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The social constitution of Information Technology policies in developing countries

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Abstract

The role of information, communication and knowledge in shaping socio-economic development has become a top concern for African countries. Information technology, however, does not only impose change on industry and market structures, but also changes the political and social structures of a country. Therefore, the development of information technology policies cannot ignore the practices of social agents within society. The user of the information and the information technology cannot be eliminated from the equation. If this is the case, the social agent becomes irrelevant. Current initiatives, however, with regard to the implementation of new information technologies in Africa, are mainly guided by techno-economical aspects, while the target group's socio-cultural context is hardly taken into account. This results in inappropriate technology, ignorance of the African user and a reinforcement of western elitism. It is the aim of this research to investigate IT policies within developing countries and to suggest a framework for the social constitution of such policies.

Current IT policies in developing countries, critique against traditional development theories, alternative development theories, structuration theory, autopoiesis and actor-network theory are some of the issues that will be addressed in this study. The framework for implementing the social constitution of IT policies in developing countries will be evaluated against a case study.

Primary research area and relevant theories applied

The effects of the information age is felt in every organisation and it changes the fabric of day-to-day social life. The storage, retrieval and dissemination of information are critical to all social practices. Information and information technology can therefore not be separated from social interaction in society and plays a social role. Applications of technology by social agents change the forms of institution according to which social relations are organised. The applications of technology by social agents produce social impacts which change the face of society. From this it is clear that information technology cannot be viewed in isolation from the practices of social agents within society.

It must be concluded that the development of information technology policies cannot ignore these aspects. The user of the information and the information technology cannot be eliminated from the equation.

Therefore, it will be argued that the constitution of IT policies must be viewed as a social process in which individual social agents play a fundamental role. Orthodox (functionalist) approaches to the IT policy forming process tend to ignore the perspective of the social agent to the benefit of focusing only on the role of social totalities. Giddens's structuration theory provides an approach which can be used to overcome the reductions of both the functionalist and interpretive approaches to study within the ambit of the social sciences. Giddens achieves this through the introduction of the duality of structure which has it that social structure is at the same time the medium and outcome of all social action. This fundamental concept transcends the classical dualism between the social agent, on the one hand, and social totalities, on the other, and re-conceptualizes it as a duality of structure and agency. The *purposive social agent* and social structure must hence be seen as of equal import to any theory regarding social interaction. The development of an IT policy must therefore be a bottom-up approach. The social expectations of different people that are going to use the technology, the social impact of the technology on these users, as well as their view of an IT policy must be taken into account when developing the new policy. An IT policy on its own does not imply the successful implementation of an information technology infrastructure, nor does it imply the successful acceleration of socio-economic development.

Currently, if one looks at IT policies and the way they are introduced in developing countries, it seems as if a top-down approach is used. Policies come into being at very high (government) levels - in most developing countries the role of the government is to provide the vision, strategy and an enabling environment to develop national information and communication infrastructure. The African Information Society Initiative recommends that each African Government establishes a lead national agency to be responsible for broad-based coordination and collaboration within government as well as with other sectors. This can very easily become a top-down driven approach, that will ensure the failure of this initiative.

It is the aim of this research to investigate the social constitution of **IT policies within developing countries** and to suggest a framework for implementing the social constitution of IT policies. It is, further, the contention of

this research that an IT policy should be viewed as a social process which influences the lives of not only information users, but everyone that is affected by the policy (that is, all the inhabitants of that country). It will be indicated that many of the shortcomings of current approaches are a result of their simplistic and reductionistic views of the social agent and the social processes at play during the development of IT policies within developing countries.

The research is divided into four major units:

- The investigation of current IT policies in Africa: This section focuses on the current conceptions of **IT policies in developing countries** as well as their shortcomings. Current definitions of **IT policy** are given and will be followed by a discussion of known **IT policy development methodologies** in developed as well as developing countries. Critique of **traditional development theories**, problems surrounding current approaches to, and questionable assumptions underlying IT policy constitution, are highlighted. Finally, **alternative development theories** are investigated.
- The application of theoretical ideas surrounding the problem statement: In this section an overview of **Giddens's theory of structuration**, is provided. The following will be discussed: the characteristics of the social agent and social action, the nature of the social structure and the duality of the structure, as well as social systems, structuration, social and systems integration. Thereafter a critical evaluation, based on the literature, of structuration theory will be discussed, and lastly the application of the theory of structuration in the development of IT policies will be investigated. Other theoretical bases, such as **actor-network theory** and **autopoiesis** might also receive attention.
- The deduction of a model for implementing a socially constituted IT policy in a developing country (South Africa) based on the theoretical conclusions reached in the previous section: in this section a model for developing socially constituted IT policies based on the structuration theory discussed in the previous chapter will be presented.
- The investigation of case studies in African countries in order to elaborate on the findings of this research: In the last section a comparison

between orthodox IT policy development methodologies and the structural model (derived in the previous section) will be presented by making use of case studies of different African countries (Tanzania, Nigeria, Kenya, Ghana and South Africa). In this process the model is used to guide the process of understanding, and is not being 'tested'. It is not impossible that the results of the case studies might lead to a revision or refinement of the model referred to above.

