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A Critical Discourse of the ICT Strategies of the Center for Innovation, Provincial Government of the Western Cape

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Abstract: There is much political discourse concerning the role of information and communication technologies (ICTs) in supporting the achievement of development goals. Amidst the discourse about ICT for development there is, however, a recurrent theme of technological determinism, which is shown to be a cause of the high failure rate of ICT for development projects. Based on the approach of Cukier et al [4, 5] to operationalising Habermas' validity claims to assess communicative rationality, we conducted a critical discourse analysis of five strategic documents of the Centre for e-Innovation (CeI), Provincial Government of the Western Cape, South Africa to determine whether or not these are distorted, e.g. through claims of technological determinism. The study found a large number of distortions in the discourse. Suggestions are provided for how to create less distorted strategies, which more closely resemble Habermas' ideal speech situation.

Keywords: e-Strategies, Critical discourse analysis, development, South Africa

1. Introduction

The concept of "development" has been on the international agenda for at least the last sixty years, with many changing views and ideologies as to how to achieve socioeconomic prosperity in all countries. In the last two decades, information and communication technologies (ICTs) have become an important aspect of the modern era. There is much political and practical discourse around the role and usage of ICTs in support of achieving development goals. The pinnacle of this emergent field, known as ICT for development, was the United Nations (UN)-convened World Summit on the Information Society (WSIS): its resultant declarations and plans make causal connections between ICTs and development.

Amidst the ICT for development discourse there is, however, a recurrent theme of technological determinism, which posits that the most effective way to harness the developmental potential of ICTs is simply through providing access to them. Further, "governmental, political and technological attempts that focus almost exclusively on providing access to digital communication technologies … expect 'development' naturally to flow from that" [24]. A limited body of empirical research has exposed as false the technologically deterministic assumption that access to ICT will "leapfrog" traditional development problems [30]. This technocentric approach is shown to be a cause of the high failure rate of ICT for development projects.

While technology is an increasingly important and pervasive tool for socio-economic development, the causal relationship between ICTs and development needs to be empirically researched in much greater detail. The existing research shows that the success of ICT adoption is influenced by a host of issues such as social factors, capacity, culture and availability of local content.) Therefore "unlike the previous industrial revolution, the knowledge revolution

encompasses all aspects of society, so e-strategies must go beyond technical goals in addressing the challenge of universal access to, and use of, ICTs." [36]. One way of assessing whether the ICT for development strategies are living up to that is to expose to critical discourse analysis (CDA). The critical social theorist, Jürgen Habermas, proposed the Theory of Communicative Action (TCA) as a basis from which to conduct CDA and reveal underlying assumptions and ideologies in texts.

The South African government has in many ways expressed its belief in the importance of ICTs in helping the country meet its development challenges. In 2007 the country's first national Information Society and Development Plan and Implementation Strategy (hereafter referred to as the "e-strategy") was approved by Cabinet to create a clear vision for the building of an ICT-enabled information society in South Africa (SA). Provincial government bodies, such as the Centre for e- Innovation (CeI) of the Provincial Government of Western Cape (PGWC), have also prepared ICT-related strategic documents. During the period under analysis (June 2004 to January 2006), five documents came out of the CeI that constituted the background, framework, strategy and planning associated with developing an information society in the province. In this study we conduct a CDA of the five CeI strategic documents to determine whether or not these are distorted, e.g. through technological determinism. The implications of distortion include a limited chance of successful implementation of the proposed ICT initiatives.

Despite the many promises, speeches, reports and initiatives around the potential of ICTs to further development, there is a strong need for more research in this area. "Most of the understanding of the information age comes from the theory and experiences gained in the developed world. Africa produces little in the way of independent, primary research feeding into the ICT policy and regulatory processes" [9]. These "research gaps leave African governments in a weak position in their efforts to develop policy comprehensively and to implement plans effectively" [10]. To our knowledge, no CDA has been conducted on ICT policies in SA.

The vision of an information society in the Western Cape, as perceived by the CeI, is presented in its various background and framework documents, policies and strategies. This study analyses five CeI documents using Habermas' TCA in order to answer the primary question: are there communication distortions, or invalid claims, in the ICT related documents under analysis? The secondary question builds on the first and asks: if communication distortions are evident in the documents, what are they?

The research is important because the documents under analysis provide an information society vision for the Western Cape and will ultimately impact on its citizens. Further, local government municipalities in the province will align their ICT strategies and programmes with those of the CeI Other provinces in SA have also expressed an interest in adopting the ICT strategies of the CeI. Further, the developmental approach adopted by provincial governments, is usually governed by or aligned with national government policies. This top-down influence makes for commonalities across provinces: they all have to make ICTs support the development agenda of the day. Therefore while the detailed results of this research are not generalisable to other provinces, the overall findings should be relevant. The research thus has far-reaching implications. The findings of the study are also important to researchers and practitioners in ICT for development in SA and similar developing countries.

2. Literature Survey

2.1 Development Theories and Programmes

For many years, economics played a dominant role in development thinking. The success of the 1947 Marshall Plan and Keynesian economics in the rebuilding of Europe after World War II resulted in "economists playing a leading role in the elaboration of development theory during this period" (Brohman, 1996, as cited in Trusler,[33]). This economic development polarised the world into the "developed" and the "underdeveloped". However, economic growth and

modernisation in many countries was being accompanied by blatant social deprivation such as poverty and unemployment [25]. Economic drives did not alleviate poverty [20].

