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# The Impact of Technology on a Democratic Political System in South Africa

**by**

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# TITLE

# THE IMPACT OF TECHNOLOGY ON A DEMOCRATIC POLITICAL SYSTEM IN SOUTH AFRICA

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# ABSTRACT

## THE IMPACT OF TECHNOLOGY ON A DEMOCRATIC POLITICAL SYSTEM IN SOUTH AFRICA

**by EP Mokgobu**

The democratisation process in South Africa has subjected the country to the global effects of the challenges that culminated in a nation that is facing the demands for socioecomonic needs coupled with technological advancement. Advances in technology in the global arena present both opportunities and threats to the South African democracy and its concomitant socioeconomic imperatives.

The democratisation process in South Africa is consequential to the inextricably bound relationship between technology, modernisation and democracy. This triad pattern precipitates the South African democratic political system.

Advances in technology are also imperative for human and national security, but the intensity of pervasiveness may have serious ramifications for the appraisal for political stability in a democratic South Africa.

Technology is one of the major sources underpinning and strengthening democracy in a political system. However, technology also affects the daily life of the ordinary citizen, depending on the manner in which decisions are made to implement a technology policy. The South African government through its technology approach has an action plan for growth, which aims to set the economy on a more competitive footing. The action plan engages major technological projects to benefit the broader society but overlooks a major factor in the "democratic theory of technology", namely the imperative that communities be consulted about technology decisions. These efforts are concerned exclusively with democratic procedures in making policy decisions about technologies.

The South African government in 1996 reformed its technology policy approach so as to ensure that democratic values are prevalent and that citizens have access to technology. This policy approach raises concern about improving the democratic and the socioeconomic wellbeing of society, while inversely there is the uncertainty whether advances in technology can support and enhance the intended policy approach in the democratisation process in South Africa.

This problem of whether technologies are substantively democratic, that is whether technology policy decisions are compatible with perpetuating a democratic political system, resulted in the need to investigate and appraise democratic theories and further critically analyse approaches and challenges in democratic politics of technology within the South African democratic political system.

The study looks at the role and magnitude of technology in a democratic South Africa. It presents and argues the hypothesis that "*greater advance in technology tends to enhance the democratisation process in a political system"*. Much of the argument is devoted to providing evidence that technology influences both human and national security and as such demonstrates how technology as a systematic application of knowledge to resources can provide a good tool for sustaining democracy in South Africa.

Technology is ubiquitous within South Africa's democratic political system and it may be considered a boon or bane. It encompasses both benefits and disadvantages such that it poses complex options for a democratic political system in both its approach and implementation within a policy framework. The social dichotomy of this policy framework raises the need for further inquiry as to the reasoning and application of technology in addressing socioeconomic imperatives for concretising democracy, thus creating "a better life for all". The democratic imperatives within the policy framework dictate an analysis to the ventured hypothesis that "advances in technology will enhance democracy in a political system", and it is in this regard that

South Africa is used as an archetype to disembark at a logical deduction to validate this hypothesis in the study.

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# OPSOMMING

## THE IMPACT OF TECHNOLOGY ON A DEMOCRATIC POLITICAL SYSTEM IN SOUTH AFRICA

**by EP Mokgobu**

Die proses van demokratisering in Suid-Afrika het die land onderwerp aan die wêreldwye uitwerking van die uitdagings wat uitgeloop het op 'n nasie wat voor die eise van sosioekonomiese behoeftes en gepaardgaande tegnologiese vordering staan. Vordering op die gebied van die tegnologie in die wêreldarena hou sowel geleenthede as bedreigings in vir Suid-Afrika se demokrasie en sy bygaande sosioekonomiese imperatiewe.

Die demokratiseringsproses in Suid-Afrika vloei voort uit die noue verband tussen tegnologie, modernisering en demokrasie. Hierdie drietal presipiteer die Suid-Afrikaanse demokratiese politieke stelsel.

Vordering op die gebied van tegnologie is ook noodsaaklik vir menslike en nasionale sekerhied, maar die intensiteit van die verspreiding daarvan kan ernstige vertakkinge meebring vir die beoordeling vir politieke stabiliteit in 'n demokratiese Suid-Afrika.

