South Africa's Socio-Techno divide: a critical discourse analysis of government speeches

W Chigona[a], M Pollock[a], JD Roode[b]
[a] University of Cape Town, Department of Information Systems, Cape Town
[b] University of Pretoria, School of IT, Pretoria

Abstract

This paper aims at contributing to the debate about the digital divide. We first focus on what to us constitutes the root problem: the typical approaches to the development of people through and by the use of information and communication technologies (ICT). In contrast to governmental, political and technological attempts that focus almost exclusively on providing access to digital communication technologies, and expect "development" naturally to flow from that, we argue for a focus on "development" which is based on our notion of sustainable socio-economic development. We refer to "technocentric approaches" when the approaches propose and pursue technological interventions and show little regard for the actual needs of the people involved. At the other end of the scale, where the focus is on people and their developmental needs, we will speak of "sociocentric approaches". This presents us with a different divide, which we will refer to as the "socio-techno divide". We argue that it is this divide that has to be addressed – not the digital divide – and then present an analysis of the socio-techno divide. This analysis takes the form of two types of Critical Discourse Analysis (CDA), namely Foucauldian and Habermassian. The analysis of the South African government's rhetoric illuminates the issues that need our attention and indicates an agenda for constructive engagement about the use of ICT for development in the Third and Fourth worlds.

KEYWORDS:

Digital Divide; Human Scale Development; Socio-Economic Development; Critical Discourse Analysis.

1. INTRODUCTION[1]

Much has been written about the 'digital divide'. Kvasny and Truex [14] remark that "until recently, the 'digital divide' was understood to be a reference to classes of people at risk of being excluded from the rising tide of economic prosperity fueled by great advances in information technology." They continue to point out that "governments, researchers, and politicians have turned attention to how to address the digital divide and resolve some of the intractable problems …". The intractability of the problem has been emphasized by the fact that most attempts at bridging the divide have indeed contributed to the widening instead of the closing of the divide. This paper aims at contributing to the debate about the digital divide by first focusing on what to us constitutes the root problem: that of the development of people through and by the use of information and communication technologies (ICT).

Past research has shown that ICT can indeed contribute towards development [4]. However, ICT alone is not sufficient to reach a country's development goals – the social aspects of information systems such as training are equally, if not more, important [23]. It is often not the lack of access to ICT that is problematic, but rather the wrong mindset regarding the role of ICT on the part of the policy makers [23]. It can be argued therefore, that one way to ensure a good return on ICT investments is to ensure that the officials hold views regarding ICT and development that are conducive to development. Thus it is imperative to gain an understanding of the current views of policy makers, since it is only after understanding the current views that one can constructively critique and influence the official views.

Our focus on "development" is in marked contrast to governmental, political and technological attempts that focus almost exclusively on providing access to digital communication technologies. We will refer to approaches that propose and pursue these attempts as "technocentric approaches". At the other end of the scale, where the focus is on people and their developmental needs, we will speak of "sociocentric approaches". This difference presents us with a second order divide, which we will refer to as the "socio-techno divide". We argue that it is *this divide* that has to be addressed – not the digital divide, and then present an analysis of the socio-techno divide. This illuminates the issues that need our attention and indicates an agenda for constructive engagement of ICT for development in the Third and Fourth [3] worlds.

The paper is organized as follows: in the next section, we revisit the concept of "development" to arrive at a definition and understanding of sustainable development and briefly discuss typical projects to achieve this through ICT at the

[1] This paper is a significantly revised and extended version of the paper by Roode, D., Pollock, M., Speight, H. & Webber, R.,entitled "It's not the digital divide – it's the socio-techno divide!", presented at the 12th European Conference on Information Systems in 2004 in Turku, Finland. The extensions are based on a paper by Chigona, W., Mjali, P., & Denzil, N., entitled "The role of ICT in national development: A critical discourse analysis of South Africa's government statements", presented at QualIT'07 Qualitative research in IT, Wellington, New Zealand, 18th -23rd November 2007.

local level. This is followed by the research methodology, a Foucauldian analysis and a Habermassian analysis of selections from speeches by several South African Ministers to show the technocentric governmental and political approaches to the problem of the digital divide in Africa, and some findings from these analyses. In these analyses we also discuss the concept of the Socio-Techno Divide, and conclude by arguing that this divide, in contrast to the digital divide, can be bridged. We briefly indicate an agenda to achieve this.

2. DEVELOPING NOTIONS ABOUT "DEVELOPMENT"

Very often work in this field seems to accept that "development" is commonly understood. While this is far from true, it is sadly also true that workers in this field seem to pay little attention to this very important starting point for all research into ICT for development. If the research community had general agreement about the concept then naturally it should not be necessary for each piece of research work to preamble its analyses and findings by a manifesto about the concept of development. However, this being not the case it would seem not out of place to discuss the development of our thoughts about "development" and briefly to put on record our approach to it [22].

Two groups of authors were instrumental in the development of our thoughts: Todaro [33] and the Chilean group of Max-Neef, Elizalde and Hopenhayn [15].

2.1 Todaro's new view of development

"Development" was seen purely as an economic phenomenon during the 1960's and 1970's. It referred to the capacity of a national economy to generate and sustain an annual increase in its gross national product, or to the growth rate of the per capita GNP. A new view of development, articulated by Todaro, and much earlier by Schumacher [24] captures the complexity of the process and its essentially people-oriented nature:

"Development must … be conceived of as a multidimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of absolute poverty. Development, in its essence, must represent the whole gamut of change by which an entire social system, tuned to the diverse basic needs and desires of individuals and social groups within that system, moves away from a condition of life widely perceived as unsatisfactory and toward a situation or condition of life regarded as materially and spiritually "better" (p. 88).

This begs the question as to what constitutes a condition of life that is materially and spiritually better. Todaro and others (*cf.* [18]) believe that at least three basic core values could serve as a conceptual basis and practical guideline for understanding the inner meaning of development. These core values are life-sustenance, self-esteem, and freedom. They relate, Todaro believes, "to fundamental human needs that find their expression in almost all societies and cultures at all times".

The second major influence on our thinking about socio-economic development came from the work of Max-Neef, Elizalde and Hopenhayn [15] and their notion of human scale development.

2.2 Human Scale Development

Schumacher (*op. cit.*) pioneered the challenge of the basic assumptions of modern economics, e.g., that the value of something is determined by what one is willing to give up to obtain it. In a similar vein, Max-Neef *et al.* [15] argued against the policies of developmentalism and monetarist neo-liberalism and proposed an approach intended to create conditions for a new praxis based on what they call Human Scale Development. Such development, they explained, "is focused and based on the satisfaction of fundamental human needs, on the generation of growing levels of self-reliance, and on the construction of organic articulations of people with nature and technology, of global processes with local activity, of the personal with the social, of planning with autonomy, and of civil society with the state." (p. 12). "Articulation" here refers to the construction of coherent and consistent relations of balanced interdependence among given elements.

Max-Neef *et al.* [15] see human needs, self-reliance, and organic articulations as the pillars which support Human Scale Development. These pillars, they pointed out, "must be sustained on a solid foundation which is the creation of those conditions where people are the protagonists of their future. If people are to be the main actors in Human Scale Development both the diversity as well as the autonomy of the spaces in which they act must be respected. Attaining the transformation of an object-person into a subject-person in the process of development is, among other things, a problem of scale. There is no possibility for the active participation of people in gigantic systems which are hierarchically organized and where decisions flow from the top down to the bottom." (p. 13).

The Human Scale Development approach of Max-Neef *et al.* [15] is founded on three postulates. First, that development is about people and not about objects; second, that fundamental human needs are finite, few, and classifiable; and third, that fundamental human needs are the same in all cultures and in all historical periods. An important aspect of the work of Max-Neef *et al.* [15] is their distinction between needs and satisfiers. They provide an analysis first pointing out the fundamental difference between needs and satisfiers, and second, stating that human needs must be understood as a system of inter-related and interactive needs. Each economic, social and political system will adopt different satisfiers for the same fundamental human needs. One of the aspects that define a culture, they point out, is its choice of satisfiers. "Satisfiers are not economic goods.… [they] may include, among other things, forms of organization, political structures, social practices, subjective conditions, values and norms, spaces, contexts, modes, types of behaviour and attitudes, all of which are in a permanent state of tension between consolidation and change." (pp. 26-27). The need to understand fully the dialectic between needs, satisfiers, and economic goods is an important condition for the creation of a human economy, in which goods empower satisfiers to meet fully and consistently fundamental human needs.