In response to the failure of economic and modernisation development theories an "alternative" trend in development theory began, one based more on people's needs and the inclusion of a wider set of influences such as sociology, anthropology and geography. The alternative approach to development, which added a social dimension to "basic needs", is encapsulated in the theories of Todaro [31] and Max-Neef et al. [20]. Todaro [31] posited three core values of development: life sustenance (the ability to provide basic needs), self-esteem (to be a person) and freedom from servitude (to be able to choose). Max-Neef et al. [20] expanded on this people-centred approach with their Human Scale Development approach, which has three pillars: human needs, self-reliance and articulations.

In the 1980s development was first widely recognised as multidimensional, incorporating social, economic, cultural and environmental aspects. The foundation of sustainable development was based on this multifaceted view. In the 1990s, concepts within development studies moved towards a human-oriented approach that extended the idea of development beyond economic growth, sustainable development or even the basic needs concepts. Amidst this change, economist Amartya Sen [26] proposed a new, critically-acclaimed theory of development – Capabilities Theory. At its core, the theory asserts that "development has to be more concerned with enhancing the lives we lead and the freedoms we enjoy"; it shifts the focus of development away from commodities to what people can do with those commodities.

Thus far the discussion has only included academic development viewpoints. There are two groups of people in development [17]: (1) the architects- usually people of power and tied to a given ideology who try to shape the development of a society (e.g. politicians, governments, international aid agencies or multilateral donors), and (2) the auditors- usually academics who assess, within a given theoretical perspective, the success of the architects in shaping the process of societal change according to their own models. There is an inherent tension between these two groups as they have different agendas and influences vis-a-vis development. The political development approach, as driven by the architects, can be much broader, simpler and more inclusive than the academic view, and is typically applied at a large scale, such as at country or provincial level. The political view is generally uncritical, making a connection between the two that is based more on naïve optimism than factual information [24]. While there are critiques of the general discourse these are scarce and limited in impact.

2.2 Sustainable Development and ICTs in SA

In SA the relationship between ICTs and sustainable development has been widely acknowledged [7]. A number of common themes are found in the convergence of the many sustainable development-related publications in SA and those related to ICTs and the information society. The common themes are: raising awareness about sustainable development; information availability and transparency; public participation in governance; empowerment of citizens, especially women; fostering of cultural diversity; and building capacity.

More recently, as is seen in the CeI documents, the role of ICTs in bringing about accelerated and shared growth is being documented. So far we have explored the concept of development and ICT, which has been shown as an important tool for achieving development. However, in the descriptions given, not much attention has been paid to how or why ICTs are essential to development. Generally the potential of ICT for developmental purposes is described as opposed to the actual outcomes of ICT successes and failures and the underlying reasons for either [14, 35]. The literature has revealed a common characteristic when considering ICTs in the context of development: uncriticality. References to ICT for development in SA's political and practical discourse are equally uncritical. This is particularly a problem since the reality is that a high percentage of ICT for development projects fail [16]. ICT implementation actually carries some real risks such as uncontrolled costs, increasing

technological dependency, and the threat of exclusion [37]. ICTs can exacerbate inequalities within and across countries [37].

The WSIS Plenary (2003) affirmed the last three risks when it described how initiatives that disseminate information must make use of "appropriate and plural modes of access, avoiding the risk of high dependency on digital technology alone". Thus a website about agricultural practices is of no use to farmers who don't have access to the internet; in fact, it excludes them and creates a power imbalance between them and other farmers who can access the content and apply the new, more productive practices. The implication of a policy based on uncritical worldviews, one that oversimplifies a complex issue such as ICT for development, is that the risks associated with ICT implementation can be realised.

2.3 Rigorous Research of ICT for Development

A number of reasons are offered for the contradiction between what is said about ICTs and what they genuinely deliver. These include that donors are increasingly keen to justify huge ICT expenditures and thus only present ICTs in a positive light [14], or that so far many ICT projects have really been "technology transfers", where success or failure has been judged on deployment rather than on impact on development [35]. Another reason is the sheer dearth of quality, rigorous and scientific research in the field of ICT for development.

The groundswell of the discourse that promotes ICT as a developmental panacea tends to put the focus on ICT while not much attention is paid to development. Wade [37] presents a summary of this groupthink, which believes that:

- The digital divide is the major source of inequality in the world economy today.
- It can be bridged by supplying more ICT to developing countries.
- ICT is an inherently enabling meta-technology that can bypass or leapfrog institutional and infrastructural obstacles.
- ICT investment is exempt from normal cost-benefit comparisons between alternative kinds of ICT and non-ICT investments — because it reflects a "new paradigm" of thinking and because "it is not a matter of either/or."
- Evidence of high failure rates in ICT projects only shows the need for more training, the lifting of cultural constraints, or the strengthening of political will, and does not call ICT investment into question.

Heeks [15] corroborates the list when he proposes that "an enduring theme … has been the overemphasis on the technology itself, to the exclusion of other parameters." ICTs are predominantly couched within a technocentric approach – where the primary focus is on providing access to digital communication technologies [24].

Thus the UN – Millennium Development Goals "reflect a growing demand of elected officials for outcome-led intervention… [T]his target-oriented approach prioritises output rather than the quality or the quantity of inputs, resulting in glossing over the long-term underlying systemic causes of social problems in favour of short-term gains" [6]. In other words, meeting targets draws attention away from understanding causation or the real issues that need to be addressed. If the focus is only on ICT then no contribution is made to understanding the role of ICT for development.

