**Foreword**

Realising the huge role that Information and Communications Technology (ICTs) play in the full realisation of people’s rights to freedom of expression and access to information, MISA - Zimbabwe undertook to also contribute to the policy development around this issue. This effort comes at the backdrop of various efforts, though at times, disjointed in policy formulation around ICTs by the government.

In this digital era, it is vital that Zimbabwe like any other country fully exploits ICTs as they present new ways and opportunities for the full realisation of broader human rights and in particular, access to information and freedom of expression. ICTs are without a doubt, an essential ingredient for the socio-economic and political development of any given country.

It is against this background and in line with its ongoing efforts to lobby for comprehensive media reforms, that MISA- Zimbabwe saw it fit to draft a model ICTs policy framework upon which its lobby efforts for an effective and democratic ICTs policy and legal framework will be hinged.

In drafting the policy, MISA-Zimbabwe was guided by best practices contained in regional and international documents, as well as other jurisdictions.

The policy outlines a number of key issues that impact on ICTs such as,

- The importance of a fully converged broadcasting and telecommunications sector,
- A converged regulatory framework that will bring together regulation of Broadcasting, ICTs and communications under one regulator.
- The impact of ICT’s on traditional media,
- ICT sector challenges in Zimbabwe;
- Challenges in the draft National ICTs Policy framework of 2012.

It also highlights the different approaches taken by other countries in formulating their respective ICTs policies as well as highlighting the different roles that key institutions such as the responsible ministry, government itself and parliament have to play in the development of the ICT sector in Zimbabwe. Overall, the policy adopts a rights-based and people-centred approach, and is centred on five thematic areas, which are meant to assist Zimbabwe to fully embrace and utilise ICTs to the fullest possible potential.

It is MISA-Zimbabwe’s hope that the model policy framework, which it plans to circulate to key stakeholders including government, will encourage constructive debate among citizens and contribute to the establishment of a comprehensive ICTs and legislative framework for Zimbabwe.

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PART A

1. Introduction
Information and Communications Technologies (ICT’s) have been defined as electronic means of capturing, processing, storing and distributing information; so in other words, electronic means are used to support human informational and communications activities. This definition includes analogue and digital technologies, such as computing, broadcasting, computing and the internet. However, increasingly, ICT’s are using digital formats, using a binary language of zeros and ones to store and transmit information and communications, which means that they can allow huge amounts of information to be stored and transmitted speedily. ICT policy gives shape to this sector, rather than allowing it to be driven by accidental events or market forces alone; it guides government action to achieve particular public purposes in the ICT sector. More and more areas of the ICT sector are requiring public policy interventions, to ensure that rights and civil liberties are respected, and to ensure access to ICT’s and development using ICT’s.1

Digitisation is also enabling the convergence of the previously broadcasting and telecommunications sectors. This is leading to the converging of regulators to ensure that they are able to licence operators on a technologically neutral basis, allowing them to offer multiple services over their infrastructure where any content travels on any platform. Below is a table showing the range of services, ranging from voice to data and video that can be offered over various network infrastructures.

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>1. Voice</th>
<th>Data</th>
<th>Video</th>
</tr>
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<tbody>
<tr>
<td>Fiber Optic</td>
<td>VoIP</td>
<td>FTTX</td>
<td>IPTV, Standard and High Definition TV, VOD</td>
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<tr>
<td>Cable</td>
<td>VoIP</td>
<td>Cable Modem</td>
<td>Standard and High Definition TV, VOD</td>
</tr>
<tr>
<td>Mobile</td>
<td>2G, 3G, and 4G</td>
<td>2.5G, 3G, and 4G</td>
<td>DVB and other terrestrial mobile TV</td>
</tr>
<tr>
<td>Copper Line</td>
<td>PSTN</td>
<td>DSL</td>
<td>IPTV, VOD</td>
</tr>
<tr>
<td>Fixed Wireless</td>
<td>Other (VoIP)</td>
<td>3G, WiMAX</td>
<td>DVB and other terrestrial mobile TV</td>
</tr>
</tbody>
</table>

vDSL=Digital Subscriber Line, FTTx=Fiber to the “x”, which may be home, curb or building, VoIP=Voice over Internet Protocol, VOD=Video on Demand, IPTV=Internet Protocol TV, DVB=Digital Video Broadcasting, 2G=Second generation mobile service, 3G=Third generation mobile service, 4G=Fourth generation mobile service, BPL=Broadband over Power Line.

Source: Telecommunications Management Group, Inc.2
The possibility of being able to offer multiple services over the same infrastructure means that network efficiencies can be achieved much more easily in a converged environment. Converged networks allow operators to offer ‘triple play’ services, where subscribers can access telephony, the internet and television over a single broadband connection, and the possibility of quadruple play, offering mobility as well, is also being explored. However, if many services are offered over wireless networks, then spectrum congestion can become a serious problem, making network efficiencies even more important. Multiple policies, laws and regulatory frameworks for distinct communications sectors make the achievement of these efficiencies much more difficult; hence the need for a single ICT policy and regulatory framework.

However, a converged regulatory framework means that licencing must take place on a very different basis to what it did previously. In the past, service delivery was tied to particular communication technologies, but with the advent of Internet-Protocol (IP) enabled networks, service delivery is now largely independent of network technologies.\(^3\) Whereas in the past, distinct communications technologies were licenced, a converged licencing regime often adopts a layered approach, where services are licenced according to their specific layered characteristics. The following diagram sets out the differences in approach:

![Diagram showing layered approach to licencing](image)

Source: Australian Government/ Australian Communications and Media Authority, ‘Broken Concepts’, pg. 7.

2. The impact of ICT's on traditional media: the case of public service broadcasting

It is important to understand that convergence is not simply about bringing existing media under one regulatory roof, only for them to continue operating as they always have done. Convergence
means that policy and regulation needs to conceptualise media in very different ways. The advent of convergence presents us, potentially, with a whole new way of re-conceptualising and practicing traditional media forms. One of the most important of these is public service broadcasting, which is generally much more heavily regulated by public policy than other forms of media, as it is exists to achieve particular public policy objectives such as nation building, universality, etc. Up to this point, public broadcasting has generally been practiced as a unidirectional, linear method of communicating from ‘them’ to ‘us’. Potentially, digital media can change this communications model and turn public service communication into a genuinely interactive space. Web 2.0 tools and mobile media tools can and are being used to encourage audience participation, and incorporate user generated content into programming. So, at the very least, public broadcasters are challenged to increase their interactive media activity, which may need even need to become part of their licence conditions. But more fundamentally policy makers are challenged to re-think many of their old assumptions about what constitutes public service broadcasting, and whether this conception shouldn’t shift to one that emphasises public service communication.

There are several positions that can be taken on the future of public broadcasting in the converged media environment. These are summarised as follows:

- **Dismantle public broadcasting**, as the proliferation of channels and content has made it obsolete, and let the market distribute media goods according to audience demand.
- **Confine public service broadcasting (PBS) content to a narrow range of services traditionally associated with PSB.** Variations on this approach include confining public broadcasting to linear point to multipoint broadcasting, and leave new media to the private media. PBS services can be reduced to addressing content and audiences where there is ‘market failure’.
- **Expand public service broadcasting to include any and all services that will deliver on the remit in socially relevant ways.** This approach would consider the market failure argument to be insufficient, because it is not inspirational. In other words, it does not provide an alternative vision for the kind of society we want to live in, and the kind of media we want to see, and does not seek to transform the media to achieve that vision.

In response to the ‘get rid of public broadcasting’ argument, in many African countries, that approach simply is not an option, given the huge communications asymmetries between rich and poor. This approach will reinforce communications apartheid, and should be dismissed. So what remains to be debated is option two and three, and there are a number of scenarios in this regard:

- **Status quo scenario:** One possible scenario is for the public broadcaster continues along its current path of linear broadcasting, with interactive aspects built into its services, including news and current affairs. But the underlying concept of public broadcasting remains essentially unchanged. This scenario may mean that it misses out on potential opportunities for creative synergies in the creation and distribution of news and current affairs content.
- **Public interest content provider:** Another scenario includes the public broadcaster being reconceptualised as a provider of public interest content services. So, the broadcaster would be responsible for content creation across a multiplicity of platforms, which means that the broadcaster would need to re-establish its in-house production capacity, as well as employing content providers for other platforms, or retrain existing staff to report for multiple platforms.
• **Public service publisher:** Alternatively, the broadcaster would be a facilitator of content produced by a range of service providers, as well as user generated content. To this end, the broadcaster would need to enter into a range of production and distribution agreements with content creators and distributors, which will require strong contract management skills and the will to take editorial risks. In this new model, the SABC would, for instance, act as a facilitator and navigator of on-line content.

