2005).

An increasing number of African countries[2], South Africa included, have implemented national digital policies intending to transform their economies to meaningfully participate in the digital age. Whilst the research uses the terms *ICT* and *digital* together, and interchangeably in some instances, it is essential to note that this paper moves beyond the narrow conceptual lens of *ICT* and preferentially uses the term *digital*, which is wide-ranging and takes into cognisance the notion of technological convergence, the internet of things, and other nascent technological developments. The term *digital* also reflects a moment when the world has moved away from being purely about telecommunications to an even more pervasive digital or data-driven industrial complex that spills over into other sectors. Like other governments on the continent, South Africa bears the responsibility to formulate appropriate digital policy responses that support the aspirations of its citizens and the

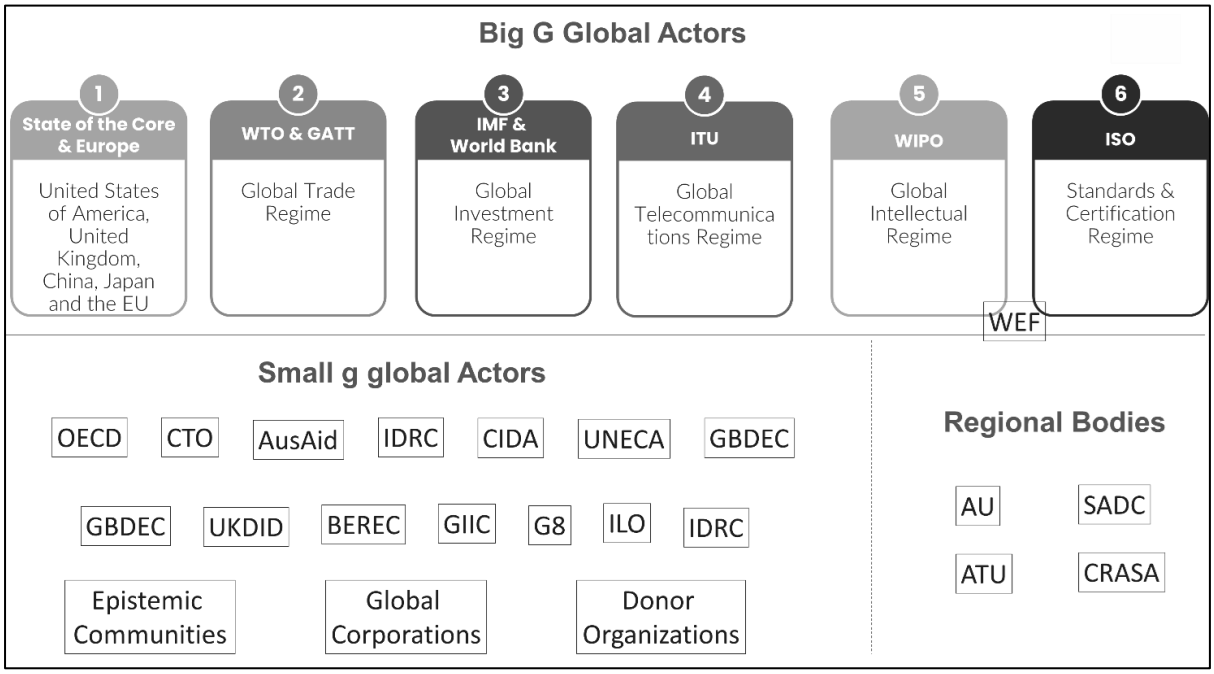
[2] In its "Agenda 2063 Framework Document," the African Union Commission also articulates continental aspirations for Information Communication Technologies or Digital Technologies (African Union Commission, 2015).

country's developmental imperatives, as articulated in the documents appearing in Table 3.2.

Also, the historical record of developing nations like South Africa reveals that they have had less impact on the global digital policy industrial complex (GDPIC), a term to be defined later in the chapter (Cogburn, 2004). While South Africa has enjoyed some level of success in policy formulation, it has sometimes succumbed to international pressures that have limited its ability to respond appropriately (Cogburn, 2004; Kunyenje & Chigona, 2019; Metfula, Kunyenje & Chigona, 2016; Chiumbu, 2008 & 2011; Metfula & Chigona, 2013). One of the functions of digital policy and other related instruments is to create conducive environments for digital technologies to flourish. However, if the policy frameworks (and resulting policy instruments) that South Africa adopts operate in favour of the GDPIC, then the need for domestic digital policy that operates in the interest of local needs becomes problematic. An equitable balance of power and the equal inclusion of developing nations' interests should replace the historical and structural dependencies that characterised the 19th and 20th centuries.

Global regimes are not unique to the digital policy realm as they also exist in areas of finance, security, trade, intellectual property, and other aspects of global affairs. The telecommunications space out of which the International Telecommunication Union (ITU) was born is considered by many a prime example of a regulatory regime (Braman, 2004). There has been a gradual transition from this regulatory regime toward a newer and more multifaceted GDPIC that traverses many areas and sectors, as illustrated by Figure 1.2 (Chiumbu, 2008; Cogburn, 2003). Figure 1.2 illustrates the dimensions and institutional arrangements that operate in the GDPIC. At the macro (Big G global actors and regimes), meso (small g global actors) and micro (regional bodies) levels, the GDPIC universe comprises a range of multiple mediating agencies and supranational institutions. These regimes sometimes intersect and reinforce each other, and the global digital value chains of big corporations headquartered in the *states of the core* and the European Union (EU). Figure 1.2 is instructive in that it demonstrates that one cannot speak of digital policy formulation in isolation from discussions on to the nexus between technologies, markets, and policy.

Figure 1.2: The GDPIC universe & the digital policy industrial complex



Source: Researcher's compilation 2020.

1.2. Key concepts and terms

1.2.1. Global digital policy industrial complex (GDPIC)[3]

The global regimes that operate around trade, investment, and intellectual property have for the most part been conceptualised by developed nations. Singh argues that, "In default, the North continues to develop the norms and policy principles for the global digital society (emphasis- and by implication the global South), on the basis of its interests and geopolitical vision," (Singh, 2017, p.2). A global digital order is

[3] Other scholars who have written on regime formation (some of whom are reference herein), which are tangentially related to the GDPIC written about in this research include:

a) the International Telecommunications Regime (Cowhey, 1990),
b) the supranational regulatory system (Drahos and Joseph,1995),
c) Global Information Infrastructure and the global expansion of Intellectual Property Rights through the Trade-Related Intellectual Property Rights (GII-IPR-TRIPs) complex (Sum, 2003)[3],
d) the Global Information Policy Regime (Braman, 2004),
e) the Global Information Infrastructure (GII) regime (Cogburn, 2004),
f) the Global Information Society Regime (Chiumbu, 2008).

gradually and steadily taking shape. To describe this emerging phenomenon, the research borrows from the term *military-industrial complex*, which is a term that has its roots in the writings of C. Wright Mills (1956) and American president Dwight Eisenhower who then popularised it in 1961. The military-industrial complex usually implies a situation where domestic and foreign military policy has been manipulated by a coalition of powerful groups and bodies that share economic, institutional, or political interests to increase defence expenditure (Mintz, 1985; Bullock & Trombley, 1999). This research defines the term *global digital policy industrial complex* (GDPIC) as a structure that is:

a) governed by informal and formal alliances, collaborations and networks of so-called policy experts that belong to epistemic communities, developed nations, international and intergovernmental institutions, donors and multinational corporations (MNCs) that drive technological development
b) governed by a set of shared ideas and policy discourses, and
c) governed by material resources (Chiumbu, 2008).

Typically, what arises out of these shared ideas, discourses, alliances, collaborations, and networks is a regime complex. The GDPIC can therefore be described in the following manner: it is comprised of (a) **institutions** that are multilateral, private sector entities that are transnational in nature, (b) **ideas** around privatisation, liberalisation, deregulation, economic growth and universal access, and (c) **material resources** such as financial, technical, or knowledge resources.

Using these institutions, ideas and material resources, the GDPIC has the ability to determine the nature and direction of digital policies (Chiumbu, 2008). To illustrate how (a), (b) and (c) operate in tandem, the research closely analysed the South Africa National Broadband Policy: South Africa Connect (hereinafter referred to as SA Connect) (RSA, 2013), The National Integrated ICT Policy White Paper (RSA, 2016) and Enabling South Africa 4.0- Becoming 4IR Ready: A Government Led Approach" (hereinafter referred to as Enabling South Africa 4.0) (Accenture & RSA, 2019). In addition, interviews with various types of stakeholders were also conducted.

1.2.2. The GDPIC operates as a regime complex

According to Kresner (1983), a *regime* is defined as a "set of implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations," (as cited in Cogburn, 2003; Drake, 2000). Cogburn (2003) further clarifies the quality of these principles, norms, rules, and decision-making procedures. He states *principles* are viewed as beliefs of fact, causation, or rectitude. He further defines *norms* as standards of behaviour that are understood in terms of rights and obligations; *rules* are described as specific directions framed in either positive or negative terms that guide action; *decision-making procedures* are characterised as the prevalent practices that come into play when making and implementing collective preferences or choices (Cogburn, 2003). Braman (2004) and Cogburn (2004) describe the current GDPIC as the global information policy regime while, Drahos and Joseph view it as supranational regulatory order (Drahos & Joseph, 1995). This paper argues that the GDPIC operates as a regime complex. Raustiala and Victor define a regime complex as "an array of partially overlapping and non-hierarchical institutions governing a particular issue-area," (Raustiala & Victor, 2004, p.279).

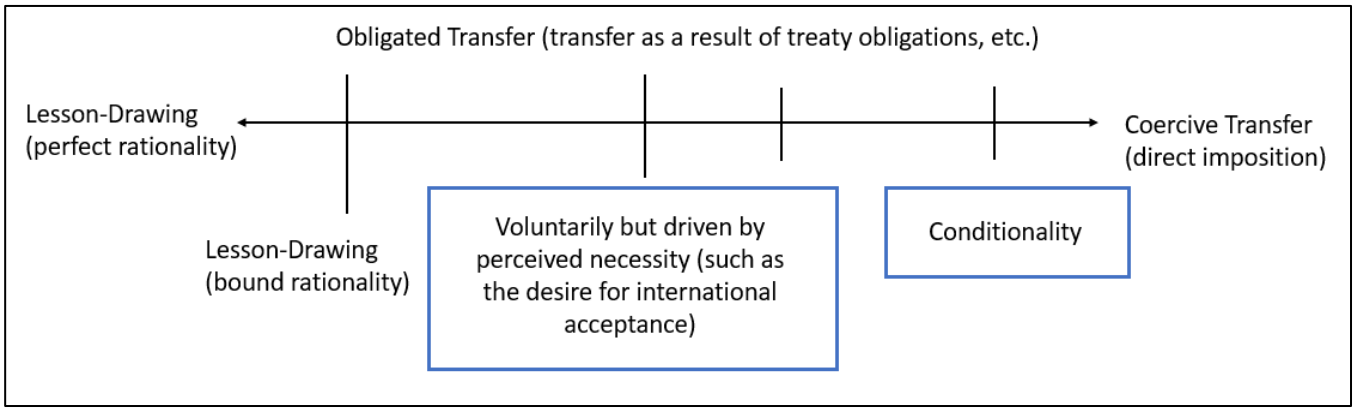
This research defines a regime complex as a collection of developed nations, epistemic communities, donors, MNCs and non-hierarchical global and intergovernmental institutions that influence global digital policy, intersecting with global digital manufacturing and innovation value chains.

1.2.3. Global policy

The term *global policy,* as used in this research, implies recommendations, ideas, discourses, or options tabled for consideration and or action by national governments. Whilst the recommendations, in theory, have no binding force (in respect of the principle of sovereignty), they are perceptually and conceptually persuasive. This research suggests that, for a developing country like South Africa, these recommendations tend to fall into either the *voluntary* or *conditionality* areas in the influence continuum, exemplified by Figure 1.3. These recommendations and options are made or agreed on by a network of stakeholders that constitute the

GDPIC. Furthermore, in practical terms, these so-called recommendations are not suggestions if one considers the interplay between policy certainty and the conditions that come with investment. Figure 1.3 functions as a heuristic device that aids our understanding of the nature of recommendations, suggestions or options made by stakeholders that comprise the GDPIC. The GDPIC is not only characterised as comprising diverse 'actors' but also includes varied interests, policy preferences, principles, values, norms, decision-making procedures, policy formulation and implementation processes that intersect with one another (Cogburn, 2004).

Figure 1.3: Influence continuum: from Lesson-Drawing to Coercive Transfer[4]



Source: Dolowitz & Marsh, 2000.

The truth of the matter is that to secure FDI, an investor will invariably feel comfortable with policies that mirror sector policy prescripts endorsed by institutions such as the ITU, WTO and IMF. Dolowitz and Marsh (2000) use the example of the EU, the IMF and the World Bank to show how they deliberately advocate and sometimes coerce via contingent conditions to introduce similar policies across countries. Table 1.5 illustrates the main investors and main sectors invested in South Africa in 2018.

[4] The use of the term *obligated transfer* in Figure 1.3 is both peculiar and interesting, given that the coercive element is demonstrably absent in the case of South Africa. South Africa signed but did not ratify, the 2001 Budapest Convention on Cybercrime, and neither signed nor ratified the 2016 African Union's Malabo Convention on Cyber Security and Data Protection. Also, in many jurisdictions, ratification has no substantive legal effect.

Table 1.5: FDI by country and industry in 2018

Main investing countries	%
United Kingdom	29.4
The Netherlands	19.5
Belgium	9.6
United States	6.5
Japan	5.7
Germany	4.5
China	4.5
Australia	4.1

Main investing sectors	%
Financial and insurance services, real estate and business services	39.4
Mining and quarrying	25.5
Manufacturing	16.6
Transport, storage and communications	11.0
Wholesale and retail trade, catering, and accommodation	6.4
Community, personal and social services	0.8

Source: South African Reserve Bank, Quarterly Bulletin March 2020- latest available data

Satisfying the policy certainty required for FDI comes at a cost. This is because policy transfer from one setting to another could prove detrimental to the receiver of such interventions as far as the development of policies, administrative arrangements, institutional endowments and ideas is concerned (Dolowitz & Marsh, 2000). Typically, the assumption by policymakers is that the policy transfer will result in positive outcomes. Rarely do they reflect on the possibility that it could also lead to policy failure because it does not address contextual issues, a point further explored in this research.

1.2.4. External actors

The term *external actors* refers to epistemic communities, developed nations, donors, telecommunications experts, trade negotiators, MNCs that drive technology development, international lawyers, private sector interest groups, advocacy groups or coalitions, multilateral or intergovernmental and international institutions, which together constitute the GDPIC.

Often the external actors' interests, policy preferences, principles, sub-systems, institutional practices, discourses, values, norms and decision-making procedures become widely accepted through a process of consensus creation at international and regional conferences (Braman, 2004; Cogburn, 2004). The roles that conference play are rarely examined in the literature, except for Cogburn (2004), who argues that international and regional conferences are part of a system that introduces knowledge, principles, "values, norms, rules and consensus" building in the GDPIC. These

conferences convene powerful nation-states, epistemic communities[5] (which comprise of so-called 'recognised' policy experts), intergovernmental and international organisations that wield considerable influence in the policy formulation processes at the national, regional and global levels (Cogburn, 2004). Some contend that intergovernmental and international organisations generally operate on the basis of consensus and do not necessarily have any power to influence. This research argues that it would be a very myopic view to assert that consensus and the principle of one-country-one-vote supposedly equalises all members in intergovernmental or international organisations. Power relations play out in a number of ways; structural and material resources also can influence the outcomes, negotiations, values, principles, norms and rules in the GDPIC.

Table 1.6: Policy actors defined (local and external)

Local actors	External actors
Definition: Actors that play some role in policy formulation within a policy-making boundary (such as a country) through a policy network. These take part as *nationals* of a country.	**Definition**: Actors external (outside of a national boundary) to a policy-making environment, but able to influence or affect the formulation of policy through a policy network or from the background.

Source: Chiumbu (2008) and Kunyenje & Chigona (2019), adapted by the Researcher

1.2.5. Influences

The influences that this research investigated presented themselves in several forms and include, but are not limited to, policy frameworks, capacity building, policy networks, advocacy coalitions, partnerships, policy assistance programmes, institution building. Institutional arrangements, the formation of policy networks, private sector support, ICT special projects, international and regional conferences, as well as the publication of position papers and scientific articles (Braman, 2004; Chiumbu, 2011; Cogburn, 2004). To illustrate and establish the operation of these influences, the research analysed two policy documents and one discussion document.

[5] According to Cogburn, it is typically the epistemic communities that wield greater influence in the policy formulation space at the national, regional and global levels (Cogburn, 2004).

1.2.6 Policymaker

Policymaker in this research refers to the Department of Communications and Digital Technologies (DCDT) and parliament.

1.3. Research problem statement

Between 2013 and 2019 there were a number of digital policies introduced in South Africa. However, little has been done to analyse the influence that external actors may have had in their formulation. External actors have sometimes been known to either disregard the ideas of local actors or advance policy ideas, recommendations and suggestions that do not fit the domestic context of the 'adopting' country (Chiumbu, 2011; Cogburn, 2004; Etta, 2005; Kunyenje & Chigona, 2017; Metfula, 2013). It is also not clear to what extent South Africa's digital policies are based on evidence and inputs from the domestic context or whether South Africa has proverbially sacrificed its digital policy thinking. The ability of external actors to influence the empirical reality of the content that appears in the national digital policies and discussions documents being developed and produced in South Africa is the focus of the research (Braman, 2004). As mentioned earlier, the objective of analysing the SA Connect (RSA, 2013); the National Integrated ICT Policy White Paper (RSA, 2016) and Enabling South Africa 4.0 (Accenture & RSA, 2019), is to determine the extent to which these documents are a product of national debate and reflection.

The literature review includes several studies that expose the influences of external actors, including Chiumbu (2008 & 2011), Cogburn (2004), Chini (2008 & 2010) and Metfula et al. (2016). It is instructive to explore the respective circumstances because there exists an assertion that the parameters of the GDPIC and policymaking systems are set and influenced by:

a) multilateral institutions,
b) intergovernmental institutions,
c) scientific and technical organisations,
d) original equipment and software manufacturers (who act for the benefit of their global production networks and global value chains),
e) epistemic communities

f) business leaders,
g) developed nations through the behaviour of actors,
h) capacity building initiatives and programmes (for example, SPIDER Centre[6], technical, regulatory and policy capacity),
i) institution building,
j) advocacy coalitions,
k) policy networks,
l) partnerships,
m) policy assistance programmes (assistance in developing policy and regulatory frameworks),
n) private sector support,
o) special ICT projects,
p) international and regional conferences and
q) the dissemination of position papers and scientific articles (Chiumbu, 2011; Cowhey, 1990; Kunyenje & Chigona, 2017; Metfula et al., 2016).

The research collectively refers to all the stakeholders and influencing activities highlighted above that contribute to the GDPIC as illustrated in Figure 1.2. The GDPIC encompasses a diverse grouping of stakeholders.

1.4. Research purpose statement

There are two competing views on how digital policies are developed and formulated. The first view contends that the formulation of national digital policies is insulated from the influences of the GDPIC. This view advances the argument that developing nations are capable of formulating and implementing independent policies that are not susceptible to external forces and influences (Laegried, 2007). At the other end of the spectrum there exists the presumption that the parameters of global digital governance and policy are set and influenced by institutions of the GDPIC who are organised and determined by a handful of governments, sometimes referred to as *States of the Core*. The term States *of the Core* identifies some countries (the US, Japan, the UK– and more recently China) and the EU as the chief architects that create and maintain the current arrangement of structural power in the GDPIC (Sum,

[6] Ssee https://spidercenter.org/regulator/

2003; Cowhey, 1990; Kunyenje & Chigona, 2017; Metfula et al*.,* 2016; MacLean, 2008).

The purpose of this research was to explore and critically appraise the extent to which national digital policies are insulated from, or affected by, external influences. Since 2009, South Africa has embarked on a programme of revising and introducing new digital policies to boost its economy to support socio-economic development. However, it appears that some of these policy interventions have not been adequately realised. Many reasons have been advanced for this shortcoming, though the prevailing explanation is that poor implementation or lack of political will have led to policy failure. Less explored is the idea that these policies have failed because:

(a) they have their genesis in the developed world and global institutions, or
(b) that policies are sometimes prescribed as a condition to be met before funding in the form of loans is made available, or
(c) that the policies are developed and implemented to meet treaty obligations, or
(d) that the policies are developed to facilitate product or technology market entry or market expansion of the MNCs of developed nations, further reinforcing the economic dominance of the latter, or
(e) that the considerations above have resulted in the needs of the citizens and country being overlooked or appearing as an afterthought.

This research has also been conducted for the benefit of the policymaker to reflect on whether they have developed a national digital policy to achieve its domestic and foreign economic policy objectives, as opposed to simply developing an inward-looking policy. There has not been any critical appraisal that specifically looks at the role and influence that external actors have had on the formulation of South Africa's national digital policies. Furthermore, there has not been any assessment as to whether this influence has led to either positive or negative outcomes. During the literature review, the research discovered that very little has been done in terms of (a) discussing issues around policy hegemony; (b) the role that political and economic discourses and ideas play in policy formulation; (c) how the dictates of the global market influence national policy, and (d) how the material resources of the GDPIC and its many other regimes intersect with South Africa's policy considerations.

Using Regime theory, Governmentality theory and Manufacturing Consent theory as theoretical lenses, the research sought to; (a) examine how the GDPIC‘s ideological, scientific and political discourse embeds itself in local policy; (b) the country’s ability to engage in policy formulation discussions, and; (c) lastly, how the implementation of South African policies may introduce international influences that may be at odds with local efforts, interests and objectives, thus affecting the likelihood of realising policy outcomes.

Finally, the literature review reveals that while there are studies that focus broadly on the influences of external actors in the formulation of digital policies, few have looked at the influences and problematized them from a South African perspective.

1.5. Research questions

The primary research question is: To what extent are South Africa’s digital policies rooted in or removed from the Global Digital Policy Industrial Complex context, and how might this be explained?

This research focus has been expanded as follows:

1.5.1. How has the GDPIC and other external actors influenced the formulation of South Africa’s digital policies?

1.5.2. What are the ideological assumptions that are embedded in the policy formulation discourse of the GDPIC?

1.5.3. To what extent can South Africa’s participation in the global digital policy-formulation and agenda-setting forums be categorised as symbolic or substantive?

1.5.4. How does South Africa adopt policy suggestions and or recommendations advanced by the GDPIC?

1.6. Significance of research

The quote by Parsons in the opening of this chapter proposes that we should have an inquisitive interest in the ability of national policymakers to frame their agendas as more and more external actors begin to wield more influence and power.

It is crucial to investigate the political economy[7] and influence of the GDPIC so that the local actors in South Africa may better understand and appreciate the contexts in which they participate. This could have a material impact on the formulation of national digital policies. Local actors include the policymakers, the regulator (the Independent Communications Authority of South Africa (ICASA)), academics, non-governmental organisations, private sector firms, media, think tanks and civil society. The research aims to sensitise stakeholders to the notion that policy does not shape society, rather society shapes policy according to its needs, values, and interests (Castells, 2005). As such, the South African policymaker should develop digital policies with these considerations in mind. Furthermore, to comprehend digital policy as unambiguous and technical may lead to underestimating the institutional or geopolitical arrangement of global actors in the GDPIC and their relative impact on policy formulation in South Africa. It has also become an accepted principle that policies that are not inherently based on the local context but rather on global aspirations (considering that digital technologies operate in a global market) will not address the domestic needs, whatever form they may take.

This is a fascinating area of study, given that global regimes have typically been conceptualised by developed nations, be it in the fields of trade, investment, intellectual property and, lately, the digital policy landscape. Because these are imbued with the intellectual dictates of developed nations, developing nations may not have been able to fully comprehend the real implications of these regimes on their domestic digital policies (Singh, 2017). Regular participation and meaningful contribution in the GDPIC present an opportunity for developing nations to influence the structural changes required to reconfigure and reimagine the geopolitical economy

[7] The term *political economy* is used in this research to describe any ICT government policy that has an economic and social impact. The term is also used to explain the geopolitical and institutional arrangement, the political forces, industrial forces, individual actors, the ideological culture and institutions that shape the GDPIC. In this way, it must be understood as a term that explains the "theoretical and empirical implications of alternative arrangements for making policy choices," (Gupta, 1992).

of digital policy formulation. In this way, they can also ensure that their respective interests find expression at the global and domestic level.

This research area is particularly important if we consider that the world continues to undergo a process of structural transformation based on the constantly evolving technological paradigm that comes as part and parcel of the GDPIC. This transition to a digital society presents unique opportunities for developing nations like South Africa to take advantage of (Castells, 2005; Singh, 2004). Furthermore, policy formulation in the global digital regime is a complex multi-layered process because it involves a wide range of actors with different interests and influences. It, therefore, becomes vital for the South African policymaker to recognise the nuances between "formal and informal, explicit and implicit and public and secret dimensions" to negotiate policy formulation more effectively at forums where digital policy issues are discussed (Cogburn, 2004, p.160). Understanding the arrangement or constellation of power and the interconnection of policy networks is integral for enhancing the understanding of the South African policymaker on how digital policy formulation occurs and how some interests can influence the process more than others. More importantly, this research asks the policymaker and public policy practitioners, to reflect on their strategies for managing how external actors influence the national digital policy formulation process. The research findings point to how consensus mirrors and reproduces the policy roots, practices, ideas and policy discourse of the GDPIC.

