Governance, Technology and the Search for Modernity in Kenya

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An ICT policy that produces broad access quickly is better than one that does not. Accordingly, success in ICT policymaking can be measured by three empirical measures: speed of passage, scope of implementation, *and* distribution, *as well as one normative measure,* process. "Process" *represents an important normative dimension of ICT policymaking. Process measures the extent to which the ICT policymaking involves the citizenry, as represented by individuals, civil society groups, local private sector groups, and ideally, urban and rural residents* (*"*wananchi*"*). *Kenya is a case of slow speed of passage, low scope of implementation, low distribution, but high process. The political history of Kenya's ICT policymaking explains why this county, with such capable people and relatively open ICT policymaking, has struggled to keep up with its poorer neighbors.*

INTRODUCTION

The effort to write an information and communications technology (ICT) policy in Kenya has brought to the fore issues of modernization and distribution in that nation. These issues have forced researchers in the ICT arena to pay attention to issues of agenda setting, interest group interaction, and negotiation between the government and other policy actors. The actors and stakeholders include local as well as international participants.[1] This policy process has engaged governments, domestic civil society, multilateral organizations, donors, indigenous private sector organizations, and multinationals in both dialogue and conflict.[2]

An international policy discourse has transformed ICT into a new political-technological object. Scholars, practitioners and politicians used to talk about "telecommunications." Now they talk about "information and communications technology." This is due in large part to the fact that computing and telecommunications are undergoing a process of convergence. The line between "plain old telephone service" and computing is increasingly blurred, with new applications such as the iPhone allowing people to access Internet by telephone and telephony by

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computer. Thus, ICT in Africa is a bundle of technologies the adoption and uptake of which requires the creation of a new expert and political order.

The answers to the following questions can provide insight into the relationship between politics and policymaking in emerging democracies. First: what process is used to decide whether and how ICT policies are drafted, adopted, and implemented? Second: What indicators can we use to measure policy success for ICT policy? Third: How does implementation actually correlate with written ICT policy statements and rhetoric? Ultimately: has governance changed, has infrastructure been strengthened, and have new institutions been built? Kenya provides a model case study in the difficulties in arriving at a successful ICT policy.

If Kenya can pull out of its current difficulties, its democracy and development can move forward on a positive trajectory. Democratic participation may increase, economic growth may continue, and roads, schools, and technological infrastructure may be built nationwide. The glory of the post-Independence years may be restored—and indeed surpassed—as Kenya combines a new era of participatory, multi-party democracy with high levels of economic growth. The Kenyatta clientelism of the 1960s built a regional power boasting the best roads, the best universities, and a vibrant economy. As Kenya's democracy faltered, during the 1980s and early 1990s, so did its infrastructure. This period saw a government founded upon a viciously extractive clientelism that fed narrow parochial interests and a semi-autocratic political machine; in the absence of democracy, the country's infrastructure crumbled and the economy neared collapse.[3] What lies ahead for Kenya in this new era? The nation's path under multi-party democracy has much to tell us about this journey and about the fate of the policies surrounding the nation's new economic engine: Information and Communications Technology.[4]

In order to explore these themes and explain outcomes in the Kenyan case, this paper is organized as follows: First, I briefly define some of the non-governmental actors in Kenya, in particular civil society and the private sector. Second, I consider the history of policymaking in Kenya. Third, I review the history of ICT policymaking in Kenya. In conclusion, I reflect on the implications of this policymaking process for the future of both ICT and democracy in Kenya.

Explaining Policy Variation

Kenya is a troubled democracy with authoritarian tendencies.[5] The nation is a prime example of slow policy passage, low implementation and low distribution in the ICT arena, but very high public participation. Structurally, the slow pace of policy implementation is due in part to the weak influence of donors in the comparatively wealthy Kenya. To the extent that policymaking has moved forward at all in Kenya, civil society and the private sector—in conjunction with policy entrepreneurs inside the government—have been the main actors in forcing government movement.

Civil society and the private sector pushed a recalcitrant government to liberalize and open the ICT process. Despite these impulses, the lack of distribution of ICT policy implementation may be attributed to the fact that Kenya has generally been a clientelist state, which has distributed particularistic resources to favored regions. Increases in democracy have not dramatically changed this tendency.

I use four indicators to measure the level of progress Kenya is making on ICT policy. *Speed of passage* reflects how quickly the ICT policy draft was passed after proposal. *Scope of implementation* reflects the extent to which objectives identified within the policy have actually been implemented. This factor draws attention to how many different types of government projects have benefited from active ICT infrastructure. Standard locations where ICT might be used include schools, hospitals, tele-centers, post offices, and government offices. *Distribution* has two dimensions: first, to what extent rural areas receive access to the new technology ("*rural distribution*"); second, to what extent the technology is distributed to all rural areas and to what extent such rural distribution is "fair." This indicator asks whether areas with similar population levels receive similar levels of access ("*equitable distribution*").

The final indicator is the ICT policy *process*. The policymaking process provides a window into the concentration of power in society and the extent to which society is run by a small group of elites or a larger group of citizens. Process is best explained by the strength of civil society and the private sector, as well as the manner in which those social groups interact with the government to make policy. Stated another way, was the ICT process a broadly inclusive participatory process, or a secretive closed process? Kenya's is a case of slow speed of passage, low scope of implementation, and low distribution, but high process.

As I will attempt to demonstrate in this article, Kenya's ICT policy has evolved along with Kenya's democracy. Initial efforts to develop an ICT policy originated toward the end of one-party rule in the early 1990s and accelerated by the end of the decade. The high-water mark of ICT policymaking was between 2002 and 2007. The five years of the first Kibaki government saw the finalization of an e-government strategy, the issuance of a universal access report, and the development of several ICT policy drafts. Indeed, not one but two drafts of the National ICT Policy were issued in 2004. This policy activity culminated in the approval by the Cabinet of an official Kenyan ICT Policy that was gazetted and published in March of 2006.[6] This spurt in policymaking activity continued with the publication of a Draft ICT Bill in April of 2006. Unfortunately, after the disputed elections of 2007, progress in the ICT arena, as well as in other areas of social development, slowed to a crawl—most likely due to political instability.

I. POLICYMAKING, TELECOMMUNICATIONS, AND ICT IN KENYA

In order to have a solid understanding of the ICT policy process in Kenya, we need a deeper familiarity with the history of post-colonial politics and policymaking. Placing forward movement in ICT policy in the context of efforts for political and policy reform in Kenya will help contextualize the changing role of civil society,[7] the private sector, and government in the period following independence.[8]

A. KENYAN POLITICS AND TELECOMMUNICATIONS POLICYMAKING, 1950–1979

The first submarine telecommunications cables connected Kenya to the outside world in 1888 and were laid by the Eastern and Southern African Telegraph Company.[9] Nairobi's first telephone exchange had 28 subscribers. During the 1920s, the British colonial administrations in Kenya, Uganda, and Tanganyika became linked by a common telephone system. By 1933, the postal and telephone services had been consolidated and were managed by a single Postmaster General.

Civil society, electoral politics, and policymaking have been closely connected in the independence and post-independence period in Kenya. The roots of civil society were in opposition parties created in the 1920s—parties designed to protest British colonial policies, to advocate for indigenous people's civil rights, and to demand the repatriation of land. Initially, Kenya's civil society also comprised pan-tribal political groupings, such as the Kenya African Union created in the 1940s and quasi-military organizations that advocated for independence and land repatriation.[10]

The first African members were elected to the Legislative Council in February 1957.[11] Two major political bodies began to form from the merger of district parties, trade unions, and other social organizations: the Kenya African Democratic Union and the Kenya African National Union (KANU).[12] Kenya attained independence in 1963, at which time it possessed a single-party political system dominated by KANU under the presidency of Jomo Kenyatta.[13] In December 1964 "the opposition dissolved itself and its remaining members joined KANU, creating a *de facto* single-party state."[14] A brief phase of multi-party politics reigned in the period between 1966 and 1969.[15] The one-party state dominated by KANU after 1969 became increasingly repressive, banning opposition parties and detaining their leaders.[16]

After independence, Kenya, Uganda, and Tanzania formed the East African Common Services Organization, the precursor to the East African Community. What was then the East African Post and Telecommunications Corporation (EAP&TC) served as the main provider of telecommunications and postal services in the region, and was owned and directed by the three nations. The first mainframe computer was installed in Kenya in 1961. Mainframe computers were mainly installed in government ministries, major parastatals, international airlines, and universities, as well as banking, finance houses, and manufacturers.

Policymaking under President Jomo Kenyatta was neo-patrimonial and based on clientelism and particularistic patronage.[17] Although policy was determined in Nairobi and disseminated outward, Kenyan policymaking in the post-Independence era has been clientelist and patrimonial. Under British colonial rule, Kenya acquired an administrative structure that containerized African Kenyans into divisions, districts, and provinces on the basis of perceived ethnicity and "tribe".[18] These divisions powerfully affected political decisions and the texture of democracy in the nation.

B. KENYAN POLITICS AND ICT POLICYMAKING, 1979-1992

In December 1977, the East African Community collapsed, leading to the break-up of EAP&TC. From 1977 to 1998, the Kenya Post and Telecommunications Corporation (KP&TC), a monopoly parastatal of the Government of Kenya, was established by an Act of Parliament to take over the assets and provide the services of EAP&TC, becoming the sole provider of telephone services in Kenya.[19] In the 1970s, the government imposed punitive fiscal measures on the importation of computers. Such measures were justified by the belief that such equipment might increase unemployment.[20] In the 1980s, as was the case in neighboring Tanzania, computers were viewed with suspicion by the authoritarian Moi government. Perhaps because of this fear of computers, Moi placed the autocratic Jon Michuki in charge of this technology, giving him the title of Minister of Transportation and Communications.

Politically, the period between 1979 and 1991 saw a gradual increase in authoritarianism in Kenya.[21] Daniel arap Moi was appointed by President Kenyatta as Vice President and after Kenyatta's death, Moi ruled Kenya as president from 1978 until 2002.[22] The 1980s saw declining economic conditions, which reduced patronage resources.[23] Under Moi, resources were allocated on the basis of political support for the government. In addition, there was an effort to reallocate resources to regions that had not been favored by the Kenyatta government.[24] Moi began by purging Provincial Commissioners loyal to Kenyatta.[25] In contrast with Kenyatta, Moi generally decentralized policymaking. Resources were allocated in a particularistic manner to areas which provided Moi with key political support, such as the Kalenjin areas of Rift Valley. Importantly, decentralization under Moi was not aimed at reducing inequity between rich and poor. Rather, it was aimed at removing resources from areas favored by Kenyatta and sending them towards areas favored by Moi.[26]

Under Moi, resources were distributed in a relentlessly particularistic manner, with close attention to rewarding clients and voters loyal to the government in power or courting new voters. Under Moi, the technology—

electricity, telephones, and postal services—was visible in vertically "stove-piped" regional pillars that corresponded closely to provincial boundaries. Technological facilities were used to reward loyal constituents and distribute particularistic patronage resources. The government of President Moi placed far more post offices with electricity in Rift Valley, the home province of the President himself, while dramatically under-developing the communications infrastructure in his opponents' region, Central Province.