• **Public interest communications agency:** This scenario is not in contradiction to those above, but a possible extension of those, and would involve the broadcaster opening up significant opportunities for user-generated content including citizen journalism and peer-to-peer communication and discussion around the content it carries. In this way, the corporation evolves to take on some functions akin to community media. What is significant from a public interest perspective is the extent to which it sets appropriate and distinctive policy parameters for all this, and the extent to which it enables participation by marginalised communities.  

It is this kind of re-conceptualisation of the previously distinct media and telecommunications sectors that needs to happen if the exciting possibilities of convergence are going to be realised. ICT policies need to rise to this challenge. Unfortunately many ICT policies are that in name only, while in reality being extended telecommunications policies rather than true convergence policies. Many keep the silos of broadcasting and telecommunications separate, which means that the inherent strengths of converged media are missed, such as the ability to enable communication-enabled citizenship through two-way communications. This means that these countries are likely to lose out on the benefits of convergence as policy does not support them.
PART B


According to the 2012 Policy, the vision is ‘to transform Zimbabwe into a knowledge-based society by the year 2020’, and the mission is ‘to transform Zimbabwe into a knowledge-based society so as to enhance the country’s competitiveness in the world in order to stimulate and sustain economic growth through the systematic application and innovative use of Information and Communication Technology’. This places the Policy directly in the conceptual framework of the ‘information society/ knowledge economy’. What follows below is a brief explanation of these concepts and some of the major critiques of them.

4. Critiques of information society/ knowledge economy/ knowledge society approaches

The information society is a society where information is the force that drives the economic, political and social milieu of nations. According to the South African National Commission on Information Society and Development, an information society is one that has built the necessary capacity to use ICT’s maximally to accelerate social and economic development, set goals for such developments and formulate policies and legislative measures to achieve these goals. New media technology such as ICT’s has apparently led to the information society, which is also characterised by a preponderance of information work and information flows. ICT’s have also played a central role in reshaping society, leading to old concepts of society disappearing; so for instance, where nation states existed, bounded by physical boundaries, these are being replaced gradually by virtual societies that are often trans-natioal in nature.

One of the key theorists of the information society, Manuel Castells, has drawn a distinction between an information society and an informational society. According to Castells, information has been central to many societies in the past, whereas an informational society refers to a new form of social organisation where information-generation, processing and transmission becomes the fundamental source of productivity and power. Castells has rejected both terms, and prefers to refer to a network society, as a society that has a networking logic as its basic structure. There is also another, related concept of the ‘knowledge economy’, where exploitation of knowledge is a fundamental driver of economic activity, and where knowledge is transformed into a commodity to achieve this end. Government policy is expected to support these shifts, to ensure that countries remain relevant in the globalising world.

There are five indicators of whether a society could be considered an information society: technological, occupational, spacial, cultural and economic. These are elaborated on below:

- Technological – is the diffusion of ICT’s changing the way people work and play?
- Occupational – are dominant occupations changing from industrial to knowledge-based?
  Are the number of people employed in ICT-related occupations increasing?
- Spacial – are geographic boundaries being eroded?
- Cultural – are the patterns of everyday life being changed by ICT’s and extraordinary amount of information?
- Economic – is the economy becoming more reliant on the exploitation of knowledge and information, rather than primary and secondary sectors like agriculture or manufacturing? This is often measured through the contribution of knowledge/ information sectors to a country’s Gross Domestic Product (GDP).
There have been many criticisms of the concept of the information society. Information society policies are often driven by the need countries feel not to be left out of global developments. This can lead to them adopting a 'one-size-fits-all' approach towards development where generic policies are adopted that do not address local circumstances. The information society approach is also informed by modernisation theory, where it is assumed that all countries need to follow the same development trajectory to evolve, and that the evolution from agricultural to industrial and then post-industrial, informational societies is a natural progression that all societies must follow. But modernisation theory is deeply flawed; it ignores that the development of some countries is premised on the underdevelopment of others. The use of ICT’s is value-laden, cultural and contextual.

Information society policies also tend to adopt technological determinist approaches, which assume that societies can be changed merely by greater adoption of new technology. In reality, though, the wholesale imposition of information society policies, can lead to other industries that are as important, if not more important to the development of a country, being downplayed and starved of resources. Furthermore, the labour absorption capacity of services, including the ICT sector, is often a fraction of other sectors such as agriculture and the industrial sectors. Therefore, promoting an ICT-driven economic strategy may well lead to warped development, greater unemployment and greater divisions opening up between the ‘information-haves’ and the ‘information have-nots’.

At a broader level, information society-driven approaches to national development have served the neo-liberal agenda well, as they have been used to convince governments into believing that they must refashion their communications environments to open up national economies to foreign investment. From the mid-1990’s onwards, information society-speak permeated the corridors of development institutions like the World Bank, which touted the diffusion of ICT’s as a panacea for the developing world’s problems. Countries reliant on agriculture and mining, which were especially susceptible to marginalisation during globalisation, were told that they could use ICT’s to ‘leapfrog’ over the industrial phase of development, straight into the information society and knowledge economy.

This development approach led to a series of multilateral initiatives, and many ICT for development projects (ICT4D) were bankrolled during this period. Many of these projects failed, mainly because they were supply-driven, not demand-led. Expensive multipurpose ICT centres in rural areas fell into disuse as residents were unable to adapt them to everyday use. Policymakers assumed – incorrectly - that mere diffusion of ICT’s was enough to ensure development, failing to focus on the human capabilities needed to integrate ICT usage into everyday life. A lack of much more basic services such as electricity and transportation further hampered ICT take-up.

These failed ICT4D projects exposed the dicey nature of many assumptions underpinning information society-policy, which proposed techno-fixes to development problems. Society’s key problems cannot really be solved by an ‘add ICT’s and stir’ approach. These problems continue to bedevil many societies because the social relations of poverty and inequality remain untransformed. In fact, shifting from an agricultural or industrial to an ICT-driven economy often deepens existing structural weaknesses in developing countries, exacerbating unemployment. Development priorities can become even more distorted than they were, leading to perverse growth. Northern-based electronic companies benefit inordinately from the supposedly inexorable march towards the information society as they tie developing countries into technological dependency. Countries are lulled into believing that if they don’t invest in the
latest technologies, then they will condemn themselves to underdevelopment: a belief that can lead to costly, inappropriate investments.

Technologically determinist approaches are disempowering, as they discourage the evolution of societies where technology finds its proper place in the cycle of human development. If one accepts that the shift to an information society, with all its dangers for developing countries, is not inevitable but guided by political choices, then one must also accept that different political choices can be made.

Partly in response to these critiques, the United Nations Educational, Scientific and Cultural Organisation (Unesco) adopted an alternative concept, the ‘knowledge society’, and it is this concept that the Zimbabwean ICT Policy 2012 uses. This concept is meant to be more human-centred, where ICT’s are regarded as tools to advance knowledge, rather than simply being seen as panaceas for development problems; as a result, it focuses on the social, cultural and ethical dimensions of societal development. Rather than simply emphasising technology roll-out and investment in informational industries, which information society-driven policies tend to do, the knowledge society concept emphasises more investment in quality education, increased places for community access, the broadening of content available for universal access to knowledge, linguistic diversity, and an emphasis on innovation and life-long learning.

However, in reality the knowledge society concept tends to reproduce many of the weaknesses of the information society concept. It tends to blame individuals for structural inequalities: in other words, these individuals are unemployed because they have not re-skilled sufficiently, and not because unemployment is a structural problem because there are too few jobs for the number of job seekers. This approach leads to an avoidance of questions of power, and how structural economic and political inequalities continue to keep some countries in a perpetual state of underdevelopment. It also tends to avoid the structural imbalances in the communications system that have led to some countries dominating the global communications order and others not.

5. Alternative approaches to the information society

With these critiques in mind, it is now possible to consider an alternative framework for an ICT policy: one that does not base itself so uncritically in information society/ knowledge society discourse. Robin Mansell has suggested that an alternative conception of the role of information and knowledge in society, that should underpin an ICT policy, should focus on three areas:

- Human rights – this area recognises communications as a human right and promotes human-well being in societies. In this area, attention will be given to how information and communication-related rights are being respected, as well as responsibilities of ICT users. Furthermore, ICT’s are becoming increasingly integral to life and that access to ICT’s in turn is becoming a human rights issue, in much the same way that access to schools and libraries has become a human rights issue.
- Access – this relates not only to access to ICT’s, but the capabilities and literacies required to use them. ICT’s cannot simply be provided without ensuring that the technologies are relevant to people’s lives, and that people know how to use them and adapt them to their own needs.
- Participation and representation – this focuses on the extent to which ICT’s enable participation in public life and adequate representation of all interest groups in society, and whether the languages and cultural idioms used in ICT’s enable such participation.
In addition to these areas, ICT’s should not be promoted as a ‘magic bullet’ for development problems, if it is inappropriate to do so. If other sectors of the economy need developing through, for instance industrial strategies, then enabling policies should ensure that ICT’s don’t overpromise on what they can achieve. With respect to access, the concept has moved beyond promoting public access (universal access) and private access (universal service) to telephones to include a range of services such as the internet. Furthermore, this concept should also include access to infrastructure, service and content. However, access alone is not the only factor to consider; how people use ICT’s is also crucial, which brings in the crucial aspect of capabilities. Unless people have the capabilities to use ICT’s, then they may be rolled out and under-utilised, or even remain unutilised, or utilised only by those with existing ICT capabilities, who are likely to be disproportionately male, young and urban. Thus an ICT policy must involve education and training on how to apply the information accessed, as well as access to credit and electricity. The following factors have been identified as impacting on ICT use: gender, income, levels of education and skills, age and the available infrastructure in an area. Policies must address socio-economic barriers to access. ‘Only when people are truly free, capable and choose to apply ICT’s in their lives will the use of ICT’s be realised’.