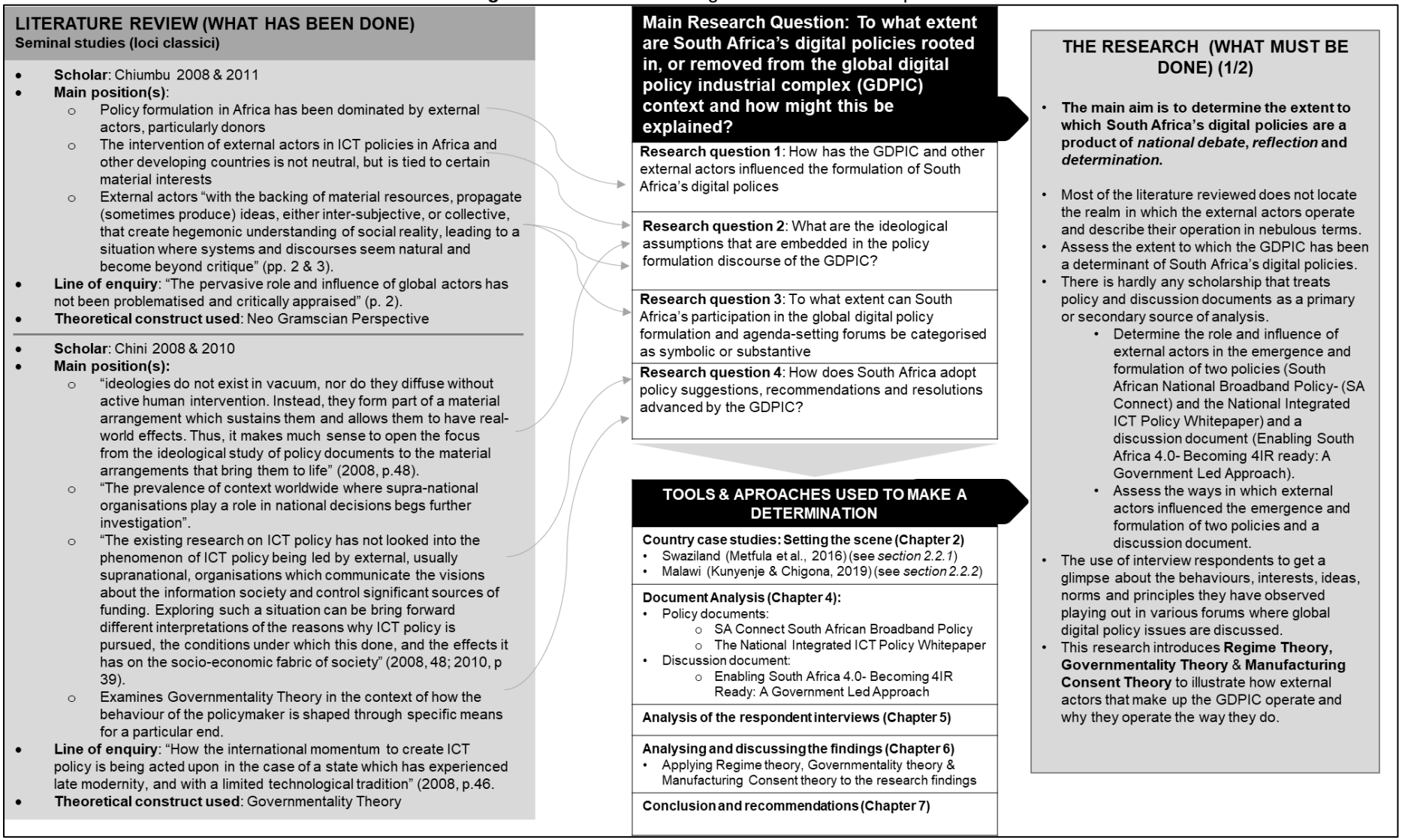
The need to balance the economic, policy and socio-political objectives of the GDPIC against those of South Africa has never been greater, especially if we keep in focus that South Africa experienced a significant economic downturn and several investment downgrades in recent years. Left unchecked, these influences of the global digital policy formulation process could potentially lead to the acceptance of recommendations and approaches that may not result in the best outcomes for South Africa (Chekol & Chavula, 2010). Finally, this research in no way advances the idea that all interventions from external actors come with negative intentions or consequences. What has been discussed so far should give the reader pause to reflect on whether the policymaker and other stakeholders in the policy formulation process can continue to think of the GDPIC as a neutral space.

The thesis roadmap diagrams (see Figures 1.4 and 1.5) below have been included as a summative overview that links Chapters One and Two and sets up Chapters Four, Five, Six and Seven. The diagram essentially distinguishes what has been done from what needs to be done.

On the far left, the diagram depicts the literature review where eight seminal studies were selected because of their contribution to contemporary debates and their identification of the issues and questions in the field. The diagram also identifies the main positions, the line of enquiry and theoretical constructs used by previous scholars exploring a similar angle of enquiry- which is broadly the influence of external actors on the ICT/digital policy formulation of developing countries. The main positions have assisted in the enhancement and acquisition of the subject vocabulary and concepts that allowed the researcher to construct the main and sub-research questions (see middle-top table). The research also used the main positions to rationalise the significance of the sub-questions (see the connections made). The research also examined the theoretical constructs used to identify other relevant theories that could be applied to the research problem or a different application of previously used theories.

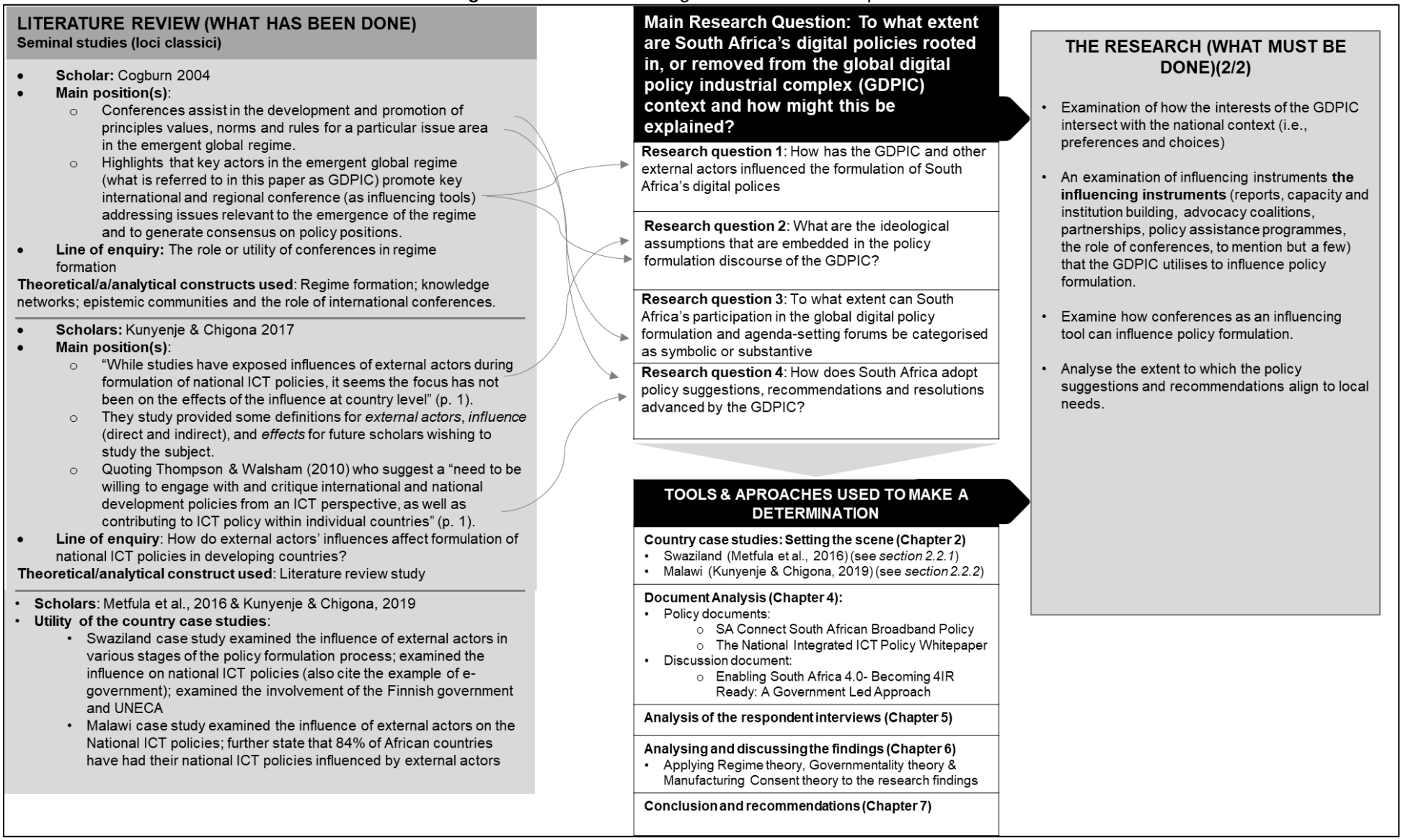
On the far right, the research proposes actions it will use to address the gaps and limitations identified in previous research. In responding to the research question and sub-questions, the research identifies tools and approaches (see middle-bottom table) that will be used to respond to the questions. Here the table lists country case studies (discussed under Chapter Two), document analysis (discussed under Chapter Four) and respondent interviews (discussed under Chapter Five).

Figure 1.4: Summative diagram - Thesis roadmap 1



Source: Researcher's compilation 2021

Figure 1.5: Summative diagram - Thesis roadmap 2



Source: Authors' compilation 2021

Chapter Two- Literature Review: conceptualising the global digital policy industrial complex

2.1. Thematic and systematic literature review methods

The literature review has used thematic and systematic literature review methods in combination. The thematic literature review has been organised according to conceptual categories informed by, among other things, the research topic, the research questions and the review of seminal studies on the issue. The three thematic areas are (a) *global influences, local impact*, (b) *the political economy of digital policy formulation, and (c) philosophical perspectives on national digital policies.* The thematic review was selected for four reasons. Firstly, it was suited to conduct a detailed survey of the literature based on the conceptual categories. Secondly, it synthesized and organised the information collected from the literature into summaries contained in Tables. Thirdly, by grouping the literature thematically, the research critically analysed the information against other authors discussing similar or related issues, which helps to identify gaps in the literature. Lastly, the thematic organisation presented the themes upon which the research is based in a reader-friendly way (Rose, n.d.). Section 2.2.1 introduces the theoretical foundation for the research, looking particularly at Manufacturing Consent theory, Governmentality theory and Regime theory to explain the effect that the GDPIC has on the formulation of South Africa's digital policies.

The systematic literature review was employed to introduce a method that systematically identifies the issues, including the level of detail contained in each study as depicted in Tables 2.1, 2.2 and 2.3 (Xiao & Watson, 2019).

2.2. Global influences, local impact: the literature gap

Chini (2008 & 2010), Chiumbu (2008, 2011), Kunyenje and Chigona (2017), Makoza (2017), Melody, (1997) and Metfula et al. (2016) have either analysed the elements of influence, policy formulation, policy implementation and national ICT policy separately or in the context of other countries or economic blocks, for example, Malawi,

Swaziland and the EU. Few studies have adequately explored and linked the elements of influence and their impact on policy formulation in South Africa.

Adam and Gillwald (2007), Cogburn (2004), Chiumbu (2008), Kunyenje and Chigona (2017), Metfula (2013) and Metfula and Chigona (2013) all agree that policy formulation in Africa is a process that has been, for the most part, dominated by external actors, particularly donors. They include CISCO, Kellogg Institute, Merkel Foundation, Accenture, Microsoft, UKDID, DIIDC and Alcatel in the list of prominent donors.

Multilateral institutions such as the ITU, WEF, United Nations, the Internet Corporation for Assigned Names and Numbers (ICANN), World Bank, IMF, the Canadian International Development Research Centre (IDRC), the Canadian International Development Agency (CIDA), the United States Agency for International Development (USAID), the United Nations Economic Commission for Africa (UNECA), the Organisation for Economic Co-operation and Development (OECD), the Australian Agency for International Development (AusAID) and the Carnegie Corporation of New York have also played a part in dominating the policy formulation landscape (Chiumbu, 2011; Etta, 2005; Kunyenje and Chigona, 2017). Cogburn (2004) identifies additional intergovernmental and international organisations that have been influential in the emergence of what he calls the *global information policy regime*, namely the WTO, Global Information Infrastructure Commission (GIIC), Global Business Dialogue for Electronic Commerce (GBDEC), World Intellectual Property Organisation (WIPO), International Labour Organisation (ILO), and the Group of Eight member states (G8).

Chiumbu (2011), Cogburn (2004), Etta (2005), Kunyenje & Chigona (2017) and Metfula (2013) argue that external actors have been known to either disregard the ideas of local actors or advance policy recommendations and suggestions that do not fit the domestic context in developing countries when it comes to formulation of national digital policies. Adam and Gillwald (2007) opine that the international political economy of the ICT sector has been shaped by several influences, ranging from external pressures, policy choices, power relationships to group interests. According to Chini,

> "Interesting arguments about the role of international organisations, such as donor agencies and multinational consultancies as determinants of national policies on ICT, have been put forward, but their implications have so far remained marginal in further academic debate." (Chini, 2010, p. 38)

After reviewing twenty-one papers, the study by Kunyenje and Chigona (2017) embarks on an extensive literature review that covers six thematic areas, namely, public policy formulation, actors in policymaking, national ICT policy studies in developing countries, ICT policymaking in Africa, factors influencing policy formulation and influences of external actors on public policy. The review concludes that local actors are, more often than not, disregarded. This research critically examines whether the same has been true for South Africa and what the implications of these are on local societal needs and policy formulation.

One limitation in the writing of Kunyenje and Chigona (2017) is that they do not provide a clear picture of how it came to be that external actors dominate the digital policymaking process in developing countries. This research remedies this shortcoming by conducting a document analysis of policy and discussion documents and by consulting works such as Cogburn (2004), Chiumbu (2011), Chini (2008) and Etta (2005), who highlight the historical and the systemic oppression of developing countries and why their relative influence, in global digital policy formulation processes, has been generally inadequate. The authors also contend that the effects of slavery, colonialism, uneven patterns of development and policy prescriptions from the World Bank and IMF, in exchange for development aid, are some of the factors that have contributed to this lack of influence. The role of the World Bank and IMF are of significance in the emergence of national digital policies in Africa, which evolved around the same time as the country's overall transition to free-trade, global capitalism and technological innovation (Metfula et al., 2016; Singh, 2004). This is because international financial institutions, with the help of the ITU, technical experts and consultants, reinforced uneven patterns of development by pushing for sectoral reform, privatisation and liberalisation, evidenced in several legislative, policy and regulatory instruments in South Africa (Chiumbu, 2011; Etta, 2005; Metfula et al., 2016; Melody, 1997). Chiumbu (2008), Metfula et al (2016) and Kunyenje and Chigona (2019) differ markedly from the other authors in Table 2.1 in that they provide clear examples of policy influence.

Using the African Information Society Initiative (AISI) as a case study, Chiumbu's (2008) research reveals how ideas and narratives from external actors are brought to bear on the digital policymaking process; this research did the same with South Africa. Chiumbu (2008) produces current and historical perspectives on how different external stakeholder relationships and interests affected policymaking in Africa. Chiumbu's

research does this by covering the experiences on the continent, but it does not provide country-specific examples to illustrate the influence of external actors. Chiumbu (2008) acknowledges this gap in the literature and is of the opinion that research has not paid adequate attention to the role and influence of external actors in digital policymaking. On the subject of global influences, Souter (2002) argues that the global decisions pertaining to ICTs have largely been decided by supranational ICT governance institutions and technical specialists deployed by developed nations. Souter further reflects on the issue by asking whether any of the institutions that make up the GDPIC have adequately involved developing countries in their policy formulation activities and concludes that this remains to be seen. This research adds to the body of scholarship by conducting research that focuses specifically on South Africa. Kunyenje and Chigona, who produced a seminal literature review on the influence of external actors on policy formulation, are critical of the studies by Adam & Gillwald (2007), Chiumbu (2008), Etta (2005), and Metfula (2013). They opine, “While the studies have exposed influences of external actors during the formulation of national ICT policies, it seems the focus has not been on the *effects* of the influence at country level,” (Kunyenje & Chigona, 2017, p.1).

Writing in the context of the international spectrum management regime, El-Moghazi, Whalley and Irvine (2013) provide fascinating analogies to this research. In their paper, they investigate whether the global spectrum management regime, through the International Telecommunication Union Radiocommunication Sector (ITU-R), has created a regulatory system that has locked in developing nations such that it influences and formalises the national preferences of these countries to sustain and avoid major changes to the regime. This is a clear example of how Governmentality theory operates, which according to Foucault (1991), Braman (2004) and Chini (2008) explains how the policymaker of a developing country internalises the bureaucratic processes and instruments out of which modes of governance arise, thus sustaining the dominance of the global spectrum management regime that was first established by a few developed nations (El-Moghazi et al., 2013). El-Moghazi et al (2013) further observe the increasing role of the private sector, whose rights have been formally recognised since the ITU Plenipotentiary Conference of 1995, and as an influencer of the ITU-R through participation and lobbying to support its diverse interests. This is noteworthy considering that developing nations base their decisions on studies conducted by ITU-R study groups where the private sector leads most of the technical work. In this research,

Governmentality theory is applied and critically analysed in relation to the data collected about South Africa.

As early as 1995, Drahos and Joseph articulated interesting parallels to the discussions around digital policy formulation and the influence that external actors have in this process. Drahos and Joseph (1995) were *au fait* with the emerging supranational regulatory system shaped by powerful interests and states and predicted how this development would impact developing nations. They use the term *supranational regulatory system* to refer to instances where institutions define the principles and standards of regulation for nation-states globally. At the national regulatory level, the effect is that states accept, rather than make, policy and law (Drahos & Joseph, 1995). The defining feature of supranational orders or regimes is that they primarily concern themselves with articulating policy principles and standards at a global level while leaving the technical and granular detail for epistemic communities, specialised organisations or other states to pronounce on. Drahos and Joseph (1995) further argue that the supranational regulatory system is characterised by having a hierarchy of actors that vary in the type of influence they are able to exert. They do this, intending to produce economic and other strategic gains for themselves (Drahos & Joseph, 1995). As such, this research calls for developing nations like South Africa to formulate appropriate policy responses that put their development issues front and centre.

The influence of external actors in the formulation of digital policies of developing nations has not been examined critically enough to understand the nature (whether it is neutral or not), the degree of involvement, and the material interests. Chiumbu (2008), Adam and Gillwald (2007), Kunyenje and Chigona (2017) and Kendall, Kendall and Kah (2006) have called for further studies to be conducted on the impact and influence the GDPIC may have on digital policies formulated in the developing country context. It is imperative to ascertain the material interests of external actors in the development of South Africa's national digital policies and other parts of the developing world. This concern is borne out of documented developments (Cogburn, 2004; Chiumbu, 2008; Sum, 2003) where the World Bank, IMF and the ITU in the 1990s used loan conditions to press for the privatisation and liberalisation of the telecommunications sector in developing countries that were not ready for structural adjustment programmes, including South Africa. This is a clear example of regime interplay, where the global

telecommunications regime and global investment regime intersected and conflicted with the national context by prescribing structural adjustment programmes and policies that are atypical of developing countries.[8] Furthermore, one should not undermine the link between global economic restructuring and its influence or spill-over effect into other areas (Cogburn, 1998). The literature review reveals that while studies may have uncovered the influences of external actors in the formulation of national digital policies, few have uncovered the influences at the country level. Using South Africa as a case study, this research reviewed the extent to which national policies for the digital economy are influenced by external actors and factors, as opposed to primarily being based on evidence from the domestic context.

2.2.1. Global influences, local impact: The Swaziland case-study and findings

Metfula et al (2016) use Swaziland as a case study to examine the influence of external actors on the country's digital policies at various stages of the policy formulation process, policymaking, regulation, funding, programming, advocacy and networking. The authors argue that the introduction of National ICT policies in Africa has been influenced mainly by international development agencies such as the UNECA, ITU, IMF and World Bank, to mention but a few. Metfula et al (2016) add further that the role played by external actors was not limited to financial and technical assistance, at times they were also involved in (a) the development of the policy framework, (b) organising conferences, (c) selection of the high-level working group (d) and offering policy advice. They proffer that the interventions of these external actors were invariably tied to material interests. Metfula et al (2016) identify four periods where the external actors influenced or played a significant role in the emergence of national ICT policies in Africa.

a) Pre-1993: is characterised as a period where bilateral and multilateral institutions encouraged technology transfer, including the installation of technology capable of collecting, storing and disseminating information. The

[8] Drake (2000) provides a telling example of this interplay where he explains that whilst the ITU plays a significant role in the area of global communications (specifically in the areas of radio frequency spectrum, regulations and the provision of technical assistance), it is the World Trade Organization that imposes the 'rules of the game' on the economic organization of global communications. Having said that, this research in no way suggests that the ITU is at the epicentre of the GDPIC universe, but rather that it shares it with organisations such as the WTO, World Bank, WIPO, ISO, IMF and the World Bank.

scholars also cite that international actors such as the World Bank, United Nations agencies and donors supported national plans that prioritised telecommunications infrastructure development during this period.

b) Between 1993 – 1996: The World Bank and the IMF working together with the ITU advocated for telecommunications and ICT policy reforms in most of the developing world, as earlier discussed.
c) By 1996 – 2000 there was a growing number of external actors (notably the World Bank, IDRC and ITU) who were involved in different capacities who vigorously supported ICT policy reform in Africa and achieved this through various methods to assist African countries to formulate their respective ICT policies.
d) Since the 2000's to present the concept of a multi-stakeholder approach in policy formulation has become commonplace where corporate entities, private sector foundations (CISCO, Markle, Accenture, Kellogg) work together with multilateral (WEF) and bilateral donors (UK Department of International Development, the Dutch International Institute for Development and Communication) influence ICT policies in Africa (Metfula et al, 2016).

On the influences that found their way into Swaziland, Metfula et al (2016) give the example where, in embracing e-government, African governments in general, and Swaziland in particular, subjected themselves to a concept that was in the nascent stages and heavily laden with ideas originating from the conceptual West.

To illustrate the influence of external actors in the national ICT policymaking process, Metfula et al (2016) give examples of the government of Finland and UNECA. The Finnish government funded some of the activities of UNECA and occasionally sent Finnish experts to Swaziland to verify "if they were doing the right thing," (Metfula et al., 2016, p. 143). Metfula et al (2016) argue that these experts not only asserted their expectations to the sector Minister, but the UNECA, being the more dominant of the two, provided technical assistance and exerted pressure in terms of project timelines and demanded that 'standards,' stipulated in the templates, were to be followed in the formulation of Swaziland's digital policies. The UNECA's over-involvement in the formulation of Swaziland's ICT policy led to several local actors pulling out of the process as they felt that their contributions were not valued and that the 'cut and paste' of policy pillars adopted from other countries would inevitably be mismatched with the needs of

the country. It is a universal *maxim* that the non-involvement of those most affected by a policy almost always guarantees policy failure (Mohammed, 2015; Govender & Reddy, 2012). Unlike the other sources of literature discussed earlier, the study by Metfula et al (2016) give clear evidence of influence and provide fascinating parallels to *Regime theory*, Foucault's *Governmentality theory* and Chomsky and Herman's (1988) propaganda model, better known as *Manufacturing Consent*. These lenses have been utilised in this research to illustrate the notion of creating willing subjects (using Manufacturing Consent theory), to demonstrate how supranational institutions usurp, for themselves, the role of approving what should be in the purview of the policymaker (using Governmentality theory), and to show how global policy regimes operate (using Regime theory).

2.2.2. Global influences, local impact: The Malawi case-study and findings

Using Malawi as a case study, Kunyenje and Chigona (2019) provide insights on a rarely explored area. They aim to make available new information on the behaviour of external actors in the policy formulation process and how such behaviour should be managed in the future. Kunyenje and Chigona (2019) meaningfully reflect on the nature and importance of national ICT policies, referred to in this paper as digital policies. They state that national ICT policies are more than policies because they traverse and consider several other areas, such as guidelines, laws, regulations and decisions aimed at the diffusion of ICT in society. The scholars further reflect that in formulating digital policies, local actors[9] and external actors[10] influence[11] the national policy formulation process (Kunyenje & Chigona, 2019). Kunyenje and Chigona (2019) provide a curious statistic when they state that external actors have influenced 84 percent of the countries in Africa that have formulated national digital policies. Having analysed three draft policy documents, four policy activity reports and the minutes of meetings, Kunyenje and Chigona (2019) conclude that the influences of external actors dominated the formulation of Malawi's national ICT policies. Drawing on the findings of other studies, they further

[9] Local actors are defined as locally based participants; however, Kunyenje and Chigona add the proviso that international organisations based in Malawi are excluded from this definition.
[10] They use the term 'external actors' to refer to a network of non-national actors that includes bilateral and multilateral donors.
[11] They define influence to mean motivation, resources, expertise, and power balance (Kunyenje & Chigona, 2019).

conclude that power imbalances between local and external policy actors generally have had a material impact on the participation of local actors in the policy formulation process and the possible creation of policies that are out of sync with the country's context, which, in turn, may have resulted in unintended policy outcomes. On this last point, the scholars stipulate that further research on the relationship between country context and national ICT policy formulation may be required by asking:

> "How does the context of a developing country (economic, social, environmental, political) trigger unintended policy outcomes during the formulation of a national ICT policy?" (Kunyenje and Chigona, 2019, p.7)

One interesting observation made by Kunyenje and Chigona (2019) is that external actors dominated the policy formulation process in Malawi through the hosting of conferences and the provision of framework for developing policies, financial and technical support. They further argue that "the results suggest that the use of the policy framework (blueprint) may not have had a positive effect on the national policy outcomes in Malawi," (Kunyenje & Chigona, 2019, p.19). This introduces a possible explanation for the country's decline in the ICT indices, which comes as a result of the national ICT policy formulation process omitting some important objectives that were contained in the first draft and subsequently omitted in the second and third drafts. The issues do not end here. There is also evidence that the initial commitment local actors showed began to wane as the provision of both financial and technical support by external actors allowed them to dictate the shape Malawi's ICT policy should take (Kunyenje & Chigona, 2019). It is further argued by Chiumbu (2008) that even though Malawi had attempted to align its ICT policy with the World Summit on Information Society (WSIS) action plan, the efforts resulted in an ICT policy that was destined to be defunct because the WSIS action plan was not compatible with the needs and challenges of the country. Furthermore, the financial and technical support from external actors affected Malawi's ICT policy formulation. The formulation of Malawi's National ICT Policy framework also saw external actors play a pronounced role in the pre-policy formulation activities; this impacted the direction that the policy took (Kunyenje & Chigona 2019). According to Kunyenje and Chigona (2019), local actors felt that they were being dominated by external actors in the process. External actors have influenced policy-related activities in Malawi by setting the guidelines and the recommendation for best practices and the adoption of policy ideas

(Kunyenje & Chigona, 2019). Surprisingly, local actors accept that without this technical and financial support, there may not have been an ICT policy, to begin with. Kunyenje and Chigona (2019) state that this disposition, which they refer to as *habitus*, in the form of a donor-aid dependence syndrome, seems to suggest that the country tacitly accepted the influence of external actors in the formulation of their national ICT policy despite the potential underlying disjuncture between local needs and external efforts. The value of this case study is found in the different influences it identifies that may impact the formulation of a national ICT policy which include, external policy frameworks, financial and technical support, conferences, the signing of regional and international protocols and the acceptance of external policy ideas. This research critically analysed the findings of Kunyenje and Chigona (2019). They conclude that the notion of country context does not have an "effect on policy formulation." They further find that developing nations cannot do without the influences of external actors in the formulation of their ICT policies.