Max-Neef *et al*. [15] advocate self-reliance at all levels. They understand self-reliance "in terms of a horizontal interdependence and, in no way, as an isolationist tendency

on the part of nations, regions, local communities or cultures." (p. 49). Relationships of self-reliance have greater synergic and multiplying effects when they flow from the bottom upwards. Local self-reliance thus stimulates regional self-reliance, which, in turn, fosters national self-reliance.

In this notion of self-reliant human scale development we found a satisfactory way to formalize a definition of sustainable development [22]: Sustainable *development is achieved through self-reliant human scale development which flows from the individual* level *to the local, regional and national levels, and which is horizontally interdependent and vertically complementary*.

According to the UNDP [34] effective deployment of ICTs can affect human development in two ways. First; since ICT as a sector of economic activity impacts the overall economic growth of a nation. Secondly, ICT as an enabler for enhancing human productivity influences human development through access to information knowledge and enlarging choices. Chacko [4] argues that ICT helps in alleviation of poverty, enhancing education and improving healthcare.

The most popular way of introducing ICT at the local level into Third World countries has been through telecentres [36]. 'Telecentre' is a loose term for a centre that provides a local community with access to communication and information where the customers pay, per use, at rates set by the telecentre operator. Telecentres are believed by many to be the vehicles through which micro and small enterprises at the community level can obtain and evaluate timely market information and source better and less costly inputs. The elusive problem, however, has been to create the know-how, in the community, to leverage this "transformative" power of the telecentre to initiate significant economic development [20].

The USA (Universal Services Agency) is a South African statutory body responsible for ensuring universal access to all telecommunications services for disadvantaged communities. Its programme is committed to providing sustainable telecentres and socio-economic information services to disadvantaged communities, but it does not explain how ICTs in disadvantaged areas could be used for development purposes, and has not moved beyond the rhetoric of universal access to ICTs. Most telecentres established by the USA have been seriously underutilized and unable to raise income to support operational expenditure. Few of the centres make sufficient income to pay salaries or to provide for equipment depreciation [29]. The USA Telecentres are heavily dependent on donor support, and although the projects stress community participation and sustainability, to date none have proven that they can be self-sustaining post external funding.

On a more positive note, Grimes [10] reported the results of field trials with Norwegian telecottages where the strategy employed was to provide teleservices as a form of import substitution to municipalities. He concluded that where municipalities think locally in purchasing goods and services they could play a significant role in helping small enterprises become established. This is in line with the concept of sustainable development as defined above, and underlines the point that activities at the local (community) level need to be complemented from higher levels – in this case, from the local (municipal) level.

Our view is that interventions such as the establishment of telecentres at the local level in a community should attempt to create a stable network of aligned interests of all the community stakeholders. Since self-reliance does not, as noted above, imply "isolationist tendencies" on the part of the local community, a further stable network has to be formed between the different communities through aligning their different interests by accepting their mutual interdependence. In the vertical dimension, communities need support from first, the local (municipal) level, and through that, from the regional, the national and even the international level. This implies that further stable networks have to develop around aligned interests between these different levels. This alignment, Monteiro [17] noted, "… is not the result of any top-down plan or decision. It is the achievement of a process of bottom-up mobilization of heterogeneous 'things'" But what are these interests? At the local (community) level we may assume an interest of sustainable socio-economic development through the development of the people of the community. At the higher levels *prima facie* evidence seems to indicate that the interests are quite different.

In the next section we examine the interests at higher government levels as portrayed in different political speeches.

3. THE VIEW FROM THE TOP

3.1 The authorized way of seeing and constructing the world

Kvasny and Truex [14] remarked that the new economy is driven by information and communications technologies, and said: "Thus it has become a matter of faith that everyone must be technology literate, web connected, and willing to change at Internet speeds." Their analysis of transcripts of speeches made by US government officials concerning the digital divide showed that "technology is treated as this magical force that will erase centuries of discrimination and inequality" and that politicians often hide the interests that underlie their statements. "Technology firms see these [deprived] communities as new markets that they can tap to sustain growth, and the politicians view these communities as sources of additional votes."

Even more explicit in its clarity of agenda is the statement by US Assistant Secretary Gregory Rohde in his speech [21] to the Federal Communications Bar Association: "We are also working to make certain that our philosophies of innovation, competition, open markets and universal service are adopted around the world."

We next turn to the analysis of three recent speeches of South African politicians, in which they address issues around the digital divide. These analyses were done using Critical Discourse Analysis [7, 8], following the adaptation of Thompson [31].

3.2 South African echoes and power displays

Thompson [31] used critical discourse analysis to critically analyse a speech delivered by the President of the World Bank Group on Information and Communications Technology (ICT) and associated socio-economic development within developing countries. His analysis

highlights the fact that such discourse is replicating and extending a markedly North American worldview into the developmental sphere.

According to Widdowson [37], critical discourse analysis is the uncovering of implicit ideology in texts. It exposes underlying ideological bias and therefore, the exercise of power in texts. Fairclough (1993, quoted in [25]) explains that critical discourse analysis begins with a view of language as a social practice. Critical discourse analysis explores how discursive practices, events and texts arise from, and are ideologically shared by relations of power and struggles over power. It explores relationships between discourse and society, and society in itself is seen as a way of securing power and hegemony [25].

Foucault (1972, cited by [32]) defined discourse as "the interplay of the rules that make possible the appearance of objects during a given period of time". Whether one focuses on the ideas or the interaction between people, or on the forces that govern such interaction, discourse analysis entails an in-depth study of communication [12]. As Fiske (1994 cited by [16]) notes "discourse analysis challenges us to move from seeing language as abstract to seeing our words as having meaning in a particular historical, social, and political condition. …. Our words are never neutral".

Perhaps due to its origin (in Marxism) CDA theory believes that research always serves a political purpose, even if it does so unwittingly [12, 35]. Ultimately, CDA interprets text to find the underlying socio-political motivations for the text [2]. More generally, CDA deals with "discourse dimensions of power abuse and the injustice and inequality that result from it." [35].

There are various philosophies that can be applied to analyse discourse. This paper will present two such schools of thoughts, namely those of Foucault [9] and Habermas [11]. The Foucauldian analysis used here is Thompson's [32] adaptation of Fairclough's Critical Discourse Analysis "which locates social structures within a dialectical relationship with social activities". The analysis "seeks to link texts at a micro-level (the 'textual level') with macro-level power structures ('sociocultural practice') which, in drawing upon discourse, such texts reproduce" (*ibid.).* 'Discursive practice' is thus the mediator between the macro- and micro- levels. "In selecting sections of a speech for analysis, the analyst therefore looks for identifiable configurations of 'discursive practice' ... consisting of discrete, unique utterances, or combinations of idioms, references, inferences or phrases within a particular "order of discourse", such as 'development'. In identifying these configurations, Fairclough further distinguishes between generic 'speech genres', or linguistic devices, which apply horizontally across various orders of discourse ... and, by contrast, 'discursive types', or themes - formations which are 'vertically' identifiable as part of a particular order of discourse and which are likely to remain specific to a particular domain of study" (*op.cit.*).

Whereas a Foucauldian analysis attempts to demonstrate the irrational background of allegedly rational discourses, a Habermassian analysis tries to save rationality from being discarded [28]. Rationality, Stahl *et al.* [28] remark, is for Habermas a disposition to give reasons for one's actions. This, they continue, "can best be understood in the framework of his Theory of Communicative Action [11]. Communicative action stands for those pieces of communication where the speakers mutually respect each other as autonomous moral beings. Whenever we communicate, each utterance carries several validity claims. Discourses are acts of communication that aim at clarifying contentious validity claims" [28] (see discussion below of 'validity claims'). In the so-called "ideal speech situation" the only criterion that will decide the outcome of a discourse is the quality of the arguments. The ideal speech situation is never realised in practice, but is a necessary pre-condition for the possibility of discourses. Discourses, then, "are characterised by the attempt to emulate the ideal speech situation" [28].

Cukier *et al*. [6] and Stahl *et al*. [28] argue that it is difficult to objectively use the Foucauldian approach to multitudes of texts. Instead, they proposed a quantitative dimension to the Habermassian approach. The approach is based on the Habermas' validity claims and uses a set of guiding questions to identify speech dimensions for each of the validity claims. The validity claims of *truth*, *clarity*, *legitimacy* and *sincerity* are used to generate the discourses between the parties affected by the claims so that their differences can be resolved and a consensus reached. Truth is assessed by considering the objective facts in the speech act; clarity assumes a shared system of meaning between participants in the speech act; sincerity is assessed by considering the congruence of the expressed meaning and the speaker's agenda; legitimacy assesses the appropriateness of the implied relationship between the parties to the speech act [6].