2.4 Technological Determinism

Theories of the interplay between technology and society generally fall into two genres: technological determinism and social constructivism. Summarised briefly, "technological determinism upholds that technology itself has the power to affect and induce [societal] change", social constructivists, on the other hand, "emphasise the 'social shaping' of technology" [3]. Social constructivism proposes that society, a particular culture and people, exerts an influence on technology development and ultimately determines its course. The truth –

that “technology is both socially constructed and society shaping” – lies between these two ends of the spectrum.

One view of technological determinism “maintains that materials and physical laws are such that technology is determined to develop in a particular way or pattern”, which implies “diminished human choice and responsibility in controlling technology” [23]. This line of thinking, in which technology is portrayed as something inevitable and to which resistance is futile, is often taken by private sector stakeholders who stand to profit from supplying the new technology and in doing so gain access to new markets [19].

Assumptions of technological determinism often permeate the discourse of politicians and inform the work of ICT policy-makers (e.g. Roode et al, [24]; Kvasny & Truex’s,[19]; Thompson, [32]). “If the problem of the ‘digital divide’ is defined as a problem of technology or infrastructure scarcity in the developing countries, it is all too easy to slip into the erroneous assumption that simply introducing these technologies – without addressing other major elements of the development equation – will produce development consequences” [30]. “Development efforts and projects aimed at 'bridging the digital divide' through technocentric approaches” will inevitably continue to fail [24].

3. The Context of the CeI Discourse

3.1 National and Western Cape Demographics

SA exists in both the developing and developed worlds. It is at once the strongest economy in Africa, and also home to dire poverty and high levels of unemployment. The apartheid years created a highly unequal society, both politically and materially, cast along the fault line of race. Since 1994, the State has “set out to dismantle apartheid social relations and create a democratic society based on equity, non-racialism and non-sexism” [11]. The government, made up of national, provincial and local spheres, has made major progress, however, enormous developmental challenges have also kept many South Africans in dire circumstances.

The 2001 census [29] revealed the following: a population of 44 million; 53% of whom were under the age of 25; 33% aged 20 and older with no schooling or only primary school education; and 30% unemployed. One in every seven households did not have access to a toilet facility. While, overall, 30% of households had no electricity, those which did were largely in urban areas (80% of households). Only 52% of rural households had electricity. The urban/rural divide presented itself in a number of other demographic indicators [11].

By 2004 SA had achieved its best level of macro-economic stability in 40 years. Inflation fell from over 15% in the early 1990s to 4% in 2004. Unfortunately, a stable economy has not led to an adequate and much-needed increase in jobs. Since 1995, the number of jobs has grown by 20%, however, the economically active population has grown by double that figure [11]. Despite the impressive achievements, just under half of the population (49%) lived below the official South African poverty line (R354.00/month). Chronic income and wealth inequality exists, which continue to exhibit strong racial and spatial biases [34]

Based on the 2001 census [29], the Western Cape had a population of 4.52 million, and was ranked the second richest province after Gauteng. The Western Cape had a high percentage of people with higher education qualifications and, despite only accounting for 10.1% of the total population, contributed 14.2% to the country's GDP. Despite the fact that the province has the lowest unemployment rate in the country (i.e. 17.1%) there are severe inequality in the distribution of income between different population groups, with unskilled migrants and agricultural farm workers representing some of the most economically disadvantaged people.

3.2 Centre for e-Innovation

While there are numerous ICT-related departments and bodies at a national, provincial and local government level, the focus of this study is the CeI, which is the ICT and e-government unit

within the Department of the Premier, PGWC. The CeI is mandated to "improve the quality and efficiency of government service delivery and increase public participation in government by driving [ICTs] within the Provincial Government" [2]. Core responsibilities of CeI include to "provide strategic direction to the provincial top management and Cabinet with regards to e-government and ICT; plan and develop e-government and ICT projects and services across provincial departments; manage infrastructure and applications across departments; render information technology management services to departments; and to provide administrative services to provincial departments." The CeI manages a suite of e-government projects, including the Cape Gateway portal. By providing access to government information through an English, Afrikaans and isiXhosa website, written in plain-speaking language that explains the full range of government services and how to access them, the portal seeks to address a lack of citizen access to government and information.

4. Research Methodology

CDA was chosen as the research method for this study based on the literature and the research theory. CDA is based on "assumptions of disharmony, conflict, and power differentials between populations and groups, and on the assumption that language use reflects, reproduces, and changes these social phenomena" [8].

4.1 Theoretical Framework: Theory of Communicative Action

The anthropological basis of TCA is that humans are intrinsically social beings who require social interaction to survive and thrive (Stahl et al., 2005). Communication is aimed at facilitating this necessary cooperation. TCA describes four types of social actions or intentional behaviour in social settings: instrumental, strategic, communicative and discursive.

When employing instrumental action, a person "views her opponent as if he were a mere object or organizational resource (rather than another actor) and attempts to manipulate the opponent to act according to her wishes" [22]. When an actor influences and transforms the behaviour of others so as to conform to his/her desires or goals, that person is taking strategic action. It often manifests itself through manipulative and exploitative behaviour. In contrast, communicative action is when actors (writers or speakers) engage or inform each other about, e.g. states of affairs, strategies or decisions taken. In CST, communication is not only about understanding what a writer or speaker is saying, but also the validity of their discourse [22]. The basis for the validity claims, as described by Habermas, is as follows: all social actions assume a basic set of norms; these hold that writers or speakers are allowed to express themselves unhindered and must also honour the outcome of open rational argument with others. When enacted in this ideal environment, communicative action between actors seeks to achieve and maintain a mutual understanding and consensus. This hypothetical "ideal speech situation" is characterised by: (a) [A]n open agenda and free access in which all claims and counter claims can be freely examined, (b) no asymmetries of knowledge and power ... (c) a social atmosphere which encourages everyone to express their feelings, to question and examine those feelings [18]. Habermas [12, 13] provides four validity claims, to which the reader or listener is able to hold up any communicative action to test it for validity and rationality (a valid claim is a rational one). The claims are truth (i.e is the discourse true?), clarity (i.e., is the discourse clear or does it use jargon that is not understood?), sincerity (i.e., is there a hidden agenda in the discourse?) and legitimacy (i.e., what is assumed in the discourse?). Communication in an ideal speech situation builds knowledge, comprehension, trust and consent. If any of the claims are not met, the communicative rationality has been violated. When the ideal speech situation is not realised, communication distortion occurs, resulting in misrepresentation, confusion, false assurances and illegitimacy.