Tegnologie is een van die hoofbronne wat demokrasie in 'n politieke stelsel steun en versterk. Tegnologie raak egter ook die daaglikse lewe van die gewone burger, afhangende van die wyse waarop besluite geneem word vir die implementering van 'n tegnologiebeleid. Met sy benadering tot tegnologie het die Suid-Afrikaanse regering 'n plan van aksie vir groei, wat daarop gemik is om die ekonomie meer mededingend te maak. Die plan van aksie span groot tegnologiese projekte in om tot voordeel van die breër gemeenskap te strek maar misken 'n groot faktor in die "demokratiese teorie van tegnologie", naamlik die noodsaaklikheid dat gemeenskappe oor tegnologiebesluite geraadpleeg moet word. Hierdie pogings is uitsluitlik gemoeid met demokratiese prosedures om beleidsbesluite oor tegnologieë te maak.

In 1996 het die Suid-Afrikaanse regering sy tegnologiebeleidsbenadering hersien ten einde te verseker dat demokratiese waardes oorheersend is en burgers toegang tot tegnologie het. Hierdie beleidsbenadering wek egter kommer oor die verbetering van die demokratiese en sosioekonomiese welvaart van die gemeenskap, terwyl aan die ander kant onsekerheid bestaan of, in die demokratiseringsproses in Suid-Afrika, vordering op die gebied van tegnologie die beoogde beleidsbenadering kan ondersteun en verbeter.

Hierdie probleem, naamlik of tegnologieë substansieel demokraties is, dit wil sê of besluite oor tegnologiebeleid versoenbaar is met die voortbestaan van 'n demokratiese politieke stelsel, het gelei tot die behoefte om demokratiese teorieë te ondersoek en te takseer, en verder om benaderings en uitdagings in die demokratiese politiek van tegnologie in die Suid-Afrikaanse demokratiese politieke stelsel krities te analiseer.

Die studie bekyk die rol en omvang van tegnologie in 'n demokratiese Suid-Afrika. Die hipotese dat "*groter vordering in tegnologie daartoe neig om die demokratiseringsproses in 'n politieke stelsel te verbeter*" word in die studie voorgestel en geargumenteer. Die argument bestaan grotendeels daaruit om bewys te lewer dat tegnologie die menslike sowel as die nasionale sekerheid beïnvloed, en sodoende word getoon hoe tegnologie as 'n sistematiese aanwending van kennis op hulpbronne as 'n goeie instrument kan dien om demokrasie in Suid-Afrika te handhaaf.

Tegnologie is alomteenwoordig in die Suid-Afrikaanse demokratiese politieke stelsel, en dit kan as seën of vloek beskou word. Dit behels voordele sowel as nadele in soverre dit komplekse keuses vir 'n demokratiese politieke stelsel stel, beide in die benadering en in die implementering daarvan binne 'n beleidsraamwerk. Die sosiale tweeledigheid van hierdie beleidsraamwerk gee aanleiding tot die behoefte om verder ondersoek in te stel na die redenasie en aanwending van tegnologie in die hantering van sosioekonomiese noodsaaklikhede ten einde demokrasie te konkretiseer, om sodoende "'n beter lewe vir almal" te bewerstellig. Die demokratiese imperatiewe binne die beleidsraamwerk dikteer 'n ontleding van die gewaagde hipotese dat "groter vordering in tegnologie demokrasie in 'n politieke stelsel sal verbeter", en dit is in

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hierdie opsig dat Suid-Afrika as 'n argetipe gebruik word om by 'n logiese afleiding te kom om hierdie hipotese in die studie te staaf.

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# EXECUTIVE SUMMARY

The impact of technology on democracy has presented a plethora of literature dissonance and has equally stimulated challenges in the global political arena. It is commonly noted that technology has precipitated itself and is continuously effecting the modernisation process in South Africa; and as such any patterns of modernity in the political system warrant an analysis of concern.

South Africa has moved from a shun-orientated status quo towards a nation that is growing economically, scientifically and technologically after democratisation, and subsequent competition in the international arena presents great opportunities but also threats to societal needs. South Africa is confronted by critical needs that are intimately connected with advances in technology.

The advent of a democracy in South Africa has also seen initiatives taken by government to review and reform the country's technology approach. In 1996 the government published the Science and Technology Policy, which envisages a future where all citizens will enjoy a sustainable quality of life, participate in the economy and share a democratic culture. This future should ensure that democratic values are prevalent and that citizens have access to technology as regards the provision, availability and accessibility of basic services, which in turn will give the government a basic ground to strengthen democracy.