In this approach, the text is analysed in order to identify common themes which are then used as sub-claims to the four main claims. For example, Stahl *et al.* [28] identified "costs", "benefits" and "problems" as some of the themes (sub-claims) under the truth validity claim. The number of occurrences of individual claims within the categories are counted to give an indication of how balanced the text is.

The overall aim of Stahl *et al*. [28] was to investigate the alignment of ICT policy and the actual implementation of ICT. On top of using the Habermassian approach on the ICT policy document, they used Foucauldian analysis on the micro level. Stahl *et al*. [28] found that there are definite advantages to combining the theories of Foucault and Habermas – the primary one being that they may cancel out each other's shortcomings. A Foucauldian view helps to identify the rift between the "ideal speech situation" and the real speech situation while a Habermassian view can provide the constructive (normative) criticism needed to give Foucauldian critique a way to improve reality.

Comparable with Thompson's [31] paper, our purpose is to critically analyse speeches presented by South African government officials with regard to ICT development in Africa and to show the resonance with speeches alluded to in section 5.

The full texts of the speeches are available at the web addresses given in the references. Each of the speeches has been analysed in full, but space restrictions prevents us from giving the full analyses of the speeches. The selections made from the full analyses are to illustrate the viewpoints of the officials that are relevant to our discussion.

Before we turn to the analysis of sections of the speeches, it is necessary to pause and briefly introduce NEPAD, the

New Partnership for Africa's Development, to which the first two speakers refer.

3.3 NEPAD – The New Partnership for Africa's Development

NEPAD [19] is a vision and strategic framework for Africa's renewal. The NEPAD strategic framework document arises from a mandate given to the five initiating Heads of State (Algeria, Egypt, Nigeria, Senegal and South Africa) by the Organization of African Unity to develop an integrated socio-economic development framework for Africa. NEPAD is designed to address the current challenges facing the African continent and has four priorities: Establishing the conditions for sustainable development, policy reforms, increased investment in certain priority sectors (one of which is ICT), and mobilizing resources. Expectations about the contribution of ICT to sustainable development are high [5].

4. RESEARCH METHODOLOGY

4.1 Research strategy: Critical Discourse Analysis

CDA was used to uncover any distortions that may occur in government speeches. The Foucauldian analysis analysed sections of text from three national government speeches, using speech genres and discursive types as was done in the approach by Thompson [31, 32]. The Habermassian analysis used the approach taken by Cukier *et al*. [6]. Habermassian validity claims were used to expose communicative distortions within the speeches. The strategy used was, therefore, of a qualitative nature. Further, a critical approach was deemed appropriate for this research as it questions the current situation. A *critical* analysis means that the validity of the statements made during communications are more than questioned; mistakes or weaknesses in theories or their consequences are actively sought out [27].

4.2 Research design and sample

We analysed speeches by SA government officials. The research was conducted using a broad selection of speeches made in the time span ranging from June 2002 to the July 2006 (time of analysis). A selection of both national and provincial government speeches was used in order to see if the different spheres of government have different interpretations of ICT's role in national development. Two provinces were used: Western Cape and Limpopo. Western Cape was used as an example of economically well off provinces while Limpopo was used as an example of provinces which are economically struggling (the Western Cape contributes 14.5% towards GDP while Limpopo contributes 6.5% [26]). The contribution towards GDP was used as a rough guide to judge the profusion of ICT in the provinces. Thus the Western Cape was judged as having a higher profusion of ICT than Limpopo. This difference in the profusion of ICT in the provinces was thought to have an impact on the speeches made – e.g., a speech made in the Western Cape might focus more on what could be achieved with the already available ICT, while a speech made in Limpopo would perhaps focus on the establishment of the necessary infrastructure to enable the introduction of ICT.

The selection contained speeches from ministries that are directly related to ICT (i.e., the Department of Communications (DoC) and the Department of Science and Technology) as well as peripheral ministries. The initial intention was to obtain a balanced number of speeches from national as well as provincial government officials and amongst ICT-mandated ministries and peripheral ministries. However, it was found that the majority of relevant speeches were from the ICT-mandated ministries. As a result the majority of speeches were from ICT-mandated ministries. Similarly, the sample was skewed in favour of national government. Three speeches were analysed using a Foucauldian approach, and eighteen were analysed following a Habermassian approach (refer to Table 1).

National		**Limpopo**	**Western Cape**
ICT-mandated	Peripheral		
12	4	3	2

***Table 1**: The breakdown of the sources speeches used in the analysis*

The majority of speeches were retrieved from the government website (www.info.gov.za) on the advanced search section, using "ICT" and "development" as a search terms. Other sources of data were the Universal Services Agency (USA) and the DoC websites.

4.3 Method of data analysis

Both the mainstream CDA approaches, Foucauldian and Habermassian, were used in this study in order to cancel out each other's weaknesses. Some authors argue that the two approaches are fundamentally different, and thus don't lend themselves to both being included in a single study [1, 13]. However, both approaches have the same central theme of opening up discourses and aiding the provision of alternative descriptions [28, 30]. Both approaches also share the strength of a critical approach with a view to improve the social world.

4.4 Foucauldian analysis

Thompson [32] applied Fairclough's CDA, which he explains as a combination of social theorist and linguistic approaches to discourse, to a speech made by the president of the World Bank Group with the aim of assessing the World Bank's attitude towards less-developed countries. The approach is grounded in Foucauldian thought. Thompson sought to "link texts at a micro-level (the textual level) with macro-level power structures (socio-cultural practice)".

When analysing a section of text using CDA, generic and specific speech genres and discursive types are acknowledged. Speech genres are common components of everyday speech, while discursive types are themes familiar to interpretive IS researchers [32]. It is the usage and "mixing of (often contradictory) speech genres and discursive types that provide units of discursive practice, and hence discourse, with its unique power" [32].

Given that the (sections of) speeches to be analysed in this paper is of a similar nature to that analysed by Thompson [31], the same speech genres and discursive types were identified from the text. These are shown in Table 2 below:

Speech Genre (SG)	**Discursive Type (DT)**
1 Confidence	1 Technocracy
2 Factual information	2 Legitimacy
3 Humour	3 Neutrality

4 Persuasion	4 Corporatism 5 Tech(nological) optimism 6 Pragmatism

***Table 2**. Speech Genres and Discursive Types Identified in this Analysis (adapted from [31])*

There is a subjective judgement in identifying these speech genres and discursive types and applying them to specific references (sections of text). Our subjectivity is grounded in our notion about sustainable socio-economic development, discussed earlier. In order to compensate for such subjectivity, the analysis is presented in a tabular format. Although this departs from previous applications of CDA, Thompson [32] argues that such a format places the author and reader in a comparable position to interpret the text, thus actively supporting the development of individual judgements. Furthermore, "a direct link can be traced from the source material (text column), through the initial identification of units of discursive analysis (ref column) and description of these (description column), to the derivation of speech genres and discursive types (interpretation column), through the macro-level power relations which, it is proposed, are replicated or altered as a result (the explanation column)" [32]. In the tables in section 4 below, the reference column (Ref) indicates the line number in the text of the speech.

4.5 Habermasian analysis

Validity claims were identified and then grouped into recurring themes, which in turn were broken down into more specific claims. The number of occurrences of the various claims were recorded and analysed to see how well the speech addresses the various validity claims. Data was stored and analysed using an Access Database based application which was adapted from Bernd Stahl, co-author of [28].