Table 2.1 below presents a summary of articles reviewed under this section. It further identifies whether certain types of influences from different stakeholders were identified in the literature and whether a South African perspective was considered.

Table 2.1: Summary of articles reviewed: issues, global influences and local impact

Authors(s)	Issue identification						
	Influences of donors	Influence of multilateral institutions	Influence of epistemic communities	The influence of ideology	The use of influencing instruments	A view of South Africa	Analytical or Theoretical framework used to analyse influence
Chiumbu, 2008	X	X	X		X	Continental perspective	Neo-Gramscian Perspective
Chiumbu, 2011	X	X	X	X	X	Continental perspective	Neo-Gramscian theories; Policy transfer theories; epistemic communities
Chini 2010	X	X	X			Greece	Governmentality
Cogburn, 2004		X	X		X	X	Regime formation; knowledge networks; epistemic communities and the role of international conferences
Souter, 2008		X	X			X	Developing country participation in global ICT decision-making
Metfula et al, 2016	X	X			X	Swaziland	Policy Network Analysis
Metfula 2013		X	X		X	Swaziland	Policy Network Analysis and Critical Discourse Analysis (Habermas's Theory of Communicative Action)
Metfula & Chigona, 2013						Swaziland	Policy Network Analysis
Kunyenje & Chigona, 2017		X		X	X	Continental perspective	Literature review study
Kunyenje & Chigona, 2019	X	X			X	Malawi	Bourdieu's Theory of Practice
El-Moghazi et al 2013		X			X	ITU-Region 1 perspective	Constructivism
MacLean, 2008		X		X		Global perspective	
Drahos & Joseph		X	X	X	X	Global perspective	Policy transfer theories; Market access model to Telecoms & Modelling Mechanisms
This Research Report: Literature GAP	X	X	X	X	X	X	Regime Theory, Governmentality Theory and Manufacturing Consent Theory

Source: Researcher's compilation, 2020.

2.3. The political economy of digital policy formulation

The current body of literature on the importance of considering the country context when formulating and implementing policy shows two different perspectives. The first perspective advances the view that policy formulation must consider and match the country context (Kendall et al., 2006; Njihia & Merali, 2013, as cited in Kunyenje &

Chigona, 2019). The second viewpoint argues that the link between policymaking and country context is not exceptionally important, or even that there is no link between policy formulation and country context (Myers & Tan, 2002, as cited in Kunyenje & Chigona, 2019). The second viewpoint is challenging to sustain. This is because digital policies not only affect or apply to the ICT and digital space, but also touch on other policies, sectors, initiatives and programmes that have a social, political and economic impact and cannot operate in isolation (Metfula, 2013). To borrow from Eckardt (2014), digital policies impact policies, politics and polities. Kendall et al (2006) provide a clear view of how the policy formulation process unfolds and what the final policy instrument should contain for it to be responsive to the needs of a country. Kendall et al (2006) assert that digital policies must consider and connect local perspectives, norms, values, culture, socio-economic needs and sector development initiatives. This research intends to assess the extent to which these were considered in the examined policies. Kendall et al (2006) also assert that the formulation of properly constructed digital policies depend on processes that are flexible, collaborative and inclusive of all stakeholders at the country level, noting that policies that address the interests of external stakeholder groups will not augur well (see also Dolowitz & Marsh, 2000). It will be important to balance these considerations to critically assess the extent to which South Africa's digital policies are rooted in the local context.

According to Dolowitz & Marsh (2000) and Metfula and Chigona (2013), ICT policy formulation involves several actors and stakeholders that reside in and outside the country, noting that at times their agendas may not be aligned. The authors assert that the in-country policy formulation process typically involves soliciting input from the private sector, academia, non-governmental organisations and civil society. The out-of-country policy formulation process, on the other hand, tends to involve international bodies, economically advanced countries, global corporations, 'industry experts' and multilateral non-governmental organisations. These actors and stakeholders may want to introduce so-called international standards or best practices that have been applied elsewhere to African countries (Metfula & Chigona, 2013). Often the interests of these actors and stakeholders find their way into the final policy document, usurping the role of local actors and resulting in policies that are not a product of national debate, reflection and determination (Metfula & Chigona, 2013). A critique of Kendall et al (2006) and Metfula and Chigona (2013) is that they do not introduce theories that explain the political

economy of policy formation and implementation, thus leaving the reader to work it out for themselves.

Reflecting on the global policy formulation process, Cogburn (2004) and Njihia and Merali (2013) state that its complexity plays itself out at various levels and in diverse fora. The study by Cogburn (2004) has a clear message that calls for a deeper understanding of how global information policy elites operate, how policy formulation occurs, and how particular interests have influenced the policy formulation processes at the national level. The research responds to these and other queries. Cogburn (2004) further claims that developing nations also have policy elites, using the example of what is today referred to as the Communications Regulatory Association of Southern Africa (CRASA), that operate on its behalf; however, he concludes that the policy elites of developed nations frequently influence those in developing nations. Cogburn (2004) is also of the view that developed nations achieve this influence through official and unofficial means, using suggestive and coercive methods through international development agencies like USAID, the World Bank and the ITU, among others. Cogburn (2004) reminds us that whilst ITU conferences like the Word Radiocommunication Conferences (WRC's), World Telecommunications Development Conferences (WTDCs) and Plenipotentiary Conferences (Plenipots) bring together and encourage interaction between different stakeholders, they also wield considerable influence in the formulation of policy at national, regional and global levels and play a role in regime formation (Cogburn, 2004). In the literature, the utility of conferences is often overlooked and underestimated. Chiumbu (2011) further expands on this and problematizes the ITU conferences as mechanisms that influence policy formulation. These conferences draw their ideas from a body of knowledge that echoes dominant narratives and discourses which may be out of tune with the realities of South Africa. Chiumbu (2011) recommends that for developing nations to become successful in influencing these processes and to sensitize their peers in the North about the realities in the South, they should not only lead large delegations, but they should also be diverse in their composition (policymaker, local NGOs, local private sector, civil society and academia) [*sic*] to challenge the policy formulation prescriptions advanced at these forums (Cogburn, 2004). The inability of developing countries to find representation in strategic positions in international organisations should also not be overlooked or undermined if they are to grow their influence (Cogburn, 2004). Mosehlana (2018) further contributes the perspective that

the ICT policies of most developing governments across the globe, including South Africa in the e-Government space, were shaped by the Geneva and Tunis agenda.

Table 2.2: Summary of articles reviewed: the political economy of policy formulation

	Issue identification					
Authors(s)	Policy agenda can be influenced by external actors	Digital policies must be tailored to domestic conditions	Country context does not have an effect on policy formulation	The need to understand how global and local policy elites operate	The potential for external actors to hold very divergent views (polar opposite) from the receiving country	A view of South Africa
Kendall et al, 2006		X			X	
Adam & Gillwald, 2007		X				
Cogburn, 2004	X			X		X
Metfula & Chigona, 2013	X	X		X	X	
Nijhia & Merali, 2013	X	X		X		
Metfula, 2013	X	X				
Mosehlana, 2018	X				X	X
Dolowitz & Marsh, 2000	X			X	X	
Kunyenje and Chigona, 2019	X		X	X	X	
This Research Report: Literature GAP	X	X		X	X	X

Source: Researcher's compilation, 2020.

2.4. Philosophical perspectives on national digital policies

Kunyenje and Chigona (2017) and Metfula et al (2016) argue that national digital policies can be thought of as a formal expression of a governments' goals, objectives and strategies, intended to give direction to the implementation of ICTs in each country. Makoza (2017) elaborates on this idea, arguing that the term *policy* can be defined as both intention and aspiration that relates to a country's development agenda, and informs the actions and practices of the policymakers and other stakeholders. He goes on to state that national ICT policy must, in principle, embody the values of a particular social and historical context and reflect the lived reality and needs of the people for whom they were drafted. Whilst the views expressed by Kunyenje and Chigona (2017), Metfula et al (2016) and Makoza (2017) are correct in as far as the intention of the government is concerned, they incorrectly assume that governments have a monopoly on national digital policies and that they are intrinsically a product of the nation-state. They fail to consider the entire factual matrix of how digital policies came to be on the continent.

National digital policies in Africa were brought in by the UNECA, backed by USAID, the Carnegie Corporation, and the ITU, and it was this event that sparked Africa's appetite for engaging with digital policies (Etta, 2005). Even so, it is also possible to think of the national digital policy framework as consisting of policy prescriptions that come from conferences and are advanced by external actors for the local context. Chiumbu (2011) argues that an analysis of selected national digital policies from developing states reveals that the discourse and narratives that frame these policies mimic and regurgitate the dominant ideas that are found in global digital policies, research reports and position papers commissioned by external actors (Chiumbu, 2011). One way of negating the effects that come with mimicking dominant ideas formulated elsewhere is for a country to develop national policies founded on an appreciation for a national purpose, whilst playing an active role in shaping the norms, standards, policies and regulatory frameworks and possibly the functioning of global policy networks (Henrici, 2001). Even though Henrici (2001) writes in the context of national and global information policies, the scholar's findings have equal application in the substantive issues under discussion. In a discussion on the nature of ICT policies, Adeyeye and Iweha (2005) argue that in recent times the private sector and international intergovernmental bodies have greater influence and power in shaping the policy formulation process of governments in developing nation-states. Adeyeye and Iweha (2005) further argue that whilst policies are put in place by governments, the private sector also makes inputs to the policy formulation process which may impact policy outcomes. The authors use the example of the ITU, stating that even though it is an intergovernmental body where governments coordinate and agree on rules and regulations, the presence and influence of MNCs has grown immensely over the years (Adeyeye & Iweha, 2005). The reality in a global market is that multinationals can be more powerful and influential than the governments of developing nations. This would translate to them being able to shape the policymaking process to suit their interests, especially where a country is unable to give direction that is consonant and consistent with its national digital policies and responses (Adeyeye & Iweha, 2005).

Table 2.3: Summary of articles reviewed: perspectives on national digital policies

Authors(s)	Issue identification			
	Should digital policies be a product of national debate, reflection & determination	National digital policies of developing countries can reflect dominant ideas found in global digital policies	Countries should manage external actors in the policy development and implementation	A South African view
Kunyenje & Chigona, 2017	X	X	X	
Metfula et al, 2016	X	X	X	
Makoza, 2017	X			
Chiumbu, 2011	X	X	X	
Henrici, 2001	X		X	X
Adeyeye and Iweha, 2005	X	X	X	
This Research Report: Literature GAP	X	X	X	X

Source: Researcher's compilation, 2020.

2.5. Literature review summary: making a case for a South African perspective

The literature review has identified several factors operating broadly in the GDPIC that influence policy formulation, including:

a) **the participation of a broad range of actors** (Adam & Gillwald 2007; Cogburn, 2004; Chiumbu, 2008; Dolowitz & Marsh, 2000; Kunyenje & Chigona, 2017; Metfula, 2013; Metfula & Chigona, 2013; Kunyenje & Chigona 2017; Etta, 2005; Chini, 2010)

b) **policy networks and epistemic communities (**Braman, 2004; Cogburn, 2004; Cai, 2011; Chiumbu, 2008; Powell, 1991).

c) **the behaviours, interests, ideas, norms, and principles that govern the sector**, and

d) **the influencing instruments** (reports, capacity and institution building, advocacy coalitions, partnerships, policy assistance programmes, the role of conferences, to mention but a few) that the GDPIC utilises to influence policy formulation.

Whilst *Chapter Two* encompassed relevant and seminal works, these by no means reflect an exhaustive search or presentation of the body of knowledge that exists at the time of writing these research findings. There exists a comprehensive body of work

traversing many disciplines that thoughtfully examine the impact that global policy regimes like the GDPIC have on the formulation of nation digital policies. These different literature sources have produced several possible answers to the questions offered up for exploration in the problem statement and research questions. Reflecting on the Malawi and Swaziland case studies, this literature review has provided some insight into how local and external actors engage each other. The influences of external actors are able to find their way into the digital policy formulation process, especially in cases where the country in question is unable to assert its policy preferences and self-interest strategies. Brown and Thompson 2011 (cited in Kunyenje & Chigona, 2019) and Metfula & Chigona (2017) support the view that countries with inadequate financial and human resources are prone to being influenced by external actors because of the dependency relationships that develop from such asymmetrical relations. Countries with the requisite institutional and cultural capital are able to navigate the policy landscape with some level of judiciousness. The onus lies with the country in question to promote its national interests. It is fallacious to think that any actor would always act in the interest of another. Also, little has been written about this from a South African perspective and there is hardly any scholarship that treats policy documents as a primary or secondary source of analysis.

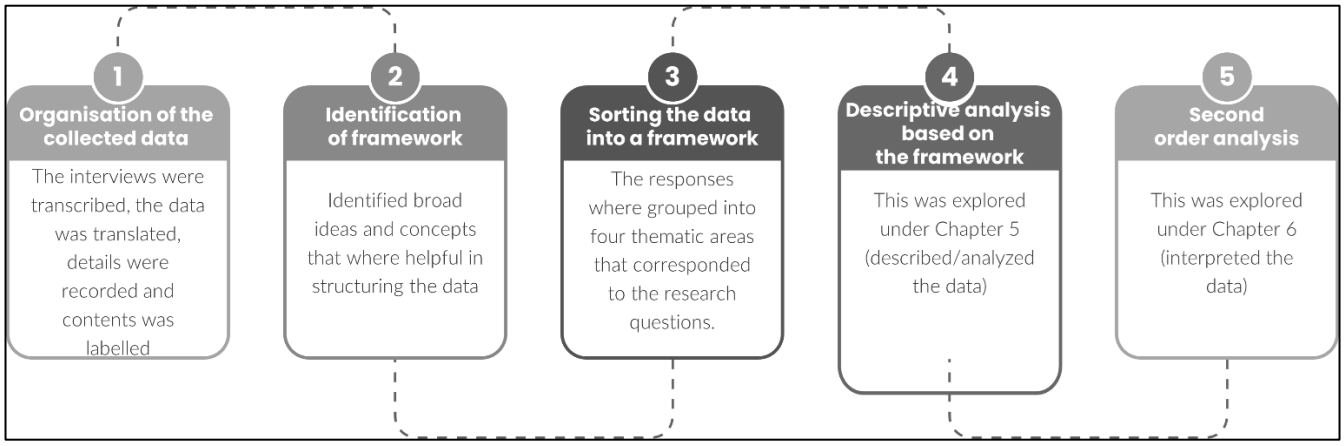
Furthermore, there is a shortage of studies that explore the effects and ways in which external actors influence and interact in the formulation of national digital policies in South Africa. Understanding the importance of country context and the different influences at play is key in developing context-specific policy, legislative and regulatory responses. Also, as illustrated in Table 2.1, this research contributes to the existing body of knowledge by applying three theoretical constructs that future researchers could explore or critique in addition to those identified by other scholars. Finally, this literature review made a case for why South Africa was considered as a case study.

Chapter Three- Research design and methodology

3.1. Qualitative methods

A qualitative approach was used to examine and interpret the research findings. The qualitative method was best suited because of its capacity for focusing on a specific situation, weighing all variables involved and recognizing the phenomenon under investigation. Comparing and contrasting the perspectives of the interview respondents turned out to be an integral part of this research as it allowed for a more accurate perception of observed patterns (Bui, 2013). The type of questions used to interview the respondents were exploratory and evaluative. The research design settled on exploratory and evaluative questions because definitive answers were not so much the objective as the attempt to understand conflicting perceptions and approximate answers. Babbie and Mouton (2005) encourage the researcher to undertake an exploratory study to obtain approximate answers so that recommendations for further research then take shape based on these preliminary findings. In processing the data generated from the interviews, the researcher read through the transcripts for similarities and differences and was able to find themes, ideas, concepts and terminologies. Also, because the interview questions were grouped according to the research sub-questions it made it easy to analyse the data.

Figure 3.1: Qualitative data analysis process



Source: Leedy & Ormrod 2016, Tutors India, 2019, adapted by Researcher

This research used constructivism as its philosophical foundation for several reasons. Firstly, the ontological and epistemological assumptions associated with constructivism reject the existence of a reality that is independent of an individual. In

other words, knowledge is constructed through experiences and as such, the knowledge and experiences of the respondents gained through interaction at various forums where global digital policy is discussed, became critical (Adom, Yeboah & Ankrah, 2016; Given, 2008). Secondly, the constructivist approach to science, on a national and international level, is interested in examining and understanding the interests, preferences, and goals of actors and states. In line with this thinking, the research explored the interests and policy preferences of South African policymakers and external actors that form part of the GDPIC. Thirdly, constructivism critically questions generalisations and comparative research studies as it demands some level of specificity (Kant, 2015). Fourth, the methods and techniques it employs are usually case study methods, content analysis and interviews, some of which shall be used in the research (Kant, 2015; Boynton, 2015). Finally, constructivism, as a research paradigm, does more than just focus on explaining occurrences; it places importance on understanding and meaning making, which is considered more appropriate for studying phenomena that arise from the interactions between humans and institutions (Given, 2008; Babbie & Mouton, 2005).

Table 3.1: Constructivism: the philosophical foundation of the research

Conception of science	Ontological assumption	Epistemological assumption	Axiological assumptions	Research methodology	Methods and techniques	Some areas of interest and investigation
Constructivism	Realities, causality and phenomena are social constructions.	Knowledge is social constructed. Rejects the subject-object distinction. The observer (subject) and reality (object) are interconnected. Truth is relative and subject to consensus or agreement and social acceptance.	Scientific research is not objective and value free. Values permeate the whole research process.	Sceptical and critical of generalizations and comparative research. Research strategy is qualitative, quantitative and hermeneutic. Science is not progressive. There is no unifying goal, but particular goals are pursued.	The case study method, case report, content analysis, interviews, surveys and opinion polls.	On national and international levels, the areas of investigation include examining and understanding the identity, interests, preferences and goals of actors (**caveat**: individual persons, political leaders or states, their identities and interests are not regarded as fixed but relative and subject to change).

Source: Kant 2015.

3.2. Data analysis and collection methods

In line with the qualitative research approach, the research used two data collection methods. The first method centres on primary data that has been generated from semi-structured interviews. The second method relies on secondary data sourced from policy and discussion documents (Creswell, 2012).

3.2.1. Primary data

Semi-structured one-on-one interviews, commonly used in qualitative research, were conducted between the researcher and respondents. Telephonic interviews were also conducted over Skype where face-to-face interviews were not possible. This occurred in two instances, with one respondent being based in the Western Cape, South Africa, and another in the United Kingdom (DeJonckheere & Vaughn, 2019; Harrell & Bradley, 2009). The Covid-19 global pandemic also necessitated the use of online platforms such as Skype and Microsoft Teams as a means to follow up on the discussions with respondents. The rationale for foregrounding interviews as a qualitative method has at least seven aspects. First, interviews provided complete responses and in-depth background information, facts and descriptions that were useful. Second, the interviews allowed the researcher to resolve conflicting information by asking respondents to clarify, elaborate or rephrase ostensible contradictions (Harrell & Bradley, 2009). Third, interviews allowed the researcher to gather opinions, observe perceptions and attitudes over and above factual information. Fourth, interviews allowed the researcher to gauge how strongly a respondent felt or where and why they emphasized an issue. This allowed the researcher to recognize and appreciate the nuances between different respondents and the information they provided. Fifth, semi-structured interviews, which are typically used in the policy research space, were useful in that they allowed the researcher to ask respondents to expand on their answers or discuss topical issues that had a direct connection to the research. Sixth, with semi-structured interviews, the researcher had the discretion to decide the order in which to ask questions as well as when to pose clarifying questions. Seventh, based on the researcher's background in radio broadcasting, they understood the utility of semi-structured interviews and the conversational style that assists in getting the respondent to be at ease.

Two types of interviews were carried out – in-person interviews and online face to face interviews:

1. **In-person interviews:** These were conducted in the Republic of South Africa (RSA), specifically in Johannesburg, at locations selected by the interview participant (for example, their place of work or home). The researcher encouraged the Respondents to choose where they preferred to be interviewed to ensure that they were comfortable. According to Bolderston (2012), an interview should be "conducted in a location that is convenient and comfortable for the participant."
2. **Two online interviews:** The researcher initially anticipated three online interviews to be conducted via Skype for interview respondents based out of the country or travelling on account of 2019 being a WRC year. This type of interview taps into the use of a computer as a methodological tool with which research is conducted (Bolderston, 2012). Only two such interviews were conducted from the three initially anticipated.

With the interviewees' consent, the researcher recorded the respondents' answers to the open-ended questions; this raw data was later transcribed for data analysis (Creswell, 2012). The data analysis included interpretation to establish meaning. Data cleaning was also carried out to ensure that all transcribed documents generated from the interviews were comprehensible and stored on a password-protected computer.

3.2.2.1 Interview respondents

Purposeful qualitative sampling, according to Creswell (2012), entails the purposeful selection of prospective respondents. Using purposeful qualitative sampling, the researcher identified ten interview respondents who participate with some measure of regularity in the global digital policymaking forums and discussions. It is a commonly held view that the success of a study also depends on selecting the right kind of respondents (Maree, 2012). The interview respondents were drawn from a pool of senior telecommunications industry experts and practitioners with 8 to 30 years in the field. The chosen respondents stem from various epistemic communities, governments (South Africa and Kenya) and the industry at national and international levels.

Table 3.2: Interview respondent codes[12]

Coded respondent name	Sector
PM-RSA	Policy Maker- Republic of South Africa (Department of Communications and Digital Technologies)
SR-RSA	Sector Regulator practitioner- Republic of South Africa (Independent Communications Authority of South Africa- ICASA)
ACA1	Academic 1 (Professor)
ACA2	Academic 2 (Doctor, PhD)
MNC: LP1	Multinational Corporation: Local Presence 1 (Original Equipment Manufacturer)
MNC: LP2	Multinational Corporation: Local Presence 2 (Original Equipment Manufacturer)
MNC2-ACA3	Multinational Corporation: Local Presence (mobile network operator) & Academic (Professor)
LSCF	Local Sector Consultancy Firm (specialised in Telecommunications consultancy work)

Source: Researcher's compilation 2020.

3.2.2. Secondary data

Content analysis was applied to the secondary data. It is widely accepted that documents (newspapers, legislative and policy instruments) are a valuable source of information that can help a researcher understand patterns and trends in discourse (Creswell, 2012). A finite list of documents was evaluated to determine the degree to which external actors influenced them. Using the policy documents identified below, the research critically analysed them to identify elements that demonstrate an influence from the GDPIC. The following documents were examined:

a) Primary key South African policy and discussion documents on digital policies:
    i. **Policy**: SA Connect (RSA, 2013)
    ii. **White Paper**: The National Integrated ICT Policy White Paper (RSA, 2016)

[12] Table 3.2 is used as a reference guide for the respondent codes used in Chapters Five, Six and Seven.

iii. **Discussion document**: Enabling South Africa 4.0 (Accenture & RSA, 2019)

b) Supporting documents (regulatory and legal instrument):
   i. Electronic Communications Act (RSA, 2005)
c) Reference newspaper articles produced in South Africa
d) ITU and WEF documents:
   i. *Why National Broadband Plans Matter* (ITU & Cisco, 2013)
   ii. *The Global Information Technology Report* (Bilbao-Osoria, Dutta & Lavin, 2013)

Figure 3.2: Policy and discussion documents analysed in the research

Year of publication	Document title	Document type
2013	South African National Broadband Policy	Policy document
2016	National Integrated ICT Policy White Paper	Discussion document
2019	Enabling South Africa 4.0- Becoming 4IR Ready: A Government Led Approach	Policy document

Source: Researcher's compilation 2020.