The early years of the Moi government saw significant new restrictions on freedom of speech and association.[27] Moi's critics—even those from his own language group and his own area—were swiftly silenced. The 1979 general election in the Rift Valley was a blatant example of rigging and intimidation at the polls by the troops of the General Service Unit.[28] By the early 1990s, there had been a noticeable "decay" in Kenya's civil society. From the late 1980s to the early 1990s, members of the opposition faced arrest and imprisonment for "subversion."[29] Coercion and cash were used liberally to rewards supporters.[30] As Ross notes, plays were banned, journalists were detained, public meetings stopped, rallies disrupted, the judiciary weakened, and dissidents tortured.[31] Elections became increasingly violent and expensive throughout the 1980s, and public meetings of the opposition were stopped.[32] Although elections were held, they were not considered free or fair.[33] The 1988 election "was the most rigged in Kenya's history."[34] By the early 1990s, the independence of the judiciary was impaired, the operation of non-governmental organizations restricted, the secret ballot tampered with, and candidates' freedom to campaign curtailed. By 1991, corruption had accelerated and the rule of law had corroded, tarnishing Kenya's reputation as a politically stable democratic polity.[35]

C. KENYAN POLITICS AND ICT POLICYMAKING 1992-2002

Democratic politics in Kenya has been a continuum, with incremental increases toward democracy from 1992 onward.[36] External pressure from international donors and political powers like the United States pushed Kenya in the direction of multi-party democracy. The United States stated that it would condition aid on political reform. In 1991, donors to Kenya decided to suspend $1 billion of aid unless the Moi government instituted political reforms and allowed free elections.[37] Yet internal pressure from civil society for multi-party elections was a significant factor in the movement toward political openness. Pro-democracy riots took place in Kenya in 1990, popular religious figures compared Kenya unfavorably to Eastern European states in the throes of reform, and former government ministers called press conferences and organized rallies, which were quickly declared illegal.[38] Opposition politicians called for repeals of the constitutional ban on the opposition. Human rights lawyers filed suit to repeal the law that had made Kenya a *de jure* one-party state. Church leaders and opposition political figures condemned corruption and single-party politics,[39] yet, the Kenyan opposition was fragmented by acrimonious factionalism. Multiple opposition political parties formed.

At the same time that pressure was building for increased democracy in Kenya, efforts were building to develop a computing policy in the early 1990s. Due to the punitive importation system, by the 1990's the cost of microcomputers in Kenya were three times the cost in the country of origin.[40] Policy concerns focused on reforming telecommunications in the country and on managing the introduction of computing.

In 1993, the Computer Society of Kenya created a draft "informatics" policy.[41] While private sector efforts proceeded in Kenya, UNESCO was working to develop a regional informatics network for Africa in conjunction with outside universities. Aduda and Ohaga note that the African Regional Computing Centre introduced the first full internet service in Kenya, opening the way for privately owned Internet service providers. The Permanent Secretary of the then-extant Ministry of Research, Technical Training and Technology expressed support for the development of such a policy, which UNESCO helped fund. The initial draft of the Committee on Informatics Policy focused on information technology.

The Moi government throughout the 1990s tended to view efforts to import computers, hardware, and software into the country with extreme suspicion. The official position was that computers might cause a loss of state secrets or a threat to national security. As a semi-authoritarian regime, the Moi government likely viewed computing technology as an alternative information source, and a potentially damaging tool in the hands of the increasingly powerful opposition. In addition, President Moi publicly stated that he believed that computers would take away jobs. In 1993, the head of the Public Service Commission went so far as to warn government departments not to convert to the Internet. Drafts of the initial informatics policy developed in the early 1990s remained internal to the executive branch. The first ICT policy drafts were closely-held government documents with no stakeholder participation and no public input. They were written and reviewed in secret by the National Communications Secretariat housed in the Office of the President. No citizen, no civil society group, and no private sector group had input. In particular, the private sector and academia were not involved in reviewing the report. Conflicts between various Kenyan ministries for control of the project prevented the document from being presented to Cabinet.

The first multi-party general elections in independent Kenya were held on December 29, 1992.[42] Moi won with only 36.7 percent of the national vote, suggesting that the election was competitive, and the scholarly consensus is that the 1992 elections were not crudely rigged. However, the elections were "unfree and unfair."[43] The Moi government strongly resisted the move toward multi-party democracy. The registration process was interrupted by attacks on opposition voters and bussing in KANU supporters.[44] Rural voters in particular experienced an unprecedented level of intimidation through overt threats and acts of violence.[45] Further, votes for KANU counted more than votes for the opposition due to the inequitable distribution of parliamentary constituencies.[46] KANU won 100 seats in Parliament and won the presidency in the 1992 general elections. Although the majority of voters voted against Moi, the splintered nature of the opposition prevented his defeat.[47]

Many civil society leaders were persecuted and jailed under Moi. Nobel Prize winner Wangari Maathai's Green Belt Movement battled for green space and democratic rights in Kenya, leading to Maathai's incarceration. Kenyan churches and church-affiliated organizations, such as the Catholic Justice and Peace Commission, were instrumental in mobilizing multi-party democracy in Kenya during the 1990s. Radical opposition and urban civil society groups mobilized mass marches to demand constitutional and electoral reforms in 1997.[48]

In 1997 Kenya held its second multi-party elections. President Daniel arap Moi and his ruling party KANU swept to a five year term on December 29, 1997. The opposition had remained splintered and President Moi was re-elected with 40% of the votes cast, while his nearest rival, Mwai Kibaki, won 31%.[49] The election was regarded as "highly flawed, highly controversial and thoroughly divisive of Kenyan society."[50] According to Stephen Ndegwa, the 1997 election was carried because of Moi's use of coercion.[51] Nonetheless, Barkan and Ng'ethe argue that the 1997 election reinvigorated democratization and strengthened civil society.[52]

The Moi government ruled Kenya for 25 years. Whereas the post-Independence Kenyatta regime was respected for its efficient functioning as a state, the Moi government was rife with grand corruption. It successively weakened the instruments of service while simultaneously strengthening the instruments of power, often through the use of violent intimidation of opponents. The elements of an ethnicised kleptocracy developed.[53] Government agencies were looted, infrastructure deteriorated, roads crumbled, and primary schools had to be financed—not by government coffers, but by local fundraisers. During the long period of single-party rule, the Kenyan state became hollow. The executive became increasingly powerful[54] while providing fewer and fewer services to citizens.

The weakness of the Kenyan state from 1979 to 2002 became the strength of civil society. Civil society stepped in to fulfill some of the most basic functions of government. Kenyan civil society benefited and drew on the multitude of churches and religious organizations of all denominations, faiths, and creeds—including Catholics, Protestants and Muslims. Women's self-help groups became an increasingly important component of this sector. Community-based organizations—often supported by international donor funds—provided education, supplied health care, assisted with relief food in times of drought and famine, and even built housing. The relationship between civil society and the government, however, was characterized by confrontation and conflict during the Moi era, and the main role of civil society under Moi was to advocate for improved conditions for *"wananchi"* (citizens). The private sector and civil society played a minimal role in policy formulation during the last years of the KANU regime.[55]

By the late 1990s, despite the Moi regime's paranoia regarding computerization, efforts were underway from other quarters to liberalize Kenya's telecommunications sector, a key component of the emerging ICT industry. Major policy shifts in telecommunications and broadcasting began in the 1980s with the advent of Structural Adjustment Programmes.[56] The privatization of Telkom was made a condition of the resumption of talks with the International Monetary Fund and the World Bank.[57] In 1997, sixty-nine governments consented to a World Trade Organization proposition that they liberalize domestic telecommunication markets to foreign competition beginning in 1998.[58] Additional privatization pressure was felt from the International Telecommunications Union. The early 1990s saw the liberalization of the radio and television airwaves in Kenya, while the late 1990s saw the liberalization of the telecommunications sector. In Sessional Paper No. 2 of 1996, the Government of Kenya issued a major policy statement regarding the liberalization of the telecommunications sector. The deregulation process was further spelled out in a 1997 Sector paper.

The 1998 Kenya Communications Act, which repealed the Kenya Posts and Telecommunications Act, provides the current framework for regulating the communications sector in Kenya. The act has had two major impacts. First, the 1998 Act liberalized the telecommunications sector. Second, the Act unbundled Kenya Post and Telecommunication into five separate entities, including a fixed-line operator (Telkom), a regulator known as the Communications Commission of Kenya, and the internal policymaking organ known as the National Communications Secretariat. Moi did his best to maintain control of the new technological advances sweeping the continent by burying the ICT policymaking entity within the Office of the President. Policymaking in the telecommunications, computing and eventually the ICT arena, was delegated to the secretive agency known as the National Communications Secretariat. The agency culture of NCS was characteristic of the closed Moi style of governance.

The NCS would not release drafts of documents or even grant interviews or audiences with researchers, activists or private sector companies. The regulator tasked with overseeing telecommunications in Kenya—the Communications Commission of Kenya—is a nominally independent parastatal with a board drawn mainly from the private sector. Under the 1998 Act, Telkom's monopoly in the fixed-line arena was limited to five years. The monopoly was to end, at least *de jure*, on June 30, 2004. The Act further allowed the operation of two predominantly private sector mobile phone providers,[59] licensed various Internet Service Providers, and private courier companies. It even allowed for the licensing of regional telecommunications operators.[60]

Kenya's quick accession to demands for liberalization indicated that the Kenyan government was at a political weak point *vis-à-vis* international multilateral donors and lenders in the late years of the Moi government. The liberalization of the telecommunication sector was envisioned by multilateral donors as part of an Africa-wide shift toward economic privatization that also conveniently opened new markets for globalizing multinational telecommunications corporations. Aside from the move away from government-controlled monopolies, this liberalization and unbundling would have unimagined implications for technological innovation in the future, such as opening up new industries and increasing competitiveness, efficiency, and creating an entire new sector of the economy in Kenya and the region.

Due to the increasing economic activity in the global computing and telecommunications sector, the private sector did its best to push forward policy reforms that would open the sector for locally-owned companies. Efforts were renewed to bring some structure to the telecommunications and computing policy arena by the National "Y2K" Steering Committee established to coordinate initiatives to prepare Kenya's computer systems for the year 2000. The committee consisted primarily of high-level government civil servants and chairmen of major private sector associations. The committee recommended that such a committee be made permanent in order to integrate ICT into "national and regional and social development."[61] This effort did not reach the Kenyan Cabinet for discussion due to President Moi's lack of interest.