Methodology and research procedures

The information systems field is fundamentally social and must hence be viewed as a social science. Social science is based on implicit and explicit philosophical assumptions of an ontological and epistemological nature as well as on assumptions concerning human nature. Because these assumptions have a methodological impact, different dimensions within the social world may be identified, for instance, the subjective-objective dimension as well as the regulation-radical change dimension (Burrell & Morgan, 1979). The two dimensions form the basis for discerning four paradigms, viz. functionalist, interpretive, radical humanist and radical structuralist. It is important that different paradigms and underlying assumptions be used in order to view the research problem deliberately from different perspectives. The developed model for implementing a socially constituted IT policy for a developing country will be enriched through the analysis of suitable case studies.

Tentative model for the social constitution of IT policies in developing countries

The above arguments lead to the fundamental assertion that the planning and constitution of IT policies cannot be separated from its implementation and IS use. The separation of planning from its implementation and use stands central to traditional approaches. IT policy planning and constitution must be re-conceptualised as one social process, or structural process through which IT policies are constituted by knowledgeable social actors as part of the structure of the social systems within the developing country (as can be seen in Figure 1). In Figure 1 a tentative model for the social constitution of IT policies in developing countries, is presented.

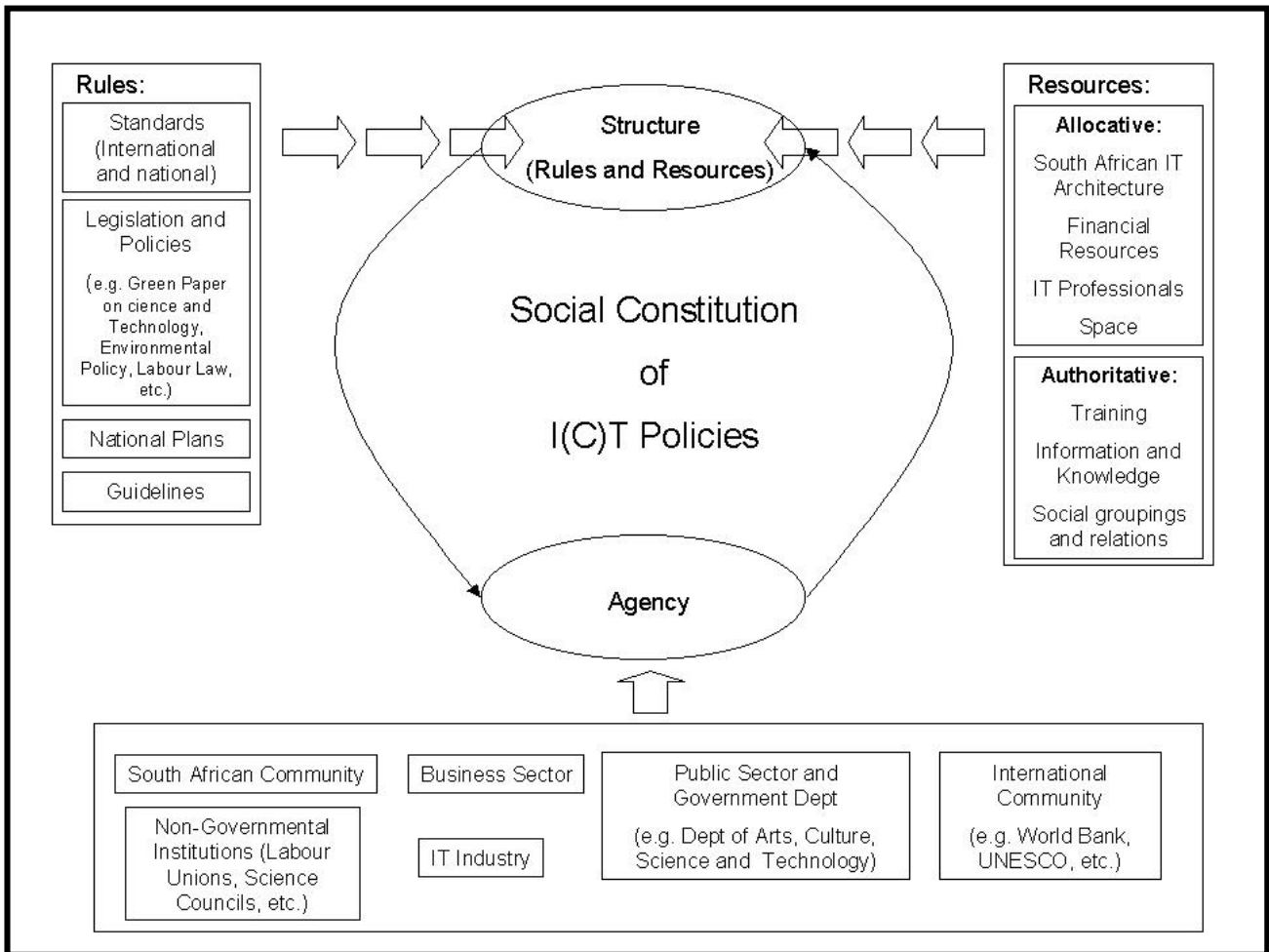


Figure 1: Tentative model for the social constitution of IT policies in developing countries

- List of references is available from first author.