3.2.2.1. Secondary qualitative data: document analysis

The secondary qualitative data consists of a document analysis that complements the primary data gathered from interviews. Document analysis is one of many methods that complement qualitative research because it requires that the researcher examines and interprets the data to achieve three major goals: firstly, to extract meaning and comprehend the complexity of the text. Secondly, to gain a better appreciation for nuances and a "rich description" of the subject being studied; and thirdly, to develop empirical knowledge (Bowen, 2009). The way this research employed document analysis was to extract specific content from the policy documents, identified in Figure 3.1, and to examine and illustrate how the GDPIC affects policy formation. This also included a contextual analysis that considered extraneous events that had a bearing on the development of the documents identified in Figure 3.1.

For the third aspect of the document analysis, this research report went an extra step. Much of the information synthesized from both literature review and secondary data, yielded a configuration of variables that would be unwieldy for a productive, deeper discussion. In synthesising and organizing the learned information, the researcher authentically developed and adapted visual aids and graphic organizers that manage to demonstrate the relationships between variables more easily. The intention behind the various tables and figures that were generated in this process of sense-making is three-fold. To begin with, it was useful to the researcher to experiment with ways of visualizing the data and coming up with innovative ways for representing lessons learned. The second benefit of doing so pertains to the reader, who will more easily perceive the outcome of the literature review and document analysis in a condensed manner. Lastly, the researcher hopes that some of the illustrations and visual aids will be used as learning/ teaching tools, thus contributing to the growing body of scholarship on digital policy in Africa.

It was expected that the secondary qualitative data analysis would complement and test the veracity of the data generated from the primary qualitative data analysis. Primary and secondary qualitative data analysis methods are not mutually exclusive; to borrow the words of Bowen, they are “the combination of methodologies in the study of the same phenomenon,” (Bowen, 2009, p.28). Bowen also affirms that a researcher undertaking qualitative research is expected to utilise more than one source of evidence, data or methods and must draw on several sources to achieve excellent results.

3.3. Methodological triangulation

Combining the methodologies with which this research analysed responses from the interviews, the document analysis of three South African instruments as well as lessons learned from the literature review (archival research) overall, amount to a process known as *methodological triangulation.* Methodological triangulation combines several methods in a study of the same phenomenon to achieve a more holistic understanding of it (Jick, 1979; Babbie & Mouton, 2005). In this case, it was employed as a technique for testing the responses from the interviews so that the research provides a more accurate reflection of what transpires in the GDPIC (Jick, 1979; Babbie & Mouton, 2005). The research did this by bringing into conversation content from the policy and discussion documents as a means to validate or repudiate responses from the

interviews. Triangulation involves the use of different sources of information, methods and theories to facilitate corroboration of the results and thus reliability (Maree, 2012). Few of the scholars consulted for the literature review, for example, provided or demonstrated text-based evidence in the form of policy document analysis. The research design took this into account and attempted to remedy such a one-dimensional way of studying policy formation.

3.4. Linking theory to the research: theoretical triangulation

The relationship between theory and research is a matter that has been extensively settled and agreed on. Several scholars observe and agree that the function of theory is to predict, conceptualise and or explain observations that have been made about a phenomenon uncovered in the research process (Fisher, 2010; Gelso, 2006; Harlow, 2009; Stam, 2007; Wacker, 1999 cited in Thomas, 2017). The research process involves the systematic collection and analysis of information gathered to better comprehend the phenomenon that is being investigated or analysed (Thomas, 2017). This research has based its analysis on three theories to make sense of the patterns observed by the research respondents and shape and direct the researcher's efforts (Babbie, 2013; Thomas, 2017). The research used three theories that can be categorised as either macro and meso theory. Regime theory falls into the category of *macro-theory* while Governmentality theory and the Manufacturing Consent theory are categorised as *meso-theories*. The influence of theory on research and the corresponding impact of research on theory is well understood and described only briefly in this section (Snizek, 1979; Babbie, 2013; Thomas, 2017). The research has applied a deductive strategy in its application of the theories to the research questions and problems. Notwithstanding the deductive strategy being typically used by a researcher to test a theory against their hypotheses, it also finds equal application in the context of a research question that guides the design of corresponding research methods.

To further unpack Regime theory, it is helpful to think of the various schools of thought that informed the research. For simplicity's sake, they can be summarized as follows:

a) The liberal and neo-liberal school places a premium on the importance of functions. Its proponents focus on the impact that international regimes have on the establishment and maintenance of peace, including the reduction of

transaction costs. Theorists of this school also maintain that although regime actors are motivated by self-interests, they have the ability to imagine a global situation where good (relative or absolute) can be achieved for all through cooperation. To some degree this may be true in the GDPIC as far as policy certainty (and perhaps policy harmonisation to some degree), stability and cooperation are concerned (Cogburn, 2003).

b) Scholars of the realist and neo-realist or Marxist and neo-Marxist tradition view power (soft power, which is suggestive/persuasive and hard power, which is coercive) as a central feature in the formation and preservation of international regimes. This power is typically exercised by developed states (*states of the core* that dominate the GDPIC) over developing states. Global corporate elites also wield this type of power to dominate the global working class (Cogburn, 2003; Wagner, 2014).

c) The third and final tradition, referred to as cognitivism or post-modernism, focuses on the creation of cognitive frameworks that inform the acquisition of knowledge, understanding, thinking, perception and problem solving, and the ability to determine the global agenda using the media and other instruments. Through this avenue, the theories of Governmentality and Manufacturing Consent were introduced. Another defining feature of this tradition is that regimes come into being based on the forces or influences that are able to impel and compel acceptance of particular framing or defining of a problem and its solution. It is this process of collectively framing and defining a problem/ solution that gives rise to an *epistemic community*. In the context of the GDPIC, such an epistemic community accepts for itself the task of establishing a belief system, informed by a set of principles, norms, rules and decision-making procedures that operate in the GDPIC (Cogburn, 2003).

3.5 Ethical considerations

From the onset of the primary data collection process, interview respondents were informed of the (a) context and content of the research; (b) the purpose of the research; (c) the objectives and potential contribution to the body of knowledge as highlighted under Annexure A. The respondents were also duly appraised of the anonymity and confidentiality of all information shared. To protect the identity of the participant from

public exposure, the researcher created a coding scheme as illustrated in Table 3.2. The researcher also ensured that the interview respondents were informed of their right to decline to be interviewed or withdraw at any time of the interview without furnishing reasons (see provision 2 under Annexure B). The researcher provided the *participant information sheet* (see Annexure A) well in advance and had each participant sign the *participant consent form* (see Annexure B) and a copy of the ethics clearance certificate was presented to them bearing the protocol number SLLM/M19/02 authorising the researcher to conduct the interviews.

3.6 Boundaries and scope of the research

The research limited itself to South Africa. Where necessary it has incorporated a historical account to help the reader understand and appreciate recurrent themes and causal linkages. This did not preclude any comparative analysis with other countries, for example, Malawi and Swaziland. The research focused on the interviews, literature, final reports, policy documents, and the direct interaction that occurred between stakeholders in South Africa and external actors. The one-on-one interviews conducted with the respondents that are introduced in Chapter Five provided a wealth of knowledge about the perceptions and experiences of those who participate in different levels of the GDPIC (such as conferences, policy forums and policy networks) where issues pertaining to policy formulation, policy options, policy engagement, and policy recommendations are discussed, canvased, examined and acted upon.

Chapter Four – Influences and diffusion of ideas from the global to the local policy environment

Under this chapter and Chapter Five, the research made a slight deviation from the standard approach, where Chapter Four, in presenting the findings from the data collection process incorporates, all the research methods used to conduct the study. Though not desirable, the research separated the analysis of the document review from the interview responses. The decision to do this was informed firstly by the sheer amount of data generated from both these data components. Second, because of the theoretical nature of the subject being discussed, an in-depth analysis of the data became necessary. More reasons for this separation are also discussed under section 4. 4.

In assessing the influence of the GDPIC on the formulation of South Africa's ICT policies, the research analysed SA Connect (RSA, 2013), Enabling South Africa 4.0 (Accenture & RSA, 2019) and the National Integrated ICT Policy White Paper (RSA, 2016). The analysis describes the content that perceivably was influenced by the GDPIC. In some instances, the research highlights how the influences came about and where exactly they originated from.

4.1. National broadband policy diffusion: An analysis of South Africa Connect Broadband Policy

The development and formulation of National Broadband Plans (NBPs) is not an entirely new undertaking. Interests in the formulation of ICT or digital policies and strategies was partly encouraged by the National Information Infrastructure (NII) initiative that the US Vice President Al Gore started in 1993 (Adam & Gillwald, 2007). By the mid-1990s the NII was followed by the establishment of many national and regional information society initiatives around the globe. Developments in Africa were sparked off by the Bangemann Report and the establishment of the Global Information Infrastructure Commission (GIIC), which led to the inauguration of the African Information Society Initiative (AISI) in 1996. The AISI aimed to assist African countries in their ICT policy formulation, which was for the most part managed by the UNECA from 1996 to 2006 (Chiumbu, 2008). Chiumbu (2008) notes that several external actors shaped the policy

agenda of the AISI; subsequently, this meant that the respective national policies and strategies that were developed by individual states were likely to be influenced by AISI. Chiumbu (2008) advances three arguments that highlight the involvement of external actors in shaping the policy agenda of the AISI and the ensuing development of national policies and strategies. The first argument is that the role external actors played in AISI went beyond simply providing financial assistance; they played a prominent role in the policy process through partnerships that came about as part of the policy formulation and implementation phases. The second argument concerns external actors who shaped the AISI policy process by structuring and influencing the discourse of policy actors from the different countries that were involved. The AISI also determined which national ICT policies should be prioritized. The third and final argument is that because the Economic Commission for Africa was a United Nations entity, it created an opportunity for external actors to set the agenda that eventually spearheaded the policymaking process. The resurgence of broadband plans and strategies in 2013 has seen a repeat in history for developing countries. The ways in which external actors shape policy as described by Chiumbu have once again played themselves out and shall be examined in the context of South Africa.

In 2014, 140 countries worldwide had developed a NBP, strategy, policy or project to promote, facilitate and stimulate the development of digital technologies and infrastructure. The number of broadband plans, strategies, policies and projects in sub-Saharan Africa gradually increased to reflect this reality. The African countries in the sub-Saharan region that first adopted this trend were South Africa, Kenya, Rwanda, and Nigeria. By 2015, 39 African countries had adopted an NBP. Before 2013 most plans had information or knowledge societies as their focus, but then the focus shifted to broadband connectivity and its potential to contribute to economic growth and socio-economic development. The World Bank estimated that every 10 percent increase in broadband penetration would result in a 1.21 - 1.38 percent increase in Gross Domestic Product (Kelly & Rossotto, 2012). The main features of this new type of broadband plan that many countries adopted were its emphasis on building the supply and demand for broadband (UNECA, 2017). In 2013, the Department of Communications (DoC), as it then was, developed the South African Broadband Policy: SA Connect (2013) as its response to the new trend. The policy's main vision and long-term strategy are to catalyse broadband connectivity in the country. The policy aims to improve broadband

penetration and outlines several supply and demand activities to maximize the impact of the policy. The policy is premised on four mutually supporting pillars, namely: (a) digital readiness, (b) digital development, (c) digital future and (d) digital opportunity (RSA, 2013). In 2010 there was a draft broadband policy which was later revised and published for comment in 2013, eventually resulting in the SA Connect (RSA, 2013). The revised document was in part informed by public submissions, other international broadband plans, an international experts' meeting as part of the department's consultative process (Khan, 2015). This research further asserts that the SA Connect (RSA, 2013) was influenced by the ITU and Cisco (2013) report *Why National Broadband Plans Matter* and the WEF's Global Information Technology Report (GITR) (Bilbao-Osoria et al, 2013). The underlying message from these reports is for countries to develop national broadband plans that specifically address a particular set of supply and demand-side activities. The former document highlights why countries should have a clearly defined vision for the development of broadband in the form of an NBP. At the time of its publication, the report noted that globally 134 such NBPs were in place. The main takeaway from the latter report is that the NBP taxonomy "establishes a common language that can guide governments" (Bilbao-Osoria et al., 2013, p. xiv) to develop their NBPs.

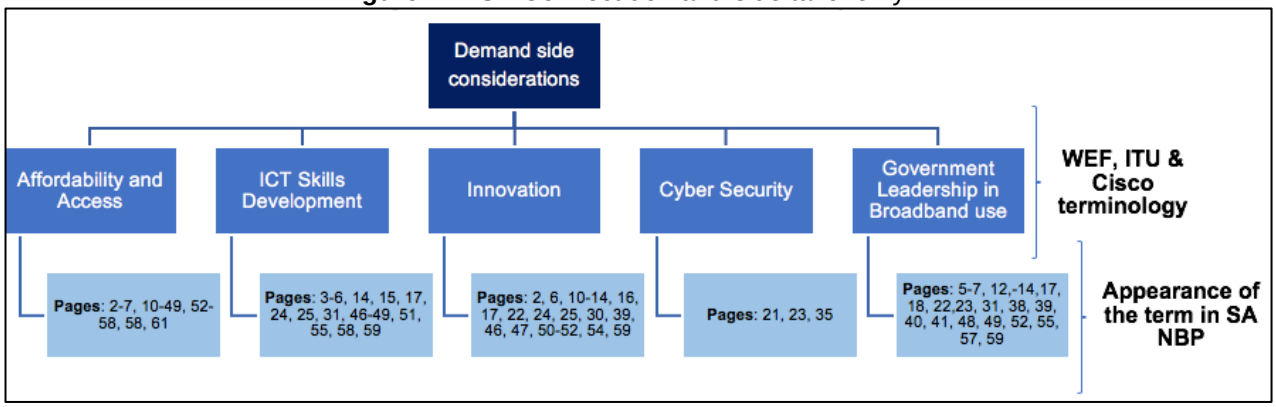
For an NBP to be considered comprehensive, it advances five supply and demand-side considerations that countries are advised to include in the development of their NBPs. Broadly, both documents detail the elements an NBP should have. The WEF report offers up an NBP taxonomy (see Figure 4.1 and 4.2), arguing that for a country to be categorised as having a comprehensive NBP or ICT plan, it must at the very least contain 9 out of 10 of the demand and supply-side considerations. This recommendation also appears in the NBPs of Nigeria, Kenya, Rwanda, and Botswana, which were all published in 2013. It is further submitted that SA Connect focused on the obvious traditional demand and supply-side considerations and failed to take a country-specific focus. It also failed to modify or include its demand and supply-side considerations to match the country's social and sectoral development agenda. South Africa also missed an opportunity to expand on the NBP taxonomy by looking at variables taken from other sectors; after all, digital technologies interact with all sectors of the economy. An example of the NBPs short-sightedness can be found under the demand-side considerations where the document discusses '*affordability and access'* in very narrow terms, looking at infrastructure and the device ecosystem. It appears as that the issues around affordability

and access were left to the goodwill of investors and the private sector. The document did very little to discuss affordability and access from a tax or regulatory incentive angle as a means to promote wider access and lower the prices associated with the cost to communicate. The development of SA Connect (RSA, 2013) also introduced international influences that led to the option of the framework proposed in the NBP taxonomy by the WEF, which, by the way, is an institution that straddles both the global trade and global investment regimes. In developing SA Connect (RSA, 2013), the following organisations that make up the GDIPC provided global perspectives on broadband policy and the implications for South Africa:

a) World Bank (represented by Dr. T. Kelly, Lead ICT Policy Specialist)
b) Cisco represented by Dr. R. Pepper, Vice President Global Technology Policy (USA). Pepper is also a contributor to both the ITU and Cisco report "Why Broadband Plans Matter" and he co-wrote a chapter in the WEF GIT report that deals with the taxonomy of National Broadband Plans.
c) ITU (represented by Ms. P. Biggs, coordinator of the Broadband Commission for Digital Development). Like Pepper, Biggs is also a contributor to the ITU and Cisco report.

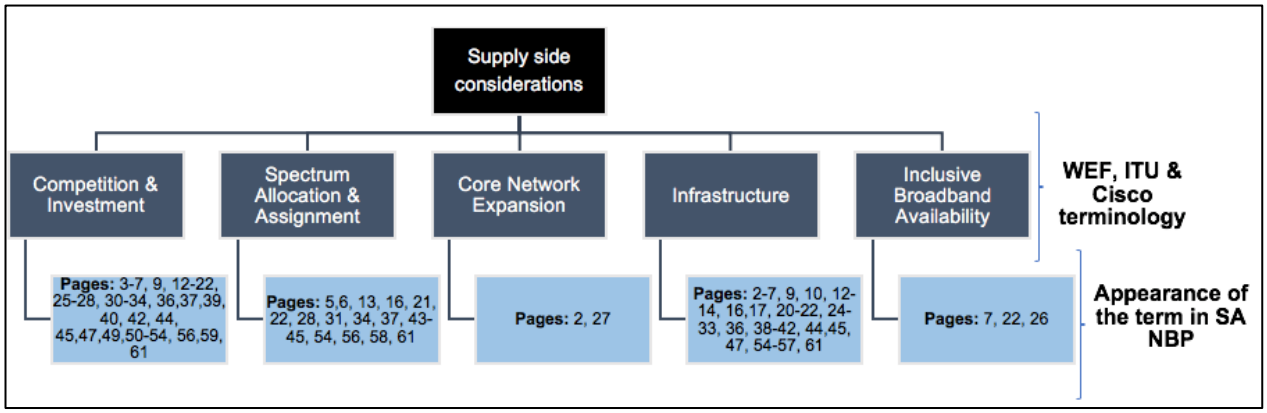
According to LSCF, (one of the interview respondents), two of the individuals above played a prominent role in the formation of SA Connect (RSA, 2013) by providing a framework for NBP development. This is significant because, in its development of its NBP, South Africa relied on technical experts who have no political responsibilities.

Figure 4.1: SA Connect demand-side taxonomy



Source: Researcher's compilation 2020, adapted from SA Connect (RSA, 2013) and GITR-WEF, 2013.

Figure 4.2: SA Connect supply side taxonomy



Source: Researcher's compilation 2020, adapted from SA Connect (RSA, 2013) and GITR-WEF, 2013.

It appears that, in developing its NBP, the South African policymaker used the demand and supply side categories without reflecting on whether these matched local realities. Furthermore, SA Connect (RSA, 2013) has not achieved any of the ambitious targets it set out in 2013, appearing in Table 4.1. Interestingly, the broadband penetration targets for social institutions are a conceptual framework taken from the World Bank's Broadband Strategies toolkit. This is also a missed opportunity to include societal broadband penetration targets at a community level (community centres, public transportation hubs, townships, districts, and local municipalities) to reflect the realities on the ground. The coverage obligations set out in SA Connect (RSA, 2013) are targets that cannot be met by the locally manufactured telecommunications equipment or capabilities of South African corporations operating outside of a consortium arrangement. It is the global original equipment manufacturers, like Ericsson, Nokia and Huawei that have such capabilities. It is this asymmetry that reinforces the dominance of the GDPIC. There is certainly a way in which the dominance of these entities can be tempered. For example, to counterbalance its trade in finished electronic goods that adversely impacted the local production in the South African market, China entered into a memorandum of understating (MoU) with South Africa. The MoU envisioned that a student cohort would be sent to China to learn manufacturing skills and the overall goal was a technology transfer programme that would see South Africa produce its own television sets over the next couple of years (Grimm, Kim & Anthony, 2013). South Africa missed an opportunity to implement similarly structured technology exchange programmes that could have complemented its NBP. The speed capabilities aimed for in SA Connect (RSA, 2013) can only be achieved by advanced broadband technologies, and at the time of writing

this research report, no local company has such capacity. The country's average of 4.36 Mbps (2017 figures estimate) falls below the country's own 2016 targets. For a developing country like South Africa, one would have expected the policymaker to at the very least include a universal service obligation of 600 Kbps, which Switzerland implemented in 2008.

Table 4.1. SA Connect coverage and speed targets

Target	Penetration measure	Baseline (2013)	By 2016	By 2020	By 2030
Broadband access in Mbps user experience	% of the population	33.7% internet access	50% at 5Mbps	• 90% at 5Mbps • 50% at 100Mbps	• 100% at 10Mbps • 80% at 100Mbps
Schools/education	% of schools	25% connected	50%at 10Mbps	• 100% at 10Mbps • 80% at 100Mbps	100@ at 1Gbps
Health facilities	% of health facilities	13% connected	50%at 10Mbps	• 100% at 10Mbps • 80% at 100Mbps	100@ at 1Gbps
Public sector facilities	% of government offices		50% at 5Mbps	100% at 10Mbps	100% at 10Mbps
Townships	Not considered				
Public transport hubs	Not considered				
Districts	Not considered				
Municipalities	Not considered				
Community centres	Not considered				

Source: SA Connect (RSA, 2013), adapted by Researcher 2020.

Table 4.2. Country comparison: speed capabilities

Country	Average speed (Mbps)	Time to download 7.5GB file
1. Kenya	8.83	00:01:55:55
2. Seychelles	5.84	00:02:55:21
3. Morocco	4.38	00:03:53:40
4. South Africa	4.36	00:03:54:54
5. Tunisia	3.50	00:04:52:23
6. Madagascar	3.49	00:04:53:15
7. Nigeria	3.15	00:05:25:27
8. Zimbabwe	2.49	00:06:50:34
9. Zambia	2.45	00:06:58:05
10. Ghana	2.30	00:07:26:11
11. Liberia	2.12	00:08:03:18
12. Uganda	2.12	00:08:04:00
13. Rwanda	2.11	00:08:05:02
14. Cape Verde	2.0	00:08:32:04
15. Namibia	1.81	00:09:26:07

Source: BusinessTech, 8th August 2017. South Africa's ranking is based off 93 000 tests and 44 000 unique IPs.

4.2. Enabling South Africa 4.0 discussion document analysis

The Fourth Industrial Revolution (4IR) discourse captured the imagination of the South African government in 2016 and has featured quite prominently in the socio-political-economic discourse of the country since then. Figure 4.3. details that of the 16 181 government speeches analysed by the Mail and Guardian (M&G) Datadesk, 316 of them contained the term 'fourth industrial revolution' or '4IR'. The M&G Datadesk further reports that the term's first usage was in early 2016 when the Chairman of the WEF, Klaus Schwab, published his book on the subject. According to the M&G Datadesk, 4IR has also featured in several government department budget speeches. The genesis of the 4IR discourse itself can be traced to the 2016 annual meeting of the WEF in Davos, themed 'Mastering the Fourth Industrial Revolution.' At the time, the South African delegation was led by former President Jacob Zuma, and it was at this time that the 4IR discourse began to take root in South Africa, as illustrated by Figure 4.3. However, it must be noted that during 2016 and 2017 the ideological influence of the 4IR on public policy discourse was imperceptible while the 4IR lexicon gradually became supplanted in South Africa. Under the theme, conference participants at Davos explored what the new growth models of the 21st-century would look like and further examined the global balance of power, including scientific and technological developments that were ready to transform economies and societies (WEF, 2016). The South African delegation at Davos also emphasised that in order to reap the promise of the 4IR, there was a need to industrialise the economy through technological innovation.

Interestingly, following the Davos WEF meeting, another similar meeting was held in Kigali in May of the same year where Deputy President at the time, Cyril Ramaphosa, led the South African delegation. The meeting in Kigali was convened under the theme, 'Connecting Africa's Resources through Digital Transformation.' Since taking the presidency in 2018, Ramaphosa has followed through on the country's commitments made by his predecessor, Zuma, in Davos. What can be observed over time is that 4IR has manifested itself through policy-related initiatives and activities. For example, in his inaugural State of the Nation Address (SONA), South African President Cyril Ramaphosa included 4IR in the country's economic recovery strategy. 4IR has featured more in the SONA of President Ramaphosa than in his predecessor's, who made no mention of 4IR. In April 2019, Ramaphosa established a Presidential Commission on the 4IR (PC4IR), comprised of multi-stakeholder representatives. The Department of Telecommunications

and Postal Services (DTPS), as it then was, together with Accenture, developed the discussion document Enabling South Africa 4.0 (Accenture & RSA, 2019). Ramaphosa has received some criticism for including what others have named WEF's 'neoliberal rhetoric' (Sutherland, 2019). This neoliberal rhetoric does not fit, nor speak to, local realities. Subsequently, when Ramaphosa took the chairmanship of the African Union in February 2020, he impressed the need to establish an Artificial Intelligence (AI) Forum, which echoes the 4IR sentiment (Ramaphosa, 2020). The discussion document is silent on employment opportunities and provides no strategic response to the question of employment even though it discusses 21st-century skills and 21st-century jobs. Altogether, employment is mentioned only twice in the 73-page document. The key point here is that the discussion around skills is presented as standing apart from the deep educational inequality that continues to plague South Africa. As a result, the document further deflects the focus from the depth and complexity of such inequality (Fataar, 2020). The reality is that 4IR could potentially deepen inequality in South Africa because of technological illiteracy and unemployment[13] for many. The South African government has viewed the 4IR phenomenon through a narrow conceptual lens and sees it as an apolitical tool for socio-economic development. In doing so, the government has ignored the larger issues. Indeed, 4IR appears to have been touted as a panacea that could sustainably speed up South Africa's economic growth. Since 2012, the economic outlook has been on a downward trajectory, culminating with its recent downgrade to junk status in 2020. The context behind this economic downturn is a time when the country experienced an era of state capture, corruption, and more recently a global economic decline as a result of the Covid-19 pandemic.

According to Unwin (2019) and Mapadimeng (2019), the interests that undergird and inform 4IR are the very same that have influenced the economic, social and political systems over the past 400 years – the evolution to modern-day industrial capitalism. Unwin (2019) concludes that it is the interest, as opposed to the technologies, that are important: 4IR is an ideological construct that reflects specific material interests (Unwin, 2019; Avis, 2018). It matters that none of the WEF Strategic Partners that informed the content at the Davos 2016 meeting are of African or South African origin. Mapadimeng (2019) further argues that 4IR is part of a global project or economic order that supports

[13] Technological unemployment is a phenomenon that is caused by technological developments and working practices that result in workers losing their jobs. For example, retail cashiers are being replaced by self-service tills.