5. FOUCAULDIAN ANALYSIS

5.1 First speech selection: Dr BS Ngubane on the Digital Divide

The speech was given by Dr Baldwin Sipho Ngubane, then Minister of Arts, Culture, Science and Technology of the Republic of South Africa, to an audience of academics and researchers at Information Society Technologies (IST) 2002 in Copenhagen on 4 November 2002 [s10]. The IST conferences are organized annually by the European Commission as a networking and collaboration opportunity for anyone engaged in European information society research. Ngubane was invited to address a conference workshop discussing the digital divide between the developed and developing worlds. The CDA analysis follows in Table 3 below:

Ref	**Text**	**Description (Text Analysis)**	**Interpretation (Discursive Practice)**	**Explanation (Social Practice)**
37-44	It should … be emphasised that science and technology are tools for, and not mere rewards, of development. In this context, the role of ICTs, by providing dramatically improved access to information and communication, thus, breaking down barriers to knowledge and participation, is critical. Indeed, the NEPAD strategy identifies several areas where intensive use of ICTs can bring unprecedented comparative advantages to Africa.	Europe has prospered more than developing world. Deterministic view that ICT are tools of development. Developed world has erected barriers to knowledge.	Prosperity and selfishness of developed world highlighted. Co-opting of corporate terminology. Corporatism (DT4) Persuasion (SG4) Tech Optimism (DT5) Pragmatism (DT6)	Avoids analysis of reasons behind developing world situation, by focussing on Europe's relative prosperity. Listing of some developing world problems to garner support for view that developing world has been oppressed.
61-69	The question of course is, will these tools reach and will poor people effectively use them? In other words, which factors constitute the infamous digital divide, which is preventing the creation of a truly inclusive	More developing world problems given. Unusual comment for a government minister.	Need for developed world's help re-emphasized. **Persuasion (SG4) Confidence (SG1) Tech Optimism**	More developing world's problems revealed as further evidence of the need for help from the developed world.

	global information society? For Africa, the response is unequivocal: It is poor ICT infrastructure, combined with **weak policy and regulatory frameworks** and limited resources, as well as a lack of local-content software, which has resulted in inadequate access to and utilisation of affordable telephones, broadcasting, computers and the Internet.		**(DT5)**	

Table 3: *Analysis of Selections from a speech by Minister BS Ngubane (2002)*

5.2 Second speech selection: Dr Ivy Matsepe-Casaburri on the ICT Sector

The speech is by the South African Minister of Communications, Dr Ivy Matsepe-Casaburri, and was made during an ICT Sector Summit, held on 3 June 2002 in South Africa [s13]. The speech was given to leaders of organized labour, leaders of organized business, leaders of community constituencies, ambassadors, and other invited guests. The CDA analysis follows in Table 4 below:

Ref	**Text**	**Description (Text Analysis)**	**Interpretation (Discursive Practice)**	**Explanation (Social Practice)**
63-74	Let us seize this opportunity, as South Africans, to develop an ICT sector framework that gives overall direction to achieve the desired objective of sustainable economic growth and development…….. Government has already taken giant strides in this direction … The purpose … is to provide a plan to ensure that people are equipped to participate fully in society, to be able to find or create work, and to benefit fairly from it. In this regard you should align your initiatives with the national strategy …	Need to co-operate to develop ICT sector. Highlighting of government's initial efforts. Command ("you should") to follow government's direction.	Legitimacy (DT2) Persuasion (SG4)	Calling all parties together to help to develop ICT sector. All parties must align with the government and follow their lead in developing the economy. Because the government claims that it was successful in various tasks, all involved parties must follow the government's lead and direction in developing the ICT sector.
129-139	As government we have developed and implemented policies aimed at ensuring that such areas have access	The government is implementing policies to ensure	Technocracy (DT1) Tech Optimism (DT5)	Government has put the policies in place to improve South Africa's

	to infrastructure necessary for modern development. … These policies find concrete expression in projects in the areas of telecommunications, broadcasting and postal service such as: telecentres, multipurpose community centres, public information terminals, citizen post offices, community radio stations and rollout of telephone services. Our objectives to promote universal access are being realised through the implementation of these projects. In sum, the plight of under serviced areas is being put on the agenda; awareness of ICT benefits is being created in these rural communities; entrepreneurship is being promoted through ICT services and thus bridging the digital and knowledge divide.	the growth of the ICT infrastructure into rural areas.	Legitimacy (DT2) "As government we have developed …policies…" Confidence (SG1)	ICT competitiveness, but other stakeholders need to get involved to help with this development. Government is the main driving force behind bridging the digital divide. At the moment government alone is driving ICT development in rural areas.

***Table 4:**. Analysis of Selections from a Speech by Minister Matsepe-Casaburri (2002)*

5.3 Third speech selection: Dr Ivy Matsepe Casaburri on the Digital Divide

The speech was delivered by the South African Minister of Communication, who is also Chair of the NEPAD Ministerial Oversight Commission, to an audience of high-profile African leaders and politicians at the African Telecom Summit 2003 entitled "Readiness for a Networked Africa, Vision, Strategies and Institutional Arrangement under NEPAD", in Maputo, Mozambique on 12 March 2003 [s14]. The CDA analysis follows in Table 5 below:

Ref	**Text**	**Description (Text Analysis)**	**Interpretation (Discursive Practice)**	**Explanation (Social Practice)**
5-12	The UN Human Development Report of 2002 recognised both the benefits and negatives of the new era of globalisation that has affected each and every one of us in the world. … Basically it is about "using technology to solve problems of the majority".	Globalization affects everyone and more people need to be involved in decisions that shape their life.	Establishment of disparities in globalisation that need to be addressed. **Factual information (SG2)** **Legitimacy (DT2)** **Persuasion (SG4)** **Pragmatism (DT6)** Elucidation that	Establishment of need for developmental initiatives and the need for more widespread integration of African nations in globalization; indication that lack of technology infrastructure is responsible

			technology is the only solution. **Tech optimism (DT5)**	
50-60	Of course, crucial to our discussion today was the recognition of the importance of ICTs in enabling Africa's recovery and competitive entry into a globalising world. As part and parcel of the priority of bridging the infrastructure gap, emphasis was now placed on bridging the digital divide by investing in ICTs. Thes capacity-building in the ICT sector and improving our overall our (*sic*) ability to deploy, harness and exploit ICTs to advance our own socio-economic development was regarded as a priority as a NEPAD initiative. The use if (*sic*) ICTs thus became important in the following ways: (i) bridging the divide between the rural and urban areas within a given country (ii) bridging the gap between countries of a given sub-region (iii) bridging the inter-regional gap and (iv) bridging the gap between Africa and the rest of the world	Importance of ICT development – natural and inevitable enabler of success in the globalised economy	**Persuasion (SG4)** **Factual information (SG2)** **Tech optimism (DT5)** **Technocracy (DT1)** **Neutrality (DT3)** **Pragmatism (DT6)**	Replication of assumption that ICT is essential for Africa's recovery; relationship between ICT development and Africa formalised; once again affirmation is given that ICT will be used in ways most suited to African's problems

Table 5: *Analysis of Selections form a Speech by Minister Matsepe-Casaburri (2003)*

5.4 Interpretation

The analyses indicate an apparent technocentric approach with technological optimism. The development problems of Africa can be solved by the availability of and access to ICT. These convictions are legitimized by the speakers through force of persuasion, and not on the basis of factual information (s10, selection 1, ref 37-44; s13, selection 1, ref 63-74; s14, selection 2, ref 50-60). It is an implicit assumption that ICT infrastructure and access to it, suffice to bridge the digital divide. This is in line with the findings of Kvastny and Truex [14], and emphasizes the divide between the technocentric and the sociocentric approaches alluded to earlier.

In our definition of sustainable socio-economic development an important aspect is the alignment between activities at the grass roots level, and strategy at the national level. The definition emphasizes that vertical complementarity is a precondition for sustainable development. However, there is no complementarity here: Matsepe-Casaburri declares unequivocally (s13, selection 1, ref. 74): "*…you should align your initiatives with the national strategy …*". And this national strategy has one objective: access to ICT as the magical bullet to bridge the digital divide. This points to a socio-techno divide – an important concept that will be further discussed following the Habermassian analysis of the South African government's rhetoric.

This is taken up in the next section.

6. HABERMASSIAN ANALYSIS

Upon inspection of the initial analysis results, we have noted that numerous themes run through the speeches. Some sub-criteria for claims were re-arranged during a second round of analysis. This refinement was used to group similar sub-claims into better defined themes. Table 6 shows a breakdown of the claim findings. Note that some claims do not fall into sub-claims. For instance five of the benefit claims were not classified further into the any of the five benefit sub-claims. We refrained from using the "others" sub-claim in order to keep the table simpler to understand.