D. KENYAN POLITICS AND ICT POLICYMAKING, 2002–2009

Despite the Moi government's suspicion and detachment with regard to computing and telecommunications, the topic was again placed on the government's agenda at the beginning of the new millennium by multilateral donors through the Kenyan Poverty Reduction Strategy Process.[62] The *Poverty Reduction Strategy Paper* (PRSP) published in June 2001—developed under coordination of the United Nations Development Program, the International Monetary Fund and the World Bank—identified

ICT as one of eight strategic sector priorities that the Government of Kenya should address to help reduce poverty and spur economic growth.[63] Part of the World Bank-mandated process of the early 2000s included participation by and consultation with a wide variety of extra-governmental actors. The PRSP itself commented that the poverty reduction strategy process incorporated "government, civil society, the private sector, religious organizations, women, youth, people with disabilities and the poor."[64]

In the 2002 presidential and parliamentary elections, the opposition National Rainbow Coalition (NARC) led by Mwai Kibaki defeated Moi and his ruling KANU party. After the 2002 elections, in which multi-party and multi-stakeholder politics emerged victorious, both civil society participants as well as private sector trade associations became more assertive about their role in policymaking and enjoyed an increase in political space to advocate for key policy issues.[65]

In the ICT arena, the Kibaki administration placed increasing emphasis on technocratic competence rather than naked regional and clientelist ties. President Kibaki appointed Dr. Juma Okech, who had served as director of the Rwandan Information Technology Authority, as the ICT Secretary in the Office of the President and the director of e-government. Okech brought significant energy and a regional, East African perspective to his post. He was widely respected for his experience as a former college don and as the Director who helped Rwanda to build the Rwandan Information Technology Authority from the ground up. In addition to his intellectual abilities and experience, however, Okech was also a savvy politician. He combined a strong survival instinct with a desire to see structural and policy reform in his area of expertise.[66] The first Minister of Information and Communications, Raphael Tuju, held a master's degree in Mass Communication from the University of Leicester. His first permanent secretary, James Rege, was an electrical engineer with a master's degree from George Washington University. The second permanent secretary, Bitange Ndemo, held a doctorate from the University of Sheffield and was a respected and energetic academic from Western Kenya drawn from the University of Nairobi. The director of e-government, Juma Okech, held a master's degree and a doctorate from institutions in Canada and Japan and was a professor of mathematics and computer science at Jomo Kenyatta University. This team comprised skilled individuals with significant expertise in their subject area. Their nominal goal was to make policy that made sense, not to score political points. In part because of the placement of policy entrepreneurs in government such as Rege, Okech, and Ndemo, civil society and the private sector in Kenya were able to open policy conversations about ICT under the first NARC government. Importantly, all of these policy entrepreneurs were open to working with the private sector and civil society in Kenya.

In February 2003, the newly elected NARC government convened an Economic Recovery workshop to encourage private sector participation in an effort to promote economic growth. As a result, in this economic policy manifesto of the new NARC regime, ICT merited inclusion as a "cross-cutting issue."[67] The Poverty Reduction Strategy process, which was replicated under World Bank supervision throughout sub-Saharan Africa, was followed by the *Economic Recovery Strategy for Wealth and Employment Creation* in June 2003. As a component of that process, the Kenyan government divided the economy into eight sectors, one of which was ICT. The government proposed to establish an inter-ministerial committee to incorporate ICT into government operations; invest in adequate ICT education and training; implement tax reductions and tax incentives on both computer software and hardware allegedly to make them affordable to micro-enterprises and low income earners; and review the legal framework to remove impediments that had discouraged the adoption and use of e-commerce. Finally, the government stated its intention to develop a "master plan" for e-government by the end of June 2004.

Upon Kibaki's entry into office, the NCS initiated a formal ICT policy process in February 2003 by publicly releasing the first draft of an "ICT policy." The decision to release a policy document for public review was itself a watershed moment, and this first ICT policy was initially based on a model advocated by the Common Market for Eastern and Southern Africa (COMESA).[68]

The NCS did call a stakeholders workshop in 2003, but most of the entities giving input at that workshop came from the government itself. After the stakeholders provided inputs by verbally commenting at an invitation-only meeting, it was agreed that the NCS should call for a second workshop, yet no second workshop was held. The NCS did forward a policy to the Cabinet. However, the policy was not acted upon because the broadcasting sector had not been integrated into that policy due to the fact that broadcasting and telecommunications were housed in separate ministries.[69]

Upon arriving in office, Kibaki faced a wide dispersion of ICT components throughout Kenyan government. The government entities that worked on the various components comprising "ICT" have been politically weak. Furthermore, these entities did not coordinate closely. Until 2004, responsibility for media, computing, and telecommunications was distributed between at least two ministries: the Ministries of Transport and Communications and of Information and Tourism. The Ministry of Transport and Communications was responsible for telecommunications and postal matters, whereas Information and Tourism was in charge of the electronic media and broadcasting.

According to some observers, the Minister of Transport and Communication, John Michuki, an old guard KANU MP, had an uneasy relationship with the private sector. In addition, he paid almost no attention to "Communication," as a part of his portfolio—as was the case with his predecessors: the Permanent Secretary's attention under the old ministry was primarily focused on the transportation sector with almost no attention paid to telecommunications. The Ministry of Trade and Industry established a national task force on e-commerce without involving either the Ministry of Transport and Communications or the Ministry of Information and Tourism. The Ministry of Education, Science and Technology had undertaken very little activity on ICT despite its mandate under the National Council of Science and Technology. According to interviewees, the old system created delays and logistical problems.

In a well-received June 2004 structural change, President Kibaki eliminated the old Ministry of Information and Transportation and merged broadcasting and telecommunications into the newly-created Ministry of Information and Communications. In July 2004, Minister Raphael Tuju was promoted to become the first Kenyan Minister of Information and Communications. As a result of this restructuring there are now five organizations that coordinate the Kenyan government's actions in the ICT sector. These are 1) the Ministry of Information and Communications, 2) the Communications Commission of Kenya (CCK) (the regulator); 3) the Government Information Technology Service (GITS), which provides computer and technology support for ministries; 4) the National Communications Secretariat (NCS), whose role is to advise the government on Communications policy and 5) the Directorate of E-government. The major institutional reform that created these Ministries was greeted with enthusiasm by the telecommunications, computing and information industries. The creation of the new Ministry of Information and Communications reduced logistical problems in the sector and presented a new opportunity for unifying the policy framework. With the creation of the new ministry, information technology gained a more visible and a more transparent policy profile on the government's agenda.

The year 2004 was a banner period for ICT policy in Kenya. A flurry of policymaking ensued in a variety of fora. Under the more open and active leadership of Director Okech, Kenya successfully issued its *E-Government Strategy* in March of 2004.[70] The strategy was developed by a preparatory team, which drew its membership from numerous agencies and organizations. The e-government strategy states that the Government of Kenya aims to use information technologies to improve service delivery, "transform government operations and . . . promote democracy." The E-government strategy promises the development of websites, the networking of all ministries, the increase of computer literacy among government staff, and the computerizing of office operations, among other goals. The strategy created a Directorate of E-government housed within the Office of the

President. The Director of the Office of E-Government operates at the level of a Permanent Secretary, the highest civil service, non-political post within Kenyan Government. In this period, the Kenya Private Sector Association agreed with the head of the civil service that private-sector, constituent organizations should meet with the Permanent Secretary in charge of each relevant agency on a bimonthly basis. Thus, the Kenya ICT Federation initiated frequent meetings with Permanent Secretaries for Information and Communications James Rege and Juma Okech, which continue with Permanent Secretary Bitange Ndemo to date. This set of actions represented a new open institutionalization of dialogue between the private sector and the Kenyan government unseen under the previous clientelist system.

In collaboration with the Canadian donor organization known as the International Development Research Centre (IDRC), the CCK commissioned a team of Kenyan academics, led by Dr. Tim Waema and Katherine Getao of the University of Nairobi, to issue a Universal Access Report. The purpose of this Universal Access Report was to examine how to get ICTs to remote rural areas of Kenya.[71] The Universal Access Report was data-driven and included significant information on the extent of electricity and ICT penetration throughout the country; it was publicly presented with great fanfare at the Norfolk hotel in Nairobi in November 2004. In addition, the Ministry released the second ICT policy draft on November 18, 2004 in a "National ICT Visioning Workshop"[72] organized by the private sector Kenya ICT Federation (KIF), the civil society organization KICTAnet, and the multilateral donor IDRC.[73] The session opened with remarks from the director of KIF, the private sector federation for ICT, and a keynote address by the Ambassador from Finland. The Finnish Ambassador stressed the social justice themes surrounding ICT, including the need for a welfare society and the role of government in promoting liberalization and privatization. The Permanent Secretary for ICT (Engineer James Rege) and the Minister Tuju conducted the official opening of the workshop. Multi-sectoral teams were formed, which developed sector visions around education, health, government, trade and industry, small and medium enterprises, and agriculture. All the groups reported their view of the potential for ICT to change their sectors, and the Permanent Secretary for Planning and National Development closed the workshop by focusing on the need to create a roadmap for ICT implementation.

By 2005, the communications sector in Kenya was earning about 714 million dollars annually and creating 12,000 direct jobs.[74] On March 9, 2005, the entire Kenyan ICT community, including representatives from the largest private sector operators, academics, and nonprofits, gathered for the Second National Kenyan ICT Convention organized by the Kenya ICT Action Network (KICTAnet) in the luxurious tourist Safari Park Hotel and

Casino in Nairobi. Civil society was represented by Catalyzing Access to ICTs in Africa, the Association for Progressive Communications, the Kenya WSIS Civil Society Caucus, and the Kenya Community Media Network. The private sector was represented by KIF, the Telecommunications Service Provider Association of Kenya, and the Computers Society of Kenya. Journalists from the Nation, the Standard Group and People as well as KComnet were in attendance, as were donors such as the Canadian IDRC, UNDP and UNESCO. A variety of presentations and speeches were given by representatives of UNESCO, by the media council of Kenya, and by the Open Source Council of Kenya. The Convention launched specific sector working groups to comment on segments of the draft ICT policy. Despite the festive atmosphere of the conference, tensions built as it became clear that the regulator, CCK, was not in fact independent.

A major power struggle over regulatory authority and enforcement had taken place between the fixed-line national operator, Telkom Kenya, and the CCK over further liberalization of the sector. The Internet service provider ISP Kenya had been using its lines to make phone calls using Voice Over Internet Protocol, undercutting Telkom's high prices. In response, Telkom had disconnected ISP lines in violation of the CCKs enforcement authority.[75] The regulator ordered Telkom to reconnect ISP Kenya's lines, as licenses recently issues by the CCK gave numerous players the right to use their lines to sell a variety of voice and data applications, including telephony.[76] In another manifestation of this conflict, Minister Tuju had cancelled a number of licenses issued by the CCK in late 2004.[77] The independent CCK had attempted to license a third operator, Econet, in line with the mandate of the Communications Act, an action that would have opened the cellular telephony sector to three operators, increasing competition and reducing prices. Tuju had decided not to issue the license, due in part to heavy financial interests by sitting politicians in the two national operators, Celtel and Safaricom.