Habermas posits that if distorted communication is found, the reader (in the case of texts) should enter into a discourse with the author of the texts to debate the issues that fail the validity

claims. Using Habermasian terms, the distortion inherent in the initial communicative action, i.e. the texts, leads to a discursive action, i.e. a discourse between the actors, with the goal of reaching consensus (or at least achieving agreement on a rectifying course of action) and redeeming validity claims. The discursive action, through which "the force of the best argument" [12] has the right to change a given situation, offers emancipation from distortions. By providing an explicit and ethical standard for assessing the validity of communications, Habermas offers a strong and unique conceptual framework that can be applied not only to analyse the distortions in communications which reflect the dominant ideology and power structures but also to undistort communications, thereby improving practice [4]

4.2 Operationalising Habermas' Validity Claims to Assess Communicative Rationality

While Habermas' validity claims have received much attention in social science and information systems research, there has been limited reflection on how to actually conduct such research (Stahl et al., 2005). This challenge has been addressed by Cukier et al. [4, 5], who propose that "the Habermasian notion of the 'ideal speech act' can serve as a standard for assessing the rationality of discourse and that Habermas' validity claims can be operationalised to textual analysis [in a way] that is both rigorous and theoretically sound."

Their approach is as follows: a series of questions are used to discover truth, sincerity, clarity and legitimacy claims in the texts. The identification of truth claims is guided by a search for objective facts, e.g. Are the issues and options clearly defined in the texts? What evidence has been provided to support these arguments? Has the relevant information been communicated without distortion or omission? Or are there ideological claims that are unexamined? Coding for sincerity claims involves looking for rhetorical devices – metaphors, adjectives or connotative language use, which might promote or suppress understanding or create false assurances. This is a way of revealing subtle nuances, which are not directly expressed in the text or not apparent on cursory reading of the text. Assessing clarity involves looking for jargon, or confusing or incomprehensible language. If these obfuscations are not present, clarity is achieved. Legitimacy is concerned with participation in the discourse. Coding for this asks questions such as the following: to whom was legitimacy accorded in the texts? Who was considered an expert and on what basis? What was assumed or implied in the discourse? How were decisions legitimised? After the initial coding for legitimacy, it is possible to identify the missing elements in the text. In other words, which groups and viewpoints are marginalised or excluded from the discourse? The guiding questions for validity claims are based on those developed by Cukier et al. [4, 5] and Stahl et al. [28]. The questions are provided in Appendix A.

4.3 Data and Sampling Plan

We set out to identify documentation by the CeI that constituted its ICT-related discourse. During the sampling process we first searched the Cape Gateway website, the primary source of provincial government information for ICT-related documents of the CeI. Three relevant documents were found. The list of documents was shown to the then Chief Information Officer (CIO) of the CeI, who had co-authored two of the documents, to check that no applicable documents were missing from the list. The CIO pointed to two other documents that were not listed on the website, but were available to those working in the organisation. The documents were not of a confidential nature; they simply were not relevant to the public and thus not available on the portal. It was through a merging of the IT and e-government units of the PGWC in April 2004 that that CeI was formed. The initial data collection period ended in January 2006. Thus during the time period under analysis – April 2004 to January 2006 – there were five documents of the CeI that constituted the background, framework, strategy and planning associated with developing an information society in the province and turning the CeI into a change agent for that process. These documents, which constituted the primary data source for analysis, are listed in Table 1.

Table 1: Documents Analysed in the Research (the Discourse)

Document	*Summary*
[1] Technology, e-government and economic development: A background paper to inform the strategy of the Centre for e-Innovation (2004) (32 pages)	This background paper informs the strategy of the CeI by considering the role of ICT and its implication for government. It explores e-government, and suggests success factors and metrics to measure progress towards an information society.
[2] Ignition Strategy for the Centre for e-Innovation (2004) (16 pages)	The paper describes the CeI's reason for existence, its vision, mission and different units, its priorities and its action plan. It gives a high-level view of the role and structure of the CeI, in the context of the PGWC.
[3] Bridging the Gap: A framework for provincial governments to implement e-government and promote an information society (2005) (36 pages)	This framework guides provincial governments to plan and implement an e-government strategy. It describes how the provincial ICT department must follow an internally-facing ICT strategy, a service delivery strategy, and a developmentally focused information society strategy.
[4] The critical role of ICTs in delivering shared growth: background document developed as a contribution to the Western Cape Provincial Government Shared Growth and Development Strategy (2006) (19 pages)	This document precedes [5] and provides background information to the role of ICTs (and therefore the role of the CeI) in supporting the PGWC Shared Growth and Development Strategy.
[5] The critical role of ICTs in delivering shared growth: a contribution to the Western Cape Provincial Government Shared Growth and Development Strategy (2006) (11 pages)	This document supersedes [4] and feeds into the PGWC Shared Growth and Development Strategy. The document describes how ICTs support the strategy.