Claim	**Sub-claim**	**Specific instance**			
Truth					**224**
	Benefit			**90**	
		Tech-optimism	60		
		Realism	2		
		Development	12		
		Service	8		
		Communications	3		
	Technology drives the economy			**10**	
	Initiative			**28**	
		Partnership	20		
	Importance			**25**	
		Access to Tech	8		
		Research & Development	3		
		Skills	8		
		Infrastructure	5		
	Claim of success			**8**	
	Reliance on Developed World			**2**	
	Acknowledge Problems			**8**	
	Contradiction			**1**	
	Knowledge Economy			**12**	
	Human development			**1**	
	Unsupported Claim			**18**	
	Objectives			**12**	
		Socio-Economic	5		
		ICT	5		
		Bridge digital divide	4		
	Optimism			**1**	
Clarity					**36**
	Metaphor			**10**	
		Create false assurance	4		
		Promote understanding	4		
	Jargon			**4**	
	Explain objectives			**1**	
	Example			**1**	
	Rhetorical Question			**1**	
	Obfuscation			**3**	
	Unexplained terms			**9**	
Legitimacy					**90**

	Speak on behalf of others			**16**	
	Higher Authority			**21**	
	Comparison			**3**	
	Stakeholder			**17**	
	Appeal to Emotions			**11**	
	Assumption			**8**	
	Use of experts			**5**	
	Global trend			**2**	
Sincerity					**22**
	Humans as tools			**5**	
	Vagueness			**2**	
	Election			**10**	
Total					**372**

Table 6: Analysis of the South African speeches

6.1 Truth

The highest instances of truth sub-claims revolved around techno-optimism. These claims regarded technology to be a benefit in its own right. The speakers regarded ICT's to be the "magic bullet" that would bridge the digital divide in their own right.

6.2 Clarity

In general the speeches were understandable. However, it was noted that some key catching terms were used without providing definitions. For example, although used by many, the terms "knowledge economy" and "information society" were not defined. The closest any of the speeches came to a definition was:

> "Information and knowledge societies characterised by demand for universal access to and the use of high quality information for the creation, accumulation and dissemination of knowledge" [s17].

Another term that was not described sufficiently was the "under-serviced area licenses".

6.3 Legitimacy

The most common form of legitimisation was the referencing of higher authorities. For example in the following quote, Mr. Gigaba strengthens his argument by relying on the president as an authority.

> "In a speech made in Tshwane in 2000, President Mbeki made the same remark when he urged that: 'Technological and scientific advancement must belong to all the people of South Africa, …." [s6].

The technique is used to gain people's trust and it can stop them from questioning the speaker's point of view. It was noted that at times the higher authority was not appropriate. For instance, in the following quote Mr. Padayachie draws legitimacy from an unnamed "great historian":

> "A great historian once said, 'for an idea to become a revolutionary force in society, it has to be internalised by the masses of the people'. The strategic objective of the information highway, the Internet and information and communications technologies (ICTs) in general is precisely to globalise the acquisition and utilisation of information by the masses" [s18].

The questions to ask here are who is this great historian is and whether what she/he said is of value.

Global trends and views expressed by developed countries are also used to legitimise the government's view. For instance, Mr. Mbeki draws legitimacy from the UN [s7]

A common thread in the speeches is the use of what we call an "appeal to emotions" which includes references to the fight for freedom and to the Apartheid era. Such statements need to be examined in their context to see if they show a subliminal message. Some of the speeches used the emotive appeal to legitimise the slow pace of progress. It should be noted that some claims (such as in [s20]) are valid. The questions one may ask is how many millions have already benefited and whether this is an acceptable number of people. The reference to the injustices of the past detracts from these questions.

6.4 Sincerity

Two concerns about sincerity were found: Firstly, some speeches made strong references to party politics as well as upcoming elections. Secondly, some segments of speeches were shared by multiple politicians. An example of the later is when Dr. Ivy Matsepe-Caburri said:

> "As the day of the municipal elections approaches, let's charge our batteries and turn to the polls to give a fresh mandate that will empower our local government structures and institutions in the delivery of much needed services to our people" [s16].

The direct reference to upcoming elections makes the sincerity of the speaker questionable. In particular any optimistic claims without evidence would have to be scrutinised further because the speaker has revealed an

underlying agenda, namely to promote her party in the upcoming elections. She may therefore state untruths in order to please her listeners.

The ruling African National Congress's (ANC) election slogan "better life for all" was found in numerous speeches. Mr. Moloto, Premier of Limpopo province states:

> "They obviously take cue from and advance the legacy of our forebearers and legends from this part of our country like warrior King Makhado, Phiriphiri Rasimphi Tshivhase, and a community leader and activist Alpheus Malivha who steadfastly and selflessly stood in defence of their birth right and commitment to the realisation of a better life for all." [s1]

The statement "a better life for all" is referring to the ANC's election slogan. Such statements undermine the credibility of the speech.

Our analysis showed that the Minister and the Deputy Minister of Communications, Dr. Ivy Matsepe-Casaburri [s16] and Mr. Roy Padayachie [s20] shared speech material. A comparison of a number of paragraphs shows some striking similarities. Such blatant re-use of speeches could be detrimental to the credibility of the speech and in fact the speaker.

6.5 SA government views of ICT and development

In this section we discuss the government's objectives on development, the government's view of the role of ICT in development and the steps and measures necessary for ICT to fulfil its developmental role.

6.5.1 Development objectives

According to statements by various speakers, the government's development goals are to alleviate poverty and promote inclusion of all South Africans. The Minister of Communication mentioned both aspects during her 2005 Budget Vote:

> "Today we meet even more aware of the fact that our country still has a lot of wounds to heal; we still have a nation to unite and we still have an economy to put on an even higher growth path so that more people move away from the poverty line; more jobs are created and a better life is achieved for all our people." [s15].
>
> "One of the biggest challenges we face as a country is to broaden participation in the economy so that all shall share in the country's wealth. The ICT BEE Charter attempts to achieve this." [s15].

The government plans to reach its overall human development objectives by increasing economic growth [s1]. Participation in globalisation is seen as a requirement for achieving increased economic growth. There are some concerns, however. The Minister of Justice and Constitutional Development views it as "a difficult nettle we are obliged to grasp" [s9]. The "nettle" metaphor is used to convey the feeling that globalisation is a painful process. Nevertheless, SA is *obliged* to grasp it. Neither the minister nor any of the speeches justify this obligation. The inevitability of a need for participation in globalisation appears to be accepted.

6.5.2 ICT and development

According to a number of the speeches, development can be achieved if (1) the country transformed into an information society and (2) is included in the global economy. As portrayed in the next set of quotes, ICT is seen as the facilitator to achieving these goals:

> "late starters in the telecommunications handicap will risk exclusion from the global economy and severe competitive disadvantage for their goods and services" [s6].
>
> "The world is in a process of transition. In fact, we are in the throes of a revolution. We are moving away from the old economies that were driven solely by intensive labour production and manufacturing capabilities to what we refer to today, as the Information and knowledge societies" [s17].
>
> "None can dare dispute that in today's world driven by the knowledge economy, there is a close, direct and dynamic relationship between technological development, economic growth and poverty eradication" [s6].
>
> "Information and communication technologies (ICTs) have the potential to put government services delivery on a new plane in the areas of education, health, and social services and likewise to put the economy on a new trajectory" [s12].
>
> "as a country we are now at a point in our transformation and development where we must use technology to leapfrog our societies into the global information age and improve the quality of life of all our people" [s19].

At times no evidence was presented to back up such claims. This led to the many unsupported claims (recall Table 6). It should be noted, however, that the government has started a number of initiatives to meet the goals it wants to achieve using ICT.

Many of the speeches mentioned access to technology as a goal for development. While access was seen as important, it should be noted that the Deputy Minister of Science and Technology shows awareness of a techno-centric approach:

> "But first a general comment: Too often the need to address developmental priorities is simply associated with alternative and lower level technologies" [s11].

This awareness from a technology-focused department shows an understanding of the need to provide more than access to technology in order to achieve sustainable development.

6.5.3 ICT for Development Initiatives

The speeches mention various government initiatives related ICT usage by communities. As the basis of any ICT initiative lays the basic infrastructure. Government is aware of this fact as is noted in speeches of both the Premier of the Western Cape [s4] and the Member of Executive Council (MEC) for Education [s5] (MEC is equivalent to provincial cabinet minister). The two note that the recently launched Accelerated and Shared Growth Initiative for South Africa (AsgiSA) is meant to provide the necessary infrastructure for development

The Universal Services Agency is also cited as the major driving force behind many of the initiatives.