Hubbub broke out in the conference hall when it was announced that Minister Tuju had dismissed the entire board and indefinitely suspended Sammy Kirui, the nominally-independent CCK's director, despite Kirui's security of tenure under the Communications Act. In addition, Tuju had appointed the head of the secretive NCS, James Kulubi, in the Kirui's place.[78] Permanent Secretary Rege tried vainly to calm the assembled audience:

> I am one of you, and I will be free to speak from my heart. Nothing is lost. CCK is alive and running as usual. Dr. Kulubi is running as chair. Sammy Kirui has just gone on leave. I just want to assure you that everything is normal in the ministry. What you see in the press will not necessarily

> be what it is. You still have all the technocrats at CCK. The licenses will be issued in the normal manner.[79]

Depite Permanent Secretary Rege's assurances, people at the conference broke into groups to plan their response to the government's action. Several participants sat down and drafted a press release strongly protesting this action.[80] The press release was sent to all major dailies in Africa, as well as selected papers in London. The Chairman of the African ISP Association stated to the assembled participants that Minister Tuju's action would scare investors off the continent. Joseph Mucheru, the chairman of the Telecommunications Service Providers of Kenya, attended the March 9 conference, and was one of the key drafters of the press release:

> Tuju's move is a blow to Kenya's economy….The action can only be construed as obstructive and diversionary since it comes in the midst of the ongoing liberalization of the sector. The [dismissed] board of directors and the [suspended] director general have successfully managed Kenya's transition into a competition framework. . .Sammy Kirui's removal from active duty without explanation [suggests] that the government does not really respect the law. We demand an immediate explanation from the Government regarding its actions and its plans to restore confidence and stability in the communications sector in the shortest time possible.[81]

In the following days, Kenyan media roundly condemned this extra-legal dismissal. The editorial board of the Daily Nation urged the creation of a more public and transparent review mechanism for dismissals, and demanded that Tuju explain.[82] Despite the national uproar, Minister Tuju was unapologetic for his actions, stating, "I act for the Government, and the President was fully aware of the decision that I took."[83] Tuju's nonchalance lent credence to reports that a powerful cartel was interfering with CCK operations.[84] Further indications pointed to senior government officials with personal stakes in the lucrative state-owned Telkom.

The Standard warned that the sector might experience less investment as local and international players weighed the risk of investing in a country with a turbulent policy making apparatus: "the government has acted contrary to international conventions and to what it preaches daily about transparency, accountability and good governance."[85] The Central Organization of Trade Unions deemed Tuju's action "outrageous." The Kenyan Parliament's Committee on Energy, Communications and Public Works called Tuju to appear before them to investigate the public's concerns over the firing, calling Tuju's actions "drastic."[86] After Tuju's appearance in parliament the Committee stated that "he had no evidence to support his allegations," and condemned his actions.[87]

Tuju's action drew reprimands from as far afield as the COMESA Secretary General, who expressed concern about the independence of the communications regulator and the smooth operation of the sector.[88] Delegates at the NewCom Africa Conference in London called on the Kenyan government to respect the autonomy of its regulator. The Ghana Internet Service Providers' Association stated that Tuju's action represented a breach of due process, and was an act of sabotage on the Kenyan economy and the African economy as a whole.[89] The sector was in an uproar, as investors worried about retrenchment of further liberalization and policy uncertainty in the face of an impotent regulator. The Minister was forced to retreat and reconstitute the board. In response to the massive public outcry and upon the nomination of PS Rege, the newly-reconstituted CCK Board contained the first female and first civil society member in the history of the organization—Alice Wanjira Munyua, the Kenyan representative of the non-governmental organization dedicated to ICT in Africa, CATIA.[90]

Following the tumult regarding the dismissal of the CCK Board, in a precedent-setting move, the Ministry solicited public comment on the draft ICT policy. The CCK developed a website on which they stated that they would solicit views from stakeholders on ICT policy. A group of academics, private sector representatives, and civil society activists gathered to compile comments. First, an electronic discussion forum was established, hosted on the o.ke domain courtesy of the Telecommunications Service Providers of Kenya. Each policy area was led by one group leader trained in electronic list facilitation by KICTAnet. For example, Ben Sihanya, a faculty member of the Nairobi School of Law with a doctorate of laws from Stanford, facilitated the academia group. Each policy area facilitator led an electronic discussion group, compiled all the comments of that group over a period of two months, and then developed a report for KICTAnet detailing the main comments. Comments covered issues regarding environmental sustainability of ICTs, the acknowledgment of the role of youth as a force for development, gender mainstreaming as a strongly- and separately-stated among the policy objectives, the use of ICTs for poverty eradication, the improvement of human resource development, ensuring universal access in rural areas, identifying and promoting local content, putting in realistic deadlines, converging ICT regulations, putting in place a monitoring and evaluation tool, and finally, protecting the CCK from arbitrary political interference. The KICTAnet director, Alice Wanjira Munyua, Ben Sihanya, Alari Alare, and several other representatives of the private sector, media, and academia met together in the conference room of the Jacaranda hotel with all of the compiled comments. The representatives spent the next twelve hours revising the initial draft, released by the Ministry in October 2004, to reflect the numerous comments prepared by those in attendance. These comments were submitted to the Ministry in mid-April 2005.

Under the leadership of the new Permanent Secretary for Information and Communications, the Cabinet adopted an ICT policy in January 2006.[91] By the time of publication, however, the policy included significant revisions taken from public comments submitted by the private sector, academics, and civil society groups. According to a press release issued by the Communications Commission of Kenya, the ICT Policy "will replace the Telecommunications and Postal Sector Guidelines of December 2001 and set up an enabling framework for the . . . communications industry in Kenya." Kenya's ICT Policy was published as official policy guidelines on March 31, 2006.[92] In addition, under the tenure of permanent secretary James Rege, who had initiated frequent and friendly contact with private sector and civil society organizations, the Ministry of Information and Communications issued a draft Kenya Information and Communications Bill in February 2006.

The December 2007 presidential election, the most competitive in the country's history, began peacefully on Dec. 27 but ended in violence.[93] Early returns on December 29 gave opposition leader Raila Odinga a lead of nearly a million votes. On December 30, the election commission announced that in a mysterious overnight switch incumbent Mwai Kibaki had won by 231,728 votes. International and domestic observers declared the elections as rigged and deeply flawed. Following the announcements of the disputed election results, violence erupted throughout the country, and the nation emerged shaken one month later with 1,300 killed and 350,000 displaced. With the assistance of former U.N. Secretary General Kofi Annan, the government and the opposition reached an agreement in which the opposition and the incumbent, which also represented two large ethnic coalitions, would share power beginning March 18, 2008. On April 3, 2008, Kenyan President Mwai Kibaki and Prime Minister Raila Odinga approved a bloated 44 member coalition cabinet.

Amid the political turmoil, the ICT sector continued changing. Although Telkom's monopoly ended in 2004, there were only two major cellular telephony providers in Kenya: Safaricom and Celtel/Zain until late 2008.(Weidermann, 2005) However, enormous internal pressure by the Kenyan private sector resulted in the licensing of a third cellular operator. This non-competitive state of affairs was particularly noteworthy and disturbing, given the sheer size of Kenya's market and the vibrancy and extreme competitiveness of neighboring Tanzania and Uganda. The third operator's entry into the Kenyan telecommunications market is likely to result in great improvement in tariffs and services for consumers.

The ICT sector is the flash point for battles between those parts of society that advocate for increased multi-party democracy and those that cling to the perquisites of authoritarianism. Former Transport and

Communications Minister John Michuki, in his new capacity as Minister of Internal Security, ordered a raid on The Standard newspaper and the affiliated KTN television station in March 2006.[94] This action was widely condemned by the Kenyan and international press and diplomats. In the wake of the December 2007 elections, coercion swept the ICT sector. In early January 2009, President Mwai Kibaki unleashed police against those protesting the Kenya Communications Amendments Bill, a version of the original bill drafted in 2006, which journalists claim gags the broadcast media, part of the ICT constellation in Kenya.[95] Parliament passed the bill on December 10, 2008 and President Kibaki signed it into law on January 2, 2009. The bill includes heavy fines and mandates prison sentences for press offenses. This bill also turned the previously progressive CCK into a censor, allowing it to switch off television stations and seize equipment.[96]

II. ANALYSIS OF ICT POLICYMAKING IN KENYA

A. MEASURING KENYA'S ICT POLICY OUTCOMES: SPEED OF PASSAGE, DISTRIBUTION AND SCOPE OF IMPLEMENTATION

One way of measuring Kenya's progress is by comparing its performance to that of nearby countries. Kenya, Uganda, and Tanzania all share a similar colonial history. Despite these similarities, the countries diverge with regard to the distribution of ICT infrastructure and artifacts, as well as the process by which the policies are formulated. Rwanda and Uganda, two geographically isolated, resource-poor countries with recent histories of brutal civil war, demonstrate much stronger government involvement in ICT policy and faster progress toward objective outcomes in ICT policy implementation than their more stable, democratic neighbors, Kenya and Tanzania.

Kenya lags behind its regional neighbors in terms of ICT policy passage and passed its 2006 ICT policy last among all four countries—three years later than Uganda and Tanzania, and six years later than Rwanda. Additionally, Kenya's scope of implementation is extremely narrow. The only area in which major progress has been made in terms of ICT policy implementation is the postal service. The one government-led accomplishment in terms of infrastructure is the provision of Internet access using CDMA and GSM technologies at "most" Kenyan postal facilities, according to the Permanent Secretary for Information and Communications. Using Geographic Information Systems, I analyzed Kenya's progress in electrifying rural post offices and providing them with Internet access along several different indicia, including raw numbers, population served, and number of post offices per square mile, and found that there is a concentration of communication facilities in urban areas.□In general, however, the eighty-eight post office facilities with internet, which were all constructed during Kibaki's first term, were distributed fairly equitably among all provinces.[97] In contrast to Kenya's limited success, Rwanda, for example, has distributed computers to schools, built tele-centers, and strengthened their national backbone. Tanzania has built a strong national backbone, increased tele-centers, and created coordinated projects linking health-centers and schools with local government.

Despite achievements in participation, the Kenyan government has not succeeded outside of Nairobi with regard to the scope of implementation, and it fails almost completely on measures of distribution, particularly in terms of ensuring rural access to ICTs. As noted in the section on the history of ICT policymaking in Kenya, the CCK, in conjunction with the IDRC, commissioned a study on the need for universal access in advanced information and communications technology services in rural Kenya to be publicly presented to the Ministry of Information and Communications in November 2004.[98] This document provides crucial data and recommendations that could be used in guiding policy for this area.

The report advocated for a Universal Access Plan for Kenya to provide accessible, available, and affordable communications services and to create sustainable rural communications development. The report noted that ninety of Kenya's divisions are un-served by most basic communications services and recommended that the government target improvements in tele-density, electrification, internet points of presence, and local content on the Kenyan internet and local television and radio stations. Further, the report recommended the establishment of integrated tele-centres and ICT training institutions with a focus on the affordability of communication services in rural areas. Finally, the report recommended establishing a Universal Access Fund (UAF) to be funded jointly by the Government of Kenya and telecommunications operators and service providers as well as grants from development partners. Accordingly, the Universal Access Study of 2004 embraces the social justice vision, the e-government vision, and the economic facilitation vision of ICT.