Democracy is preconditioned by stability and equality, which improves capabilities that advance technology as a systematic application of knowledge to resources in order to produce goods and services.

The government’s concern about improving the democratic and the socio-economic wellbeing of society, inversely questions the certainty of whether technology can support and enhance democracy.

Global debates on the notion of technology as an aspect capable of enhancing democracy and its impact on socio-economic development are also imperative for national security in a political system. Preponderant challenges are to comprehend

how technology is being perceived in the unevenly distributed socio-economic resources in South Africa. The intensity of its pervasiveness in relation to time and space, and the opportunities and threats are also presented to determine how technology, particularly information and communication technologies (ICT), can pose theoretical and conceptual change that has serious ramifications for the assessment of human and national security in a democratic South Africa.

Technology is regarded as one of the major sources underpinning and strengthening democracy in a political system. However, technology also affects the daily life of the ordinary citizen, depending on the manner in which decisions are made to implement a technology policy. The South African government unveiled its new action plan for growth, which aims to set the economy on a more competitive footing. The action plan engages major technological projects to benefit the broader society but overlooks a major factor in the "democratic theory of technology", namely the imperative that communities be consulted about technology decisions. These efforts are concerned exclusively with democratic procedures in making policy decisions about technologies.

This study addresses the problem of whether technologies are substantively democratic, that is whether technology policy decisions are compatible with perpetuating a democratic political system. The study will investigate and appraise democratic theories and further critically analyse approaches and challenges in democratic politics of technology in South Africa. The study examines the character of and crisis in technology, and considers what theoretical and practical resources are available within the South African democratic political system.

Furthermore the study intends providing evidence that technology influences both human and national security, which forms part of the conditions for a democratic political system.
The literature review is conducted and assessed to reflect aspects pertinent to technology, and which relate to issues that are considered most important for democratisation in SA. The data reviewed assisted in developing practical solutions for the application of technology in enhancing democracy in South Africa.

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The study further presents and argues the hypothesis that "*greater advance in technology tends to enhance stability in a democratic political system"*. Much of the argument is devoted to demonstrating that the systematic application of knowledge to resources can provide a good tool for sustaining democracy in South Africa. It also provides a useful critical review of how technology can assist in shaping challenges of human security in the political, social, military and economic environment of a democratic political system.

As this study is intended to look into the role and magnitude of technology in a democratic South Africa, it may not necessarily apply universally.

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# ABBREVIATIONS

| | |
|---|---|
| ANC | African National Congress |
| COSATU | Congress of South African Trade Unions |
| CSIR | Council for Scientific and Industrial Research |
| DACST | Department of Arts, Culture, Science and Technology |
| DoC | Department of Communications |
| DSTV | Digital Satellite TV |
| DTI | Department of Trade and Industry |
| ESKOM | Electricity Supply Commission (South Africa) |
| GDP | Gross Domestic Product |
| GEAR | Growth, Equity and Redistribution |
| GIS | Geographical Information Systems |
| GNP | Gross National Product |
| HDI | Human Development Index |
| HSRC | Human Sciences Research Council |
| ICT | Information and Communications Technology |
| IDC | Industrial Development Corporation |
| IDRC | International Development Research Centre |
| ILO | International Labour Organisation |
| IMF | International Monetary Fund |
| IPR | Intellectual Property Rights |
| ISP | Internet Service Provider |
| IT | Information Technology |
| ITU | International Telecommunication Union |
| JSE | Johannesburg Stock Exchange |
| NGO | Non-Governmental Organisation |
| NITF | National IT Forum |
| NRF | National Research Foundation |
| OECD | Organisation for Economic Cooperation and Development |
| R&D | Research and Development |
| RDP | Reconstruction and Development Programme |
| RSA | Republic of South Africa |
| SA | South Africa |
| SABC | South African Broadcasting Corporation |
| SADC | Southern African Development Community |
| SANDF | South African National Defence Force |
| SATRA | South African Telecommunications Regulatory Authority |
| SBDC | Small Business Development Corporation |
| SITA | State IT Agency |
| SMMEs | Small, medium and micro-enterprises |
| UNCSTD | United Nations Commission on Science and Technology for Development |
| USAID | United States Agency for International Development |
| UNDP | United Nations Development Programme |
| Unesco | United Nations Educational, Scientific and Cultural Organisation |
| WTO | World Trade Organisation |
| Y2K | Year 2000 |