> "To promote universal access to ICTs, the DoC and the USA are partnering with provincial and local governments in establishing Multi-Purpose Community Centres (MPCCs), telecentres, e-school cyberlabs and Community Digital Hubs" [s16].

As noted in Mr. Dugmore's speech [s5], the initiatives are often said to be linked back to objectives set out in strategies and plans.

> "our various interventions are designed to meet the objectives of the Human Capital Development Strategy (HCDS). This includes the learner tracking system, which will provide the in-depth data we need to ensure fine-grained responses to the immense challenges we are facing" [s5].

While the speakers make such claims, in most cases no details provided to explain how the initiatives actually fulfil the objectives set. A further deficiency found was that IS/ICT benefits are mentioned without an apparent indication of how such benefits lead to developmental or government benefits.

In addition to using its own resources, the government is placing value and hope on building public-private partnerships and cooperation. That is exemplified in the speech by the Deputy Minister of Home Affairs when he said:

> "to achieve all these goals, it goes without saying that the government and the private sector must forge a partnership to master and use modern technologies in order to modernise our economy and the social lives of our people" [s6].

Other examples of such partnerships, as well as inter-departmental cooperation among initiatives were found in speeches by the Minster of Communications [s15, s16].

6.5.4 Initiatives and Human Development

The digital divide is seen as an unquestionable fact. However, there appears to be a conflict between the objective of social development and that of bridging the divide:

> "The fact is that the digital divide is enormous. The choices we need to make relate to how we bridge the digital divide. Do we prioritise expenditure in technology over social services?" [s9]

Some speakers acknowledge problems with regard to the above-mentioned conflict. For instance, Mr. Gigaba expresses a negative macro-economic view [s6] while Dr. Matsepe-Casaburri mentions a micro-level problem [s17].

> "the truth is that Africa has not benefited from this ICT and economic revolution, but instead her marginalisation has been deepened." [s6]

> "while these changes present us with opportunities for new jobs, there are and will be losses of traditional ones. Companies are reengineering and downsizing by embracing new technologies; they are outsourcing non-core functions" [s17]

Reaffirming the need for an IS, Dr. Matsepe-Casaburri [s17] adds that "at the same time there is an unmistakable growth in the demand for a highly skilled workforce."

The dilemma between human development and the need for economic growth is expressed more subtly through the way speakers differ in their reference to people. Some view humans as tools needed to fulfil economic objectives:

> "we expect this centre to be one of those our province will rely on in terms of production of advanced scientists in various fields" [s2].

Here the speaker sees the economy as the primary beneficiary of the centre while humans are mere objects that are produced. Other speakers focused on the human beings and their need for development.

> "the effective utilisation of ICT could take us a quantum leap forward in the knowledge and skills levels of our people" [s12].

In this case, although essentially a similar piece of information is given, human beings are the important ones and technology is simply a means to an end of bettering their lives. Some speakers, such as [s11], expressed a possibility of addressing both objectives simultaneously and indeed some claims of success have been made.

Another interesting point is on stakeholders for the initiatives. The collective citizens are mentioned as the stakeholders and beneficiaries of government's plans. Specific stakeholders referred to are the poor, previously disadvantaged and people living in rural areas as well as women. It is quite logical that ICT initiatives are aimed at providing services to those people that benefit most from it. In terms of the initiatives referred to in the speeches we did not find distortions relating to the "target stakeholders". There was, however, a lack of evidence for claims such as:

> "another good thing about the granting of the licence is that it has given the women, our mothers, an opportunity where they can provide a much-needed service and where they too, can become owners of businesses" [s21].

6.6 Training on technology

Training is seen as an important factor towards the use and reaping the benefits of ICT interventions.

> "Since training is critical for people to enjoy real benefits of ICTs, it is important that the community of Qalabotjha should use this project to the maximum. Specific people have been trained in imparting knowledge, so as to ensure that computer skills are improved through constant training" [s20].

The above quote describes what seems to be a common theme on training. The premise is that the government trains a small number of community leaders who train other community members, who in turn train more community members and so ICT skills are disseminated in this way. Another reference to such a training scheme is mentioned in [s16].

However, the type of training referenced in the speeches is technical training, which helps users to operate the ICT, i.e., to make the ICT do what they want it to – to use the functionality of the ICT. While, what is needed for social development is contextual training. This training helps users to understand how the ICT can be used to add value to their lives, which in turn promotes innovation and social development.

The next section presents the findings from both the Foucauldian and the Habermassian analyses.

7. FINDINGS

The Foucauldian analysis led us to identifying the concept of a socio-techno divide (see Section 4.4). This is discussed in the next sub-section, where we also reflect on its implications. Following that, the findings from the Habermassian analysis are presented. Both sets of findings are then used as a basis for the drawing of conclusions in Section 7.

7.1 The socio-techno divide

The socio-techno divide manifests itself between the grass roots, community level, and the higher governmental levels. At the community level the interest of key actors is the development of people, and may be, for purposes of argumentation, construed to be in line with the human scale development approach discussed earlier. (It is certainly true that many community projects do not have this approach, and would actually conform to higher level, technocentric interests – especially when they are government-initiated, such as the telecentres discussed earlier. We assume a sociocentric approach at the community level as the approach that we believe *should* be followed to demonstrate the divide between the interests at the community level and the higher levels.)

The interests of key actors at the higher governmental levels have been shown in the Foucauldian analysis to be the bridging of the digital divide through investment in ICT, providing access to ICT and providing Internet-based government services. The approach is instrumental, and the explicit belief is that providing technology will resolve the problems associated with the digital divide. The technocentric interests exhibited at higher governmental levels are in no small measure informed by similar interests of donors. This has been exemplified in Thompson's [31, 32] analysis of the speech by the president of the World Bank Group.

What are the implications of this socio-techno divide? In very practical terms it means that organizations and groups involved in development projects in communities find it difficult to obtain donor money and government support for approaches that would follow along the lines of self-reliant human scale development towards sustainable development. Funding and support follow the policy and strategy of providing ICT and access to it, expecting, as we have shown, the magic of technology to transform deprived communities into thriving hubs of economic activity and, naturally, concomitant social development. The socio-techno divide, therefore, is no curious mental construct that simply serves to draw the attention of researchers. It has to be addressed if we ever want to make progress through ICT in the Third and Fourth Worlds.

If the socio-techno divide is ignored we will continue to see development efforts and projects aimed at "bridging the digital divide" through technocentric approaches, which inevitably will continue to fail. One might argue that "time will heal" these wounds, and that in due course things will be done "the right way". We live with a patent example that such miracles do not come our way: the software industry has been plying its trade for a good many decades, and yet we still read about the dismal rate of success of software projects. Some will again argue that these problems will eventually be resolved, and some (the present authors included) will point out that in many cases, the failures of the software industry can be traced back to a lack of understanding of the deeply rooted social aspects of information systems. It could be said that here we have another instance of the socio-techno divide: a lack of understanding of the social nature of information systems by those who develop and believe in purely technical solutions. Somehow, the industry has been able to survive its own failures – perhaps because of the intermittent successes of purely technical solutions where the problems addressed were purely technical – although signs are there that the business world is becoming increasingly uneasy about the value of continuous and increased investment in IT.

In the present situation we will also see "successes" in terms of technical solutions, when governments or donor organizations would claim "the connection of people in a rural area to the Internet", but the point is that these technical solutions would not by itself achieve any marked development success, and would most likely, as in the case of the Telecentres of South Africa, technically wither away in a short time. This does not even create the opportunity for an upcoming generation in the developing world to acquire, as would seem to have happened in the developed world, the skills and benefits of the Information Age by a process of osmosis. We therefore argue strongly that the socio-techno divide should be vigorously and explicitly addressed, and conclude below that this is, in principle at least, possible. We just need the resolve to do this.

7.2 Techno-centricity

The Habermassian analysis suggests that the government wants to transform South Africa into an Information Society and become an important player in the world economy. This shows a technology orientation from a development perspective of its own accord. The question is thus whether this focus has a negative impact on human development? Our main premise that the government has fielded a techno-centric view on the role of ICT in national development has not been confirmed conclusively. The analysis has shown that the government is concerned with human development.

With regards to ICT initiatives' objectives, the speeches strike a relatively even balance between a need for access to ICT and training therein. Further, the stakeholders being addressed seem to be appropriate ones. However, the large number of techno-optimism claims, especially when compared to the low number of concerns, does suggest that the government might have a bit too much confidence in ICT and leans towards a techno-centric approach (as was found in the Foucauldian analysis). The appropriateness of the training initiatives is worth questioning when the community is left on its own with only a few people having been trained. This seems to indicate a disparity between the government's intentions and its actions.