Excluding references and endnotes, 97 pages (out of a total of 114 pages) of text constituted the discourse to be analysed. The literature on conducting CDA recommends that taking into account contextual information is extremely important for the quality and accuracy of the research findings [8, 28]. The study drew on two secondary data sources, listed in Appendix C.

4.4 Data Analysis

To test for the four validity claims, texts were coded using the guiding questions provided in Appendix A. We used up to three levels for the coding, because as in the study by Stahl et al. (2005), the coding process revealed that several individual claims appeared frequently and were worthy of their own sub-categories, e.g. truth (level one), benefit (level two), poverty alleviation (level three). Further, we found that we needed to make a second pass through the analyses to regroup or redefine some of the claims.

5. Findings

5.1 Truth Claims: Argumentation and Evidence

Overall, truth claims are concerned with argumentation and evidence in the discourse. Table 2 presents a summary of all truth claims identified in the texts, grouped by applicable questions.

We identified 250 descriptive claims in the texts that are either definitions, general descriptive statements or descriptions of the goals, programs and focus areas of the CeI. The high number of descriptive claims is to be expected in discourse that seeks to promote a major new drive within government. Examples of definitions include knowledge economy, information society, e-government, e-administration, e-agriculture and e-service. Definitions are usually short and to the point. After descriptive claims, by far the next biggest category of claims concerns ICT-related benefits (231 claims) i.e. the discussion of the many advantages of ICTs for society and government.

Many of the associated benefits of ICTs claim to ultimately result in social and economic development. Further, the link between ICT and poverty alleviation is established in a number of places. In addition, ICT is seen not only as an enabler, but also as having a seemingly transformative effect on government: it improves service delivery effectiveness, improves

efficiency and improves government to citizen (G2C), government to business (G2B) and government to government (G2G) communication.

Table 2: Summary of All Truth Claims

Level 2 (Truth)	***No. of claims***
Description	250
Benefit	231
Disadvantage	3
Evidence	10
Distortion	29
Omission	13
Faulty analogy/logic/cause	5
Problem	84
Ideology	15
Total	**640**

Despite the many claimed benefits of ICT, there is little evidence provided to support the claims. Of the evidence that is provided, some is based on reports that are referenced in the footnotes of the texts, e.g. "The World Bank has confirmed the important part that ICTs play in the development of a competitive economy" [AR5], and some is simply referred to in a way that does not give the reader an opportunity to verify it. The disproportion between the benefits and evidence thereof means that the majority of the claimed benefits are simply asserted. Another area where disproportion was evident is in the disadvantages claims. Only three disadvantages associated with the use of ICTs were identified in the discourse, all highlighting the risk that ICTs can actually deepen existing divides.

In the Habermasian ideal speech act, communication must happen without distortion and omission. Thirteen cases of omissions were identified in the discourse the majority of which were about a lack of ICT-related disadvantages or risks. An illustrative claim is: "[A]ll government departments and agencies must give attention to ICTs … to ensure that their specific efforts are effective and that the benefits are equitably spread throughout society" [AR5]. The sentiment, echoed throughout the discourse, is a positive view of ICTs. Related disadvantages are mostly omitted.

Further, Wesso et al. (2004) [AR1] describe the ability to create and distribute information in new ways and in new volumes – due to ICT – as a sign of progress. This contradicts Sen [26] who argues that information itself is not useful unless people have the power to act upon it, free of social, economic or other constraints. Thus while the ability to create and disseminate information has been improved in some ways, this does not necessarily lead to development outcomes. Also Wesso et al. (2006b) [AR5] describe technology as a "driver of globalisation": "information based activities are becoming distributed around the globe, to the benefit of developing countries." This statement omits to acknowledge that globalisation is not widely regarded as beneficial for all developing countries.

Twenty-seven instances of distortion were identified. For example, the CeI is mandated to "work with all other departments to ... reduce costs so that more of the available resources directly benefit the poor" [AR5]. This statement gives a distorted view of the reality since more money in government budgets does not necessarily result in direct benefits for the poor; that depends on how the money is spent.

A number of "undistorted" claims were also identified, which offer a balanced approach to ICTs. Article [AR3] notes that "Government can help to form the [ICT] environment and nurture key initiatives, but cannot do everything itself." Further in article [AR5] it was said:

> A number of researchers have demonstrated that the application of ICTs is not sufficient to address problems of rural poverty without adherence to the principles of integrated rural development. Unless there is at least minimal investment in transport, education, health and social and cultural facilities, it is unlikely that investments in ICTs alone will enable rural areas to cross the threshold from decline to growth. [AR5]

The usual pitfall of ICT-enablement discourse is to focus on access. Again, the texts provided a much more holistic view, e.g.: (1) "Access alone is insufficient" [AR4] or (2) "Programs and projects need to simultaneously address the need for locally relevant content, skills and access" [AR1]. While the discourse gushes about the potential of ICTs for poverty alleviation, it is also realistic about these expectations.

We identified five claims that exhibited faulty logic, or faulty cause (See illustrative text):

> The diffusion of ICTs is not just of relevance to the formal economy - though this alone is sufficient to argue that ICTs should be a critical aspect of any development strategy to ensure that the productive sector can create both jobs and the resources to fight poverty [AR5].

This is faulty logic because the very reason for shared growth strategies is the realisation that the newly created jobs in the formal economy are not accessible to people working in the second economy. A further consideration is that the stakeholders in the formal economy that operate according to capitalist motives are primarily concerned with maximising profits and not necessarily generating resources to fight poverty.