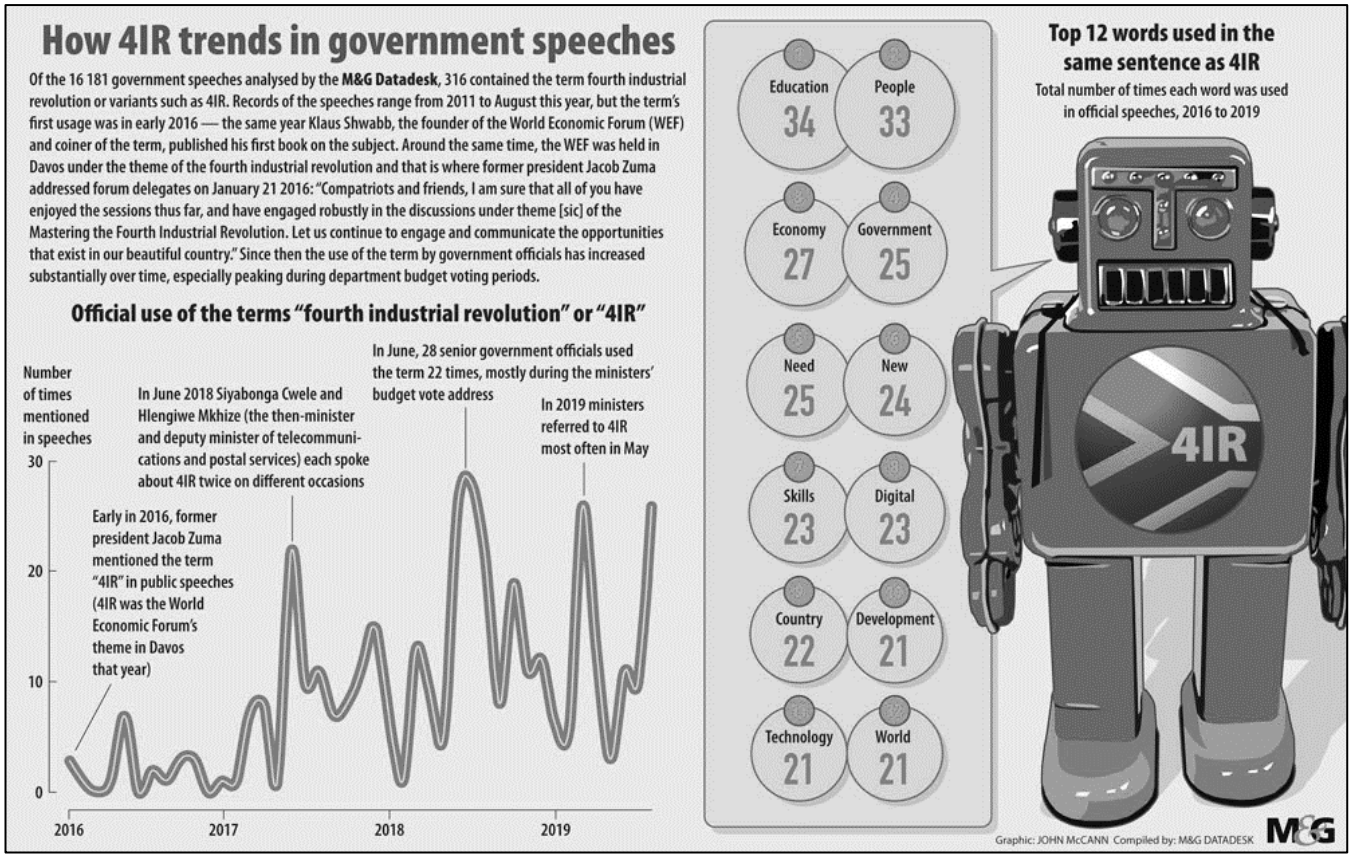
industrial capitalism and is being used as a tool to deeply entrench into old markets. According to Gillwald (2019), Gastrow (2019) and Mapadimeng (2019), there has been no critical examination of the 4IR concept on an intellectual, political and policy level. Gillwald (2019) further reflects that the concept was 'uncritically adopted' by the African National Congress (ANC), the ruling party in South Africa, at its 54th National Conference in 2017 where it references 4IR twice (ANC, 2017). An excerpt from the conference:

> "An enabling environment must be created for Small Micro and Medium Enterprises (SMMEs) to encourage innovation and creativity in order to position our country for the Fourth Industrial Revolution and to create necessary and relevant jobs" (ANC, 2017)"

4IR is also mentioned in the 2020 ANC National General Council special edition discussion document, *Umrabulo*, which introduced 4IR as the ANC's digital policy. It is of interest to note that all of the Premiers mentioned in Table 4.4. are from the ANC and stem from all provinces, except for the Western Cape. The Western Cape is governed by the Democratic Alliance (DA), which is an opposition party to the ANC and has not mentioned 4IR in any of its State of the Province Addresses (SOPAs). Many government departments have developed policy papers or reports using strong 4IR framing language. Adding to this, 4IR began to feature more regularly in the SOPAs by the respective Premiers. Gastrow (2019) opined that the idea of 4IR is not founded in any 'body of disciplinary research,' rather it functions as a discourse and ideological statement of the WEF that borrows from academic research and industry ideas in a "loosely structured rhetorical argument," (Davis & Philbeck, 2019). Finally, scholars such as Gastrow (2019) argue that the supplanting of the 4IR concept in South Africa introduces some complexity in the production of indigenous knowledge systems (IKS) because the origins of the concept are based on the industrial development of first world countries. Gastrow further argues that the language used in the 4IR discourse is borne out of Silicon Valley, and to ensure that the policies address local needs, a localized understanding and language formation will be key (Gastrow, 2019). The influence of 4IR, in the beginning, has been ideological and has over time become manifest through policy-related initiatives and activities. Also, South Africa's establishment of an affiliate Centre for the Fourth Industrial Revolution (C4IR) illustrates how deeply embedded the concept, and WEF rhetoric have become. This is a prime example of how the discussion document and global networks

have introduced specific international influences. This has resulted in South Africa mimicking the institutional arrangements of the GDPIC, allowing 4IR to be diffused not only in the country, but also promoting it across the continent. This development is explored and discussed in even greater detail in Chapter Six under section 6.4.

Figure 4.3: How 4IR trends in government speeches



Source: M&G Datadesk (2019).

Table 4.3: 4IR mentioned in President Cyril Ramaphosa's State of the Nation Address (SONA)

2018 SONA	2019 SONA (February)	2019 (June)	2020 SONA
We will soon establish a Digital Industrial Revolution Commission, which will include the private sector and civil society, to ensure that our country is in a position to seize the opportunities and manage the challenges of rapid advances in information and communications technology. The drive towards the digital industrial revolution will be underpinned by the availability of efficient networks.	Revolutionary advances in technology are reshaping the way people work and live. To ensure that we effectively and with greater urgency harness technological change in pursuit of inclusive growth and social development, I have appointed a Presidential Commission on the 4th Industrial Revolution. It will identify and recommend policies, strategies and plans that will position South Africa as a globally competitive player within the digital revolution space.	These sectors include global business processing services, agricultural value chains, technical installation, repair and maintenance and new opportunities provided through the digital economy and the Fourth Industrial Revolution. Has the time not arrived to build a new smart city founded on the technologies of the Fourth Industrial Revolution? I would like to invite South Africans to begin imaging this prospect.	The Presidential Commission on the Fourth Industrial Revolution has made far-reaching recommendations that impact nearly every aspect of the economy and in many areas of our lives. The commission's report provides us with the tools to ensure that we extract the greatest benefit of these revolutionary technological changes.

Source: Republic of South Africa 2018 – 2020, compiled by the Researcher

Table 4.4: Mentions of 4IR in the State of Provinces Addresses 2016 – 2020

Year	Province
2016	Premier Stan Mathabatha: Limpopo
2017	Premier David Makhura: Gauteng
2018	• Premier Sylvia Lucas: Northern Cape • Premier David Makhura: Gauteng • Premier Ace Magashule: Free State
2019	• Premier Job Mokgoro: North West • Premier Stan Mathabatha: Limpopo • Premier Sisi Ntombela: Free State
2020	• Premier Sihle Zikalala: Kwa-Zulu Natal • Premier Sisi Ntombela: Free State • Premier Refilwe Mtshweni-Tsipane: Mpumalanga • Premier Oscar Mavubane: Eastern Cape

Source: Republic of South Africa 2016 – 2020, compiled by the Researcher

4.3 National Integrated ICT Policy White Paper analysis

The National Integrated ICT Policy White Paper, hereinafter referred to as the White Paper, provides a policy framework that aims to facilitate South Africa's transformation into an inclusive and innovative digital and knowledge economy. The White Paper focuses on the convergences of modern and traditional modes of communication, thus remedying the position created by the two White Papers on Telecommunications (published in 1996) and the Postal Services (published in 1998). The development of the White Paper followed an extensive consultation process that spanned four years. Furthermore, the consultative journey was necessitated by local realities when the Cabinet initiated a review of all ICT related policies in 2012. The first phase in the development of the White Paper commenced with a Framing Paper in April 2013. The second phase saw the release of a Green Paper in early 2014. This document reflected on all the achievements made against the original version and looked at the core issues or problems that needed to be addressed in future policy. During the third phase, a discussion paper was published that outlined a range of options and possible policy approaches that could be employed to realise the objectives set in the 2013 Framing Paper. In the penultimate phase, a policy review report was put together by the Review Panel and was handed over to the Minister for review in April 2015. On the 3rd of October 2016, the consultative journey, which began in 2012, culminated in the fourth and final publication of the White Paper that was subsequently signed by the Cabinet the following month. The White Paper articulates the South African government's formal policy position on key issues that relate to ICTs. Despite pushing for unpopular policy options, it is submitted that the White Paper was pioneering to some degree. For example, it envisages establishing a single national carrier, which is based on the wholesale Open Access Network (WOAN) model that found its way into the ICASA 2020 invitation for the auction of radio frequency spectrum in the IMT700, IMT800, IMT2600 and IMT3500 bands.

It is further submitted that the White Paper (RSA, 2016) stands in direct contrast to both SA Connect (RSA, 2013) and Enabling South Africa 4.0 (Accenture & RSA, 2019) which were examined earlier. First, a White Paper typically forms the basis of legislation as it introduces changes to existing laws. To address local realities, the White Paper introduces two legislative amendments and the introduction of new laws. Legislation such as the Electronic Communications Act, and the Electronic Communications and

Transactions, will be amended in line with the White Paper. The White Paper proposes the introduction of the following new laws: the Ikamva National e-Skills Institute Bill, the Postal Services Amendment Bill, The South African Post Office Amendment Bill, The Electronic Communications Amendment Bill, the Digital Development Fund Bill, the ICT Sector Commission and Tribunal Bill and the Electronic Communications and Transaction Amendment Bill. Second, the document is largely inward-looking in that it deliberates issues such as localisation, spectrum management, market concentration, the 400 licenses and three major mobile network operators, which are specific to the South African context. The White Paper also proposed revising the institutional arrangements between Chapter Nine Constitutional institutions and the Ministry of Communications, as it then was. It is further argued that the White Paper had as its aim the coordination of sectoral policy to deliver on the promises of the National Development Plan and transform the country into an inclusive and innovative digital and knowledge society (RSA, 2016). The document tries to solve context-specific issues instead of general ones that are usually the focus of organisations that operate in the GDPIC. Finally, the White Paper clearly articulates what the digital transformation path of South Africa should look like by taking stock of the country's peculiarities. It introduces three pillars for digital and inclusive growth:

a) For the digital transformation of the public sector, the document envisions an e-government framework.
b) To achieve digital access, the document envisions building digital skills, astuteness and capacity followed by promoting trust and security.
c) The document foregrounds digital inclusion in the digital economy, financial inclusion and the development of digital content, services, and applications (Backhouse and Manda, 2017; RSA, 2016).

4.4. Conclusion: Connecting the document review and interview responses

Chapter Three provided the rationale for applying document analysis as part of the qualitative research methodology. Document analysis was then used in combination with the respondent interviews, which are discussed in Chapter Five. The purpose of conducting document analysis was to provide complementarity or 'a confluence of

evidence that breeds credibility' and minimise any potential biases or the accusation that the researcher looked only at one method of gathering data (Eisner, 1991, as cited in Bowen, 2009). The documents were particularly instructive in that they provided data on the context within which the interview respondents participate and operate in. In some instances, the documents also provided historical record and background information that is useful for contextualising some of the responses presented in Chapter Five. Besides simply providing supplementary research data, the documents analysed in this chapter also served as a means to track change and development (Bowen, 2009).

Chapter Five - Describing the interview data

5.1. Introduction

This chapter describes the primary data that was collected from the interviews. In reporting the interview findings, this chapter synthesised the responses from the respondents along the lines of similar and divergent views. The interview questions were designed to determine how the GDPIC influenced the formulation of national policies in the South African context. The questions were grouped into four thematic areas:

(a) *Ideological assumptions embedded in the policy formulation discourse of the GDPIC*. These questions examined who the main contributors are to the agenda-setting process of the GDPIC, who sets the agenda at global conferences, whether the final reports, position papers and scientific articles are reflective of all member states' input, and the nature of the discourse and ideas generated from global forums and conferences.

(b) *South Africa's participation in policy formulation and agenda-setting forums*. These questions examined South Africa's participation in GDPIC agenda setting forums, its occupation of leadership positions in the GDPIC, and the consequence of not occupying leadership positions in the GDPIC.

(c) *How policy suggestions and recommendations from the GDIPC make their way into South African digital policies*. These questions aimed to examine the nature of policy suggestions and recommendations, to see whether they reveal the interests or policy preferences of the GDPIC, and whether South Africa's digital policies articulate and address the country's realities and aspirations.

(d) *Digital policy formulation and specific international influences*. The interview questions grouped under this theme had the goal of examining how the relationships, alliances, power structures, interests, bureaucracies and norms in the GDPIC regime affect South Africa's policy formulation process, the role that external actors play in the formulation of South Africa's digital policies, and the overall effect, if any, of such influences.

5.2. The ideological assumptions embedded in the policy formulation discourse of GDPIC

Few of the respondents were able to engage interview questions on how ideology operated in the GDPIC. Only the international relations practitioners and career academics were able to respond to these. There was agreement among the respondents that the agenda-setting process of the GDPIC comprised of numerous contributors. They further acknowledge that mini regimes (WTO a trade regime, ICANN an internet regime) that operate in the GDPIC as depicted in Figure 1.2. ACA2 described the GDPIC as a "complex constellation of shifting and intersecting entities." From their respective perspectives, respondents confirm the *states of the core* model discussed earlier in this research. The majority of the respondents were of the view that who sets the agenda largely depends on the issues under consideration.

SR-RSA, MNC2-ACA3, LSCF and MNC: LP1 commented that despite the agenda being set by the most influential governments and powerful corporates, this could have some advantages, for example, in the case of policy harmonization and technological harmonization, roaming and minimizing cross-border interference, and so on. Even so, this research argues that these economies of scale benefit developed countries and owners of technology, i.e., corporations. SR-RSA responded that member states are key in the UN system; they are sovereign in principle and should have a say in the agenda-setting. However, in reality and practical terms the agenda will mostly be set by the owners of technologies through lobbying, the setting of technical standards and contributions, the use of industry experts, and the publication of scientific articles, position papers and conference papers. The respondent concludes that one can infer that the developed world predominantly drives the agenda because the corporations (owners of technology) are headquartered in developed countries. SR-RSA further identifies a number of stakeholders at different levels (global[14] and regional[15]) that make up the GDPIC. PM-RSA responded that the main contributors to the agenda-setting

[14] ITU, WEF, WTO, ETSI, GSR, CTO.

[15] West African Telecommunications Regulatory Association (WATRA); Communications Regulators Association of Southern Africa (CRASA); East African Communications Organisation (EACO); the African Telecommunications Union (ATU), African Union (AU) and Smart Africa and private sector players who also contribute to the policymaking process of the GDPIC.

process of the GDPIC depend on the issues under consideration. PM-RSA uses the example of the standardization sector, for example, the International Standards Organization (ISO), in which the owners of the technology set standards that suit their products. Where issues about cyber-security are discussed, countries play a prominent role because of their potential impact on state sovereignty. In this instance, states will require that the private sector conforms to the standards set by the government. LSCF provides a contrasting view, stating that the ITU drafted the eSwatini Cyber-Security Act, their Electronic Communications Act and the Swazi Communications Commission Act. According to ACA1, who sets the agenda depends on who funds an organization like the ITU. ACA1 further highlights that an organization like the ITU gets its money through a number of ways, ranging from a complicated set of contributions from member states (to which a developing country like South Africa makes none), donations from organizations, and event sponsors (typically the owners of technology). All this likely translates into the ITU, for example, (which represents the global telecommunications regime) being beholden to certain interests. Furthermore, the respondent observes that the internal processes and financial motivations of the ITU are heavily involved with what is happening in the industry, what the industry will pay for and what the industry agenda is.

ACA2's response suggests that there is a broad range of actors that are key in the areas of global policy and regulations and that in considering the role of the ITU one cannot neglect the role of an influential organisation like the WTO, which is critical in facilitating the global agreements on trade and services which follow from policy and regulations. The respondent also cites examples of other actors that contribute to agenda setting such as InfoDev which has formulated and popularized a number of concepts around ICT sector policy and regulations, ultimately determining the kind of language and ideas that shape the GDPIC agenda. MNC: LP1 responded differently in this regard, arguing that in setting the agenda, governments, and South Africa by extension, set the agenda because they own the policy and regulatory space. The respondent also observed that technical contributions are dominated by the private sector which plays an ever-increasing role than was historically the case. MNC: LP2 notes that the agenda is set by developed nations and specifically mentions France, Sweden, Japan, South Korea, the United States, Russia and China. LSCF responded that the player landscape is multifaceted and that there are various contributors, who sets the agenda depending on the angle and which part of the value chain one is looking at. Where issues are

discussed that relate to infrastructure and spectrum, one will see a lot of private sector, government and international organisation involvement in agenda-setting. When looking at issues related to usage and uptake, civil society plays a prominent role, with the private sector observing to ensure that pricing is not adversely impacted. LSCF further observes that policymakers at a national level do play a role, but one cannot definitively say that they set the agenda. MNC2-ACA3 adds that the FCC, OECD, Body of European Regulators for Electronic Communications (BEREC) also indirectly influence the agenda by setting the trends or practices for others to emulate. ACA1 argues that to get a glimpse of who contributes to topics and agendas it would be worthwhile to peruse the ITU Ties database to see who submits material and makes contributions regularly. Further, there is a longstanding discussion in the ITU that developing countries rarely submit material on standardization; also, a substantial amount of the inputs in the two study groups of ITU-D come from original equipment manufacturers not based in Africa.

5.3. South Africa's participation in policy formulation and agenda-setting forums: The role of conferences in agenda-setting

ACA2 states that the agenda is set by national and regional political groupings and further asserts that it cannot be ignored that conferences have a north-south disparity. The respondent gives the example of the 2012 International Telecommunications Regulations (ITRs) in Dubai where the US exerted considerable pressure by presiding over the issues, especially around 5G and cyber-security, and one could say Africa's degree of preparation was minimal in this regard. SM-PM also points to several ITU branches, for example, ITU Telecom World and specifically identifies the CTO, which to a lesser extent also determines the agenda for countries that belong to the Commonwealth. MNC-LP:1 contends that the agenda is often initiated by the industry. They give the example of American, Chinese and European innovators, who after inventing a technology, will then embark on a process of engaging their respective governments to access spectrum, develop policy positions that support their technologies and showcase their latest innovations at business (i.e., Mobile World Congress held in Barcelona, Spain) and policy conferences (i.e., WRCs). Through their governments, these innovators then identify global opportunities for economies of scale.

This also assists some governments from developed countries to impose an additional minimum tax on income that their MNCs earn in other foreign countries.

SR-RSA makes the point that reports published at conferences are usually written by technology companies and experts in the field because they have the expertise to produce reports, position papers and technologies, but it is the country that has the power to adopt or subscribe to these papers. This is not the same as saying that the issues raised by member states, which inform the final reports, position papers and articles, are not considered. In SR-RSA's view, the issue with these instruments is how they are domesticated and applied to fit a country's environment without using the content verbatim, but by customising it to fit the country's needs. MNC-LP:1 states that, in theory, an opportunity always exists for the different instruments to be reflective of member states because of the one-member-one-vote principle. However, this depends on whether the representatives have been prepped and the quality and type of individuals who represent the country. Without these, it is impossible for these instruments to be reflective of South Africa. ACA1 states that in order for a country to make proposals that are reflective of its set of circumstances, it has to engage in a process of internal public consultation before participating in international conferences. This respondent cites the example of the US delegation that consults on what it will do at the ITU. The US department of state has a formal engagement process for strategizing on which issues it is going to pick up with all the international bodies, not just the ITU.

PM-RSA notes that developed nations have used ideology to drive an economic and political advantage through technology and further entrench their relative position in the GDPIC and its position in the other mini-regimes illustrated in Figure 1.3 and other global systems. PM-RSA acknowledges that a lot of early debates about technology happen in the OECD, and then find their way to the ITU. This illustrates that many of the developed countries have already decided on their positions and game plan long before the ITU and have an approach. ACA2 believes that the nature of the ideas and discourse depends on the forum and context. The WRC, for instance, specifically centres around spectrum and what the plans are for spectrum going forward. On the surface, the debate appears to be technocratic, but who gets what spectrum, and for what purpose, has important economic and political consequences. Behind the technocracy, there are some powerful interests at play. This statement by ACA2 also reveals a lot about the

technological determinism that operates for the benefit of developed nations which also reinforces their dominance. ACA2 further argues that there is a huge divide and disparity in terms of resources and the ability to commission research, and collectively these have a direct impact on discourse formulation and ideas. The American delegation, for example, is extremely well resourced. Again, one cannot ignore the resource disparity between a country like the US and South Africa, and how this correlates to the ability to influence the outcomes in the GDPIC.

5.4. South Africa's participation in the policy formulation and agenda-setting forums

Responding to the nature of South Africa's participation in policy formulation forums of the GDPIC, the respondents were varied in their responses, with most opting for a middle ground. ACA1, SR-RSA and PM-RSA note that part of the reason South Africa's participation can be categorised as symbolic is largely a budgetary constraint issue. The respondents propose different reasons why this is so. PM-RSA states that there may be a need for the Treasury to revisit its international travel policy, considering the global nature of the sector, but it would be for the relevant stakeholders to make the case why travel was necessary[16]. ACA1 agrees that to be involved and participate in the ITU, including the meetings leading to the WRC, is an expensive exercise for a developing country like South Africa, especially if one considers the frequency of these meetings and that sometimes take place in exotic locations or Europe. ACA1 concludes that to participate and contribute to these meetings meaningfully, a person or delegation would have to participate regularly, a view supported by MMC-LP1. Also, LSCF makes two more interesting observations. Firstly, whether South Africa's current participation in the GDPIC is categorized as symbolic or substantive depends on which part of the value chain the issues under discussion fall under, a view also supported by PM-RSA. Both respondents observed that on infrastructure and technical issues relating to spectrum,

[16] As a result of the Covid-19 pandemic, we may see greater participation from developing countries in hybrid (which entails a limited number of participants being physically present and others joining virtually) global forum sittings where digital policy issues are discussed. This will also reduce the need and costs of travel.

the country's participation can be categorized as substantive because of the sector's demands.

Furthermore, South Africa's participation in the ITU is more pronounced in ITU-R and ITU-S (as shown in Table 5.1 and 5.2) with limited or sporadic activity in ITU-D (as represented in Table 5.3). Typically, in policy forums where issues around access are discussed such as WTDC, South Africa's participation has been largely symbolic. LSCF further adds, that this dichotomy did not always exist and that during the period between 1998 and 2006/2007, South Africa's participation in the GDPIC was indeed substantive. They give the example where South Africa was a major player and contributor and lead large delegations comprised of different polities in the plenipotentiary conferences at the time. SR-RSA provides a view that is in direct contrast to that provided by LSCF, stating that South Africa's participation in policy forums of the GDPIC used to be symbolic and has recently become substantive. SR-RSA gives the example of a South African being elected to serve on the ITU Radio Regulations Board as one of three African representatives on a board consisting of 12 members. MNC-LP:1 argues whether South Africa's participation is substantive or symbolic is a question that rests on the kind of individuals and the team that is selected to represent the country. According to MNC-LP:1, there is a preoccupation with having delegations that are largely composed by people with engineering backgrounds and who may not be suitable to discuss policy formulation matters by themselves. Perhaps one way to remedy this is to include academics, international relations practitioners and civil society to inform the gameplay, or alternately create a rule book by which the South African delegations can play by.