7.3 Sticking to the party line

Some of the speeches make use of election slogans. Such speech composition suggests that there is a strong influence of party politics and this reduces the perceived sincerity of the speaker. The speaker may not say what he/she is

thinking, but rather what he/she expects the party wants to hear.

7.4 Relationships between the speakers

Another discovery made during the analysis was the close ties that seem to exist between the speakers. Figure 1 shows the references that speakers made to other speakers.

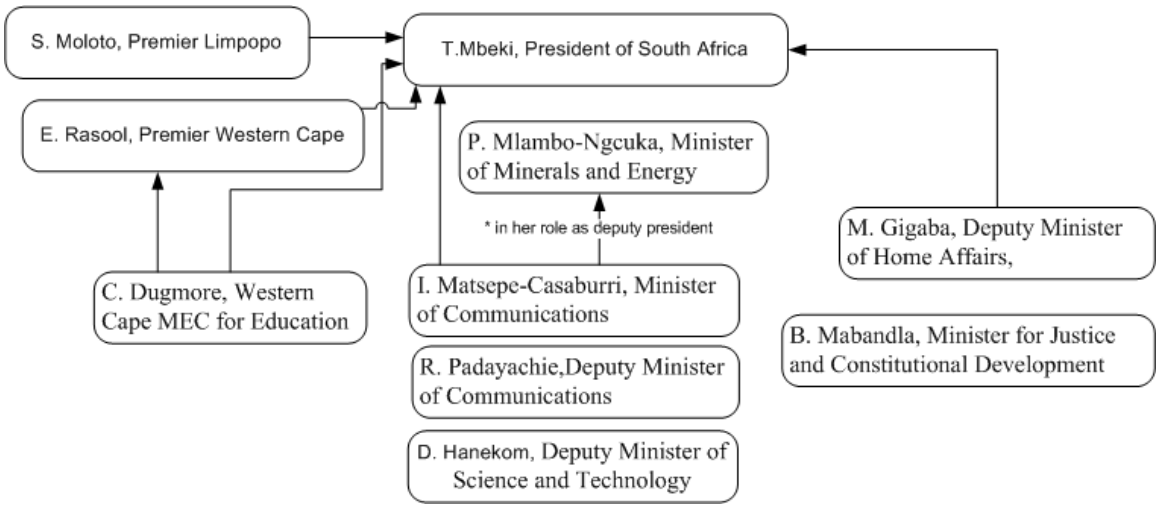

Figure 1. *Diagram showing how speakers made reference to other speakers*

Such a strong reference between the speakers indicates awareness between the spheres of government. The finding further suggests that one can expect the national and provincial governments to have coherence amongst their objectives.

We did not establish any apparent differences between national and provincial government views. If one takes a cynical point of view one might say that this kind of reference leads to a blind belief in the person above one in the hierarchy.

8. CONCLUSION

We provided a new perspective on the digital divide by showing that an important problem that has to be addressed, concerns the divide between the sociocentric approach of human scale development, and the technocentric approach of providing ICT and access to it. Unlike the digital divide, the socio-techno divide is (relatively) stable and does not exhibit the growth properties of the digital divide, which seems to widen with all efforts at closing it, and which has given it the reputation of insolvability. The bridging of the socio-techno divide, in contrast, would seem to be possible through constructive engagement.

If vertical complementarity (in terms of our definition of sustainable development) is to be achieved, stable networks of aligned interests have to be built between the local and the national through the various intermediary levels. This would entail the translation of the interests of the various key actors which currently are non-aligned, and separated by the socio-techno divide.

Translating orthogonal interests to align could prove to be well nigh impossible, but this is not the case with the different interests at play in the socio-techno divide. The techno interest centres on the provision of access to technology, and we agree that, if ICT is to be involved in the developmental process, then access to ICT is certainly necessary. Thus we have at least a starting point for the translation of interests: the infamous concept of access to technology. The failure on the techno side is the failure to appreciate the delicate and complex interplay of many more factors than merely the access to ICT in creating a developmental process. According to Max-Neef *et al.* [15] (p. 13): "There is no possibility for the active participation of people in gigantic systems which are hierarchically organized and where decisions flow from the top down to the bottom." Also, they said, relationships of self-reliance have greater synergic and multiplying effects when they flow from the bottom upwards. Thus, the developmental process has to start at the individual level within (deprived) communities, and the translation of interests is a process that will have to be started from the bottom upwards.

At the risk of sounding arrogant, we believe that key actors with a sociocentric approach to development at the community level, should have a greater understanding of the interests of key actors at the higher vertical levels, rather than *vice versa*. This implies that the initiative should be taken by IS researchers and implementers working at community level to engage key actors with technocentric interests at higher vertical levels in a process of translation of interests to achieve an alignment of interests which is the necessary prerequisite for building stable actor-networks across the full range of levels. We are not implying that this will be an easy task, but we believe it is a do-able task. Addressing the socio-techno divide constructively in this way could well herald the beginning of the end of a period of immense waste of resources through repeated and futile attempts to bridge the digital divide.

REFERENCES

[1] Ashenden, S. & Owen, D. (eds.) (1999). Foucault contra Habermas: Recasting the Dialogue between Genealogy and Critical Theory. SAGE, London.

[2] Byrne, E. (2003). Development through communicative action and information system design: a case study from South Africa. In Proceedings of SAICSIT, 2003, pp 83–92.

[3] Castells, M. (1998). The Information Age: Economy, Society and Culture. Volume 3: End of the Millenium. Blackwell, Oxford.

[4] Chacko, J., G. (2005). Paradise Lost? Reinstating the Human Development Agenda in ICT Policies and Strategies: View From Practice.Information Technology for Development , Vol 11, (1) pp 97-99.

[5] Chetty, M. (2003). Information and Communications Technologies (ICTs) for Africa's Development. Available at http://www.touchtech.biz/nepad/files/documents/124.pdf

[6] Cukier, W., Bauer, R. & Middleton, C. (2004). Applying Habermas' Validity Claims as a Standard for Critical Discourse Analysis, In: Kaplan, B., Truex III, D. P., Wastell, D., Wood-Harper, A. T. & DeGross, J. I., (Eds.),Information systems research: Relevant theory and informed practice , pp. 233-258, Boston, Kluwer Academic Publishers, 2004.

[7] Fairclough, N. (1989). Language and Power. Longman, London.

[8] Fairclough, N. (2002). The dialectics of discourse. Available at http://www.geogr.ku.dk/courses/phd/glob-loc/papers/phdfairclough2.pdf

[9] Foucault, M., (1972). The Archaeology of Knowledge, London: Tavistock Publications.

[10] Grimes, S. (1992). Exploiting Information and Communication Technologies for Rural Development. Journal of Rural Studies, 8(3), 269-278.

[11] Habermas, J. (1984). The Theory of Communicative Action, Polity, Cambridge.

[12] Hammersley, M. (2002). Discourse Analysis: A Bibliographical Guide. Accessed 15 April 2006, Available at http://www.cf.ac.uk/socsi/capacity/Activities/Themes/In-depth /guide.pdf

[13] Kelly, M. (ed.) (1994). Critique and Power: Recasting the Foucault / Habermas Debate, MIT Press, Cambridge, Massachusetts / London.

[14] Kvasny, L. and D. Truex, (2001). Defining away the Digital Divide: A Content Analysis of Institutional Influences on Popular Representations of Technology. In Proceedings of the IFIP TC8/WG8.2 Conference on Realigning Research and Practice in Information Systems Development: The Social and Organizational Perspective, (Russo, N.L., Fitzgerald, B. and DeGross, JI. Eds.), p. 399, Kluwer Academic Publishers, Boston.

[15] Max-Neef, M.A., Elizalde, A. and Hopenhayn, M. (1991). Human Scale Development: Conception, Application and Further Reflections. The Apex Press, New York and London.

[16] McGregor, S. L. T. (2003). Critical Discourse Analysis – A primer, Kappa Omicron Nu, Vol. 15, (1). Accessed 2006/12/29, Available at http://www.kon.org/archives/forum/15-1/mcgregor_print.doc

[17] Monteiro, E. (2000). Actor-Network Theory and Information Infrastructure. In From Control to Drift (Ciborra, C. Ed.), pp. 71-86.

[18] Mumford, E. (2003). Redesigning Human Systems. IRP press, Hershey.