The discourse also covers a range of problems, or obstacles, associated with implementing ICTs in the Western Cape and its government. These problems, summarised according to sub-claims in Table 4, are distinct from ICT-related disadvantages.

Table 4: Summary of All Problem (Truth) Claims

Level 3 (Problems)	***No. of claims***
General problem	***2***
Access (to ICTs)	***13***
Affordability	***3***
Content	***7***
Digital divide	***3***
Environment	***2***
Insufficiency of ICTs alone	**17**
Other problem*	**27**
Skills	**10**
Total	**84**

The most common sub-claim concerns the insufficiency of ICTs alone to realise the development goals of the PGWC. For example:

> ICTs are an important enabler of access to these services and social activities and play a vital role improving the efficiency of delivery, but they can never be a substitute. [AR4]
>
> A focus on IT no longer gives an organisation (or society) a competitive edge. Investment in IT and the capacity to use it properly are simply basic requirements (sic) – not in themselves a source of competitive strength. [AR1]

The discourse also acknowledges the insufficiency of government to single-handedly realise an information society; other stakeholders are needed. The information society that the pervasive use of ICTs brings about, and the development of its economic counterpart, a competitive knowledge economy, cannot be legislated into being. It is rather the result of the actions of a wide range of economic and social actors including government, businesses of all types, organisations such as schools and colleges, public entities, and individuals [AR3]. Of course, access to ICTs is a requirement to using them. The texts propose that the emergence of an information society depends on the fulfilment of certain "factor conditions", one of which is "broad and equitable access to the infrastructure (telecommunications networks) and tools (computer hardware and software)" [AR3] of ICTs. The CDA notes any requirement as a

potential problem, in other words, no access equals no information society. Broad and equitable access is therefore a problem because it does not yet exist. In the same way, another factor condition is a "significant and growing level of skills in the form of basic literacy, computer literacy, information literacy and business literacy" [AR3]. Without the necessary skills the attendant benefits of ICTs will not be realised.

In the discourse fifteen ideological claims were identified, most related to role of the State:

> The vision of the [CeI] is for the Provincial Government of the Western Cape to become a leading e-government to better serve our people in the new, knowledge-based economy. [AR2]

ICT-enablement is presented so that government can better serve the people. The attention that all government departments need to give to ICTs is to ensure that their specific efforts are effective and that the benefits are equitably spread throughout society to ensure a better life for all. [AR5] Government should help to share benefits because sharing benefits is the right thing to do. Government is committed to creating a better life for all, through effective use of ICTs. Both of these examples illustrate how claims to ideology are powerful ways to align a particular outcome – the ICT-enablement of the province – with a higher cause, a moral cause.

5.2 Sincerity: Metaphors and Descriptors

As Cukier et al.[5] posits, "if communication is sincere, the speaker is honest (or sincere) in what he or she says" and that "sincerity claims are assessed by considering metaphors and connotative words in the discourse." Metaphors and connotative words can evoke positive and negative responses. Examples of positive associations are innovative, new, award-winning, wired, hi-tech, first, pioneering and exciting, while a negative association is expensive or insufficient. Metaphors and connotative descriptors are widely used throughout the discourse.

ICT is represented as a tool that has a revolutionary effect: "The staff of the Centre for e-Innovation must adopt the zeal of a revolutionary in finding new ways to [deploy ICT]," and, "[T]he ICT revolution [italics added] can provide powerful new tools both for addressing people's basic needs and for enriching the lives of poor people and communities in unprecedented ways" [AR1]. Furthermore, the discourse portrays that such is the power of these tools, that applying them correctly will put the CeI in a "position to take the required leadership role in the transformation of the Provincial Government." [AR2] Most of the connotative words are positive, e.g. ICT is an enabler (used 28 times) that has a transformative effect. ICT is described as playing a critical role 42 times. It also makes possible seamless access to government (mentioned five times).

The act of participation is described 34 times in the discourse: participation by citizens, businesses, civic organisations and government departments in public life, in political decisions, in the knowledge economy and information society. Through ICTs, citizen and organisations are empowered to participate, an act that is at the heart of a vibrant democracy. The opposite of participation is exclusion: "No community should be left behind as this will preclude them from participating in the modern economy" [AR4]. Modern is described nine times in the discourse.

ICT is portrayed as something that must be embraced. An article included in [AR1] describes how "[a]n apparent reluctance to embrace new technologies must not be allowed to hinder the creation of jobs and wealth for the people of SA." ICTs are new and revolutionary, to be embraced by those brave enough to face and accept the future. "A view that overlooks this critical, dynamic role of social capital formation substantially underestimates the broad economic development benefits of ICT" [AR4]. By implication, anyone who doesn't "get it" is blind to the obvious benefits associated with ICT.

Lastly, though only mentioned twice, globalisation is relevant, especially in the context of the 34 references to global. The texts describe globalisation as an inevitable yet ultimately beneficial trend, presenting it as a compelling reason for ICT-adoption:

> Still other trends may be more problematic – the Western Cape cannot isolate itself from the forces of globalisation and has no choice but to harness them and benefit from them as best possible. [AR4]

Technology as a driver of globalisation – information based activities are becoming distributed around the globe, to the benefit of developing countries. [AR5]

5.3 Clarity

Clarity is the ability of the reader or listener to understand and comprehend what is being communicated. Clarity is also compromised when irrelevant information is presented. The bulk of these cases involve information not relevant to SA because it refers to the developed world or developing countries with entirely different ICT infrastructure to SA, e.g. "In Korea more hours are spent playing locally developed, on-line multi-player games than watching TV" [AR4].