Some of the detailed, well-researched and far-reaching recommendations of the report have made their way into actual policy documents, although implementation remains on the horizon. The ICT Bill does contain some language relevant to universal access or universal service. The bill establishes a universal access fund, much like that already in operation in Uganda and Rwanda. However, in an extremely problematic development, the ICT bill does not clearly explain how the universal access fund will be funded, and allows the Minister for Information and Communications to issue regulations regarding funding and subsidies in consultation with the CCK.[99] In addition, the bill establishes a Universal Access Advisory Council, which is mandated to determine project identification. No clear goals or deadlines regarding the nature, extent, or type of universal access for Kenya's rural areas are contained in the policy or the bill.

Although there is some rhetoric in the current formal ICT policy regarding rural access, there is little indication that the government intends to distribute ICTs to rural areas. The ICT bill does not include the extensive pro-rural rhetoric. Indeed, even in e-government, where the Kenyan government has been most aggressive from both a policy and an implementation standpoint, the scope of implementation only extends to central ministry offices in Nairobi. When interviewed, the Director of e-government did not indicate any timeline to which the district or provincial ministries will be connected and seemed uncomfortable about the query itself. It is, of course, possible that after the eventual establishment of a universal service fund or universal access fund, Kenya will move from the rhetoric to action in terms of rural connectivity. To the extent that voices have expressed an interest in rural participation in the distribution of this set of technologies, it is the private sector trade association (the Kenya ICT Federation) and the civil society group (the Kenya ICT Network) that have been the advocates of rural areas—not the government. It is still too early to tell whether their high degree of participation in the policy process in Kenya will result in outcomes that reflect the 2006 ICT policy rhetoric of distribution and equity. To date, though, results in terms of scope of implementation and distribution still remain "wished for" and not "realized."

B. PROCESS

The emergent pattern of increased participation was well illustrated by the process of attaining a formal ICT policy document in 2006 after nearly a decade of thwarted efforts. After significant pressure by the local private sector, local civil society, and selected donors, the government solicited and finally chose to incorporate almost all public comments into the Gazetted ICT policy itself. The intense public interest in the ICT policy process, and the response of governmental policy entrepreneurs to that interest, "seemed to herald the beginning of a truly new regime of public participation in policymaking."[100]

Initial efforts to promulgate an ICT policy—which began in the 1990s—reflected the lack of democracy in Kenya as a whole. The development of this policy has tracked the development of a multi-stakeholder, participatory, democratic process. The development of Kenya's ICT policy represents a change in how the "business of government" is conducted in this emerging democracy. The history of ICT policymaking in Kenya illustrates the transition from the old, secret, highly-centralized authoritarian style to a more participatory, transparent multi-stakeholder approach in which domestic civil society and the domestic private sector help in the authoring and development of the policy itself. During the first term of the Kibaki administration, the country witnessed not just the emergence of a new policy in Kenya but the emergence of a new, more participatory democratic policymaking process. Kenya's ICT policymaking process has taken place in a relatively democratic context. In particular, formal participation by civil society and the private sector has been high. As the country has moved from a semi-authoritarian state to a more democratic state, the nature of policymaking changed, at least for one term. After the NARC election in 2002, there were positive changes within government in the ICT policy arena. In terms of organizational and administrative changes, the effort to create an ICT policy has resulted in the reorganization of ministries and the creation of organizations at the sub-ministry level. The creation of the Ministry of Information and Communications did seem to rationalize the sector and resulted in a burst of policymaking.

One of the benefits of a more democratic government under the Kibaki administration was that policymaking emerged out of the darkness of closed internal executive branch deliberations into the light of public discussion. The 2004 decision of the Ministry of Information and Communications to release to the public, and then solicit and incorporate public comment into the Kenyan ICT policy represents the first time that the Kenyan government has ever solicited comments on any policy in any sector. In the United States, under the Administrative Procedure Act, every regulation must go through a process called "notice and comment." Although such a process is far from being institutionalized in Kenya, the development of the Kenyan ICT policy represents a dramatic move towards an era in which the public plays a real role in policymaking. Whereas the very first drafts of the ICT policy were closely held, and only discussed confidentially within a very closed group of political appointees, the most recent versions, and the 2006 policy itself, have been the result of conversations, debates, and conflict between the executive branch of the Kenyan government, civil society, the private sector, and some donors.

Although the Kenyan government has become increasingly responsive to public pressure regarding policymaking, who comprises the "public" remains a matter for debate. In the arena of ICT policy, the interests of the political elite and the technocrats dominate the discussion almost entirely. Those who participate in this arena are a small overlapping group. Many of them are Western educated. They tend to live and work in Nairobi or occasionally Mombasa. Although they come from every ethnic group, they are overwhelmingly from the upper or upper-middle class. In general, the persons who participate in this policy arena tend to be local business owners who have a financial stake in ICT policy, consultants and activists who derive some income from tracking ICT policy from donors, media owners such as the directors of local newspapers and television companies, and finally, local academics. These civil society activists do pay rhetorical attention to the distribution of ICT resources to rural areas, but often have no personal investment in ensuring that they actually occur. Interestingly, the local private sector, including internet service providers and the Kenya ICT Federation, has been a vocal advocate for ensuring that rural areas not be ignored.

To the extent that government-sponsored deliverables or results are apparent in the ICT field in Kenya, they are attributable to a few policy entrepreneurs, particularly Juma Okech and Bitange Ndemo. In line with their historical role of pushing the Kenyan government toward change, the private sector and civil society remain in a somewhat confrontational role in the Kenyan ICT policy process. The policy entrepreneurs have opened a window of collaboration and communication, but results have been slow to arrive. Civil society and the private sector have encouraged the passage of key policy documents but have been unsuccessful in ensuring implementation of those policies. The challenge for civil society and the private sector in this new coalition era will be hanging on to the hard-fought victories they won in the early part of the decade.

III. EXPLAINING KENYA'S ICT OUTCOMES

The low point for ICT policy in Kenya was certainly the Moi era, in which computing and advanced telecommunications services were seen with paranoia and suspicion. By contrast, the high point for ICT policy was under the first term of President Mwai Kibaki, during which an ICT policy was finally passed, although it was the last in the region. In addition, exceptional policy entrepreneurs emerged inside the executive branch as democracy opened up interactions between government, civil society, and the private sector. Now, as the country fights to maintain minimal political stability, ICT policymaking in Kenya may be on a downward trend again.

A. THE ROLE OF DONORS

From a structural standpoint, one very important reason for the slow pace of policymaking and implementation in Kenya is that donors are not as powerful in Kenya as in neighboring countries. Kenya has a low level of donor dependency, and only receives approximately twelve percent of its national budget in the form of foreign aid. Accordingly, the Kenyan government is under pressure to be responsive to donors, but is not so dependent that it must respond with alacrity. The result is that Kenya generally publishes but does not immediately follow the numerous and often repetitive massive policy documents requested by donors, such as the Poverty Reduction Strategy Plan and the Economic Recovery Strategy for Wealth and Employment Creation.

However, in contrast to highly indebted nations like Rwanda, Uganda, and Tanzania, which have much higher levels of donor dependency, Kenya is under less pressure to actually follow through with its paper commitments. Follow-up and implementation of such extensive policy documents have accordingly tended to be haphazard and ad hoc in the Kenyan case. The role donors have played in Kenya has been a behind-the-scenes one of encouragement. In Rwanda, donors were the major authors of the nation's ICT policy. By contrast, in Kenya, they have played a much less visible role of facilitating conversations, sponsoring research, and encouraging relationships. The donors do seem to have been successful at encouraging a more participatory policy process that included more "stakeholders." Donors have kept the issue of ICT policy on the Kenyan government's policy agenda, but have not gone much farther than that. Due to the country's recent struggle to keep the governing coalition structurally intact, donors may be more concerned with ensuring the country's stability than ensuring its economic development at this point.

B. KENYAN CIVIL SOCIETY AND THE PRIVATE SECTOR

Kenya represents the case with the most input from both the private sector and civil society in the policymaking process in the region. Participation in ICT policymaking in Kenya broadened between 1998 and 2008. Yet although more organizations participated over the observed time frames, the composition of participation did not change markedly. Participation came consistently in the form of elites and representatives of civil organizations with close ties to donors and the private sector. Perhaps the most important participants were the private sector trade associations, as represented by the Kenya ICT Federation and the Telecommunications Provider Association. Another key civil society participant was the Kenya ICT Network (KICTAnet). In contrast with other countries in the region, participation in ICT policymaking had significant civil society input in Kenya.

Kenyan civil society is heterogeneous and robust. It is not synonymous with the polity, or the electorate.[101] Civil society also includes community-based grassroots organizations that receive most of their funding from members located in Kenya, and which are founded and run by Kenyans. Kenyan civil society should be distinguished from the donor community, although civil society organizations often have relationships with multilateral donors.[102] In Kenya, civil society has been an indispensable element in the push for democratization.[103] Although relationships between civil society and the state improved under President Kibaki,[104] this sense of tension and confrontation reemerged after the December 2007 election violence.

Membership within the civil society convener for ICT Policymaking in Kenya—KICTAnet—has been network-driven. Membership was open, and those invited to participate were acquaintances of existing KICTAnet members. KICTAnet includes representatives of non-governmental organizations, community-based organizations, and donors. As a result, there has been high membership overlap between the different private sector and civil society groups in the ICT sector. Of the members named by KICTAnet itself on an "active member list" at a meeting held on January 27, 2006, twenty-one percent of member organizations were for-profit entities or entities that could be categorized as trade associations. Further, KICTAnet received funding for its lobbying work from a project of the United Kingdom's Department for International Development. Thus, KICTAnet is a hybrid organization—part donor, part civil society, and part private sector advocate. This may be an organizational strength, since according to private sector informants, the traditional divisions and suspicions between the private sector and civil society have broken down over the past two years, and a fairly powerful coalition has formed. As evidenced in the episode of the dismissal of the CCK Board, Kenyan civil society "acts as a check on the arbitrariness of the state."[105]

Just as Kenyan civil society is heterogeneous, so also is there a continuum in the Kenyan private sector from the micro-firm to the multi-national. The private sector in Kenya is far from monolithic. The smallest components of the Kenyan private sector are the *"Jua Kali"* businesses. *Jua Kali* is a Swahili term which means "under the hot sun." These small businesses are the largest sector of paying employers, and they generate huge amounts of revenue and jobs for the Kenyan economy. Most sellers of "airtime" and repairers of cellular phones fall into this category. A step up from this is any artisan who actually rents or owns a physical structure, and thus has a physical address for his business. A variety of mid-level businesses can also be found in all sectors, from tourism to banking and to the manufacturing concerns found in the industrial area on Mombasa Road on the outskirts of Nairobi. At the upper end of the private-sector scale are such multi-nationals with billions of dollars in revenue like Safaricom Telecommunications, one of the largest businesses in Kenya today, half-owned by the Kenyan government and half-owned by foreign investors. The multi-national telecommunications sector, represented by companies such as Vodafone and the Microsoft juggernaut, are interested in the relatively wealthy Kenya as a new, potentially lucrative market.