[19] NEPAD (2001). NEPAD in Brief. Available at http://www.touchtech.biz/nepad/files/inbrief.html

[20] Rhodes, J. (2003). The use of an e-commerce marketing model to enhance trading opportunities and economic development for women in an African rural community. Unpublished PhD Thesis, Department of Information Systems, University of Cape Town, South Africa.

[21] Rohde, G. (2000). The "000 Agenda for NTIA – Promoting Universal Service, Competition and Innovation. Available at http://www.ntia.doc.gov/ntiahome/speeches/fcba21700.htm

[22] Roode, J.D. (2002). A framework for achieving sustainable development through ICT interventions. Paper presented at the SSIT Workshop, London School of Economics, April 2002.

[23] Roode, D., Pollock, M., Speight, H. & Webber, R. (2004) It's not the digital divide – it's the socio-techno divide!, Proceedings of the European Conference on Information Systems, Turku, Finland, June 2004.

[24] Schumacher, E.F. (1999). Small is Beautiful: Economics as if People Mattered, Hartley & Marks.

[25] Sng, B. (2001). A Critical Discourse Analysis of the Mission Statement of Education in Singapore. In Proceedings of the AARE 2001 Conference, 2-6 December 2001. Available at http://www.aare.edu.au/01pap/sng01002.htm.

[26] South Africa's Official Gateway (nd). The nine provincesof South Africa, Accessed 2 Dec 2006, Available at http://www.southafrica.info/ess_info/sa_glance/geography/provinces.htm

[27] Stahl, B.C. (2004). The Ethics of Critical IS Research, Proceedings of the Second International Critical Research in IS Workshop, July 2004.

[28] Stahl, B.C., McBride, N. & Elbeltagi, I. (2005). Combining Postmodernism and Critical Theory in the Study of IS in the Middle East – Some Methodological Considerations, 4th International Critical Management Studies Conference, Cambridge, UK, July 2005.

[29] Stavrou, A., Benjamin, P., Burton, P. and McCarthy, C. (2000) Telecentres 2000 – The Way Forward. Available at http://www.communitysa.org.za/docs/t2000_synth.doc

[30] Steffy, B.D. & Grimes, A.J. (1992). Personnel / Organization Psychology: A Critique of the Discipline, Critical Management Studies, M. Alvesson & H. Willmott (eds.), SAGE, London, pp. 181-201.

[31] Thompson, M. (2002). ICT, Power, and Developmental Discourse: A Critical Analysis. In Proceedings of the IFIP TC8/WG8.2 Working Conference on Global and Organizational Discourse about Information Technology. (Wynn, E.H., Whitley, E.A., Myers, M.D. and DeGross, J.I. Eds.), pp. 347-373, Kluwer Academic Publishers, Boston.

[32] Thompson, P.A.M. (2004). ICT, Power, and Developmental Discourse: A Critical Analysis. The Electronic Journal on Information Systems in Developing Countries, Vol 20, (4), pp.1-26.

[33] Todaro, M.P. (1991). Economic Development in the Third World. 4th Edition. Longman, New York and London.

[34] UNDP (2005). Regional Human Development Report Realizing the Millennium Development Goals: Promoting ICT for Human Development in Asia, United Nation Development Programme, India. Accessed 5 Jan 2007, Available at http://www.apdip.net/projects/rhdr/rhdr-noimages.pdf

[35] Van Dijk, T. A. (1993). Principles of Critical Discourse Analysis, Discourse and Society, Sage Vol. 4(2), pp. 249-28.

[36] Whyte, A. (2000). Assessing Community Telecentres: Guidelines for Researchers. IDRC.

Widdowson, H. (2000). Critical Practices: On Representation and the Interpretation of Text. In Discourse and Social Life, (Sarangi, S.and Coulthard, M. Eds.), Pearson Education Limited, UK.

APPENDIX A

Breakdown of speech selection – All accessed on 3 September 2006

Limpopo

[S1] Sello Moloto, Premier of Limpopo Province, State of the Province Address, 2005 http://www.info.gov.za/speeches/2005/0502181045100 1.htm

[S2] Sello Moloto, Premier of Limpopo Province, Opening of Mphaphuli High School Multi-Media Centre, 2005 http://www.info.gov.za/speeches/2005/0504011345100 2.htm

[S3] Sello Moloto, Premier of Limpopo Province, Batho Pele day, 2005 http://www.info.gov.za/speeches/2005/0510040945100 2.htm

Western Cape

[S4] Ebrahim Rasool, Premier of the Western Cape Province , State of the Province Address, 2006 http://www.info.gov.za/speeches/2006/0602131315100 3.htm

[S5] Cameron Dugmore, MEC for Education, Launch of Central Education Management Information System, 2006 http://www.info.gov.za/speeches/2006/0603221545100 4.htm

National non ICT mandated departments

[S6] Malusi Gigaba, Deputy Minister of Home Affairs, Keynote Address at the Cards for Africa Conference, 2005. Available at http://www.info.gov.za/speeches/2005/0510281245100 1.htm

[S7] Thabo Mbeki, President of South Africa, Address at the World Summit on the Information Society, Tunis, Tunisia, 2005. Available at http://www.info.gov.za/speeches/2005/0511171115100 2.htm

[S8] Phumzile Mlambo-Ngcuka, Minister of Minerals and Energy, Presentation on behalf of the Economic Cluster I1 Sector, 2005. Available at http://www.info.gov.za/speeches/2005/0502181515100 1.htm

[S9] Ms BS Mabandla, Minister for Justice and Constitutional Development, Keynote address at the Commonwealth workshop on Law and Technology for the Africa region, 2005. Available at http://www.info.gov.za/speeches/2005/0504281415100 2.htm

National ICT-mandated departments

[S10] Dr Ben Ngubane, Minister of Arts, Culture, Science and Technology, Bridging the Divide, 2002. Available at http://www.dst.gov.za/news/speeches/minister/ict_sustainable_dev.htm

[S11] Derek Hanekom, Deputy Minister of Science and Technology, Budget Vote Address, 2005. Available at http://www.info.gov.za/speeches/2005/0504071615100 1.htm

[S12] Derek Hanekom, Deputy Minister of Science and Technology, Launch of the African Advanced Institute for ICT, CSIR, 2005. Available at http://www.info.gov.za/speeches/2005/0505181115100 1.htm

[S13] Dr Ivy Matsepe-Casaburri, Minister of Communications, ICT Sector Summit Opening Speech, 2002. Available at http://docweb.pwv.gov.za/docs/sp/2002/030602.html

[S14] Dr Ivy Matsepe-Casaburri, Minister of Communications, Readiness for a Networked Africa: Vision, Strategies and Institutional Arrangements under NEPAD, 2003. Available at http://docweb.pwv.gov.za/docs/sp/2003/1203.html

[S15] Dr Ivy Matsepe-Casaburri, Minister of Communications, Address during Budget Vote of the Department of Communications, 2005. Available at http://www.info.gov.za/speeches/2005/0505200945100 1.htm

[S16] Dr Ivy Matsepe-Casaburri, Minister of Communications, Launch of the Maluti-A-Phofung Cummunity Digital Hub, 2006. Available at http://www.info.gov.za/speeches/2006/0603061045100 2.htm

[S17] Dr Ivy Matsepe-Casaburri, Minister of Communications, Nedlac ICT Annual Forum Meeting, Telkom Centre of Learning, 2005. Available at http://www.info.gov.za/speeches/2005/0501261115100 3.htm

[S18] Radhakrishna Padayachie (Roy), Deputy Minister of Communications, Launch of ICT Terminology project, 2005. Available at http://www.info.gov.za/speeches/2005/0509301245100 6.htm

[S19] Radhakrishna Padayachie (Roy), Deputy Minister of Communications, Universal Service Agency's 2005 Seminar on Under-Serviced Area Licences, 2005. Available at http://www.usa.org.za/docs/presentations/Speech_dm_u sals_030605.pdf

[S20] Radhakrishna Padayachie (Roy), Deputy Minister of Communications, Launch of the Telecentre at the Qalabotjha Community Centre, 2005. Available at http://www.info.gov.za/speeches/2005/0509281145100 2.htm

[S21] Radhakrishna Padayachie (Roy), Deputy Minister of Communications, Celebrations to mark World Telecommunications Day, 2005. Available at http://www.usa.org.za/docs/presentations/Speech_dm_ wtd_040605.pdf