Clarity is a difficult standard to apply [5]. A word is that is jargon to one person can be understandable and appropriate for another. Since the texts under analysis were of a strategic nature and generally not very technical, jargon represented anything that was uncommon to the discourse of most senior managers, e.g. "A useful model of these issues is the 'digital flywheel'" [AR1]. According to Michalos [21] the fallacy of jargon occurs when a claim is made through technical or uncommon terms that make it seem more important or valuable than what it is, e.g. "The Centre for e-Innovation has the digital ecosystem [italics added] of the entire Province as its concern" [AR1]. Clarity is compromised when certain terms are described but no explanation given for why they are useful or important, e.g. "All digital data can be routed in a unified manner using packet based switching and Internet protocol" [AR1]. Why is this technical information provided? It is incongruous with the tone of a high-level, non-technical document.

5.4 Legitimacy: How is it Achieved? In Whose Interests?

Legitimacy claims are "assessed by considering the inclusivity of the discourse, and by assessing the extent to which the discourse relies upon experts and sources" Cukier et al. [5]. Table 7 summarises of the legitimacy claims in the discourse. The discourse contains a significant number of claims based on assumption. For example, the aim of [AR5] is to "urge government to encourage ICT diffusion in government, business, education, health, civil society and communities at large." This claim implies that broad ICT diffusion, amongst a variety of stakeholders, is desirable. The assumption is that ICT has inherent value and benefit. Most assumptions within the discourse are related to technological determinism and techno-optimism.

Table 7: Summary of Legitimacy Claims Used in the Discourse

Level 1	***Level 2***	***Level 3***	***No. of claims***	***Total***
Legitimacy	Assumption	(General)	3	
		ICTs have inherent value	1	
		Technological determinism	30	
		Techno-optimism	20	**54**
	Legitimation	Government developmental strategies	11	
		Other means of legitimation*	24	
		Other PGWC documents	18	**53**
	Non-speaker		8	**8**
	Speaker		7	**7**
Total				**122**

The assumption which is evident in a number of articles that access to information through, say, greater ICT diffusion leads to greater social and economic opportunities is technologically deterministic. The assumption that by digitally enabling service delivery, communities can

seamlessly access government, is false. As seen in the literature, a number of factors need to be in place for this to be a reality.

When the texts compare the information society with the industrial society, the former is often portrayed in a technologically deterministic way. For example, the resulting impacts of the information society include: price levels continually forced down, quality forced up and the constant evolution of new routines [AR4]. For the PGWC to ignore the "shift towards knowledge as the basic currency of economic activity" would be to "condemn communities to being left behind in a changing world" [AR3]. The world is changing, driven by the impending emergence of an information society based on a knowledge economy.

Again, the request is to embrace the information society. The notion is of a new way, an improved way, a more efficient and impactful way of working, all premised on the change sweeping the world. Perhaps the claim that best summarises the technological determinism found in the discourse is:

> The digital world is a world united by one language of ones and zeros; a world where people across continents (or across the passageway) share information with one another and work together to build ideas and projects. Through collaboration, more voluminous and accurate information is generated and accumulated, and distributed in a twinkling to an audience that understands exactly what was said. This in turn allows the recipients of the information to use it for their own purposes, to create new ideas and redistribute them. The result is progress. [AR1]

Here ICT unites people (as opposed to simply connecting them) and enables them to work together. The collaboration results in the production of more accurate information that is, through ICTs, distributed to other people who understand it perfectly and use it for the generation of new ideas. ICT is at the heart of this new world, free of the limitations of distance, time, inaccuracies and misunderstanding. ICT is the driver of progress.

The techno-optimism claim is similar to technological determinism but is less concerned with the inevitability of technological change. Rather it sees technology as providing solutions to existing problems and limitations [1]. An example claim is how "production in the knowledge economy can be fine-tuned in ways heretofore undreamed of" [AR1].

In the discourse, legitimacy is also given through alignment with government developmental strategies and documents e.g. the Shared Growth Strategy, the Micro- Economic Development Strategy, the Strategic Infrastructure Plan, the iKapa Elihlumayo Growth and Development Strategy, Spatial Development Framework and the Premier of the Western Cape's 2004 Budget Speech. The discourse reveals other forms of legitimation, one of which is the necessity to serve the needs of the Western Cape and the interests of the region [AR1].

Best-practices and trends represent another means of legitimation. Citing experts or research is another means. The expert opinions that are cited include the World Bank, The Gartner Group, "other global experts" [AR3] and the UNDP, whose framework for poverty alleviation using ICTs legitimates the pro-poor, pro-growth perspective that the discourse attempts to present in the context of the Shared Growth Strategy.

Inclusivity is a key element of Habermasian claims: whose voices are included or excluded? It is often only by examining the explicitly included voices that we can identify the silent ones. It was noted that there is the absence of the perspective of a developing country authority. For example, when we consider the quote: "In our global, networked economy and society, information is an essential resource for capacity building and social and economic development. [AR5] we note that the voice of those who don't live in a "global, networked economy and society", e.g. millions of people living in developing countries, is not heard. When considering the gross imbalance between the benefits and disadvantages presented with regards to ICT-enablement, the voices "for" far outnumber the voices "against." The perspectives of those "for" are privileged, while the perspectives of those "against" are under represented, something that Cukier et al. [4] call a "selective silence." In the About this document section of [AR4] and [AR5], only the CeI is speaking and therefore only its interests emerge. It describes how ICTs – the tool of the CeI – are integral in supporting the Provincial Government Shared Growth & Development Strategy.