In the telecommunications and ICT industry, the interests of the domestic private sector, such as software developers and smaller scale Internet Service Providers, are often aligned more closely with those of the domestic civil society and consumers. Their profit lies in providing affordable, local solutions. To the domestic private sector, rural markets look like an attractive prospect. One of the key non-governmental participants in ICT's emergence onto the Kenyan policy agenda has been the Kenya ICT Federation (KIF). KIF began as the Nairobi Stock Exchange High Tech/Growth Committee in 2000. This was part of an effort to promote private sector competitiveness and growth and to encourage more firms to access the capital market. In April 2004, this organization was registered as the Kenya Information and Communication Technology Federation (KIF). This new organization is a member of the Kenya Private Sector Alliance. This alliance enables the private sector of Kenya to speak with one voice to the government to influence public policy formulation. KIF comprises several ICT associations and is run by an executive board composed of the chairmen of the member associations and other key ICT leaders. The domestic private sector has demanded clarity, with limited success, on the legality of technologies such as Voice over Internet Protocol and has pressured the government to increase the competitiveness of the cellular phone market, resulting in a partial victory with the 2008 licensing of Econet, the third national operator.

C. DEMOCRACY AND PEACE

The Kenyan state has an important role in the regulation, management, and governance of ICT to ensure that it becomes stable to outside and domestic investors, civil society practitioners, and donors interested in the diffusion of ICT in Africa.[106] The Kenyan state has not taken full advantage of its power to stabilize this policy area. The Kenyan government has been explicitly encouraged by donors, civil society, and the indigenous private sector to develop a regulatory regime for the emerging technologies comprised by the term "ICT."

The ICT policy process illustrates that the transition to multi-party democracy in Kenya has been rocky. It also reveals that the engines and organizations of technological transformation, information, and communications are a key component of democratic organizations. Resistance comes via secretive government organizations, crackdowns on a free press, and the dismantling of organizations such as the CCK that are seen as threatening to the political order or the profits of a corrupt kleptocracy. The main contribution that democracy has had on Kenyan ICT policy has been the opening of the policymaking process to public participation. Unfortunately however, Kenya has an imperial executive, and an almost powerless legislative branch. As in the U.S. case, the executive branch is in charge of the policy agenda. The private sector and civil society in Kenya have fought to keep ICT on the policy agenda, but the process of moving from agenda to implementation can take decades, as issues fall on and off of the docket. On paper, ICT policy in Kenya seems to be moving in a more participatory, democratic direction as the country does the same. The challenge in the Kenya case is moving from policy to implementation.

Although Kenya is a democracy, sitting Kenyan governments have historically not had to rely heavily on the rural vote outside areas of clientelistic favor due to the way political majorities align in Kenya. Since Kenya has a comparatively non-violent and stable history, the Kenyan government has had the luxury of not being forced to redistribute goods—including ICT—equitably among rural areas. As elections become more competitive, and in the wake of the December 2007 election violence, rural votes may increase in importance.

The Grand Coalition tethering the Kenyan government together with a razor thin wire appears to be unstable, with the Prime Minister and President locked in a political impasse. The lack of a strong unitary executive is likely delaying most policy initiatives that have to be implemented by the executive branch. Deepening rifts in Kenya's coalition government have ignited fears that the country could slide back into violence.[107] Kofi Annan has warned that electoral reforms must be pushed through well in advance of the 2012 election to avoid further violence.[108] Indeed, in the run up to the highly-contested presidential election that took place in December 2007, the Kibaki government did distribute ICT technology in the form of Internet to post offices to provinces that were crucial to securing victory in that election.

CONCLUSION

What has happened to ICT in Kenya? Why is implementation so slow? At the beginning of this study, I anticipated that Kenya would make quicker progress than its neighbors because the country is a democracy with a high degree of economic growth. After studying the case for some years, I changed my belief to the intuitively appealing idea that the democratic nature of the society must be slowing implementation due to the need to discuss policy with many social groups. But, by the end of the study, my reflections on the roots of Kenya's policy failure are less grandiose and more mundane.

The main factors for Kenya's poor policy outcomes can be summarized as follows: First, donors are weak in Kenya. Even though donors may believe that ICT policy is advantageous, they can only encourage, cajole, research, support, and advocate. From a structural standpoint, donors were crucial for getting ICT onto Kenya's policy agenda, and they managed to keep it there long enough for some policy activity to occur. Structurally, though, donors were not influential enough to externally impose their policy agenda, however beneficial, in a country that is wealthy in comparison to its regional peers.

Second, in an effort to maintain the authoritarian elements of his rule, President Moi maintained his distrust of technology much longer than his peers. While the leadership of Tanzania, Uganda, and Rwanda had already determined the social benefit of ICT by the late 1990s, Kenya was delayed until at least 2002 by the government's distrust of technology. Although this looks like an agency issue, it is more accurately an institutional issue, as the authoritarian apparatus in the late 1990s was the true bottleneck for

ICT policy in Kenya. After the 2002 elections, a sustained burst of ICT policymaking did occur as participation increased and the policy apparatus became more open, thanks to an environment of high economic growth and political stability. In Kibaki's first term, Kenya almost caught up to the rest of the region. However, this dramatic progress was essentially halted in its tracks by the electoral violence of December 2007. In the post-election period, the country's resources have been drained by the massive side payments required to support the governing Grand Coalition. Kenya is experiencing a famine, and the resulting political instability after the disputed election have made it difficult to implement any policy proposal—even ones far more modest than the massive expenditures required by ICT. Political stability is then an important limit to this kind of tremendous policy undertaking.

Social and political choices about how to design and manage new technologies fundamentally determine the usefulness of those technologies to society, how redistributive and equitable the impact of the technology will be, and how fully and effectively a society will be able to utilize the promise of new technology.[109] For Kenya, dreams of a more equitable ICT may have to wait for increased political stability. Kenya has generally let "the market" decide where ICT infrastructure will be developed, with little or no intervention through regulation or law regarding these choices. Because the market generally undersupplies collective goods such as telecommunications, the predictable result of this laissez faire approach, although arguably economically efficient, has resulted in poor distributive outcomes. In a nation where eighty percent of the population lives in rural areas, it is a telling statement about the political perception regarding the value of rural majorities that there is very little ICT infrastructure outside of Nairobi and Mombasa.[110]

Kenya's neighbors, Uganda and Rwanda, have both prioritized rural areas in ICT infrastructure development and have made a conscious choice to distribute ICT to these areas as a key element to developing their countries. Yet even during the heyday of ICT policymaking between 2002 and 2007, the Kenyan government did little to build ICT infrastructure for residents in rural areas. The main beneficiary of infrastructure has been the government itself; and then only the government in the capital, through the wiring of the ministries in Nairobi. The Kenyan government has done little to develop infrastructure outside of the capital. The choice of the Kenyan government to concentrate resources on urban ministries, while disregarding the effort to connect those ministries to their rural counterparts, means that urban citizens will receive improved services while rural citizens remain isolated.

As this article goes to publication, Kenya has four cellular telephony providers, Zain Kenya, Safaricom, Orange, and Yu. This means that competition is heating up in this market, but Kenya still is catching up with its neighbors. Indeed, although there are nominally four operators, Safaricom is massively dominant, with over 80 percent market share, and Kenyan consumers have continued to pay sharply higher tariffs than necessary for mobile telephony.[111] The lack of competitiveness in Kenya's mobile telephony sector is reflected in the fact that Kenyans pay more than most Africans for cellular telephony, giving up nearly 24 percent of their monthly per-capita GNI for mobile services.[112] The most impressive achievement of the Kenyan government in the ICT sector has been its participation in the live marine Internet cable projects, including EASSy, TEAMs and SEACOM. These have increased internet speeds dramatically, reduced broadband pricing for consumers, and may reduce prices for mobile consumers in the future. In terms of distributing infrastructure to rural areas, Kenya is finally pulling abreast of its neighbors by implementing a "digital village" plan proposed by Permanent Secretary Ndemo, which supposedly will be funded by a levy of 1% on telecommunications operators' total revenue. Nonetheless, as the Permanent Secretary himself has observed, "For the last three years we have been talking about rolling out digital villages in the country, but it has not picked up due to delays in financing."[113]

Kenya stands at a crucial juncture of ICT policy. Like so many policies passed in Kenya before, the Kenyan ICT policy of March 2006 may be "window dressing,"[114] or a mere "political gesture" with implementation desired but unlikely. There is an alternative scenario, however, in which the participatory air surrounding the creation of ICT policy (and other policies) in the nation of Kenya may continue. The goal for civil society and the private sector during this period is to resume the vigil of pressuring the government for improved outcomes for *Wananchi*—a vigil that they were used to under the Moi era. These organizations must continue to pressure the government to move from rhetoric to implementation, while holding on to the procedural gains they obtained between 2002 and 2007.

There is no question that the Kenyan citizenry has the capacity to write its own laws, program its own software, build its own hardware, install its own infrastructure, and, most importantly, develop its own country educationally, politically, economically, and technologically. More so than any of its neighbors, Kenya has a population with the education, the skills, and the capacity to fully utilize the promise of ICT both socially and economically. What is in question is whether there are the leadership and political will in Kenya to make the most of this socio-technological innovation as a tool for good governance, a tool for socio-economic growth, and a tool for social justice.

[1] Josh Ruxin, *Fiber Optic Networks to Rwanda's Rescue*, SAN FRAN. CHRON., Nov. 19, 2006.

[2] In the context of telecommunications and ICT in the countries studied, the private sector has two manifestations: European- and American-based multinationals (such as Vodafone, Terracom, Microsoft and Celtel) and indigenous African companies (such as Wananchi Online and Symphony Software). I characterize companies as indigenous if their primary office is located in Africa, the majority of their staff is on the African continent, and the primary shareholders are African governments or citizens with at least a 50% stake in the company. Industry in Kenya is limited. There is some computer manufacturing industry in South Africa. Attempts to initiate manufacturing in East Africa have been fitful and sporadic. The private sector tends to focus on service provision of cellular phone services, information service provision (i.e. ISPs) and, increasingly, software development.

[3] There was significant corruption under the Kenyatta regime, but it seemed to interfere less with the state's ability to build the country's infrastructure and maintain a robust economy.