Table 5.1: WRC 2000 to 2019 country representation

Event/Session name	Event Date	South Africa	Egypt	Nigeria	United States of America	United Kingdom	Japan	Brazil	India	China
WRC – 2000 Turkey	8 May – 2 Jun	**20**	19	33	158	55	86	40	17	44
Est population size in 2000		**44 967 708**	**68 831 561**	**122 282 850**	**281 710 909**	**58 923 309**	**127 524 174**	**174 790 340**	**1 056 575 549**	**1 290 550 765**
WRC – 2003 Switzerland	9 Jun – 4 Jul	**18**	17	36	176	64	102	31	28	48
WRC – 2007 Switzerland	22 Oct - 16 Nov	**39**	20	53	158	62	77	33	33	82
WRC – 2012 Switzerland	23 Jan– 17 Feb	**35**	11	68	145	50	71	29	36	116
WRC – 2015 Switzerland	2 Nov – 27 Nov	**43**	12	90	169	73	81	26	29	122
Est population size in 2015		**55 386 367**	**92 442 547**	**181 137 448**	**320 878 310**	**65 860 146**	**127 985 133**	**204 471 769**	**1 310 152 403**	**1 406 847 870**
WRC – 2019 Egypt	22 Oct to 22 Nov	At the time of writing this study the participant list had not yet been published								
Est population size in 2019		**58 558 270**	**100 388 073**	**200 963 599**	**329 064 917**	**67 530 172**	**126 860 301**	**211 049 527**	**1 366 417 754**	**1 433 783 686**

Source: WRC participant lists[17]; population statistics Worldometer, compiled by the Researcher, 2020.
Explanation: The WRC is held every three to four years to review and as well as revise the Radio Regulations (that were adopted and or approved in a previous WRC) which operate and have the effect of an international treaty that governs the use of radio frequency spectrum in the different regions.

Table 5.2: Plenipotentiary Conferences 1998 to 2018 country representation

Event/Session name	Event Date	South Africa	Egypt	Nigeria	United States of America	United Kingdom	Japan	Brazil	India	China
PP- 1998 United States	12 Oct – 6 Nov	**21**	8	5	80	24	35	26	21	18
PP- 2002 Morocco	23 Sep – 18 Oct	**32**	14	35	73	43	56	46	23	44
PP- 2006 Turkey	6 – 24 Nov	**28**	19	41	54	19	52	24	26	53
PP- 2010 Mexico	4 – 22 Oct	**41**	15	67	75	19	49	25	13	21
PP- 2014 Rep. of Korea	20 Oct – 7 Nov	**39**	11	128	132	33	50	24	22	68
PP- 2018 Dubai	29 Oct- 16 Nov	**29**	17	122	79	51	38	25	12	67

Source: ITU PP participant list, compiled by the Researcher

[17] The participant list for WRC-19 has still not been published on the ITU website at https://www.itu.int/en/history/Pages/ListOfITUConferencesAssembliesAndEvents.aspx

Explanation: the ITU Plenipotentiary Conference is a supreme decision-making organ of the ITU, where the 193 Member States agree on the ITU's strategic plan, financial plan, leadership election to sit on the ITU Council and decide on the direction of the organisation every four years.

Table 5.3: WTDC 1998 to 2017 country representation

Event/Session name	Event Date	South Africa	Egypt	Nigeria	United States of America	United Kingdom	Japan	Brazil	India	China
WTDC - 1998 Malta	23 Mar – 1 Apr	**8**	12	1	54	21	8	9	9	5
WTDC - 2002 Turkey	18 – 27 Mar	**11**	6	11	49	17	20	21	5	13
WTDC - 2006 Qatar	7- 15 Mar	**15**	7	34	33	8	21	13	2	17
WTDC - 2010 India	24 May – 4 Jun	**12**	7	30	33	3	12	9	32	16
WTDC - 2014 Dubai	30 Mar – 10 Apr	**4**	20	96	66	17	28	14	12	56
WTDC - 2017 Argentina	9 – 20 Oct 2017	**15**	3	51	46	13	25	10	3	23

Source: ITU WTDC participant lists, compiled by the Researcher
Explanation: The ITU through the Telecommunications Development Bureau (BDT) organises the WTDCs to discuss topics, projects and programmes that relate to the development of the sector. In turn, the WTDCs also help guide the work of the ITU-D.

PM-RSA notes that despite not occupying a lot of elected positions, South Africa has held unelected leadership roles such as the chairing of council and plenipotentiaries. The golden thread that runs through the commentary by LSCF, SR-RSA, PM-RSA is that we have lost some ground in occupying key elected leadership positions, not only in the ITU but also in other entities that make up the GDPIC. This decline could be imputed or attributed to party politics and cadre deployment that has come to dominate the South African political landscape, where the ruling party would rather keep people in-country by preoccupying them with party politics as opposed to outsourcing their expertise. It is also very rare for the current ruling party to endorse talented people with leadership potential to represent the country in the GDPIC. PM-RSA observes that the South Africans that work at institutions that make up the GDPIC are typically expatriates.

SR-RSA phrases the problem, similarly, stating that South Africa is an observer in some of its global engagements. The respondent laments, "we do not even participate

in some forums such as ITU-D.[18]" ACA2 describes South Africa's participation as being on the weaker end of the scale, following a time in the early 1990s, under the incipient ANC government, where it was the poster child in the area of policy reform. During this time, South Africa was extremely connected to the ITU, and a many of its activities were considered to be cutting-edge and exemplifying global best practice. Compared to that era, in which many countries aspired to emulate South Africa, ACA2 notes that South Africa's current performance today seems disorganized as it makes notably fewer contributions to the global agenda. This reiterates the notion that South Africa has become a spectator. ACA2 contemplates that the country's ability to participate internationally might also be impeded by the stagnation within the sector. Three other respondents assert that since the Zuma administration there has been a lack of understanding of the importance of South Africa's contribution to the global agenda. In SR-RSA's opinion, it is critical that the current government directs resources to relevant organizations and re-establishes South Africa as a continental and global leader. Instead of playing a leadership role, South Africa has been lagging. Concerning the GDPIC, this sets the country back because it is forced to accept whatever comes from the GDPIC without reflecting on the potential impact it may have on the economy and policy landscape. PM-RSA warns about the missed opportunity here since it is not only the shaping of national policy that is at stake, but also South Africa's influence in the region (Southern African Development Community (SADC)) and the on the continent. In other words, it is regrettable that South Africa has become a consumer of the global agenda and not a contributor.

5.5. Policy formulation: suggestions, recommendations, and resolutions

SR-RSA argues that policy ideas and suggestions find their way into the actual policy through a domestication process. The mechanics of how this unfolds need to be clearly defined for the benefit of relevant stakeholders. Further, SR-RSA emphasises that South Africa should insist on report back processes, a position supported by ACA1. The respondent also hints that because no reporting back has taken place, policy suggestions, recommendations and resolutions frequently find their way into local policy

[18] International Telecommunication Development Sector (ITU-D).

unchallenged and not tailored to the domestic context. On the issue of policy feedback, ACA1 states that reporting back is an important process that ensures feedback circulates or filters to the policymaker, provincial legislatures, relevant portfolio committees, the regulators, research institutions and policy discussions. SR-RSA acknowledges that there is a vested interest in policy ideas and recommendations, especially with the bigger technology companies as they operate for the benefit of their own countries. ACA2 states that external policy suggestions and recommendations find their way into the South African policy landscape on account of the country's limited ability to engage, adapt and critique what comes from outside. To illustrate the sometimes-coercive nature of the policy suggestions and recommendations, MNC-LP: 1 uses the example of the US calling for the removal of Huawei technologies and equipment in the race to 5G in markets across the globe, including Africa. LSCF adds yet another viewpoint in stating that best practices, policy suggestions and the like do not always originate from elsewhere. They highlight that it may very well be that a global best practice was first advanced or imagined by a global original equipment manufacturer that has a local presence and then feeds the best practice to its mother organisation. So, when the policy recommendations make their way back to South Africa, they may very well address local needs.

SR-RSA remarks that in the development of the country's policy, the country typically engages in study visits to learn what went right and wrong in other countries. One advantage of being 'late in the game' is that it allows South Africa to learn from others' mistakes and successes. However, the countries used for study visits are usually European instead of countries with comparable economies and histories, such as Brazil or India. ACA2 notes that any kind of policy needs to be grounded in international good practice and find application in the local context. ACA2 states further how difficult it is to develop a broadband plan for the country without appreciating what has been done internationally and looking to institutions like the ITU. ACA2 provides an optimistic view with regards to South Africa's performance in policy formulation, but is less optimistic about implementation, implying that it is implementation where the problem lies, not policy paralysis. ACA2 argues that SA Connect (RSA, 2013) was well-drafted and addressed the country's realities and aspirations but failed in its implementation. PM-RSA states that when SA Connect (RSA, 2013) was put together, a conference was convened at the Council for Scientific and Industrial Research (CSIR) that the EU funded, with many experts that were flown in from all over the world to speak about broadband

policies. In this sense, one could say that the policy was well reasoned and globally benchmarked. PM-RSA also supports the view advanced by ACA2 that the policy failed on implementation. When asked why it is that SA Connect (RSA, 2013) mirrored the demand and supply-side considerations, the respondent argues that there was nothing to compel South Africa to adopt the taxonomy proposed by the ITU and WEF. However, the respondent neglects the perception created when 'recognised' international experts participate in a policymaking process. Most of the respondents commenting on SA Connect (RSA, 2013), reason that it is a well-intentioned document that failed to live up to the targets it had set out. Others contend that South Africa was influenced by the prevailing attitudes and frameworks at the time, which entailed that a country must have an NBP. Both points of view neglect to question whether the NBP was a true reflection of local needs and interests.

5.6. Digital policy formulation and specific international influences

PM-RSA states that as far as alliances are concerned, South Africa tends to seek linkages with countries that share a common interest. This usually means other developing countries. Although South Africa cultivates relationships with 'everybody' in the multilateral space, it occasionally butts heads with the United States and the EU. The major reason for this is their status as dominant powers who push an agenda that differs significantly from South Africa's. Since this is well known to many, it might come as a surprise that these dominant powers can sometimes assert their agenda anyway and find a way into South Africa's policy formulation process through certain structures and programmes, especially through capacity building and institutional arrangement formation offered by institutions such as CTO and the Spider Centre, to mention but a few. Of all the respondents, PM-RSA was able to articulate their position on this question with notable precision, perhaps owing to their international relations background.

SR-RSA points out that ITU and WTO employ various prescripts that South Africa has to follow, detailing what a country can and cannot do. For example, it must have a regulatory framework that can influence how digital policies are formulated and implemented. The purpose of these prescripts is to facilitate global trade agreements on trade and services. ACA2 concurs that in the early 1990s, the ITU, WTO and IMF played a considerable role and determined prescripts. LCSF1 observes that if one was to identify

an institution in the GDPIC that is currently wielding considerable influence over South Africa's formulation of digital policies, it would be the WEF, notably in the areas of the 4IR. All respondents seem imply is that the DCDT in this instance is not in control. The idea and initiative behind 4IR originated with other ministries before the DCDT, even though it decided to run with it.

When asked what the overall ramifications have been of digital policy influences, SR-RSA states that one could argue for a harmonizing effect. However, this research asserts that policy harmonisation is not a panacea because it can operate as a two-edged sword. On the one hand, it operates as a catalyst for economies of developed countries, but on the other hand, it operates as a barrier for developing countries. It does not improve the competitiveness of a developing country, nor does it reduce the barriers to the movement of technologies and products from South Africa to the global market. MNC: L1 states that the ICT policy landscape in Africa is unchartered territory in which we are all creating our own practices on how to interact or engage with external actors involved in the policymaking process. LSCF advances a similar position, stating that the influence of the GDPIC on South Africa policy formulation can also boil down to a personal level, depending on who the drafter of the policy is and what their empirical and experiential reference points are, not to mention where they draw direction from. These responses are particularly instructive in the context of the Governmentality theory debate, which looks at how conduct, social practices and the rationalising capacity of the policymaker is shaped and governed, a point of further exploration in Chapter Six.

Chapter Six- Policy, like Nature, abhors a Vacuum

"Rather, they ("international actors and donors"- emphasis added) exert their influence through a process in which dominant ideas become 'naturalised' and are subsequently accepted by domestic elites in a complex process involving hegemony and the construction of consent. Networks, partnerships, epistemic communities and capacity-building exercise are channels through which the said hegemony is realised." (Chiumbu, 2010, p. 68).

6.1. Introduction

This chapter further analyses the literature review from Chapter Two, the interplay of policy influences and documentary data presented in Chapter Four and the perspectives presented by the interview respondents in Chapter Five. The goal of this methodological triangulation (explained in Chapter Three) is to assess the effect, extent and impact that global 'policy architecture'[19] has had on digital policy formulation in South Africa.

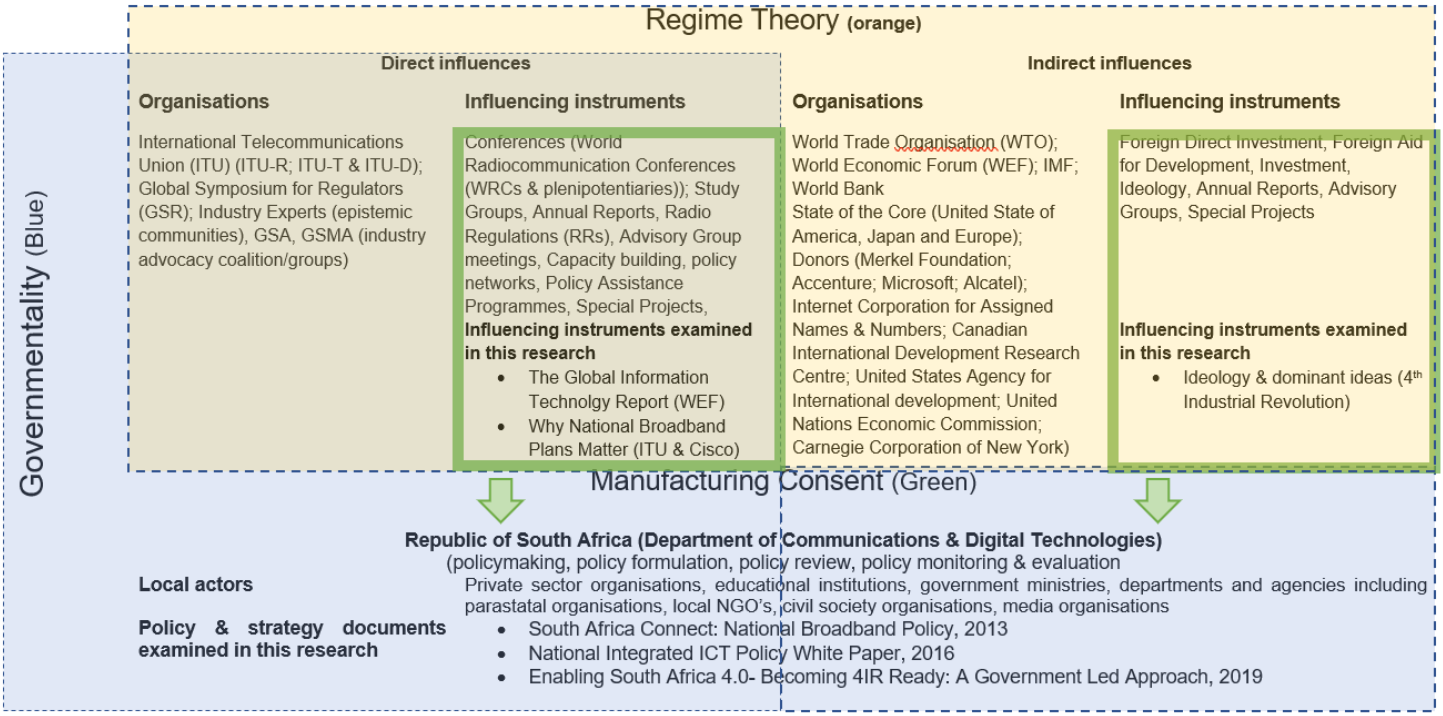
This chapter applies Regime, Governmentality and Manufacturing Consent theories to the research findings and data analysis. Regime theory was used as a meta-theory (applied top-down) to explain the behaviours, material interests and institutional arrangements that sustain the dominance of the GDPIC that has both a direct and indirect influence in the policy formulation in South Africa. Governmentality theory was used to inquire into the techniques employed by the external actors who shape the conduct and behaviour of the South African policymaker and other local actors, primarily through bureaucratic processes and a range of instruments to influence digital policy formulation. The theory also accounts for how the policymaker internalises bureaucratic processes, techniques and instruments, thus reducing the policymaker role to becoming an agent of the GDPIC. Manufacturing Consent theory was used to explore how the instruments[20] of different actors or influencers operate as effective ideological tools (Chomsky &

[19] *Policy architecture according to* Hassall and Purcell refers to, "the articulation of transparent processes for the engagement of all stakeholders in policy dialogue that discovers felt needs, shares knowledge, generates policy options, identifies decision-making authorities, links policies with implementation strategies and appropriate resources, and includes evaluative processes that assist in the refinement of subsequent policy engagement in the same or related areas." (Hassall & Purcell, 2017, pp. 33 - 53)

[20] The instruments include policy reports, regional and international conferences, policy assistance programmes, institution building initiatives, special ICT projects, position papers and scientific articles to shape the policy perception or manufacture consent of the South African government.

Herman 1988). These ideological tools serve to reinforce the dominance and special interests of GDPIC actors by manipulating the policy perceptions of the South African policymaker.

Figure 6.1: Global digital governance regime actors/influencers



Source: Researcher's compilation 2020.

6.2. The gloss of policy independence wears thin: A discussion on the operation of Regime theory in the GDPIC

Regime theory posits that not only do international institutions affect the behaviour of states, but that power in the international political economy of the GDPIC manifests itself in several settings. States, non-state actors, supranational organisations and MNCs work together and pool resources on specific issues that arise from an international regime (Hopkins & Meiches, 2012; Bullock & Trombley, 2005). Regime theory highlights both the ideological and operational aspects of the GDPIC. The marriage between these aspects can better our understanding of the relationship between power, ideas, interests, and identity in relation to policy formulation (Hopkins & Meiches, 2012). The global ICT landscape can be thought of as a regime[21] because it has norms, principles, procedures,

[21] The global ICT policy regime comprises three sets of rules. First, international law as laid down in the ITU Convention, which is reviewed every five years. Second, the regulations that are set down by

and patterns of behaviour that govern the sector (Braford, 2007; Haggard & Simmons, 1987; Hasenclever, Mayer & Rittberger, 2000). Regime theory appealed to this research because it comprises three different schools or traditions of thought (see section 3.4), which, as discussed, are defined by four variables: the central variable, the degree of institutionalism, the meta-theoretical orientation and the behavioural model. These schools of thought are liberalism/neo-liberalism, realism/Marxism, and cognitivism/post-modernism. This research leans toward all three schools of thought grouped under Regime theory (Hasenclever et al., 2000; Karlsen, 2017). The realist school of thought upholds power as a central tenet but is characterised by weak institutions with behavioural models that are based on relative gains. The neo-liberal tradition, on the other hand, makes interest its central tenet and is characterised by relatively stronger institutions. The behavioural model is founded on maximising absolute gains (Hasenclever et al., 2000; Karlsen, 2017). This research used Regime theory to explore the motivations of the GDPIC its impact on the formulation of digital policies in South Africa.

6.2.1. How influences of the GDPIC find their way into national digital policies

There is agreement among the respondents that the agenda-setting processes of the ITU, as an archetypal example of the GDPIC, not only consists of many contributors but is also multifaceted, complex and context-dependent. ACA2, for instance, identifies the operation of several smaller regimes within the GDPIC. The interactions that occur are dynamic and originate from either a top-down approach (see Figure 6.2) or a bottom-up approach (see Figure 6.3). All respondents further contend that the contributors are also varied and that providing a closed list of stakeholders is nearly impossible and quite impractical.[22] MNC: LP1 argues that governments (or capital-M Members) in principle set and own the global agenda; they decide which areas must be prioritised and studied.

administrative conferences that convene every few years. Third, the recommendations come from plenary assemblies, which are not legally binding but enjoy wide acceptance (Cowhey, 1990).

[22] The respondents listed the following dominant players: American, Chinese and European firms; ISOC, ICANN, ITU, WEF, WTO, ETSI, GSR, Commonwealth Telecommunications Organisations (CTO), WATRA, CRASA (SADC), EACO, ATU, AU, AC, Smart Africa Alliance, Cisco, global consultancy firms, global private sector with a local presence, public sector, civil society and the NGO space, International Standards Organization (ISO).

This is done through consensus. Small-m members (private sector, associate members and other stakeholders that do not qualify as states) often make technical contributions to agenda items.

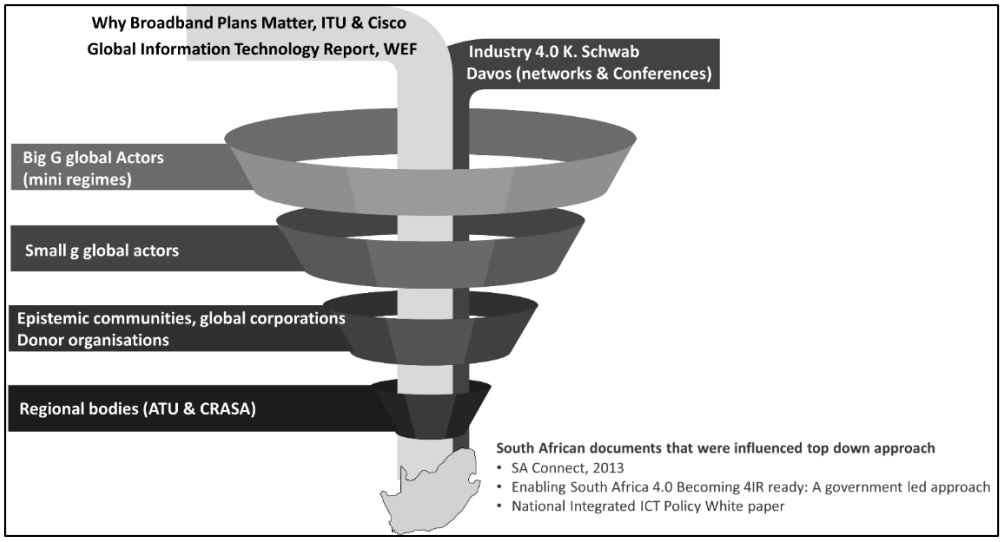
PM-RSA, MNC: LP1 and LSCF capture the complexity of the process through which policy agenda gets set for countries. According to PM-RSA, changes in demand for spectrum and the introduction of new technology drives the agenda at global gatherings like the WRCs. PM-RSA argues that the digital policy world differs from the United Nations system, where member states are key. Practically, the agenda will at most times be set by the owners of technology. They give the example of the ITU-T (the standardisation sector of the ITU) where owners of technologies (for example, Ericsson, Huawei and Qualcomm) set standards that suit their products, and the Member States adopt these standards. PM-RSA gives the example of cyber-security space, where governments play a prominent role in setting the standards and agenda to which the private sector is expected to conform. MNC: LP1 gives pause for reflection, stating that "whoever is doing R&D (research and development) should tell you who sets the agenda." This viewpoint is particularly instructive in that it provides a fascinating hue to the debate on who sets the agenda of the GDPIC. ACA1 adds that the global policy agenda setting cycle is a process that is heavily influenced by what is taking place in the industry.

PM-RSA point out that the ITU exists in a contested terrain where control of the sector is the subject of competition and markets. They provide another example to illustrate this contested terrain, stating that while the ITU-T coordinates standards for ICT technologies it is not the dominant player. One could argue that the ISO, which is dominated by the private sector, also sets the policy agenda. MNC: LP1, MNC: LP2 observes that the MNCs that often initiate agenda-setting activities tend to originate from the *states of the core*. SR-RSA states that what can be inferred from this is that the agenda is predominantly driven by the developed world because these corporations are headquartered in the developed world and export their innovations with the support and backing of their governments.

LSCF's view amounts to a middle ground of sorts, stating that determining who sets the global digital policy agenda depends on which part of the value chain one is

looking at. For example, if we look at infrastructure and spectrum[23], then typically the agenda is set by the private sector, governments and international organisations. However, if we look at issues relating to usage and uptake, civil society and academics typically play a significant role while the private sector observes to ensure that pricing is not affected. Cogburn (2004) adds another dimension to this, when he explains how global corporations function on multiple fronts to achieve their policy objectives. Sometimes it is even the case that a corporation will work in a venue or context that it does not actually support, but since it ultimately moves them closer to the desired policy objective, they form an unlikely alliance or make unexpected concessions. Figures 6.2, 6.3 and 6.4 partially illustrate how SA Connect (RSA, 2013) and Enabling South Africa 4.0 (Accenture & RSA, 2019) were influenced by the GDPIC.