6. Discussion of Findings

A possible reason for the distorted communication that occurs in the discourse is that of "inherited distortions". Government departments often play a "catch-up" game, having to align themselves with the global, national or provincial development strategies of the day. The literature survey showed how ICTs are made to serve the developmental agenda of the day, e.g. how they supported sustainable development, how they supported the various development goals set out by the WSIS and, more recently in SA, how they can support AsgiSA. Through this forced vertical alignment, there may well be a mismatch between what ICTs are best suited to and what strategies require them to be good at. For example, ICTs may be best utilised by the skilled labour of the first economy, but due to a pro-poor, pro-growth strategy handed down from national government, they suddenly need to be framed as vital tools for the unskilled people of the second economy. From time to time the CeI inherits these positions regarding the use and value of ICTs, which may be founded on false assumptions and embedded within distorted communications. The CeI has no choice but to support the higher directive, thus forced to promulgate the distortions in its own communications, e.g. its strategic documents.

Throughout the discourse, the limited evidence that makes a case for ICT-based economic development comes mostly from international organisations, e.g. the World Bank, or developed country governments. How relevant is information provided by external sources to the developing country context of SA? Many references have (i) a developed-world economic focus, e.g. Harvard Business School, (ii) a developed-world e-government focus, e.g. UK Office of the e-Envoy, the OECD and Australian Government, and (iii) an Asian developing country perspective, which emanates from countries with very different ICT penetration levels to SA. In [AR1], there are "success factors and metrics to measure progress towards an information society" based on "international norms." Is it appropriate for SA to follow these norms?

While the ICT for development field is still relatively thin on empirical evidence as to what works and what does not, it is almost impossible to imagine a government that should not make effective and appropriate use of ICTs. Further, this is the role of the CeI within the PGWC. It is hardly surprising then that the CeI's interests are dominant in the discourse; it needs to justify its own existence. Essentially this is a battle for budget allocation. If the CeI is critical for improving government service delivery and efficiency through ICTs, then it must be allocated its requested budget. This does not mean there is not another way of presenting the importance of ICTs and of the CeI, one where a more balanced picture is painted, where the disadvantages and risks associated with ICT-enablement are noted, but ultimately shown to be outweighed by the advantages. Such a discourse would be far closer to Habermas' ideal speech act.

While the communication of the discourse was clearly distorted, there were also cases of undistorted claims, texts that resonated with the ideal speech act. Credit should be given to the authors for taking a balanced view of the limited role of ICT. There is a recognition in the discourse that a holistic approach to ICT-enablement is necessary to maximise the potential benefits that ICTs offer. Complimentary factors include training, relevant content, and the need for multiple stakeholders to work together with government. There is also a recognition that ICTs alone cannot solve all problems, indeed, they are best utilised only by people who are first literate, housed and healthy.

7. Conclusion

While on a Habermasian level the discourse is distorted, the focus of the texts is not on ICTs alone. Training, relevant content and the support of offline government structures are some of the factors also presented as part of a holistic view of ICT for development, which mitigate against the many communicative distortions. Unfortunately the instances of undistorted communication in the discourse are in the minority. It is our suggestion that looking ahead, it will be beneficial for the ICT strategies of the CeI to take a more critical, and even more holistic, viewpoint. ICT strategies are influenced by broader developmental strategies, resulting

in ICTs being made to serve ends that they might not be best suited to. ICTs could be put to more productive use if the strategists considered the needs of people and development organisations and matched those with the specific features of ICTs.

Questions that should be asked by the authors of the strategy documents include: Do ICTs meet the developmental needs of the people of the Western Cape? If so, then how? What are the risks associated with ICTs? What are the costs? How does ICT expenditure rate against expenditure on education, housing or health? What is the return on investment for ICT expenditure in the context of poverty alleviation? Realistically, how are the disadvantages of ICT implementation outweighed by the advantages and benefits thereof? Taking a more balanced approach to presenting the case for an ICT-enabled Western Cape may result in "a healthier decision making process" with regards to ICT expenditure and implementation [5]. Indeed, such a "critical perspective may reduce the chances of technology being oversold, and thereby, ironically, enhance its diffusion." A critical perspective espouses that decisions regarding ICT implementation are based on actual evidence that prove the claimed benefits, and are first weighed up against other development needs.

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Appendix A

Guiding questions for discourse analysis based on Cukier et al (2003), Cukier et al (2004) and Stahl et al (2005)

Truth

- What is said about the technology?
- Are the issues and options clearly defined?
- What costs (financial and claimed negative effects) and benefits (claimed positive effects) have been identified and assessed?
- What evidence has been provided to support these arguments?
- Has the relevant information been communicated without distortion or omission?
- Are there underlying problems that are referred to – explicitly or implicitly – in the texts?
- Are there ideological claims which are unexamined?

Sincerity

- Are metaphors used, e.g. *ICT revolution*?
- Do metaphors and connotative words promote or suppress understanding?
- Do metaphors and connotative words create false assurances?

Clarity

- Is there use of jargon?
- Are there terms that are not explained?
- Is there evidence of obfuscation?

Legimacy

- Who is speaking, who is silent, what are their interests?
- What is privileged? What is not said about the technology?
- What is assumed or implied?
- How are the decisions legitimised?
- What is missing or suppressed in the discourse?
- What are the stakes and interests involved or excluded?
- Who is cited, who is not? What are the interests of these stakeholders?