[4] The material in this paper is based on sixty-five qualitative semi-structured interviews conducted from 2004-2006 in Kenya. Additional interviews were conducted in Rwanda and Uganda. I also conducted participant observation, and sat in on dozens of meetings of the organizations KIF and KICTAnet as well as several national and transnational conferences on ICT. I conducted interviews with former members of parliament, high-ranking government officials, academics, private sector participants, and civil society advocates. I take responsibility for all content and interpretations in this article, including all errors. Several interviewees requested anonymity, which I maintain. Below is a sample of interviewees that gives a sense of the scope and depth of the interviews conducted; they deserve special thanks: the late Juma Okech, Secretary of e-Government; Bitange Ndemo, Permanent Secretary for Information and Communications; Joseph Mucheru, Google Kenya; Marcel Werner, Secretary of the Kenya Information and Communications Technology Federation; Alice Munyua, Kenyan representative of APC and CCK Board Member; Amos Opiyo of the Ministry of Planning; Dr. Eric Aligula of the Kenya Institute of Public Policy Research and Analysis; Henry Belsoi of Telkom Kenya; Jonathan Campaigne, Director of Pride Africa; Kevit Desai, President of Kenya IEEE; Mike Eldon, CEO of Symphony Software; James Gachui, Founder of Wananchi Online; Dr. Kathryn Getau, Computer Science Faculty of the University of Nairobi; Dr. Tim Waema, Computer Science faculty of the University of Nairobi; Wallace Gichoho of Call Center Africa; Mirjana Ilic of UNESCO; Michael Katundu, Communications Commission of Kenya; Joseph Kiplagat, Computer Science Faculty, Moi University; Brian Longwe of AFRISPA; Charles Nduati of Kenyatta University; Dr. Florence Etta, formerly of IDRC; Edith Adera of IDRC; various staff members, directors and participants from the Computer Society of Kenya, KICTAnet, the Directorate of E-Government, the National Communications Secretariat, Kenya Pipeline Company, and many other organizations.

[5] Steven Levitsky & Lucan Way, *Elections Without Democracy: The Rise of Competitive Authoritarianism*, 13 J. OF DEMOCRACY 51, 51–52 (2002).

[6] The Kenya Communications Act, Information and Communications Technology Sector Policy Guidelines, 24 CVIII KENYA GAZETTE, 693–706 (2006).

[7] By virtue of demographics, the two most politically powerful language groups in Kenya have historically been the Dholuo (Luo) and the Agikuyu (Kikuyu). Out of a population of roughly 39 million people, the Kikuyu represent the largest language group, comprising 22% of the population, or about 8.6 million people. The Luo comprise 13% of the population. *See* Central Intelligence Agency, The World Factbook: Kenya, https://www.cia.gov/library/ publications/the-world-factbook/geos/ke.html (last visited Apr. 18, 2010). Two post-Independence presidents have come from the Agikuyu: Jomo Kenyatta and Mwai Kibaki. The Luo and the Kalenjin have been important factors in Kenyan politics, with the Kalenjin contributing Kenya's second President, Daniel arap Moi. Two of the most powerful post-Independence leaders have come from the Luo: Oginga Odinga and Tom Mboya. Oginga's son, Raila Odinga, carries his father's mantle as the undisputed leader of the loyal opposition and acts as a veritable force of nature in Kenyan politics. Kibaki has tacitly recognized the crucial political role of the Luo and the Luyha by giving the Vice Presidency to the Luyha and naming various Luos to crucial ministries. In particular, the Luo have recently controlled the powerful Ministry of Foreign Affairs. The Akamba group, who are small in population, are nonetheless a powerful political swing group—a role that echoes their historic position as traders between other language groups in Kenya.

[8] *See* Stanley D. Ross, *The Rule of Law and Lawyers in Kenya*, 30 J. OF MODERN AFR. STUDS. 421, 426 (1992); At independence the Kikuyu and Luo comprised nearly 40 percent of the total popula-

tion. David Throup, *Elections and Political Legitimacy in Kenya*, 63 AFRICA: J. OF THE INT'L. AFR. INST. 371, 372 (1993).

[9] My knowledge of telecommunications in Kenya in the period before 1998 relies heavily on the work of Aduda and Ohaga, who I met at an ATPS conference in Nairobi in 2004. *See generally*, K. Aduda & M. Ohaga, *Information and Communication Technology Policy: Kenya*, *in* STRENGTHENING NATIONAL INFORMATION AND COMMUNICATION TECHNOLOGY POLICY IN AFRICA: GOVERNANCE, EQUITY AND INSTITUTIONAL ISSUES (M. Ayogu ed., Nairobi African Technology Policy Studies Network 2004).

[10] ROBERT B. EDGERTON, MAU MAU: AN AFRICAN CRUCIBLE 12–18 (New York Free Press 1989); Ross, *supra* note 8, at 426.

[11] Nationwide parties began to form after the Lancaster House conference in London on the transfer of power. Throup, *supra* note 8, at 372.

[12] *Id.*; Jacqueline M. Klopp, *Ethnic Clashes and Winning Elections: The Case of Kenya's Electoral Despotism*, 35 CANADIAN J. OF AFR. STUDS. 473, 477 (2001).

[13] The main opposition party in Kenya during this period was the populist Kenya People's Union.

[14] Throup, *supra* note 8, at 373; Ross, *supra* note 8, at 425; Klopp, *supra* note 12, at 477.

[15] Throup, *supra* note 8, at 373, 375, 382; Jennifer A. Widner, *Single Party States and Agricultural Policies: The Cases of Ivory Coast and Kenya*, 26 COMPAR. POL., 127, 138 (1994).

[16] The Commission of Inquiry implicated Kenyatta's brother-in-law, Mbiyu Koinange, in J.M. Kariuki's death. The result was suppression by the Kenyatta government of backbenchers critical of the regime, through a combination of rewards, detention, and intimidation. Throup, *supra* note 8, at 375; Ross, *supra* note 8, at 425.

[17] Joel D. Barkan & Michael Chege, *Decentralizing the State: District Focus and the Politics of Reallocation in Kenya*, 27 J. OF MODERN AFR. STUDS. 431, 452; Throup, *supra* note 8, at 371. Klopp points out that each of Kenya's provinces has a provincial commissioner at the apex of a bureaucratic hierarchy that stretches through the chief and his assistants into local areas. The chief is an appointed bureaucrat invented, created, and imposed by the British. Traditionally, Kenyan societies were not ruled by chiefs. Klopp, *supra* note 12, at 477–78.

[18] Klopp, *supra* note 12, at 476.

[19] M.M. Chijoriga, et al., *Information and Communication Technology Policy: Tanzania*, *in* STRENGTHENING NATIONAL INFORMATION AND COMMUNICATION TECHNOLOGY POLICY IN AFRICA: GOVERNANCE, EQUITY AND INSTITUTIONAL ISSUES VOL. II (M. Ayogu ed. 2004); Aduda & Ohaga, *supra* note 9.

[20] Aduda & Ohaga, *supra* note 9.

[21] Throup, *supra* note 8, at 377.

[22] George Bennett, *Kenya and Tanzania*, 66 AFR. AFFAIRS 329, 332 (1967). Bennett's article lends support to the position that Kenyatta appointed Moi to be Kenya's Vice President to broaden the ethno-regional base of his regime, to defuse the Kikuyu-Luo power struggle, and to prove that he was "not a tribalist." *See also* Ross, *supra* note 8, at 426.

[23] Throup, *supra* note 8, at 383.

[24] Barkan & Chege, *supra* note 17, at 436.

[25] On Christmas Day of 1991, after being demoted from the Vice-Presidency and reassigned as Minister of Health in 1988, Mwai Kibaki abandoned KANU to form the Democratic Party of Kenya.

[26] Klopp, *supra* note 12, at 477. Klopp argues that Moi built a trusted support base in the Rift Valley, and alienated the Kikuyu, Luo, Pastoralist, and Coast constituencies. *See also* Throup, *supra* note 8, at 385.

[27] Widner, *supra* note 15, at 137.

[28] *But see Id.* at 138; Throup, *supra* note 8, at 375, 389; Ross, *supra* note 8, at 427. In 1982, President Moi amended section 2A of the Kenyan constitution, making Kenya into a *de jure* one-party state. Throup states that this decision was precipitated by the efforts of Oginga Odinga and George Anyonga to register a Kenya Socialist Party.

[29] Ross, *supra* note 8, at 425. It is not essential to my narrative to discuss the rampant and massive corruption of the Moi era. However, this was a notable characteristic of the second Kenyan Presidency.

[30] Throup, *supra* note 8, at 387.

[31] Ross, *supra* note 8, at 431. I remember traveling to Kenya during this time period to visit my family. I poignantly recollect the giant trash heaps outside beautiful estates and the profusion of street children playing in the drainage ditches, indicating a nearly complete breakdown of government services to the general population.
[32] Throup, *supra* note 8, at 384.
[33] One rough indicator of the level of democracy versus autocracy in Kenya is the "Polity Score." The composite polity score ranges from +10 (strongly democratic) to -10 (strongly autocratic). The combined polity score in Kenya went from -6 in 1979, to -2 in 1997 In other words, throughout the seventies, eighties and nineties, Kenya was a semi-authoritarian. In 2002, the composite polity score for Kenya rose to +8, close to a strong democracy. Roddy Fox, *Bleak Future for Multi-Party Elections in Kenya*, 34 J. OF MODERN AFR. STUDS. 597, 605–607 (1996) (provides a helpful and detailed discussion of the 1992 Kenyan elections).
[34] Throup, *supra* note 8, at 385.
[35] Ross, *supra* note 8, at 421–442.
[36] I thank Steven Levitsky for this insight.
[37] Throup, *supra* note 8, at 391.
[38] Klopp, *supra* note 12, at 481.
[39] Throup, *supra* note 8, at 389.
[40] Aduda & Ohaga, *supra* note 9.
[41] I acknowledge the invaluable contribution of Dr. Shem Ochuodho for sharing his memories with me in his office in Kigali regarding early ICT policy process in Kenya. This section also relies heavily on discussions with Professor Tim Waema of the University of Nairobi. Mike Eldon of KEPSA and the Kenya ICT Federation gave many insights regarding the period between 2000 and the present.
[42] Throup, *supra* note 8, at 372.
[43] Fox, *supra* note 33, at 607.
[44] Klopp, *supra* note 12. Relying on a wealth of ethnographic and historical evidence, Klopp argues persuasively that the Moi government and KANU transported warriors to Kikuyu areas and paid them to kill opposition leaders as well as Kikuyu in-migrants in an attempt to counter the onset of political liberalization in Kenya.
[45] Klopp notes that so-called "ethnic violence" was actually government violence carried out by game rangers, police, and army personnel. *See* Klopp, *supra* note 12, at 496.
[46] Fox, *supra* note 33, at 607.
[47] Throup, *supra* note 8, at 393–94 (1.9 million votes were cast for Moi, and 3.3 million votes were cast for the three main opposition candidates).
[48] *See* Stephen Orvis, *Kenyan Civil Society: Bridging the Urban-Rural Divide*, 41 J. OF MODERN AFR. STUDS. 247, 251 (2003).
[49] TED DAGNE, CONGRESSIONAL RESEARCH SERVICE, *Kenya: The December 2007 Elections and the Challenges Ahead* 9, 13 (2008).
[50] Roger Southall, *Moi's Flawed Mandate: The Crisis Continues in Kenya* 25 REV. OF AFR. POL. ECON. 101, 101 (1998).
[51] Stephen N. Ndegwa, *Kenya: Third Time Lucky* 14 J. OF DEM. 146, 146–47 (2003).
[52] Joel D. Barkan & Njuguna Ng'ethe, *Kenya Tries Again* 9 J. OF DEM. 32, 32–33 (1998).
[53] Southall, *supra* note 50; *see also* Barkan & Ng'ethe, *supra* note 52, at 32–33.
[54] Ross, *supra* note 8, at 440.
[55] Florence Etta, *Policymaking: The New Development El Dorado*, *in*, AT THE CROSSROADS: ICT POLICYMAKING IN EAST AFRICA 9 (Florence Etta & Laurent Elder eds., East African Educational Publishers 2005).
[56] Aduda & Ohaga, *supra* note 9.
[57] More than ten years later, Telkom remains a state-owned monopoly. *See* Aduda & Ohaga, *supra* note 9. With regard to the SAP process and its effect on policymaking, s*ee* Etta, *supra* note 55, at 9.
[58] G.W. KIYONGI & R. MIJUMBI, STRENGTHENING NATIONAL ICT POLICY IN AFRICA: THE CASE OF UGANDA VOL. I (African Technology Policy Studies Network 2004).
[59] The two main telecommunications providers in Kenya are Safaricom, which is owned 50% by a strategic outside investor and 50% by Telkom Kenya, as well as Kencell/Celtel, a large multinational operator with massive interests in the African telecommunications market, Vodacom.
[60] No regional telecommunications operators have been commercially successful in Kenya to date.