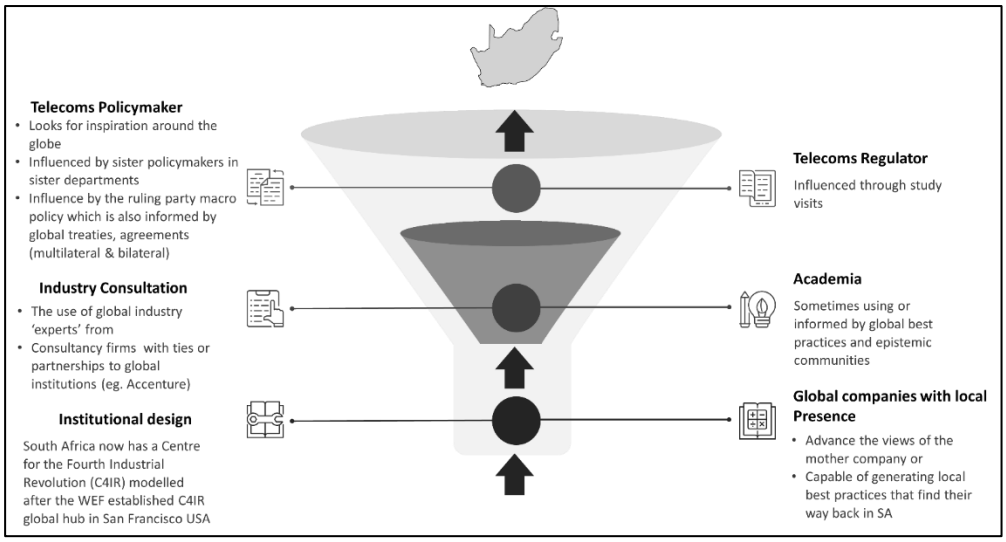
Figure 6.2: Top-down influences: How international influences find their way into national digital policies



Source: Researcher's compilation, 2020

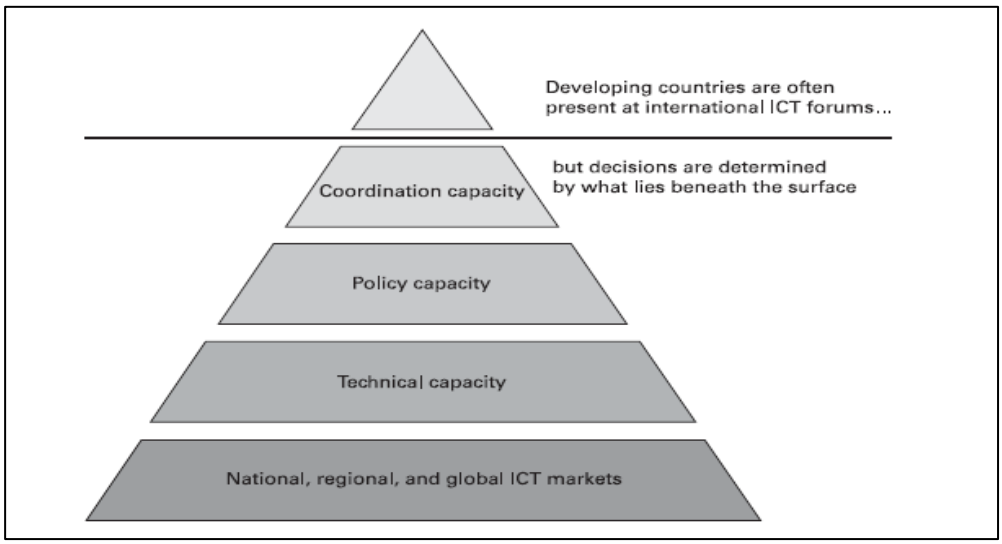
[23] Infrastructure and spectrum (which also appear under the supply-side considerations under SA Connect) are important modes of production, to use Marxist terms, that support the Telecommunications industry. The reality is that global corporations have the deep pockets to finance and invest in infrastructure build-out because they have economies of scale.

Figure 6.3: Bottom-up influence: How international influences find their way into national digital policies.



Source: Researcher's compilation, 2020

Figure 6.4: The bottom-up decision-making process



Source: Souter, 2008

6.3. Governmentality theory

The theory of Governmentality, a neologism credited to Foucault (1991), can be simply understood as a way of exploring how willing subjects are created (Chini, 2008; Murray Li, 2007; Foucault, 1991). Chini (2008) uses the theory of Governmentality to explain the process in which a supranational entity achieves subjectification by reducing the field of ICT to a 'governable domain.' This is frequently done by depoliticizing the issues around ICT policy and embedding it in bureaucratic processes and procedures so

that it begins to govern and shape the conduct of relevant policymakers. Policymakers unwittingly assert their status of a subject by acting in ways that please the GDPIC (Foucault, 1991; Chini, 2008). Foucault refers to this as the conduct (*sic*- regulation) of conducts (behaviours). The research applied Governmentality theory as an analytical lens to develop a better understanding of how policy is formulated at the GDPIC – who conducts and what are member states' conducts? This is a particular way of asking what shapes policy; how do the suggestions, recommendations and resolutions, advanced by the GDPIC inform policy and beliefs of the policymaker.

6.3.1. The operation of governmentality

One of the interview respondents, PM-RSA, made an interesting observation regarding the high degree of bureaucracy (by bureaucracy the respondent and this research means the established methods and practice of government (and by extension the policymaker) in developing and formulating policy) that characterizes most of South Africa's institutions. PM-RSA argued that being so bureaucratic internally is what makes the country so susceptible to external bureaucracies. This is a point that is frequently overlooked. From the apartheid regime, the ANC government inherited an extremely bureaucratic state. Governmentality, as a theory, provides four dimensions that add clarity to the views expressed by PM-RSA: (a) the institutional dimension that looks into organisational structures and the role of policymakers, (b) the 'regime of practice' dimension that looks at political culture as a feature of policy formulation and includes the procedures, instruments, techniques, vocabularies, and technologies that inform the actions of the policymaker, (c) the knowledge dimension that looks at the knowledge base of policy development and how it feeds into power relations; and finally, (d) the 'internalisation or formation of identities' dimension that looks at how policy elites normalise and internalise bureaucratic processes that influence their conduct and behaviour (Chini, 2008; also cited in Sairinen, 2000). PM-RSA's explanation is contained in dimensions (b), (c) and (d).

MNC: LP1 listed yet another example to illustrate Governmentality theory at work. The South African Electronic Communications Amendment Act (ECA) (RSA, 2005) is a legislative instrument in which we can detect the influence of the GDPIC. Consider the following excerpt and the portion underlined by the researcher for emphasis:

Amendment of section 30 of Act 36 of 2005

14. Section 30 of the principal Act is hereby amended by-

1. *(a)* the substitution in subsection (2) for the words preceding paragraph *(a)* of the following words: "In controlling, planning, administering, managing [and], licensing and assigning the use of the radio frequency spectrum, the Authority must- "

2. *(b)* by the substitution in subsection (2) for paragraph *(a)* of the following paragraph:

"*(a)* comply with the applicable standards and requirements of the ITU and its Radio Regulations [sic ITU-RRs] as agreed and adopted by the Republic, as well as with the national radio frequency plan contemplated in 15 section 34" (RSA, 2005).

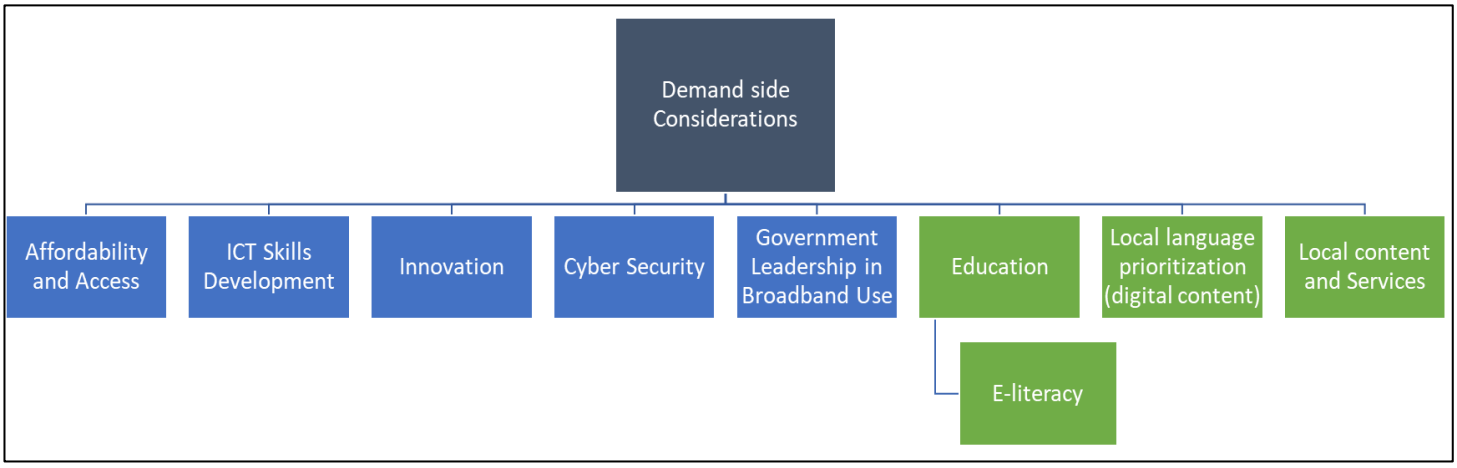
MNC: LP1 argues that the formulation of this particular provision in the ECA was to the detriment of South Africa and its societal and economic interests. It states that if it is not in the ITU-RRs, you cannot have it. Whilst legislative and policy certainty is important, this provision creates a dependence on ITU-RR, leaving no wiggle room to experiment or create. Consequently, the country has been unable to license the much-needed 3.5GHz, 26GHZ and 28GHz spectrum to the market. This development is occurring against a backdrop where other countries licensed spectrum not contained in the ITU-RRs.

6.3.2. How Governmentality shaped policy choices and national preferences: SA Connect

It is argued that SA Connect (RSA, 2013) took its cue from two international documents, namely the GITR (Garrity & Pepper, 2013) and *Why National Broadband Plans Matter* (ITU & Cisco, 2013).[24] The demand and supply-side considerations put forward by the ITU and WEF do not consider the possibility of differentiated approaches. Also, SA Connect (RSA, 2013) hides behind the broad strokes of demand and supply-side considerations without taking the opportunity to expand on the categories of considerations, as proposed in green by this research in Figures 6.5 and 6.6.

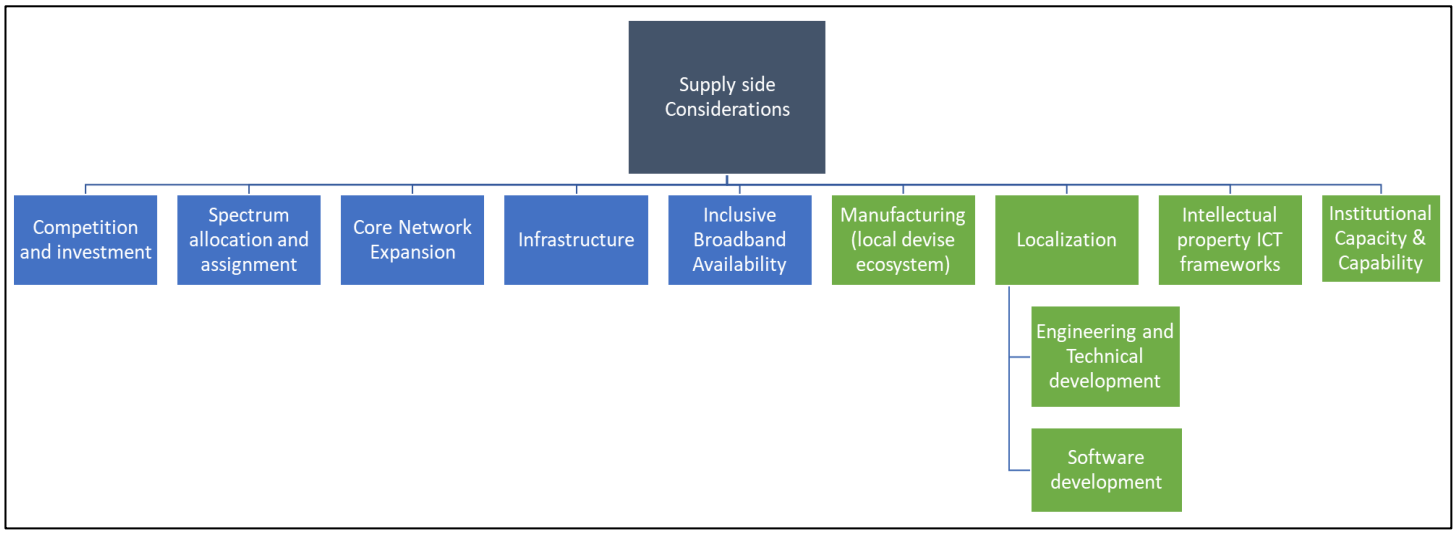
[24] *See* Chapter 1.3 of the WEF report dealing with the taxonomy of NBPs and what characterises a 'good' NBP (Garrity & Pepper, 2013; ITU & Cisco, 2013).

Figure 6.5: SA Connect demand-side taxonomy



Source: Researcher's compilation 2020.
Explanation: The WEF report prescribes a demand-side taxonomy (in blue), which is expected to unfold in a population that is largely educated and literate in the West. South Africa's adoption of the blue elements without the explicit inclusion of education, for example, is quite presumptive. Who will be the innovators and who will be the instructors of ICT Skills Development if one does not prioritize the need to produce graduates in science, technology, engineering and mathematics (STEM) who are e-literate?

Figure 6.6: SA Connect supply-side taxonomy



Source: Researcher's compilation 2020.
Explanation: Also, these supply-side considerations of the WEF assume that the items in blue constitute optimal and/or necessary artefacts to address the supply side considerations. It further presupposes that the inclusion of these items will bring about the same outcome, irrespective of context.

South Africa's policy choices were constrained because the policymaker chose to focus only on the blue areas 'prescribed' by the GDPIC. SA Connect (RSA, 2013) is a missed opportunity for preparing the country to export its capabilities, applications, devices and Intellectual Property Rights (IPR) to the GDPIC. SA Connect (RSA, 2013) assumes, for example, that innovation is self-executing without reflecting on IPRs. The

utility of a NBP is to enhance a country's global competitiveness. This largely depends on IPR, which connote the capacity to extend the reach of local business, but sadly this has been overlooked (Sum, 2003). In this way, it makes the country a consumer and not a contributor to the GDPIC. According to Dolowitz and Marsh (2000), the GDPIC is playing an ever-increasing role in the diffusion of ideas, programmes and institutions across the globe, a view that is supported by the majority of respondents in this research. International organisations are able to directly influence policymakers at the national level through policies and loan conditions, and indirectly through conferences and reports. The assumption that a successfully formulated policy can only fail because of improper or no implementation is a fallacy. It may very well be that SA Connect (RSA, 2013) failed not on the ground of failed policy implementation, as LCPF1, PR-RSA and SR-RSA contend, but on grounds identified by Dolowitz and Marsh (2000). Policy failure can occur on the grounds of (a*) uninformed transfer*, where the borrowing country does not have sufficient information about the policy (or policy framework- authors emphasis) and how it operates in the originating country; (b) *incomplete transfer*, where policy transfer has occurred but without due regard of the crucial elements that made the policy a success in the country of origin; and (c) *inappropriate transfer*, where insufficient attention was given to the economic, social, political and ideological differences that exist between the borrowing and originating countries (Dolowitz & Marsh, 2000). In the context of SA Connect (RSA, 2013), (b) took place; concerning Enabling South Africa 4.0 (Accenture & RSA, 2019), (a) and (c) took place. South Africa's NBP came at a time where, according to the United Nations Broadband Commission annual report of 2012, some 119 countries had a policy in place by mid-2012 (Ericsson, 2012). By 2014 140 countries had developed a NBP, strategy, project or policy to promote broadband. Around this time, the number of broadband plans in Africa gradually increased to reflect this reality (Ericsson 2014). It is also worth noting that SA Connect (RSA, 2013) envisioned the creation of a council that was subsequently constituted and convened under the name National Broadband Advisory Council (NBAC). The NBAC was made up of technical experts and representatives from the private sector, trade unions and civil society to advise the Minister on the implementation of SA Connect (RSA, 2013). Most notably, two members of the NBAC were drawn from the ITU and World Bank, which is significant, given the issue under discussion. When asked about the make-up of NBAC members, LSCF (who also participated in the drafting of SA Connect (RSA, 2013) and other subsequent policy documents) commented that typically the ITU and the World Bank

would not align themselves with processes or documents that are not aligned with their thinking. The trajectory of the ITU and World Bank at the time relied on the WEF report, The GITR (Garrity & Pepper, 2013), which offers a NBP taxonomy arguing that for a country to be categorised as having a comprehensive NBP or ICT plan, it should contain 9 out of 10 of the demand and supply considerations. This position appears to have then informed the formulation of SA Connect (RSA, 2013). LSCF explains that the chances that SA Connect (RSA, 2013) was influenced by the documents described above and discussed in Chapter Four are highly probable, considering that the NBAC had no more than a month to formulate SA Connect.

Indeed, SA Connect (RSA, 2013) was drafted urgently at the request of Minister Yunus Carrim who had some ideas he wanted to implement before the end of his tenure. Subsequent to this, a conference took place where international experts flew in to speak and provide a framework on what the South African NBP should look like. Not all the NBAC members were policy drafters. A large contingent of academics and research-oriented professionals made up the NBAC. According to LSCF, it stands to reason that the NBAC may have been influenced by the prevailing GDPIC frameworks of the time. Although locals were consulted and a public comment process was initiated, the ITU and WEF framework eventually informed the final version of SA Connect.

6.3.3. A pathology of global policy influences on SA Connect

This research asserts that any success that SA Connect (RSA, 2013) would have, depended on the relevance of the supply and demand-side policy measures. The impression that these measures are the only elements that an NBP should contain is misinformed. The manner in which the demand and supply-side considerations were articulated in SA Connect (RSA, 2013) come across as a matter of fact. A textual analysis of the vocabularies used in the documents betray the broad knowledge claims and ideas advanced by ITU, Cisco and WEF report that taxonomize NBPs. The reports loosely categorize four types of NBPs. A broad-based NBP contains at least 9 out of 10 of the supply and demand-side considerations articulated earlier; then there are supply-driven, demand-driven and emergent plans (Garrity & Pepper, 2013). The authors of the relevant chapter in the WEF report, Garrity and Pepper, state:

> "We then propose a taxonomy examining the degree of broadband supply- and demand-side emphasis. This taxonomy establishes a common language that can guide governments through the development of national broadband plans; it also can serve as a baseline for evaluating the factors of success for implemented plans." (Garrity & Pepper, 2013, p. xiv)

The knowledge claims and ideas that this statement advances, including the vocabularies it utilizes, sets up the WEF and the epistemic communities as experts in what constitutes NBPs. Furthermore, the majority of contributors to the GITR WEF report hail from multilateral institutions, intergovernmental institutions and corporations that are based in developed nations. Others may come from advocacy coalitions, policy networks and partnerships discussed in Chapters One and Two of this research. Through a Marxist lens, SR-RSA highlights that reports and position papers are usually written by those who own the technologies and the means of production. Again, one could argue that the NBP taxonomy is simply a policy model recommendation, but these policy recommendations are not entirely neutral. SR-RSA and MNC-LP1 argue that the production of the reports is imbued with interests because their end goal is to use policy to create markets, in which the technological developments and innovations of MNCs can flourish. Both respondents further assert that because South Africa is a user of technology and not a developer, it may find itself in the undesirable position of following the supposed best practices without reflecting on them.

6.4. Manufacturing Consent through 4IR Discourse

This section of the research begins by introducing the iconoclastic propaganda model, *Manufacturing Consent*, as conceptualised by Chomsky and Herman (1988), which illustrates how mass media has been used to manipulate foreign affairs and to mobilize support for special interests (Chomsky & Herman, 1988; see also Bennett, 1989). The theory of Manufacturing Consent encapsulates two elements that contribute to the reinforcement of an institutional framework where these interests are served by maintaining an inequitable *status quo* that favours the more powerful and influential through deliberate intent and ideology (Chomsky & Herman, 1989; Klaehn, 2002). These political and private elites (or in this case the GDPIC) then set the agenda and direction of discourse that media corporations (or in this case the policymaker) at the lower levels

(or in this case the national level) to emulate, and in this way cultural and institutional supremacy (of the GDPIC) is established (Klaehn, 2002). This research applied Manufacturing Consent theory to inquire how the GDPIC mobilized the concept of the 4IR to secure support and private interests of the GDPIC for the sake of capitalist economic expansion. The matrix of contingent concepts that become relevant here includes technological determinism, institutional architecture, policy determinism, and policy colonialism. The dissemination of Western digital policy discourse and the 4IR concept, in particular, operated as ideological constructs behind the ideological choices and dominant ideas in the framing document Enabling South Africa 4.0 (Accenture & RSA, 2019).

WEF's 'manufacturing of consent' for the adoption and use of the term 4IR is arguably one of the most successful policy lobbying and influence-peddling instruments in contemporary history, considering the speed and ubiquity with which it took root and how it has become part and parcel of the everyday vocabularies and lexicon of many polities and policies (Gillwald, 2019a). According to Gillwald (2019a), the fact that the concept of 4IR has emerged from a developed economy context potentially means that the policy and corresponding legislative responses do not square with what is in the interest of the South African people and the country's developmental imperatives. In not so many words, Gillwald (2019b) opines that the framework prepared at the behest of the DCDT may just as well represent the interests of global lobby groups, industry associations and private foundations. Furthermore, it is Gillwald's (2019b) view that the 4IR models presented and designed by WEF partner consulting firms such as Accenture (which also contributed to the drafting of the discussion document Enabling South Africa 4.0 (Accenture & RSA, 2019), are based on assumptions that do not apply to developing states. The economic growth and job creation opportunities promised by Enabling South Africa 4.0 (Accenture & RSA, 2019) may not materialise for this very reason. PM-RSA maintains that some developed nations used 4IR- ideology through multilateral institutions to drive home an economic and political advantage that further entrenches their position in the GDPIC. Other respondents also observed that the term received a lot of airtime in the media and quickly became a pivotal catchphrase. The South African government used it as a galvanising instrument for most of its policy initiatives and events. International consultancies, multinationals and governments, the development banks, regional and economic commissions and international industry conferences, to

mention but a few, all employed the term in various documents and platforms (Gastrow, 2019a; Levin, 2018; Shivdasani, 2019). In March of 2017, the WEF established the Centre for the Fourth Industrial Revolution (C4IR), headquartered in San Francisco. It established the centre as a hub for global technology governance and to develop policy frameworks that can be applied at national and regional levels. Currently, the C4IR network has established affiliate centres in Japan and China with possible expansion (at the time of writing) to Colombia, Israel and the United Arab Emirates. Through the Department of Science and Technology (DST), the South African government also intends to establish a similar centre affiliated with the WEF. This development speaks to both the governmentality and manufacturing consent paradigms. The governmentality aspect is confirmed by South Africa's adoption of the WEF's strategic direction and its supra-national efforts. Chini describes this phenomenon as an example where "the international momentum to create ICT policy is being acted upon in the case of a state which has experienced late modernity, has a limited technological tradition, and has historically been a late adopter of technology," (Chini, 2008, p.46). The usefulness of the Governmentality theory lies in how the WEF has shaped the conduct of the DST and how the former makes itself a subject of the latter by reinforcing institutional arrangements and subjecting itself to the systems of practice that the C4IR and WEF have put in place. This system of practice and its accompanying ideological influences potentially supplant policies that are truly a product of national debate, reflection, and determination.

6.4.1. How 4IR shaped ideological choices and dominant ideas

In response to the Presidential Commission on the 4IR, Gastrow (2019) describes 4IR[25] as a discourse, ideology, praxis and heuristic that largely serves the interests of the private sector and influential states. The DTPS (subsequently renamed the DCDT)

[25] 4IR is not a theory, but rather a heuristic that can be explained in four different ways. Firstly, it has an approach to problem-solving that employs methods that might not necessarily be optimal, perfect or rational, but are sufficient for the purpose of reaching an immediate goal (Gastrow, 2019). Secondly, it can be explained as an ideology that reveals the ideas and the self-interests of a particular group, in this instance the GDPIC (Gastrow, 2019; Bullock & Trombley, 2000). Thirdly, it could be viewed as a discourse that privileges one group at the expense of another; like all discourse, it is the product of linguistic, cognitive, social, cultural and political contexts that find their way into literal text and subtext. (Bullock & Trombley, 2000; van Dijk, 2011; Ariel, 2009) Finally, it can also be defined as a praxis of engaging, applying, exercising, realizing, or implementing ideas (Gastrow, 2019).

framing report Enabling South Africa 4.0 (Accenture & RSA, 2019) was prepared by Accenture, a multinational consulting firm that has a global partnership with the WEF on consultancy projects related to the 4IR (Gillwald, 2019a). The predictions and scenarios presented in the Enabling South Africa 4.0 (Accenture & RSA, 2019) 4IR framework are in principle based on the characteristics of advanced economies. Sutherland (2019) describes 4IR as a device used by those attempting to create "particular economic and commercial futures." He further argues that the 4IR debates have been shaped by manufacturers and the WEF to persuade a country like South Africa to change its policies in support of the development of 4IR technologies, which are not homegrown. Sutherland (2019) further contends that the 4IR is a neoliberal effort of the elite that potentially destroys jobs, depresses wages, and increases inequality in a country that already ranks high in the inequality indexes[26].

As WEF-inspired 4IR strategies like Enabling South Africa 4.0 (Accenture & RSA, 2019) begin to take hold in South Africa, the HSRC, SA-EU Partnership and the DST leave much to be desired. Without the requisite indigenous knowledge systems that relate to policy and legislation, this could potentially lead to policy outcomes that are not in sync with local interests and realities. Gastrow (2019) goes on to explain why it is not enough for South Africa to diffuse, duplicate and replicate policies; instead, the focus should be on differentiating itself. To achieve this, the policymaker would have to function like a funnel through which information is gathered via consultation and research. From this information, a policy or a set of policies should then be extracted to best serve local interests. Mapadimeng (2019) argues that 4IR is a 'disabling and deceptive discourse' with a fatal attraction that distracts politicians from the real policy issues the country should be looking into, such as digital migration, spectrum licensing and even stabilizing the country's electricity supply.