Furthermore, many ICT policies have remained, in reality, extended telecommunications policies. Few have promoted the convergence of broadcasting, telecommunications and other information services. This means that they have been unable to drive convergence in the interests of ICT users, and has led to institutions that regulate or develop the ICT sector still functioning as distinct actors. This has led to inefficient regulation, the duplication of networks and services and the fragmentation of the sector. A new ICT policy for Zimbabwe should not reproduce these problems, and should therefore be a truly converged policy.

However, at the same time, it should also be noted that there can be no ICT policy ‘blueprints’ imposed on a country for the development of its ICT sector: such an approach to policymaking is inappropriate. Much depends the state of the local ICT industry and its level of development, as well as local needs and capacities. ICT policies that have been developed by external agencies and imported wholesale into countries rarely work, while those that have evolved more organically and locally have been more enduring. Zimbabwe and many other African countries have followed the ‘blueprint approach’, developed by the African Information Society Initiative, which developed the National Information and Communication Infrastructure plan model, emphasised connectivity at the expense of policies for access and effective use, as well as those related to applications, content and the development of a domestic ICT industry. Furthermore, these ‘blueprints’ often did not take local institutional constraints and capacities into account.
PART C

6. ICT policy frameworks – international examples

Historically, the ethos of broadcasting and telecommunications policies have differed. Broadcasting regulation has focussed on content and ownership issues, while telecommunications regulation has focussed on technology and connectivity. The Common Market for Eastern and Southern Africa (Comesa) has recommended that member states should develop policy frameworks that address the following issues: affordable, ubiquitous and high quality services, building a competitive regional ICT sector and create an enabling environment for sustainable ICT diffusion and development. It has recommended that IT, broadcasting and telecommunications components should be subjected to close-co-ordination, if not integration, at the policy level, and preferably, full integration at the regulatory level.

The scope of ICT policy, though, is challenging these silos. ICT policy would incorporate aspects of these policies, while promoting convergence between the two sectors, and deal with issues affecting the ICT sector, as well as cross-cutting issues of public policy impacted on by ICT’s (such as education and health). Below are a sample of ICT policies. Most are relatively conventional policies, that are mainly business and government driven, and as a result do not problematise ‘information society’ claims, but many have very useful policy statements that could be drawn on.

6.1 Digital Britain

Digital Britain is a policy framework published by the British government in 2009, and seeks to place Britain at the forefront of the digital economy. It is a fully converged framework that cuts across previously distinct sectors. The policy focuses on the universality of communications networks, digital inclusion, the conversion of radio from analogue to digital, the creative industries, public service content, e-skills, digital security and e-government, and sets particular ambitions for the country, such as the following:

- Securing the UK’s position as one of the world’s leading digital knowledge economies;
- Ensuring that everyone can share in the benefits of a Digital Britain;
- Strengthening and modernising the country’s communications infrastructure, equipping the UK to compete and lead in the global digital economy;
- Securing and delivering a digital radio platform for the benefit of broadcasters and listeners;
- Making the UK one of the world’s main creative capitals;
- Ensuring the provision of engaging public service content of quality and range, from multiple providers on multiple platforms, to a world-class standard;
- Making the UK a world leader in research, innovation, technology and creativity, by inspiring the next generation and creating the environment for digital talent to thrive;
- Ensuring that everyone can live and work online with confidence and safety;
- Ensuring that delivery of public services in the UK keeps pace with users’ expectations of new technology and that the public sector is efficient in procuring and using ICT systems.
Some of its more innovative recommendations include:

- Ensuring universal service for broadband at 2Mbps by 2012, funded from direct public funding, and establishing a next generation fund to ensure the roll-out of next-generation networks (or Long Term Evolution networks) offering speeds of up to 50Mbps and funded by a 50p supplement on all fixed line copper;
- Broadening the remit of the public broadcaster, the British Broadcasting Corporation (BBC), to become a public service content provider with a wider range of other media organisations;
- Upgrading digital (ICT) competence to a core competence alongside English, mathematics and personal development;
- Developing a higher education framework, to ensure that the higher education sector establishes educational programmes in priority areas;
- Promote a digital switchover of public services, so that public services are delivered exclusively online;
- Promote the use of wireless white spaces (or interleaved spectrum) to free more spectrum up for the use of rural broadband projects;
- Explore the inclusion of a return path in subsidised set top boxes for the digital switchover;
- Offer a percentage of the BBC licence fee to other public service content producers on a contestable basis;
- Develop and offer a ‘digital life skills’ course to adults who may not be digitally literate.

The report has been criticised for focusing on the interests of ICT businesses, and lacking a focus on internet users. For instance, the report is heavily focussed on stringent enforcement of copyright law, to ensure that British content industries are protected from copyright infringement, but there is little consideration of the ways in which copyright enforcement, if taken to extremes, can thwart information access.

6.2 Malaysia

Malaysia has been a front-runner in developing and implementing converged ICT policies, having begun this process as far back as 1996, which led to the 1998 Communications and Multimedia Act. Its ICT policy vision is ‘...to utilise ICT to transform all of Malaysian society into an information society, then to a knowledge society and finally to a values-based knowledge society’. The Act set up a converged, statutory Malaysia Communications and Multimedia Commission, with the following objectives:

- Creating a global hub
- Building a civil society
- Nurturing local content and culture
- Ensuring long-term benefits for end-users
- Nurturing user confidence
- Promoting access and equity
- Creating a robust applications environment
- Facilitating efficient allocation of resources
- Developing industry capabilities
- Promoting safe & secure network

The Commission also moved away from the old method of licencing based on specific technologies and adopted a layered approach towards licencing, which were service and technology neutral. These licences are for content services, application services, network services
and network facilities. Malaysia has also developed a Malaysian Information, Communications and Multimedia Services strategy called MyICMS886, which identifies eight service areas to propel the country into the delivery of advanced ICT services. These areas include promoting high speed broadband networks, using both fixed and wireless technologies; promoting the ability of consumers to receive information anytime, anywhere, through the roll-out of mobile television. Malaysia has also promoted the roll-out of multiservice convergence networks that support the demand for multiple accesses to communications networks on a converged basis. This will allow multimedia services to be combined on a single device, using a single network.

6.3 Nigeria

In August 2011, the Minister of Communications set up an ad-hoc committee to harmonise all polices for the different sectors of the ICT industry and to promote convergence. The committee was given a six week assignment to harmonise all these policies, which led to the National ICT Policy, which was released in January 2012. The policy noted that institutions that regulate or develop the ICT sector do so without much co-ordination, and this has resulted in lack of co-ordination, fragmentation and inefficiency in the management of resources in the sector. The purpose of the policy is to streamline the sector, address socio-economic challenges while transforming Nigeria into a knowledge-based society. The policy will be used to develop sector plans and sub-policies. It includes the postal services as well.

The policy starts out by exploring the status of ICT’s in Nigeria, and then identifying the country’s vision and mission for ICT’s. Its vision is of ‘Nigeria as a knowledge-based and globally competitive society’, and its mission is ‘to fully integrate information and communications technologies into the socio-economic development and transformation of Nigeria into a knowledge-based economy’. It then lists a series of policy objectives, which include promoting convergence and de-emphasising differences between the historically distinct sectors of broadcasting, telecommunications and the postal services, bringing the ICT sector under a single Ministry, to enact an ICT Act, to promote universal access to ICT’s, to develop and enhance indigenous capabilities in ICT technologies, to ensure effective participation in regional and international ICT fora, to establish a framework for the transition to digital broadcasting and for community radio, to transform the postal services into commercial providers, to eliminate multiple regulation of ICT services and to create an enabling environment for investment in ICT’s in Nigeria.

Nigeria’s policy framework addresses the following areas: the policy, legal and regulatory framework (which according to the policy should address affordable and reliable access to ICT’s, investment in ICT’s, research and development in ICT’s, and legislation on cybercrimes, ethical and moral conduct, privacy, copyright and intellectual property, piracy and e-transactions); ICT infrastructure; internet and broadband penetration and usage, ICT capacity building; universal access; community broadcasting; public private partnerships in ICT’s; youth and ICT’s; local content development; security; e-applications; research and development and multiple regulation.

Some of the more noteworthy policy proposals are as follows:

- Promote local content which includes the production of local software and hardware, and content development in indigenous languages, increase Nigerian indigenous content on the World Wide Web and digitise local content in areas such as music, movies, tourism, etc.
- Promote e-applications, including e-governance, e-agriculture, e-commerce, e-health and e-learning.
Position Nigeria as a world leader in software development where the software industry becomes a major contributor to national wealth, and promote indigenous software that meets international standards;

Introduce mandatory training and appropriate courses for ICT’s to all tiers of education, and implement ICT training programmes for public sector employees, so that they can accelerate the shift to e-government;

Promote effective participation of Nigeria in the activities of various international organisations;

Promote participation of all stakeholders such as youth, academia, civil society, the private sector, and the diaspora, in Nigeria’s participation in international fora;

Provide a clear roadmap for the harvesting of the ‘digital dividend’ (the spectrum that will be vacated by television broadcasters once they migrate from analogue to digital broadcasting), and ensure competitive allocation of the resource;

Promote the use of environmentally friendly ICT’s, and use ICT’s to minimise environmental degradation;

Extend the definition of universal service/access to incorporate digital literacy and nationwide broadband presence;

Establish a Universal Service Fund to enable provision of ICT’s to underserved areas.\textsuperscript{21}

However, it is questionable to what extent the Nigerian policy is a true convergence policy. For instance it remains silent on public broadcasting, and the need to begin to reconceptualise public broadcasting (or one way communications) as public communications (or two way communications). In fact, broadcasting generally still seems to be understood as a distinct sector, without noticeable attempts in the policy to promote converged services that eliminate the distinction between broadcasting and telecommunications.

6.4 Venezuela

Venezuela’s ICT policy is an exception, as it tends to be more people-centred, and is clearly shaped by the country’s socialist-orientated policies. CANTV is the Venezuelan state telecommunications provider which was privatised initially in 1991 – the year its mobile phone component was established - and then renationalised in 2007 as part of the Bolivian government’s efforts to recover public ownership of strategic companies under Hugo Chavez. Telecommunications was declared a human right as the government felt the company was not meeting its social obligations, leading to the neglect of poorer, indigenous and geographically isolated communities.

According to Transnational Institute researcher, Daniel Chavez, who advised the government on restructuring the communications sector, since re-nationalisation the company has expanded its service, but has also ensured greater community participation in the running of the company through grassroots working groups on telecommunications and worker’s co-operatives, leading to job creation. This element of control from below has prevented public ownership from lapsing into a form of statism, where ‘all activism and protagonism in social life must be in the hands of the state’. This refocusing on community participation has encouraged effective management coupled with the introduction of appropriate innovations, as the company is guided by ‘good, socially-driven ideas’.\textsuperscript{22}

Since renationalisation CANTV has expanded the fixed-line network, achieving higher than average levels of teledensity (the number of telephone lines in a particular area) in the region, as well as 100 per cent mobile penetration. CANTV also began to provide discounted rates to low-income users and reinvests its profits into social projects.
Venezuela also came up with a National Plan for Telecommunications, Informatics and Postal Services (actually an ICT policy) that aimed to promote social inclusion of disadvantaged communities, using ICT’s as enabling tools. Five main strategic lines were identified:

- Massive access to ICT’s;
- Sovereignty and technological independence;
- State transformation;
- Use of ICT’s and postal services as enabling tools for country development; and
- Development of an inclusive communications model

This plan, coupled with the renationalisation of CANTV, has led to significant improvements in Venezuela’s ICT indicators, both in terms of network readiness and ICT development.\(^{23}\)

6.5 South Africa

When South Africa transformed from apartheid to democracy, there was a great hope that ICT’s could be used to bridge the informational divide in the country. However, after an initial promising period of transformation, the ICT sector stagnated and South Africa slipped down several of the major global indicators for ICT’s, mainly because of contradictory policies, weak regulation, and excessive profit taking by the major industry players.

South Africa adopted a semi-converged approach towards ICT regulation in 2003, when it adopted the Electronic Communications Act (ECA). By then the broadcasting and telecommunications regulators had been merged into one single regulatory structure, the Independent Communications Authority of SA (Icasa). The ECA adopted a semi-layered approach towards licencing, making provision for the following licences:

- Electronic Communications Network Service (ECNS) licences, which authorise the holder to roll-out and operate a physical network, using any technology the holder may choose: radio equipment (for a wireless network), copper cabling, fibre optic cabling etc.
- Electronic Communications Service (ECS) licences, which authorise the holder to provide services to customers over its own or somebody else’s network. This will typically be the licence held by an ISP which does not operate its own network or network facilities.\(^{24}\)
- Broadcasting licences, which authorise the holder to offer a broadcasting service.

This approach is semi-layered because it still treats broadcasting as a stand-alone, technologically-specific service.

However, South Africa does not have an ICT policy; broadcasting and telecommunications policies from the 1990’s still remain in operation. As a result, the Department of Communications has embarked on an ICT policy development process, which is envisaged to last two years and will include the following processes:

1. Framing paper on the vision for the sector
2. Green paper on the ICT sector, reviewing progress and posing questions
3. Discussion paper, outlining proposals for a policy framework based on submissions
4. Recommendations by an advisory panel to the Minister on the policy for the communications sector
5. White paper issued by Cabinet outlining government policy.
The framing paper canvasses the public on what the first principles for the ICT sector should do, and does so on a technologically-neutral basis. It outlines the following policy principles:

- South Africans have a right to freedom of expression
- South Africans have a right to access a diverse range of content
- South Africans have a right to access a broad range of information, opinion and news of relevance to their communities and lives
- South Africans have a right to quality communication infrastructure and services which enable economic growth, employment and wealth creation
- South Africans have a right to benefit from the ability of the communications sector to facilitate social development and improve the quality of life for individuals and communities
- South Africans have a right to celebrate their cultural heritage in the language(s) of their choice
- South Africans have a right to equal universal access to communication services and infrastructure
- All sectors of the population have a right to equally enjoy and benefit from communication services
- South Africans are entitled to communication services that reflect, respect and uphold constitutional and community standards and values
- South Africans have a right to privacy and to protection of personal information
- Government has a responsibility to maximise the overall public benefit derived from the use of public resources
- All South Africans are entitled to a quality communication system that facilitates innovation, fair competition and equitable treatment of all role players
- South African citizens and consumers are entitled to maximum transparency in how services are delivered and conditions under which they are delivered
- South Africans have a right to an environment that is not harmful to their health or well-being

6.6 Kenya

Kenya’s ICT policy was adopted in 2006, and is a conventional policy in that it includes policy statements on broadcasting, telecommunications, information technology and postal services, but does not really promote the convergence between these sectors. Rather it is content to treat these sectors as distinct from each other. Its vision is of a prosperous ICT-driven Kenyan society, and its mission is to improve the livelihoods of Kenyans by ensuring the availability of accessible, efficient, reliable and affordable ICT services. The policy addresses the challenges facing the ICT sector in national development. It also maintains a technology-based approach to licensing, although the regulator, the CCK, is a converged regulator.

Some of the policy’s key features include the following:

- Requiring the IT sector to play a role as an empowerment and development tool, and supports the development of local content in the ICT sector;
- Requiring the education system to ensure adequate human resources for the sector, and capacity for research;
- Ensuring that broadcasting services are provided in the public interest and to contribute to national development;
- Regulation of cross-media ownership in broadcasting;
• Optimise the telecommunications sector to contribute to the development of the Kenyan economy;
• Develop a regulatory framework for the liberalisation of the telecommunications sector;
• Voice over Internet Protocol (VOIP) is legalised;
• Citizen have a right to access basic postal services and the operators should provide affordable, equitable and efficient postal services.
• The postal services should be liberalised;
• Spectrum will be allocated according to market principles;
• Government will support universal access and service to ICT’s, and will provide the enabling environment for the private sector to play a complementary role towards achieving these targets.25

7. Civil society statements on ICT and information society policy

7.1 Civil society declaration to the World Summit on the Information Society

In 2003 and 2005, the International Telecommunications Union held two World Summits on the Information Society (WSIS), aiming to promote an information society for all. Civil society played an important role in these processes, critiquing the mainstream processes and organising parallel and at times alternative activities. A grouping of civil society organisations came up with a declaration to the WSIS, which included a civil society vision for the summit and the information society.

In this declaration, the authors argued for an approach that contained four core principles:

• Social justice and people-centred sustainable development.

The provision of ICT’s within a social justice framework, which rejects the solely-profit motivated and market-propelled promotion of ICT’s for development. Technological decisions should be taken with the goal of meeting the life-critical needs of people, not with the goal of enriching companies or enabling undemocratic control by governments. ICT’s should also be used to further poverty eradication, global citizenship, gender justice, social inclusion of youth and promote access to information and the means of communication, access to health information and basic literacy, and the development of sustainable and community-based ICT solutions.
• **Centrality of human rights**

Information and communication societies should be based on human rights and human dignity. The following rights are particularly important in this regard: freedom of expression, the right to privacy, the right to participate in public affairs, workers’ rights, the rights of indigenous people, women’s rights, the rights of the child, and the rights of persons with disabilities. National regulation should also be in full compliance with international law.

• **Culture, knowledge and public domain**

Information and communication societies must be built on the preservation of cultural and linguistic diversity, the freedom of the media and the defence and the extension of the public domain of global knowledge, and should also build capacities to express oneself using ICT’s. The increasing privatisation of knowledge production is restricting the availability of research and indigenous knowledge is being exploited without consulting the communities concerned. Limited intellectual monopolies should be granted only if they benefit broader society, and encourage creativity and innovation. Free software should be promoted; that is, software that is free for use for any purpose, study, modification and redistribution, and which should be promoted for its unique social, educational scientific, political and educational benefits and opportunities. Research should be based on co-operation, openness and transparency.

• **Enabling environment**

Equal, fair and open access to knowledge and information resources must be established as fundamental principles. National and international regulations for information and communication societies should be in full compliance with international human rights standards, and should emphasise openness, transparency, accountability, and the rule of law.
PART D

8. The ICT policy framework

Bearing the above points in mind, this model ICT policy framework for Zimbabwe adopts a rights-based and people-centred approach. It draws on the best features of the country case studies and policy documents mentioned above, and includes the previously distinct sectors of IT, broadcasting, telecommunications and the postal services.

Vision

A society where everyone in Zimbabwe can practice the right to communicate through ICT’s, and where its citizens can use this right to develop to their fullest human potential.

Mission

To develop enabling policies, strategies and plans to ensure that everyone in Zimbabwe can practice the right to communicate through ICT’s, to ensure the resourcing of these policies, strategies and plans, and to review them to ensure that they remain fit for purpose.

9. Objectives

- To spearhead the development of the ICT industry and indigenous technologies and capabilities;
- To build the capacity of Zimbabweans to enjoy sovereignty and self-reliance in the globalised society and economy;
- To support Zimbabwean culture and identity through the use of ICT’s;
- To nurture Zimbabwean talent;
- To ensure the freedom, independence and security of communications over ICT’s;
- To promote ubiquitous communications, so that Zimbabweans can access information anytime, anywhere, anyhow, depending on the choice of the user.
- To support dialogic communications, so that Zimbabweans have the ability both to receive and impart information, knowledge and ideas and not just be the recipients of messages from a few information providers;
- To accommodate technological convergence and maximise the potential of ICT’s for national development;
- To bring all ICT-related industries under a single Ministry of Communications to ensure a coherent ICT sector;
- To establish a converged communications regulator;
- To promote universal service and access to ICT’s;
- To develop and maintain indigenous capacity in ICT technologies, software development and ICT content.

10. ICT sector challenges in Zimbabwe

- Internet prices are unaffordably high for many Zimbabweans. The regulator, the Postal and Telecommunications Regulatory authority of Zimbabwe (POTRAZ) has not intervened sufficiently to regulate connectivity costs and policy has not ensured that the costs of public access points are regulated. This has limited the number of Internet Access Providers and Internet Service Providers, as cost frustrates the growth of this sector.
- Licence fees are too high, stifle new entrants and threaten their viability.
With respect to POTRAZ, there is no transparency in the selection of councillors, who are appointed by the president in consultation with the Minister of Transport and Communication. The regulator has been known to make politically partial decisions, which has called its independence into question.

Freedom of expression remains under threat, and these threats have extended to the online environment. For instance, Vikas Mavhudzi was accused of subverting a constitutional government after he posted comments on Morgan Tsvangirai’s page about the uprisings in Egypt.26 There needs to be an audit of all laws that compromise freedom of expression and privacy using ICT’s, and policy must commit government to amending or repealing these laws to bring them into line with international human rights standards.

Insufficient government information is freely available, which reduces public transparency and accountability. Furthermore, there are different standards across government for information that is made available online, and these standards need to be aligned. Some government departments and parastatals do not have websites and have no social media presence.

There is insufficient local content, which suggests that current policy does not fully support the development of a vibrant local content industry.

Some internet access providers charge for local traffic, in the process treating local and international traffic similarly. If online content is going to be encouraged, then the regulator should ensure that internet access providers don’t charge for local traffic.

Citizens are not aware of their data rights, and there has not been a nationwide campaign to encourage them to learn about their rights and how to claim them.

Infrastructure is duplicated, which leads to inefficiencies and high costs. For instance internet access providers have duplicated fibre installations.

Zimbabwe relies heavily on imported hardware and software, and has not developed local industries to lessen its technological dependency. Educational curricula do not encourage innovation in this sector, which exacerbates the problem.

11. Strategic areas

To achieve the overall objectives, the policy framework has been divided into six thematic areas, which also include strategic objectives for each area. These areas are as follows:

1. Access to ICT’s
2. Technological sovereignty and independence
3. Transformation of the state
4. Use and application of ICT’s as enabling development tools
5. Developing an inclusive communications model
12. Breakdown of strategic areas and objectives

1. ACCESS TO ICT’s

In order to use ICT’s, you need to be able to access them. Access is uneven, and heavily affected by gender, income, age and geographic location. The government must ensure that these disparities are addressed and that no-one is denied access to ICT’s on the basis of their position in society. All citizens should be able either to develop, exploit or use the platforms offered by ICT’s.

Strategic Objectives

1.1 Expand infrastructure

To guide government action on ICT’s and Postal Services to ensure access to such services regardless of geographic location, income levels, gender or any other factor that may inhibit access.

1.1.1 Develop a plan for network roll-out

Develop a network roll out plan to ensure universality by 2020. Adopt a phased approach to network roll-out with targets and deadlines, beginning with priority areas. This roll-out plan should be informed by an assessment of national and international bandwidth capacity, and where the major chokepoints are for Zimbabwe.

1.1.2 Facilitate access to terminals and applications

Create conditions for maximizing access to terminals and applications necessary to use ICT’s and postal services

1.1.3 Expand the territorial coverage of postal services

Expand coverage of postal services to the entire country, and promote affordable access to postal services, through reduced postal tariffs for needy households and discounted tariffs for non-governmental organisations, community-based organisations and SMME’s.

1.1.4 Encourage the provision of services and equipment at low cost:

Ensure that the cost of terminals and equipment is not a barrier to citizens and communities using ICT infrastructure.

1.1.5 Promote a variety of access solutions in last mile connections:

Support innovative solutions to Zimbabwe’s connectivity challenges by encouraging SMME’s and co-operatives to offer appropriate last mile connectivity solutions, especially in remote and rural areas (eg. 3G, Wi-Fi, CDMA, Wi-Max). This should contribute to job creation and ensure the deployment of appropriate technologies.

1.1.6 Increase national bandwidth capacity:

Internet users experience slow connectivity because the limited number of access points creates internet choke points, slowing down and at times even disabling internet use. More Points of Presence (PoP’s) must be created to reduce the number of choke points in the network. Increase the use of fibre-optic cables on key internet routes, especially those that could link Zimbabwe to the undersea cables, reduce the use of copper wire on key routes, and reduce the country’s dependence on V-SAT connections for these routes.
1.1.7 **Increase the number of international gateways**
Ensure that Zimbabwe is not reliant on a limited number of international gateways for international connectivity. A limited number of gateways makes the internet vulnerable to blackouts if a key gateway fails. Multiple gateways reduce the possibility of total blackout if international connectivity is lost.

1.1.8 **Promote broadband connectivity**
Ensure that broadband connections become more ubiquitous, prioritising public access points like cybercafés.

1.1.9 **Make Wi-Fi more freely available**
Lift restrictions on use of the 2.4GHz and 5GHz frequencies in the ISM band, to open up the use of Wi-Fi connections to more organisations, and to encourage the roll-out of wireless broadband.

1.1.10 **Maintain and review the effectiveness of the Universal Service Fund**
Review the effectiveness of the Universal Service Fund, set up to fund the roll out of ICT’s on a universal basis, and to subsidise network roll out and services to needy people who cannot access ICT’s without subsidy. Where necessary amend its mandate.

1.1.11 **Develop national definitions of universal service and universal access**
Develop national definitions of universal service and universal access, which incorporate digital literacy and nationwide broadband presence.

1.2 **Promote social inclusion**
To guide government action to correct imbalances in ICT usage, where those citizens without the financial means or that live in areas of the country where the infrastructure is not developed often suffer from social exclusion.

1.2.1 **Regulate the cost of services and equipment**
Ensure that the cost of terminals and equipment is not a barrier to inclusion of more citizens and communities.

1.2.2 **Optimizing the quality of postal services of the State**
Make sure that postal services provided by the Zimbabwean state are of a high quality, in terms of delivery time, reliability, privacy and integrity of the shipments, and also charge affordable tariffs.

1.2.3 **Encourage participation through SMME’s, co-operatives and other community based enterprises**
Create the conditions for the creation and sustainability of SMME’s, co-operatives and other community based enterprises to have access to ICT services, so that they can participate in the productive economy.
2. TECHNOLOGICAL SOVEREIGNTY AND INDEPENDENCE

ICT and Postal Services are important tools to promote the free and sovereign development of the nation in economic, social, cultural and political terms. The ICT sector can help ensure the sovereignty and independence of the Zimbabwean nation by encouraging local ownership and control of the sector and ensuring that it does not become technologically dependent on other countries for its growth and development.

Strategic Objectives

2.1 Boosting national and international integration
To guide government action on ICT’s and postal services to facilitate interaction between citizens and communities of Zimbabwe and of Southern Africa, to ensure integration that benefits all citizens rather than select countries.

2.1.1 Establish technological co-operation agreements with allied countries
Strengthen the development of ICT solutions for Zimbabwe and the region by encouraging co-operation agreements with countries that share Zimbabwe’s vision for a sovereign, prosperous and stable country and region.

2.1.2 Interconnecting national and regional networks
Create ICT and postal services that enable interaction and knowledge-sharing across Zimbabwe and between Zimbabwe and other countries in the region.

2.1.3 Promote shared services platforms for Southern Africa
Create shared service platforms for the registration, preservation and sharing of content relevant to the integration and development of the region.

2.1.4 Negotiate the importation of computer equipment in bulk
Identify allied countries with computer manufacturing capacity, and negotiate trade agreements to allow Zimbabwe to import computers in bulk, thereby bringing down the unit costs and making them cheaper for local purchase.

2.2 Reduce levels of dependency
To guide government action on ICT’s and postal services to reduce dependence on solutions provided by ICT multinationals, which potentially undermine Zimbabwe’s economic development, sovereignty and national independence.

2.2.1 Maximise local voice and data traffic
Maximize voice and data traffic (voice, data and video) within Zimbabwe and Southern Africa, to build local and regional economies of scale and to minimize the risks to sovereignty and independence.

2.2.2 Promote the development of free software and content
Promote the development and use of free software and free content using the opportunity offered by the GNU licencing model (a general public licencing model which guarantees end users the freedoms to use, study, share, copy, and modify software and content) to enhance national development solutions and to promote access to information.
2.2.3 **Diversify sources of technology provision**
Minimize the risk arising from dependence on foreign ICT monopolies or dominant firms, and ensure that Zimbabwe does not become locked into technological dependence on one or two suppliers.

2.2.4 **Ensure technology transfer and cooperation agreements**
Ensure, in cooperation agreements, contracts with companies from allied countries or the formation of joint ventures, that there is a real transfer of technology between that country and Zimbabwe, especially in the areas related to knowledge of design and development, to generate national capacity building and development of ICT services and applications.

2.2.5 **Negotiate skills transfer with allied countries**
Negotiate skills transfer arrangements with allied countries with high levels of ICT skills, by organising delegations to come to Zimbabwe and train local students in ICT skills like software programming.

2.3 **Develop national industries**
To guide government action on the ICT sector and postal services in the development and maintenance of a national industry that meets a dual purpose: to create solutions based on those tools that respond to the needs of Zimbabwean communities, strong associations, and an efficient and transparent administration, while creating opportunities for the development and preservation of the country’s talent.

2.3.1 **Promote research and national development**
Support research and development activities through science councils and universities to ensure that Zimbabwe can develop a national industrial base in ICT’s, and that it meets the needs of Zimbabwean society.

2.3.2 **Promote the creation of rural enterprises, co-operatives and SMMEs**
Create the conditions for the establishment of rural enterprises, co-operatives and SMME’s in ICT’s and postal services for socio-economic development.

2.3.3 **Promote the local development of technologies**
Increase the capacity of local enterprises to generate ICT and postal solutions, to contribute to the reduction in demand for imported solutions.

2.3.4 **Establish computer recycling centres**
Explore the importing of old computers from other countries, and the establishment of local centres to recycle these computers and make them available for local use.

2.3.5 **Establish partnerships to open up assembly plants**
Establish partnerships with computer manufacturers to open up assembly plants in Zimbabwe, thereby creating local jobs and bringing down the costs of computers by cutting out importation costs.

2.3.6 **Encourage the widespread take-up of open source software**
Encourage as many government departments, businesses and civil society organisations to phase out proprietary software and adopt free software, to reduce the costs of software and dependence on multinational companies that produce this software.
2.3.7 **Promote development of ICT sector as part of industrial strategy**  
Promote the development of the ICT sector as an integral part of Zimbabwe’s national industrial policy.

2.4 **Promote information security**  
To guide government action on ICT’s and postal services to achieve information security (privacy, integrity and availability) for Zimbabwean citizens.

2.4.1 **Ensure the widespread use of safe and reliable identification systems safe and reliable**  
Ensure the authenticity of the identification of citizens using ICT platforms. That is, those who access information are who they say they are, and do so without violating the right to privacy of citizens.

2.4.2 **Develop national standards for information security**  
Facilitate the adoption of safety standards to protect information security, and minimise the risk to citizens of this security being breached through, for instance, hacking or other forms of cyber-crime.

2.4.3 **Ensure that ICT networks are not used for the commission of crimes**  
Ensure that all operators take necessary steps to prevent the use of their ICT networks and facilities for the commission of crimes.

2.4.4 **Provision of ICT’s in emergency and distress situations**  
Ensure the provision of ICT’s for emergency and distress situations in all parts of the country, and support international cooperation in coordinating emergency and distress efforts using ICT’s.

2.5 **Promote green ICT sector**  
To guide government action on ICT’s and postal services to preserve the environment for future generations to come.

2.5.1 **Promote environmentally friendly ICT sector**  
Promote the use of environmentally friendly and sustainable ICT’s, monitor any impacts of ICT’s on the environment and ensure that ICT usage minimises environmental degradation and e-waste.

2.6 **Develop and preserve Zimbabwean talent**  
To guide government action on ICT’s and postal services in relation to training, ongoing development and preservation of Zimbabwean talent, who are trained to be active participants in the information society rather than passive consumers.

2.6.1 **Encourage universities to develop ICT sector**  
Encourage universities to develop knowledge resources for ICT solutions for Zimbabwean citizens, to encourage further development of their skills and encourage those skilled in ICT’s to remain productive in Zimbabwe.

2.6.2 **Encourage universities to develop skills in ICT policy**
Encourage universities to develop high level skills in ICT policy, so that Zimbabwe can hold its own in the major policy debates and policy forums globally.

2.6.3 Implement programs that encourage the formation and retention of ICT talent
Ensure that Zimbabwe retains a pool of ICT talent that is engaged, trained and up to date on the latest developments in the ICT and postal services sector, and that is active and participating in the development of the sector.

2.6.4 Encourage Zimbabweans living abroad, and who have ICT skills, to return home
Establish programmes to encourage Zimbabweans who have left the country to return to impart their ICT skills and assist in building local capacities in ICT’s.

2.7 Optimise the management of scarce resources
To guide government action in the management of scarce ICT resources.

2.7.1 Ensure effective allocation and use of spectrum and other scarce resources
Ensure effective planning, allocation, licencing, assignment and monitoring of spectrum, the judicious allocation of numbers, and the timely reallocation of unused numbers. Devise a plan for the allocation of right of way for public institutions and for the effective coordination of Zimbabwe’s orbital space.

3. TRANSFORMATION OF GOVERNMENT AND THE STATE

The transformative potential of ICT’s and postal services, can also be harnessed to transform the state. When applied to the state, ICT’s can catalyze transformation through improving state efficiency, effectiveness and transparency, and increase interaction between the state and its citizens. The state also needs to be transformed to ensure that it provides the correct enabling environment for the growth of the ICT sector, which includes setting up an independent, converged regulator and a single Ministry of Communications.

Strategic Objectives

3.1 Optimise the administration of the state
To use ICT’s to modernise the public administration and streamline their procedures and information flows.

3.1.1 Ensure referential integrity of information
Ensure referential integrity of information that is common to different organs of state, so that data that refers to the same person, organisation or issue is standardised.

3.1.2 Promote the standardization of informational processes
Promote the standardization of informational processes in all state agencies and entities using ICT’s.

3.1.3 Promote the effectiveness, efficiency and transparency in the management of organs of state
Promote the effectiveness, efficiency and transparency in the management of organs of state through the provision of accurate information to citizens through ICT’s
3.1.4 Advise State agencies and entities in the efficient use of resources
Design and implement communication mechanisms, including the generation, preservation and dissemination of knowledge associated with best practices and uses of ICT’s and Postal Services in the state, to enhance the management of the state.

3.1.5 Provide ICT and postal solutions for all state agencies and entities
Provide ICT and postal solutions for all state agencies and entities and promote the use of common platforms and applications to ensure standardisation of information and communications across the state.

3.2 Promote electronic government (e-government)
Government can use ICT’s combined with organisational change skills to improve delivery and strengthen the participation of citizens in public policy.

3.1.1 Ensure ICT solutions to bring government closer to the people
Ensure ICT solutions are developed to bring government closer to the people and enable a constant interaction between government, the state and citizens, so that they can exercise their right to participate in shaping public policies, guide state delivery and communicate with various state organs without having to travel long distances.

3.1.2 Standardise criteria for state portals
Improve the quality, image and content of state portals for online services, through the use of standardized criteria enabling access especially by vulnerable groups like the disabled.

3.1.3 Provide information and advice to the public on the effective use of state online services
Promote the effective use of the online services offered by the state by the Zimbabwean public, thereby increasing participation levels and the quality of services, and reducing effective response times and the cost of providing services.

3.1.4 Develop minimum standards for government websites
Develop a standardised approach to government websites, to discourage unevenness in quality, and to ensure that they adhere to a minimum set of standards to guarantee a uniformly high quality standard.

3.1.5 Ensure that public sector employees are skilled in ICT’s
Develop and promote ICT training programmes for public sector employees, in connection with the introduction of e-government and other digital functions in government.

3.3 Increase transparency in public administration
Provide ICT tools and postal services to increase transparency in all levels of government and the state.

3.3.1 Maintaining reliable public records
Develop and implement ICT solutions which promote the maintenance of reliable records of activities on public management processes.
3.3.2 **Ensuring ICT solutions for accountable government**
Ensure the development and implementation of ICT solutions to enable citizens to exercise public accountability over government and the state.

3.4 **Promote government, state and regulatory institutions that support convergence**
To guide government action on the convergence of previously distinct sectors, to bring them under one policy and regulatory roof, and to ensure that the regulator thus established is independent and accountable to the people of Zimbabwe.

3.4.1 **Establish one Ministry of Communications**
Merge the Ministry of Information and Communications Technologies, the Ministry of Transport and Communications and Infrastructure Development and the Ministry of Media, Information and Publicity into one converged Ministry of Communications, with Transport and Infrastructure Development forming its own Ministry. Consideration should be given to locating government communication services under the Presidency.

3.4.2 **Establish one merged communications regulator**
Establish one merged independent regulator for the communications sector, accountable to Parliament and with its members being appointed by the President on advice of Parliament, after a transparent process involving public nomination. Persons who are appointed to the regulator should be persons who are committed to fairness, freedom of expression and the right of the public to be informed, in addition to having expertise in various aspects of the ICT sector. The regulator should be independent, although it should consider policy directives issued by the Minister.

4. **USE AND APPLICATION OF ICT TOOLS AS ENABLING DEVELOPMENT**

Clearly, access to the ICT and postal platforms and services is not enough to enable economic, social, cultural and political development of the Zimbabwean nation. The purposes to which they are put is also relevant. Without prescribing what their uses should be, which will obviously be as diverse as human activity itself, government policy should promote ICT’s as enabling tools for national development, and the improvement in the quality of life for all.

**Strategic Objectives**

4.1 **Improve levels of inclusion in priority sectors**
To guide government action on ICT’s and postal services to the use of these tools for creating comprehensive solutions that enable, expand and improve their ability to respond in priority sectors, such as education, health, safety, and production and employment creation, among others.

4.1.1 **Promote ICT solutions for local industry**
Promote the development and use of ICT solutions for SMME’s and community based, income and employment generating initiatives, through providing subsidies and incentives, particularly to use locally-developed ICT solutions.

4.1.2 **Mainstream ICT’s in government development plans**
Mainstream the use of ICT’s in all major government development plans, and ensure that cabinet promotes ICT’s as a linking concept across all of these plans.
4.1.3 **Mainstream ICT's in major industries**

Strengthen the productivity of existing industries by deploying ICT’s to improve efficiency and effectiveness.

4.1.4 **Enhance public service systems using ICT's**

Expand and enhance responsiveness, penetration and coverage of the education, health, public safety and social security systems, among others, by adopting and use of suitable ICT solutions.

4.1.5 **Promote e-applications in priority sectors**

Develop a strategy that promotes the local development and use of applications for priority sectors such as education, energy, health and employment creation.

4.2 **Integrating ICT’s into educational processes**

To guide government action on ICT’s and postal services in building citizens’ capacities to use ICT’s and to use ICT’s in teaching and learning. Educational and learning processes do not occur in educational institutions only. Training is a continuous process of life that occurs in all areas: in the family, communities, factories, workshops and camps, among others, and should be encouraged in relation to ICT’s wherever it is possible. This will assist Zimbabwean citizens to develop the digital literacy needed to be full participants in the information society, rather than being relegated to the role of spectators or consumers.

4.2.1 **Strengthen and promote training in the use of ICT’s at all levels of society**

Make training opportunities available on a massive scale in schools, factories, on farms, and in communities, to ensure that citizens develop digital literacy, ensure that ICT’s becomes a compulsory component of the core curriculum, and provide life-skills training in ICT’s for adults who may not be ICT-literate.

4.2.2 **Promote training on the ethical use of ICT’s**

Promote training on using ICT’s ethically, and not tools for harassment, stalking, hate speech, spamming and other cyber-ills.

4.2.3 **Ensure connectivity of all schools**

Ensure that all schools have online access to record, preserve and share knowledge and exploit the potential of ICT’s, and ensure that all schools have at least one personal computer by 2015.

4.3 **Strengthen popular participation**

To guide government action on ICT’s and postal services on the use of these tools, to allow more popular participation in the definition, implementation and monitoring of public policies.

4.3.1 **Reduce barriers to use of ICT’s in popular participation**

Use ICT’s and postal service to create the conditions for the popular participation in decision-making, thereby helping to reduce exclusion and barriers to participation. Government should develop strategies to minimize the natural resistance to the changes introduced by new technologies and make them more user-friendly, less intimidating and easier to understand, especially for the older generation that may be more resistant to change.
4.3.2 **ICT's to support community organisations**
Increase the use of ICT’s and postal services as tools to support community organisations and their ability to communicate with their constituencies.

4.3.3 **Design ICT systems to encourage use by the disabled**
Many ICT systems assume that users all have equal ability to make use of ICT systems in whatever form they are.

4.3.4 **Establish community information centres**
Promote the establishment of community information centres, where users can access government services and information, interact electronically with elected representatives, and create horizontal networks with others.

4.3.5 **Reduce barriers for women to use ICT's for popular participation**
Prioritise the use of ICT’s by women to encourage greater participation. Women face particular challenges in participating in public life, and ICT’s can make participation easier.

4.4 **Promote indigenous knowledge**
To guide government action on promoting ICT’s and postal services as platforms to support the creation and growth of indigenous knowledge, and to make this knowledge available nationally and internationally. Citizens do not have to settle with being consumers of information and knowledge that may or may not speak to their needs. Rather the emphasis of this policy is on the ability of ordinary Zimbabweans to create new knowledge and knowledge that will help them solve development problems in their communities and workplaces.

4.4.1 **Encourage content production at community level**
Promote the development of ICT applications for easy appropriation and use by communities to leverage their potential as knowledge-generating entities, which could also include developing applications in indigenous languages.

4.4.2 **Promote the domestication of ICT’s**
To promote the appropriation and adaptation of technologies, content and knowledge through ICT’s, to empower citizens and communities in their acquisition, generation and dissemination of knowledge, its ownership, use and adaptation to their needs.

4.4.3 **Protect indigenous knowledge**
Facilitate the registration, preservation and sharing of indigenous knowledge and cultural heritages, especially those that are marginalised and in danger of extinction.

4.4.4 **Encouraging innovation**
Use ICT’s to promote and facilitate the introduction of new ideas, goods and services to generate improvements in the quality of life of the community.

4.4.5 **Digitise national archives and documents of historical importance**
Maintain Zimbabwe’s historical memory by digitizing the country’s national archives, and encouraging the digitization of all archives of national importance.
5 DEVELOPING AN INCLUSIVE COMMUNICATIONS MODEL

This objective seeks to democratize and ensure plurality and diversity in the Zimbabwean communications system. Media, including new media, cannot be available only to groups who are able to afford the means to speak and be heard. ICT’s should not be the preserve of the wealthy. If supported by appropriate policies, ICT’s can be used to encourage communities to develop their own spaces for recording, preserving and distributing knowledge that speaks to local needs and provide alternative ways of seeing the world.

5.1 Enable the right to communicate
To guide government action on ICT’s and postal services to ensure that citizens have the tools to be active in the communications cycle from start to finish, that is, in the generation, registration, preservation and distribution of communications.

5.1.1 Promote the creation of more and better community media platforms using ICT’s
Support the establishment of platforms for sharing media content nationally and internationally. This involves creating the necessary infrastructure to produce more and better quality audiovisual material, and develop products that allows the production, operation and management of community media to be systematised through free software.

5.1.2 Promote the growth and sustainability of independent television and radio
Contribute to the creation of ICT-enabled platforms for the recording and transmission of content to support the plurality of the media.

5.1.3 Promote independent national productions and local content
Promote, through the support of ICT’s, more and better domestic producers independent of the editorial line of their owners and sponsors. Develop and implement an ICT local content policy for Zimbabwe, digitise local content, and make it available online.

5.1.4 Leverage new media
Remove barriers to new media on the electromagnetic spectrum, taking advantage of new media and broadcast technologies (Digital TV, Internet Protocol TV, fibre optic communications, satellite, etc.) to ensure more efficient use of the spectrum.

5.1.5 Develop alternative economic sustainability models for the production and content distribution
Ensure the economic viability of alternative media and independent producers by funding local content by means of a transparent subsidy system, as well as tax incentive schemes for local content.

5.1.6 Encourage women to become producers of local content
Ensure that women are encouraged to raise their voices and become active content producers, to ensure that the digital space does not become dominated by men.

5.1.7 Transform state to public media
Ensure that all state owned media organisations, print and broadcasting, are transformed into public media, and that there is public participation in the public media models that are pursued, especially in defining and renewing the mandates of these
organisations. Their mandates should be reviewed at least every five years, to ensure that they remain relevant.

5.1.9 Transform the Zimbabwe Broadcasting Corporation into a public communications company
To ensure that the ZBC remains relevant in the future, it should be transformed into a public communications company with a duty to ensure the right to communicate (that is the right of citizens to receive and impart information and ideas). The ZBC should have a duty to interact with its audiences and to encourage audience participation in its services through incorporating interactive media such as social media and user generated media. To this end, government should develop a separate policy on public service communications, through a consultative public process, which should be enacted within two years of this policy.

5.2 Encourage critical ICT users
To guide government action on ICT’s and postal service to provide citizens with the tools for critical analysis of the messages disseminated by different media, to encourage them to become thinking citizens and not just subjects and passive consumers of media content.

5.2.1 Increase the quality and quantity of Zimbabwean content
Ensure that media and ICT content is of sufficient diversity and standard to encourage citizens to consume and critically engage with it.

5.2.2 Encourage the spread of values that respect human rights and diversity of opinion
Without resorting to censorship, encourage ICT usage that rejects all forms of discrimination and exploitation, such as hate speech, racism, sexism and ethnicism, fosters respect for diversity of views, and discourages intolerance for those who disagree with those views. Promote debate as a solution to political differences, rather than violence and hatred. Promote values of sharing and solidarity, and a critical approach towards consumerist values.

5.2.3 Promote media and ICT literacy at school level
Ensure that all schools offer a foundational course, and possibly more advanced courses later on, in media literacy, to help students to become critical consumers of ICT content and not just to take this content at face value, and to cope with offensive and even threatening ICT user, such as stalkers and trolls.
13. Policy, legal and regulatory framework on ICT’s and institutional mechanisms

The role of government and the Ministry

Government and the Ministry of Communications must:

- Provide overall policy direction to the ICT sector and ensure that this policy is kept under review;
- Represent the country in international fora and provide oversight of statutory ICT institutions;
- Develop draft laws for Parliament to consider.
- Develop budgets for the ICT sector for Parliament to approve.

The role of Parliament

Parliament must:

- Hold statutory ICT institutions to account by reviewing their performance on a regular basis;
- Enact laws in the ICT sector that are consistent with the sector’s policy vision.
- Undertake a transparent selection of members for the converged regulatory authority and Board members for the Zimbabwe Broadcasting Corporation, and recommend their appointment to the President.
- Ensure that the ICT sector is enabled through appropriate budgetary allocations.

The role of the converged regulator

The converged regulator must:

- Regulate the ICT industry in line with the ICT policy developed by government and ICT legislation as passed by Parliament;
- Exercise licencing and regulatory functions in respect of the communications system in Zimbabwe, including the establishment and enforcement of standards and codes relating to such systems and services;
- Develop and implement regulatory policies in line with national policy and law;
- Propose policy and regulatory changes where necessary;
- Keep the ICT sector under constant review, to ensure that it is meeting its statutory and policy mandate, and make recommendations to government and Parliament in this regard;
- Use its regulatory power to ensure a level playing field for all ICT players;
- Promote and maintain fair and effective competition in the supply of communications equipment and the provision of communication services;
- Promote universal service and universal access to ICT’s and postal services, and develop regulations to achieve this objective, and ensure that these are provided at reasonable cost;
- Promote the convergence of the previously distinct broadcasting and telecommunications sectors, to ensure that Zimbabwe becomes a digitally enabled nation;
- Promote consumer rights by establishing a consumer protection advisory committee and developing and enforcing consumer protection standards;
- Ensure that the Zimbabwean broadcasting system carries predominantly Zimbabwean content;
- Enforce ownership and control rules in line with policy and legislation, to achieve sovereignty and diversity in the ICT sector;
- Allocate frequencies in the radio frequency spectrum and monitor the use of those frequencies to ensure their efficient usage;
- Undertake research to enable the development of the ICT sector;
- Ensure that service providers are allowed to offer multiple services on a technologically neutral basis;
- Promote the development of systems and services in accordance with practicable recognised international standards;

14. Policy implementation and review

An effective policy framework must also make provision for monitoring and review of progress in implementing the framework. As such, this framework must be used to develop a strategic plan for the ICT sector, and serve as a guide for developing sub-sectoral policies and specific implementation guidelines where appropriate. The Ministry of ICT's must ensure that an effective monitoring and review process is put in place and annual reports on ICT developments in Zimbabwe must be prepared by the Ministry and submitted to Parliament for annual review.
PART E

15. Further reading


Department for Culture, Media and Sport, and Department for Business Innovation and Skills, Digital Britain, final report, June 2009.


Lishan Adam and Alison Gillwald, ‘The political economy of ICT policy making in Africa: historical contexts of regulatory frameworks, policy performance, research questions and methodological issues’,


Robin Mansell, ‘The information society and ICT policy: a critique of the mainstream vision and an alternative research framework’, LSE Research Online, August 2009.


PART F

Endnotes

2 Telecommunications Management Group, Inc, ‘ICT regulation toolkit’,
http://www.ictregulationtoolkit.org/en/Section.2084.html
3 Australian Government and Australian Communications and Media Authority, ‘Broken concepts: the
Australian communications legislative landscape’, August 2011, pg. 7.
Windhoek: Friedrich Ebert Stiftung. Also see Jakubowicz, K. Public service broadcasting: a new beginning or
6 Toks Oyedemi and Zandi Lesame, ‘South Africa: an information society?’, in Zandi Lesame (ed), New media,
technology and policy in developing countries, 2005, Van Schaik: Pretoria, pp. 76.
7 Toks Oyedemi and Zandi Lesame, ‘South Africa: an information society?’, in Zandi Lesame (ed), New media,
8 Toks Oyedemi and Zandi Lesame, ‘South Africa: an information society?’, in Zandi Lesame (ed), New media,
9 Erwin Alampay, 2006, ‘Beyond access to ICT’s: measuring capabilities in the information society’,
International Journal of Education and Development using ICT’s, Volume 2, Number 3.
13 In this regard, the framework proposed by Robin Mansell is adopted here. See Robin Mansell, ‘The
information society and ICT policy: a critique of the mainstream vision and an alternative research framework’,
LSE Research Online, August 2009, 22.
14 Erwin Alampay, 2006, ‘Beyond access to ICT’s: measuring capabilities in the information society’,
International Journal of Education and Development using ICT’s, Volume 2, Number 3.
16 Lishan Adam and Alison Gillwald, ‘The political economy of ICT policy making in Africa: historical contexts
of regulatory frameworks, policy performance, research questions and methodological issues’,
http://www.aercafrica.org/documents/ICT_project_working_papers/Adam_Gillwald_The_Political_Economyof
ICTPolicyMaking.pdf.
8.
18 International Telecommunications Union, ‘West African Common Market Project: harmonisation of policies
governing the ICT market in the UEMOA-ECOWAS space: model ICT policy and legislation’ (undated),
19 Department for Culture, Media and Sport, and Department for Business Innovation and Skills, Digital Britain,
final report, June 2009.
22 Nick Buxton, ‘What should a 21st Century “socialist” telecommunications company look like?’ (interview
23 Carlos Figuera, Yudith Cardinale and Franco Silva, ‘Information and communications technologies for social
inclusion: experiences in Venezuela’ (presentation), 4th Global Information Infrastructure and Networking
24 Ellipsis regulatory solutions, ‘Overview of electronic communications regulation in South Africa’, undated,
http://www.ellipsis.co.za/wp-content/uploads/2012/03/Overview-of-Electronic-Communications-Regulation-in-
Notes