[61] REPUBLIC OF KENYA, REPORT OF THE NATIONAL YEAR 2000 STEERING COMMITTEE ON KENYA'S MANAGEMENT OF THE Y2K CHALLENGE (2000).
[62] MINISTRY OF FINANCE AND PLANNING, REPUBLIC OF KENYA, POVERTY REDUCTION STRATEGY PAPER FOR THE PERIOD 2001-2004: VOL. I (2001). Former Kenyan Assistant Minister for Education, Science and Technology, Mr. Adams Karauri, stated in a 2001 workshop that the Kenyan government was in the process of establishing a framework for ICT policy. In December 2001, the then Ministry for Transport and Communications issued the Telecommunications and Postal Sector Guidelines.
[63] *Id.* at Vol. I 58-61.
[64] *Id.* at Vol. II Foreword.
[65] Etta, *supra* note 55, at 9.
[66] Multiple interviews were conducted with Director Okech from 2004-2006. In addition, several of his staff members were interviewed repeatedly. Director Okech passed away in early 2009.
[67] MINISTRY OF PLANNING AND NATIONAL DEVELOPMENT, REPUBLIC OF KENYA, ECONOMIC RECOVERY STRATEGY FOR WEALTH AND EMPLOYMENT CREATION: 2003-2007 44, 55–56 (2003).
[68] COMMON MARKET FOR EASTERN AND SOUTHERN AFRICA, INFORMATION AND COMMUNICATION TECHNOLOGY POLICY (2003), *available at* http://programmes.comesa.int//attachments/118_ICT %20POLICY%20FOR%20COMESA%20%20March%202003.pdf.
[69] MINISTRY OF TRANSPORT AND COMMUNICATIONS, REPUBLIC OF KENYA, DRAFT NATIONAL INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) POLICY (2004).
[70] Office of the President, Republic of Kenya, E-Government Strategy: The Strategic Framework, Administrative Structure, Training Requirements and Standardization Framework 70 (2004).
[71] *See generally* TIM WAEMA, COMMUNICATIONS COMMISSION OF KENYA, UNIVERSAL ACCESS TO COMMUNICATION SERVICES: DEVELOPMENT OF A STRATEGIC PLAN AND IMPLEMENTATION GUIDELINES (2004).
[72] J.N. Kihanya & L.M. Oloo, KICTAnet, Rapporteurs Notes and Report: Kenya National ICT Visioning Workshop, Norfolk Hotel, Nairobi (Nov. 2004).
[73]Another "confidential"—yet widely distributed—draft was released to a group of stakeholders in January 2004. MINISTRY OF INFORMATION AND COMMUNICATIONS, REPUBLIC OF KENYA, DRAFT NATIONAL INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) POLICY (October 2004).
[74] L. Mulunda, *Board's Sacking Puts Telecoms Into a Spin*, E. AFR. STANDARD, March 12, 2005.
[75] E. Shimoli, Telkom, *CCK in Bitter Exchange*, DAILY NATION, March 13, 2005.
[76] Mulunda, *supra* note 74.
[77] J. Gitau, *Politicising Business*, E. AFR. STANDARD, January 16, 2005.
[78] S. Reporter, *Tuju Dissolves CCK Board*, DAILY NATION, March 8, 2005.
[79] Warigia Bowman, Notes from Remarks by Permanent Secretary Eng. James Rege. Nairobi: Second National Kenyan ICT Convention (2005).
[80] KICTAnet Communique, Kenya ICT Convention, Safari Park Hotel, Nairobi (March 2005).
[81] A. Alare, *Minister Under Fire for Sacking CCK Board*, E. AFR. STANDARD, March 9, 2005; M. Mwangi & K. Mugambi, *CCK Board to Be Formed in One Month*, DAILY NATION, March 9, 2005.
[82] E. Board, *Tuju, Tell Us More on CCK*, DAILY NATION, March 9, 2005.
[83] T. Mogusu, *Minister Answers Critics of His Move on CCK Board*, E. AFR. STANDARD, March 11, 2005.
[84] M. Mutua & A. Alare, *House Committee Summons Minister Over CCK Saga*, E. AFR. STANDARD, March 10, 2005.
[85] J. Walu, *In Turbulent Waters*, E. AFR. STANDARD, March 12, 2005.
[86] Mutua & Alare, *supra* note 84.
[87] A. Alare, *Minister Taken To Task Over CCK Move*, E. AFR. STANDARD, March 18, 2005.
[88] M. Muriuki, *Tuju Defends His Decision to Dissolve CCK Board*, DAILY NATION, March 11, 2005.
[89] R. Weidermann, *Shock Over Kenyan Regulator Saga*, IT WEB, March 30, 2005.
[90] B. Kathuri, *CCK to Get New Board this Week*, E. AFR. STANDARD, May 10, 2005.
[91] Policy becomes formalized in Kenya when a document has the cabinet's seal of approval.
[92] The Kenya Communications Act, *supra* note 6.
[93] Warigia Bowman, *Moving Forward in Kenya*, BOSTON GLOBE, January 6, 2008.
[94] M. Machuka, *"Standard Raid" an Official Secret, Claims Michuki*, E. AFR. STANDARD, April 10, 2009.

[95] I. Ongiri & O. David, *Is the Communications Bill an attempt to strangle media?* E. AFR. STANDARD, Dec. 16, 2008.
[96] In terms of leadership, one of Kenya's great ICT policy entrepreneurs, Juma Okech, Director of e-government, passed away in January of 2009, leaving his colleague Ndemo to soldier alone.
[97] By contrast, post office facilities with electricity, which would have been constructed during the Moi era, were distributed inequitably and greatly favored provinces favored by Moi.
[98] WAEMA, *supra* note 71.
[99] By contrast, Uganda and Rwanda set funding for their Universal Access fees at a clear 1% of gross revenues of all telecommunications operators.
[100] Tim Waema, *A Brief History of the Development of an ICT Policy in Kenya, in* AT THE CROSSROADS: ICT POLICYMAKING IN EAST AFRICA (Florence Etta & Laurent Elder eds., International Development Research Center 2005).
[101] Godwin R. Murunga, *Review Essay: Civil Society and the Democratic Experience in Kenya by Willie Mutunga, Sareat and Mwengo*, 4 AFRICAN SOCIOLOGICAL REVIEW 97 (2000). The author notes, presciently that "Civil society is a broad concept. Its history is decidedly western. But, we live in a world where the West comes up with concepts, and indiscriminately employs them in the African context without due regard to the peculiarities of the African social formations. This does not mean that there is no civil society in Africa or Kenya for that matter. Civil society in Kenya has its own peculiar history, which does not in any way have to conform to the western one."
[102]At their most avaricious, "civil society groups [in Kenya] can present themselves as "briefcase NGOs' which exist only to garner grant money." Stephen Orvis, *Kenyan Civil Society: Bridging the Urban-Rural Divide*, 41 J. MOD. AFR. STUDS. 247, 249 (2003).
[103] Development focused donor organizations which are part of national governments in the US, UK and other countries often provide funding for civil society organizations in the global south. A further distinction could be made between national or indigenous civil society groups and transnational groups, such as Amnesty International or Greenpeace, although national groups often have links to transnational civil society. For example, an organization like "Jamii Bora" was founded by a Swede, but is entirely staffed by Kenyans. It draws funding streams from both Kenyan sources and external entities like the Acumen Fund.
[104] By 2004, over 1000 non-governmental organizations had been registered in Kenya.
[105] MAKUA MUTUA, KENYA'S QUEST FOR DEMOCRACY: TAMING LEVIATHAN 18 (Lynne Rienner Publishers 2008).
[106] *See generally* JAMES C. SCOTT, SEEING LIKE A STATE: HOW CERTAIN SCHEMES TO IMPROVE THE HUMAN CONDITION HAVE FAILED (Yale University Press 1999).
[107] I. Reporter, *Coalition Cracks Threaten Stability*, INTEGRATED REGIONAL INFORMATION NETWORKS, April 8, 2009.
[108] Lisa Schlein, *Annan Urges Kenyans to Unite for Good of Nation*, VOICES OF AMERICA NEWS, March 31, 2009.
[109] *See generally* LANGDON WINNER, THE WHALE AND THE REACTOR (University of Chicago Press 1986); SHEILA JASANOFF, STATES OF KNOWLEDGE: THE CO-PRODUCTION OF SCIENCE AND THE SOCIAL ORDER (Routledge 2004).
[110] By infrastructure, I am referring to the fiber optic cables, the satellite dishes and the electric wires, or even solar power or wind power generators which allow Internet connectivity and well-functioning sustainable computing in rural areas.
[111] Andrea Bohnstedt, *News Analysis: Cash Back for France Telecom or Checking Out?* RATIO MAGAZINE, Apr. 13, 2010, http://www.ratio-magazine.com/201004132691/News-Analysis/News-Analysis-Cash-Back-for-France-Telecom-or-Checking-Out.html.
[112] INTERNATIONAL TELECOMMUNICATION UNION, INFORMATION SOCIETY STATISTICAL PROFILES 2009: AFRICA 16 (2009).
[113] *Kenya Rolls Out Digital Village Project*, IT NEWS AFRICA, April 15, 2010, http://www.itnewsafrica.com/?p=6988.
[114] Steven Levitsky & Victoria M. Murillo, ARGENTINE DEMOCRACY: THE POLITICS OF INSTITUTIONAL WEAKNESS 273 (Penn St. Univ. Press 2006). Another way of formulating this situation is that, in game theoretic terms, the Kenyan government may simply be "signaling" through policy, with no intention of actually following through.