The literature identifies four basic types of policy transfer. The first of these is *copying* which involves direct or complete transfer of content; second is *emulation* which involves the transfer of ideas that inform the creation of a policy or programme; the third involves *mixing several different policies*; and finally, *inspiration*, which pertains to policy

[26] See the GINI index. According to World Bank estimates, South Africa registers as having one the highest inequalities globally.

developments taking place in one jurisdiction and inspiring policy change in another (Dolowitz & Marsh, 2000). Of these four policy transfer types, politicians usually prefer the so-called easy options – copying and emulating. Bureaucrats, on the other hand, maybe more intrigued by the third and fourth options. Enabling South Africa 4.0 (Accenture & RSA, 2019) is inspired by options one, two and three. This demonstrates that the type of policy transfer is informed by the kinds of stakeholders involved in the process. Where in the policymaking process these policy transfers occur are also important considerations (Dolowitz & Marsh, 2000). The call by Gillwald (2019a) for the country to develop homegrown responses to the new technological wave of change is instructive in this regard. Gillwald (2019a) cautions that, just on a superficial examination, previous revolutions did not unfold, nor did their subsequent production processes operate, in the interests of the working class (or developing nations for that matter). Gillwald seems to support the Marxist standpoint that, much like earlier revolutions, the 4IR is an intricate plot to revive capitalism, using technological advancements. Mapadimeng (2019), who supports this view, also notes the 4IR is part of an elaborate 'hegemonic' project or social order that supports industrial capitalism and that 4IR is more of an evolution of capitalism to sustain itself and to expand into new markets. Using Marxism as a theoretical lens, he further argues that the evolution of capitalism has been characterized by different instruments or modes of production that have moved from mechanization to automation and robotics, and that the latter two have become more pronounced in the ostensible 4IR era.

6.5. Conclusion

This research disagrees with the findings of Kunyenje and Chigona (2019) who conclude that the notion of country context does not have an "effect on policy formulation." Implicit in their conclusions is that developing nations cannot do without the influences of external actors when it comes to the formulation of their ICT policies. Such a conclusion is surprising, given earlier observations in their text, where the authors state, "the paper has validated how local actors are dominated by influences of external actors," or "As such governments, policymakers and implementers should identify ways of managing the external actors during the different categories of influences," (Kunyenje & Chigona, 2019, p.21). The research challenges the generalised profiling of developing

nations as needing external intervention, in whatever form it may come. Metfula (2013) supports the view advanced by this research that ICT policies that are deficient in matching and addressing the local context and needs are less likely to achieve their objectives than those that articulate and reflect local realities.

The GDPIC has played a pronounced role in the rise of national digital policies in Africa. The issue with GDPIC- derived interventions is that, rather than seeking to understand what impact they will have on recipient nation-states, they typically have as their focus the formulation and implementation of ICT projects that invariably involve the sale of telecommunications equipment and digital technologies manufactured in developed nations (Ashraf, Swatman & Hanisch, 2007). It is further submitted that the one-country-one-vote principle that GDPIC processes adhere to does not automatically neutralize the global asymmetries of power and influence, as some would argue. Several scholars agree about the lack of critical examination of the widespread role and influence of external actors. Their role has not been problematised enough to understand the extent to which it is neutral or not. Several scholars (Chiumbu, 2008; Kunyenje & Chigona, 2017; and Kendall et al., 2006) have called for further studies to be conducted on the impact and influence the GDPIC may have on digital policies formulated in the developing country context. It is imperative to ascertain the material interests of external actors in the development of national digital policies in South Africa and other parts of the developing world.

The way in which the content of SA Connect (RSA, 2013) is structured reveals its leanings toward the WEF report. The policy options that are presented in the supply and demand side categorizations are evident in SA Connect (RSA, 2013). Also, the policy considerations in the WEF 2013 report present a definitive archetypal closed list. Take for example, the development of local content and applications in local languages. To simply assume that these fall in any of the categories in the supply and demand-side model would be doing the South African people a disservice. A clear and identifiable supply-side consideration like the examples given goes a long way to focusing energies rather than just capturing them in broad strokes and aspirations. In designing its NBP, South Africa appears to have just ‘selected what was on the menu’ while ‘trying to do it all’, in a manner of speaking. National competitiveness, one of the other reasons an NBP is created, can still be achieved by having a different set of supply and demand-side

measures. Further, the drafters of SA Connect (RSA, 2013) failed to reflect and interrogate the demands of the sector, economy and society by devising a different taxonomy or adding different taxonomy categories as this research has proposed in Figures 6.4 and 6.5.

According to LSCF, SA Connect (RSA, 2013) stands in direct contrast to the National Integrated ICT Policy White Paper, 2016. They argue that the latter document, is a ground-breaking document that attempts to solve specific South African issues while drawing from a few outside examples. Which this research is in agreement with. LSCF also provides some clarity on how the policymaker in South Africa engages with policy recommendations from outside stakeholders. It appears that using the recommendations as evidence to guide policy formation has been the established practice. The caveat is that whilst a policy recommendation is useful, it is not always the case that it should be applied. LSCF concludes that, to South Africa's credit, the country is quite advanced in implementing different generations of policies compared to other countries on the continent. MNC: LP1 and MNC2-ACA3 add the important point that not all policy recommendations are nefarious or result in negative outcomes, nor do they all originate outside of the country. MNC: LP1 gives the example of a local subsidiary of a global firm that may contribute to a policy study through the policy networks to which the global firm belongs to, for example, the Global mobile Suppliers Association (GSA). This policy suggestion then finds its way back to the local context under the presumption that it originates elsewhere when, in fact, it does not. This thinking challenges the narrative that policy influences from the global context are automatically out of sync with the local context and interests. LSCF reflects that the extent to which the GDPIC can influence policy formulation in South Africa depends on several things; (a) the personal idiosyncrasies of the drafter of the policy, (b) what their empirical and experiential reference points are, and (c) where they draw direction and inspiration from. According to MNC: LP1, the policy formulation landscape in Africa is largely uncharted territory to the extent that, at the individual level, policymakers create their own practice and style of interacting and engaging with external actors.

In applying Regime theory different schools or traditions of thought were examined, considered and ultimately informed the research. Namely (a) the neo-liberal tradition which posits that regime actors are motivated by self-interests; (b) the realist or Marxist

school which views power as a central feature or tenet in the formation and preservation of regimes. Typically, two kinds of power are employed. On the one hand, soft power is usually suggestive or persuasive and hard power, which is usually coercive. The power that predominantly operates in the GDPIC was soft power but hard power also plays itself out and is not entirely absent; (c)) finally, the third tradition post-modernism focuses on the creation of cognitive frameworks, that inform the acquisition of knowledge, understanding, thinking and perception (the research used the theories of Governmentality and Manufacturing Consent to expand on this area where regime theory fell short and to provide some complementarity in some instances). The research used the Regime theory to locate how the different external actors operate in the GDPIC and why they operate the way they do by looking at the motivations, material interests and institutional arrangements of the GDPIC. The shortcoming of the theory was that it only explained what happens in a top-down approach and little on what happens at the national level and also it does not explain how the GDPIC achieves acceptance of its preferences and ideas.

To remedy this shortcoming, the research introduced Governmentality and Manufacturing Consent theories. The research used Governmentality to account for the actions of the South African policymaker and how their conduct, behaviour and rationalizing capacity is shaped such that they accept the policy recommendations and ideas of the GDPIC before the country's preferences and choices. Moreover, as earlier articulated one of the reasons that Governmentality was applied is because a high degree of bureaucracy characterizes most of South Africa's government institutions and it precisely this internal bureaucracy that makes the country susceptible to external bureaucracies of the GDPIC. As earlier aforementioned bureaucracy in the research comes to mean government's established methods and practices in developing and formulating policy. Second, Governmentality was also applied because it operates in four dimensions the (a) institutional dimension; (b) the regime of practices (here the research examined a particular culture in policy formulation discourse- copying, pasting, diffusion, borrowing etc); (c) the knowledge dimension which is an enquiry into the knowledge base of policy development and how it feeds into power relations and (d) finally the internalization dimension that looks at how policy elites normalize and how policymakers internalize certain bureaucratic processes.

Regime theory did not explain what the ‘glue’ that held it together was and how the preferences and interests of the GDPIC find their way into national digital policies. Also, Governmentality theory did not explain the mechanisms through which the policymakers conduct, behaviours, and rationalizing capacity is shaped. Therefore, Manufacturing Consent theory was the bridging the gap. Manufacturing Consent theory in its original application argues that political and private elites (*or in this case the GDPIC*) set the agenda and direction of the discourse that media corporations (*or in this case the policymaker*) at the lower levels (*or in this case the national levels) to emulate*, such that they begin to establish the bureaucratic and institutional supremacy of the GDPIC, which is normalized using several influencing instruments such as:

a) bureaucratic processes (briefly illustrated by Section 30 of the ECA)
b) ideas,
c) material resources,
d) digital policy discourses (illustrated by taxonomy offered up for national broadband plans/strategies/policies),
e) ideologies (illustrated by the operation of 4IR discourse),
f) policy positions,
g) conferences to secure support for the interests of the GPIC.

Chapter Seven – Conclusion and Recommendations: Mind the Gap

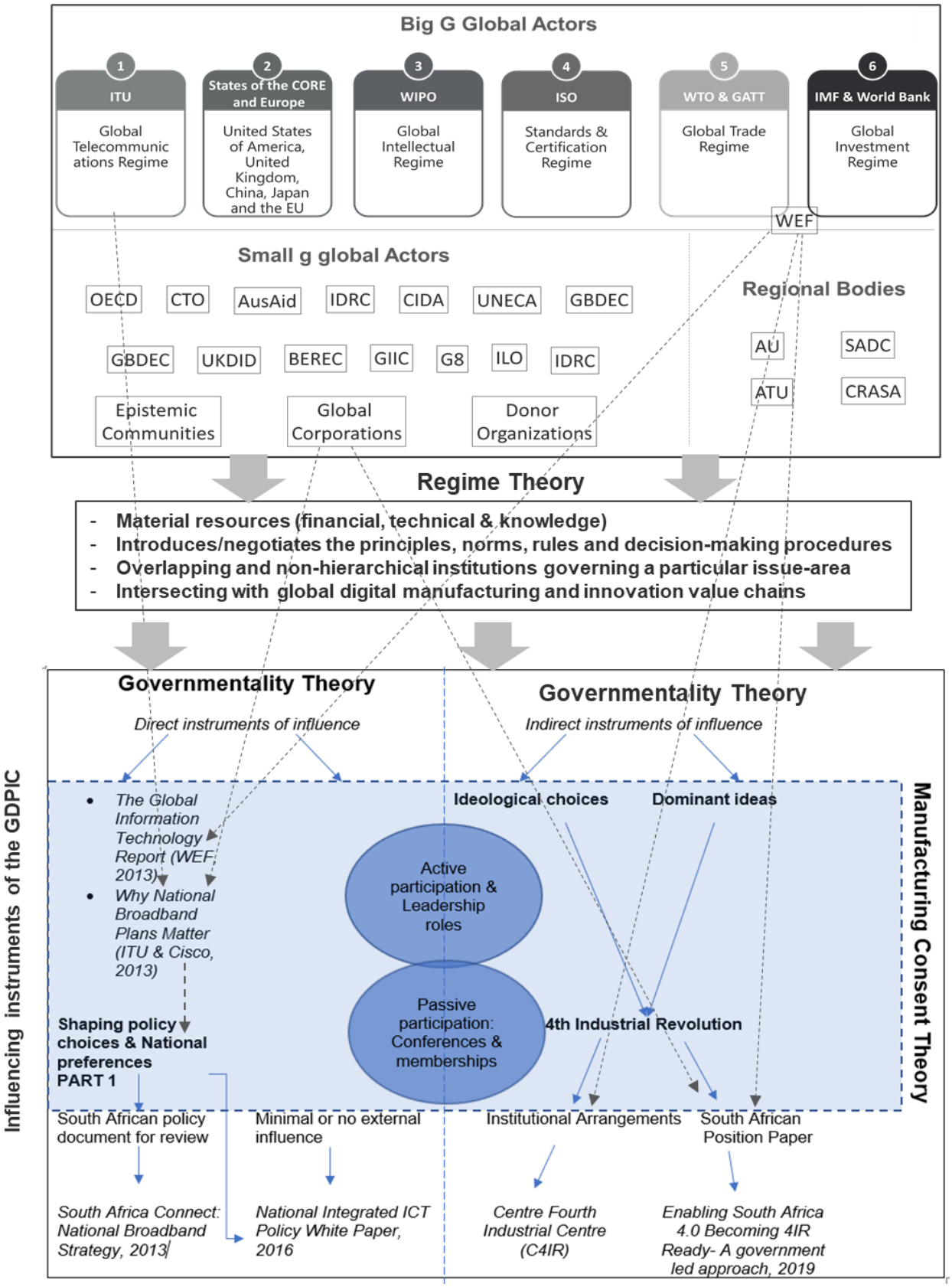
"…ideas from external actors are not simply imposed on African policymakers, rather the transfer of these ideas and the appropriation of them by domestic elites takes place in a complex process of hegemony, where through reports, policy advice and argumentation, certain values and ideas become comparatively fixed and appear as natural. Therefore, policy narratives from external actors, supported by material resources, become difficult to contest" (Chiumbu, 2008, p. 188)

7.1. Summary of the main findings

Using South Africa as a case study, this research sought to critically assess the influence of the GDPIC on the formulation of national digital policies. To evaluate the influences, the research studied policy and discussion documents, reports, alliances, networks, how ideologies operate and become supplanted. The research also examined the relationships that exist between entities that make up the GDPIC. The research uncovered that the global demands of the GDPIC, and its respective regimes, have influenced South Africa's national digital policies and discussion documents.

Figure 7.1 summarises the main results, trends, patterns and connections that have emerged from examining the literature and the responses from the interviewees. Broadly, the diagram illustrates how both direct and indirect, instruments have influenced the formulation of SA Connect (RSA, 2013) and Enabling South Africa 4.0 (Accenture & RSA, 2019). This research also provided textual evidence of influence in the policy documents and Section 30 of the ECA. The GDPIC thus ultimately benefits from the global production networks and global value chains that operate in the interest of developed nations and further reinforces their global economic dominance. The research examined these influences through the theoretical lenses known as Regime theory, Governmentality theory and Manufacturing Consent theory.

Figure 7.1: Intersection of theory and policy influencing instruments



Source: Researcher's compilation, 2020.

7.2. To what extent are South Africa's digital policies rooted in or removed from the GDPIC context?

Of the two policy documents that were examined and the one discussion paper it was found that South Africa's NBP and the 4IR discussion paper were very much rooted in the GDPIC. This research further concluded that the global harmonisation of digital policies, guidelines, institutional arrangements, product standards, practices and frameworks advocated by the GDPIC to facilitate economies of scale do not necessarily operate for the benefit of a developing country like South Africa. In its quest to access new markets in developing nations, the GDPIC practices a brand of policy harmonisation, technological harmonization, technological neutrality that operates as a tool to facilitate the market entry of technological goods and services produced by technology giants from developed nations. And it is in this way that a country like South Africa adopts policy positions that may be at odds with the local context.

What was discovered in the research was that there are a myriad of ways in which influences from the GDPIC find their way into South African policies. Also, there are several smaller regimes that operate under the broader GDPIC universe. Two examples where explored as to how the influences of the GDPIC find their way into South Africa's policy formulation processes. According to Dolowitz and Marsh (2000), the GDPIC is playing an ever-increasing role in the diffusion of ideas, programmes and institutions across the globe. International organisations are also able to directly influence policymakers at the national level through policies and loan conditions, and indirectly through conferences and reports. The research explored the how ideological constructs like 4IR, national broadband plan taxonomies and conferences like the World RadioCommunications, Plenipotentiary Conferences are used as tools to achieve this end. Since 2013 there have been noticeable policy developments, initiatives, and programmes aimed at promoting greater diffusion of broadband and digital technologies, which have been described as integral components to a country's ambition to accelerate social and economic growth and opportunities. And under the pretext of ensuring global policy harmonisation, the creation of national policies like NBPs it was argued do not improve the competitiveness of a developing nation like South Africa, nor does it facilitate the movement of locally produced technologies and products to the global market. Part

of the reason that developed nations perform exceptionally well in global digital performance indices is not because they have developed policy documents (for the sake of having a policy), but they have developed policies that deal with the connection between their domestic needs and their foreign economic policy objectives. Secondly, they have articulated and elevated their policies to the global stage. A well-known example of this is the 'Digital 2 Dozen' intervention conceptualised by the United States government.

7.3. In the analysis of the data what have we learnt about the GDPIC in SA?

Through the use of various assets, the GDPIC has influenced the decisions and behaviours of the South African policymaker. And has achieved this in the following ways.

Regime theory is suited for understanding the role that ideology and ideas had on the policy formulation project Enabling South Africa 4.0 (Accenture & RSA, 2019). The research illustrated how 4IR operates as an ideological tool in the creation and maintenance of the GDPIC. This is because global regimes depend, among other things, on ideological commitment to sustain themselves.

Governmentality theory is helpful in analysing how the rationalising effect of WEF, ITU & Cisco reports play a role in the policy formulation process. To demonstrate the operation of Governmentality the research also looked at the SA Connect (RSA, 2013), with a brief discussion of the ECA (RSA, 2005). This area of research was an inquiry into the techniques used by the GDPIC to shape the conduct, behaviour, and rationalising in such way that the policymaker accepts the policy recommendations and ideas of the GDPIC before considering its own national preferences and choices.

Manufacturing Consent theory in this research has been the link that connects Regime and Governmentality theories. In simplified terms, the GDPIC regime manufactures acceptance of its systems of practice through several ways; for example, reinforcing institutional arrangements and designs congruent with developed nations and their agenda. The WEF, for instance, persuaded the DST to establish a C4IR. In this way

the South African government positioned itself as an agent of the GDPIC (through Governmentality) via the 4IR discourse.

In addition to the Governmentality, Regime and Manufacturing Consent theories, future research could potentially apply contributions by French post-structuralist, Jacques Derrida. According to Koch (1998), the utility of Derrida's deconstructive methodology rests in its ability to illustrate the ideological content in global or dominant discourses that may influence public policy. In any case, Regime theory and Manufacturing Consent theory were not previously discussed by any of the scholars reviewed in Table 2.1.

This range of mutually supportive assets set the parameters of discursive arenas, discussion, and ultimately decision-making at the national level. A logical conclusion of this research is to call for deeper and more explicit examination of the role that external actors play and what their motivations are. As illustrated in Figure 1.2 multiple regimes make up the GDPIC that intersect and reinforce each other. The GDPIC, its associated agendas, ideas, discourses, material resources and regimes do not exist in a vacuum. As a whole, it reflects the power, interests, ideologies, values, political philosophies, policy preferences and, to some degree, personal attitudes of the different stakeholders or policy elites that engage in the policy formulation processes at the national, regional and global level. A country that is simply in attendance and makes no meaningful contribution to decisions or which lacks the capacity to participate effectively in governance and policy processes, can neither shape nor influence substantive outcomes at home or abroad (MacLean, 2008). When such a country has not formulated a position on the issues, it subjects itself to something tantamount to *policy colonialism* or *policy imperialism* and becomes prone to promoting policies that do not fit the local context. Furthermore, it appears that South Africa has done very little to exploit or leverage its membership in the Brazil, Russia, India, China, South Africa (BRICS) economic bloc. It would be productive to learn from the digital policies that Brazil, China and India formulated and implemented, their policy development cycles, the institutional arrangements and discourses that inform their respective national digital policies, and the role those external actors play in their formulation.

7.4. Conclusion and recommendations: How should the South African policymaker relate with external actors?

The policymaker should be mindful that the GDPIC is characterised by a hierarchy of powerful external actors who wield considerable influence over policy formulation. Their power is maintained through complex networks. The GDPIC is able to exert its influence in several ways, but, naturally, its overall goal is to create long-term economic and strategic advantages for itself. The policymaker should not think of the GDPIC as a neutral space or technocratic formality and run the risk of underestimating the reach and material resources of the GDPIC. Instead, the policymaker should be attentive to the power imbalances, both perceived and real, that potentially exist between local and external policy actors. The wholesale adoption of external ideas without critically appraising their suitability to national goals and priorities must be guarded against. At the same time, the development of appropriate policy responses should not only regard local development issues. In summary, the South African policymaker should focus on:

a) where and from whom does a particular idea or recommendation come.
b) what are the academic traditions, political systems and economic systems that inform these ideas and recommendations?
c) how can it develop policy that is not only inward-looking but has as one of its end goals the development of the local industry to enter global markets?
d) how can it use international conferences and conference participation as a means to share perspectives from the developing world?
e) how can South Africa more effectively leverage its membership (and role as founder) of the Bretton Woods institutions? Specifically, how can it challenge the prevailing policy formulation discourse?

As previously elaborated (and quoting Castells, (2005)), policy does not shape society, rather society shapes policy according to its needs, values, and interests, and as such, the South African policymaker should develop its digital policies with towards South Africa's interests.

7.5. Future research

Whilst the research specifically limited itself to South Africa; it would be helpful to look at developments in other countries, for example, Kenya, Nigeria and Rwanda for comparison, using the same kind of policy instruments that were examined in this research. Such a comparative study would also, be complemented by a wider pool of interviewees from these countries, those who have participated regularly in national and international forums where policy formulation, options, engagement, recommendations are discussed, canvassed, examined and acted upon. Equally relevant would be further study of the policymaking process within South Africa and the roles and internal processes of the ANC in particular. What is the capacity of all these institutions to engage with continental or global actors?

The scope of this research was not able to fully expose the ideological character of the GDPIC and how it is reproduced at the national level. Neither was it equipped to investigate the treaty ratification process. It would be of great interest to look further into how a country like South Africa ratifies treaties and protocols that originate from global regimes. The theoretical frameworks that were applied in this research project could be applied equally to a study of the impact of treaty ratification on national digital policy formulation. Future research might also critique or apply Neo-Gramscian theory or Bourdieu's Theory of Practice and Policy Transfer.

It would also be useful to examine how business models and market structures influence the development or re-development of policy to support technology. How do technological innovations, in turn, influence the market and promote policy reform or policy introduction? In this way, the discussions around the nexus between technology, markets and policy become relevant.

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Annexure A: Interview respondent information sheet

Dear Prospective Participant,

My name is Ade Ed Camngca, Student No. 544365, a student at the University of the Witwatersrand (Master of Arts in the field of ICT Policy and Regulation (MA ICTPR). As part of my studies, I am conducting research on **Critically assessing the influence of the global digital policy industrial complex on the formulation of national digital policies: A South African perspective**

I hereby invite you to participate in the interviews for this study. Your inputs will be valuable in mapping the data relevant to understanding how is it that the influences of the global digital governance regime shape the formulation and implementation of South Africa's ICT/digital policies. The responses you provide will be used exclusively for the purposes of the research report, and for related scholarly publishing and capacity building. I therefore request your permission to audio record this 45-60-minute interview, and possibly consult with you in future should I need to clarify any issues.

Anonymity and confidentiality
Your words, input and personal details will be kept anonymous by utilising a naming convention rather than your actual name or other identifiers, unless you expressly require that your name or position be published. Confidentiality will be observed with respect to any matters discussed in the interview that you do not wish to be reported. The data will be stored in a password protected computer.

Research ethics
Participation is entirely voluntary. Should you wish to withdraw from the interview at any time during or after, you are free to do so without giving reasons and any responses provided will not be reported. There is no individual benefit from this research, only public benefit to the policy and regulatory community. Should you have any concerns about this research, please do not hesitate to contact my supervisors, Dr Stanley Shanapinda and Mr Thabiso Thukani at the LINK Centre, University of Witwatersrand.

Background
Using South Africa as a case-study, the research seeks to explore and critically appraise the extent to which ICT/digital policies are insulated from or influenced by external influences. The paper brings into the spotlight the interplay between international ICT institutions, epistemic communities, developed and developing nations, technology drivers, the composition of the relationships between these structures, the relationships and alliances that exist between them and the bureaucracies in these networks and institutions that may have an effect on South Africa's policy making processes.

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Annexure B: Interview respondent consent form

I hereby agree to participate in the research study title: **Critically assessing the influence of the global digital policy industrial complex on the formulation of national digital policies: A South African perspective**

I will participate in a recorded interview of approximately one hour in length, in which I will give my views on the influence of the global digital governance policy regime on national ICT/digital policies.The research has been explained to me and I understand the study. I have been informed of (i) the names and affiliations of the researcher; (ii) the purpose, content, objectives and potential benefits of the study; (iii) the fact that the content of my responses may be reported, anonymously, in the study's published outputs (e.g., conference paper, research report, journal article, book chapter); (iv) the study's procedures for storage and use of the data collected from the interview in a manner that ensures anonymity and confidentiality of the data; and (v) the steps I can take if I have questions or concerns or feel that I have been harmed by the research. I understand that this is a research project whose purpose is not to benefit me personally.

	Please intial box
1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.	☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason.	☐
3. I understand that the researcher will not identify me by name in any publications using information obtained from this interview and that any views I express will remain confidential where such confidentiality is required; **or**	☐
4. I understand that my name will not be explicitly stated in the reporting of data and that any views I express will remain confidential where such confidentiality is required.	☐
5. I agree to a 45-60 minutes interview being audio recorded. I may be contacted post the interview for clarification on any points I made.	☐
6. I agree to the use of anonymised quotes in any publications	☐
7. I agree that data gathered from me in this study may be stored (after it has been anonymised) and may be used for future research	☐

Name of Resarch Participant	Date	Signature
_____	_____	_____

Annexure C: Ethics clearance certificate

SCHOOL OF Literature, Language and Media RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: SLLM/M19/02**
PROJECT TITLE	Critically assessing the influence of the global digital policy regime in the formulation of national ICT/digital policies: A South African perspective
INVESTIGATOR	**ADE ED CAMNGCA**
SCHOOL/DEPARTMENT	SLLM/ LINK Centre
DATE CONSIDERED	25 August 2019
DECISION OF THE COMMITTEE	Approved

This ethical clearance is valid for 1 year and may be renewed upon application.

EXPIRY DATE December 2020

ISSUE DATE OF CERTIFICATE August 2019 **CHAIRPERSON**

cc: Supervisor(s) : Dr Stanley Shanapinda and Mr Thabiso Thukani

S Shanapinda

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

Signature **Date** 03.09.2019

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES