

Digitizing Failure: Development and Power In Nigerian e-Schools

By

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ABSTRACT

This dissertation offers a critical analysis of development communication in Africa by studying how the global computing industry transformed schools, the state, and educational culture in Ekiti State, Nigeria. It brings post-development theory together with critical approaches to communication to examine how discourses of Information and Communication Technology for Development (ICT4D), Information and Communication Technology for Education (ICT4E), and the digital divide are materialized institutionally and culturally in the context of a specific development project. It relies upon corporate and governmental policy documents, including site visits to schools, and interviews with government officials, consultants, industry partners, parents, students, and teachers to provide a comprehensive account of the failures of a flagship ICT4E project in Nigeria: the Ekiti State e-School Project.

The Ekiti State e-School Project involved the distribution of 30,000 laptops to students in 183 public secondary schools located both in the rural and urban areas at the cost of US\$12.5 million. The project was implemented in 2012 in anticipation of a digital future for the Nigeria economy that rested upon the liberalization of the telecommunication sector and precipitated intense forms of collaboration between Ekiti State and global computing corporations, most notably Samsung and Microsoft. My dissertation illustrates how the discourses of education, communication, and development mediated this relationship in ways that failed to solve the problem of social inequality underpinning the digital divide in the state. In addition, it situates the failure of the project within the broader history of telecommunication, modernization theory, and development communication in Africa, as well as the experiences of those participating in and affected by the events described in this dissertation. By bringing post-development theory together with critical communication studies in a novel fashion, I displace the contemporary fascination with ‘access to information’ and ‘digital divide’ to discuss the politics of development failure in a wider context.

DEDICATION

To the memory of

Ezekiel (Easy) Nwaemelu Ahanihu

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First, I want to give a shout-out to Semiu Okanlawon, a former colleague at *The Guardian* newspaper, Lagos, with whom I travelled the path of journalism during the arduous days of military dictatorship in Nigeria. As the Director of Communications and Strategy in the office of the Osun State governor, I ran to him from my base in Canada in a last-ditch effort to make contact with the neighbouring Ekiti State, the ground zero of my dissertation fieldwork. I thank him for making what had been a difficult task much easier for me.

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raw nerve of outrage’ alive in the face of the prejudice propagated by the ‘agendas of development’, were all memorable markers. Those moments of epiphany were, for me, the icing on the cake.

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ACRONYMS

ADB	African Development Bank
AFREXIM	African Export-Import Bank
AISI	African Information Society Initiative
APC	All Progressive Congress
ASP	Application Sharable Program
BPIU	Bureau of Public Infrastructure and Utilities
DSE	Department of Standards and Evaluation
DBSA	Development Bank of South Africa
DICT	Directorate of Information and Communication Technology
DMO	Domestic Marketing Organization
DOMSAT	Domestic Satellite
FDI	Foreign Direct Investment
FPC	Fulfilment Partners Committee
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GSM	Global System for Mobile Communication
ICT	Information and Communication Technology
ICT4D	ICT for Development
ICT4E	ICT for Education
IDRC	Canadian International Development Research Centre
IFC	International Finance Corporation
IFIP	International Federation for Information Processing

IGS	Immaculate Grammar School
IMF	International Monetary Fund
IT	Information Technology
ITU	International Telecommunication Union
JAMB	Joint Admissions Matriculation Board
LCMS	Learning Content Management System
LGAEO	Local Government Area Education Office
MoU	Memorandum of Understanding
MSV	Michael Sarah Ventures
NICI	National Information and Communication Infrastructure
NWICO	New World Information and Communication Order
NCC	Nigerian Communication Commission
NECOM	Nigerian External Communications
NET	Nigerian External Telecommunications
NIPOST	Nigerian Postal Service
NITEL	Nigerian Telecommunication Limited
NGO	Non-Governmental Organization
OECD	Organization for Economic Cooperation and Development
OTSD	Office of Transformation Strategy and Delivery
PDP	People's Democratic Party
P&T	Posts and Telecommunications
PTA	Parents/Teachers Association
PTO	Private-owned Telecommunications Operator

PIC	Project Implementation Committee
PMC	Project Management Committee
PMO	Project Management Office
SAP	Structural Adjustment Program
SLA	School Laptop Administrator
SMEIS	Small and Medium Enterprises Investment Scheme
SME	Subject Matter Expert
UHF	Ultra High Frequency
UN	United Nations
UNDP	United Nations Development Program
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
US EXIM BANK	US Export-Import Bank
USTTI	United States Telecommunications Training Institute
WAEC	West African Examinations Council
WASSCE	West African Senior Secondary Certificate Examinations
WHO	World Health Organization
WSIS	World Summit on the Information Society
WTO	World Trade Organization

Chapter 1

From 'Fountain of Knowledge' to digital solution

Distinguished ladies and gentlemen, our government has gone this far to ensure that everything is done to make us stand shoulders higher than other states by recreating our feat in the areas of academic excellence that our land was in the time past identified with. Even then education, from the perspective of those who impact the knowledge (the teachers) and those who receive the knowledge being impacted (the students), has gone far beyond what it used to be. This is why it has become very imperative for those involved in the teaching and learning processes to be computer literate in line with global standard in knowledge acquisition (Ekiti State Governor Kayode Fayemi, 14 March 2012).

1.1: Introduction

In the 1990s, an entire literature sprang forth that exuded a kind of 'digital utopianism.' In this literature, digital computers were a cipher and solution for all the key issues of human life. The meaning and future of our shared existence was discussed in terms of the developments and affordances of computers. Debates about opportunity, inequality, and injustice congealed into something called the digital divide. The conceptual development and institutional implementation of ICT4D began at this time and was imbued with utopian aspirations for a more equitable distribution of information processing capabilities. Development did not just have new acronyms – ICT4D and ICT4E – but a new lease on life.

While many authors have contributed assessments of digital utopianism, Fred Turner's (2006) important study stands out for its illustration of how 'the computer' is both

imbued with contradictory ideals and also redesigned to reflect such ideals in complex ways. Turner's work documents how select 'entrepreneurs' connected people, built a shared language, and formalized relationships through institutions in order to solidify a series of technical developments. These entrepreneurs employed a mythical discourse to motivate and give meaning to their efforts, often in ways that disguised the contradictions and tensions that result from promoting computational solutions to political and economic difficulties.

While digital utopians are a varied lot and engage in diverse projects in seeking to remake political and economic life, their celebration of the significance of computing tends to split into transcendental and pragmatic approaches. The transcendental approach positions information technology as a vehicle for 'transcending' political and economic circumstances, whereas the pragmatic approach tends to embrace the messiness of political-economic circumstances by empowering experts to intervene based on objective knowledge that is designed to 'solve problems' in an apolitical fashion (Carey and Quirk, 1989).

This split among digital utopians is evident in efforts to distribute laptop computers to children in Africa. These projects are shaped by the two dominant philosophies of education organizing these efforts: Constructivism, as represented by Nicolas Negroponte¹, and the ICT4E approach of state actors dedicated to addressing economic development. While both approaches wish to address poverty through the distribution of

¹ Constructivism views learning as highly dependent on students "constructing ideas", and that individual laptop computer are essential "for carrying out such construction in today's world" (Warschauer and Ames, 2010: 34). Constructivism stipulates that laptops "be owned by children over the age of six rather than by schools," regards efforts to reform curricula and assessment "as too slow or expensive," and argues that "the training of teachers has limited value due to teacher absenteeism and incompetence, so laptop implementation must proceed without them" (35).

computational devices to close the digital divide, there are differences in their respective visions of how digital computing can facilitate development in Africa.

Constructivists are impatient with the ICT4D/ICT4E approach and its constant attention to context and evaluation. Computers, like water or electricity, are a basic utility, and providing access to these machines should not be inhibited by deference to state regulation, cultural context, or constant demands to evaluate progress. It is a question of transcending these obstacles to get digital machines in the hands of Africa's children and they will figure out what to do with them. On the other hand, ICT4D/ICT4E proponents often emphasize the importance of cultural context, the role of the state in funding and organizing deployment, and the crucial role of expert evaluations of effectiveness and impact. Computers are not tools but socio-technical systems, which require attention to context and the specific needs of their users. The result is a process of continual assessment.

The conflict between these two approaches is rooted in questions regarding the appropriate context, design, and use of computers. There are competing conceptions of development being debated in these transcendental and pragmatic approaches to digital pedagogy. The debate, in brief, involves much more than the question of how to improve access to computers to reduce the digital divide; it expresses a conflict over what digital computing is, how it can facilitate development, and what the state can – and cannot – do to organize this process.

The debate is important on its own terms but also because it illustrates the internally differentiated nature of approaches to development and the digital divide in Africa.

Critical perspectives on development, like the one adopted in this work, often present development in an overly homogeneous fashion, as if a singular idea were sweeping the planet, or as if advocates for development are all of a single mind. Development is sometimes understood as symptomatic of neoliberal ideology or a ‘Washington Consensus,’² and these explanations are enticing because it makes the debunking of mythology and ideology an important scholarly and political activity.

These scholarly efforts are significant. Yet, while important, mythology and ideology is not the entire story, and it is important to situate studies of digital utopianism and digital divide in an assessment of the material effects of ICT development projects. There are significant differences between development approaches that embrace a largely pejorative notion of state power, with corporate funding or market forces ‘replacing’ the role of states in the political organization of daily life, and those approaches that view the state as ‘constitutive of’ the role that corporate actors are able to play in the reorganization of African culture.

If state actors embrace a program of modern development, if they internalize a particular model of economic progress when buying and distributing digital computers to their people, does this indicate an ideological victory over African states or their people? No more, I will suggest, than such acceptance indicates the desire of African people for economic development. Instead, these development projects raise questions for research, beg for comprehensive studies, and call for political debate that is informed by attention

² ‘Washington Consensus’ describes a trilogy of neo-liberal policy reforms – privatization, liberalization and globalization – of Washington DC-based institutions, notably the International Monetary Fund (IMF), the World Bank and the World Trade Organization (WTO) that came to hold sway over the world’s political economy in the late 1980s. It is synonymous with market fundamentalism (Willis, 2005: 52).

to ideas, institutional organization, and the effects of a program's implementation, including the voices and participation of those affected by such projects.

The story of this dissertation is a common one: A development project with good intentions and high aspirations fails miserably. It failed, I suggest, not because it adopted the wrong pedagogical philosophy, technological device, or governance structure. Indeed, like many projects in Africa, the Ekiti State e-School Project studied here changed over time to embrace different models of teaching, technology design, and governance, but none was able to rescue it. It failed because the model of modern development presumed by the project works and perpetuates itself through failure. The meaning and implications of this statement is the subject of the dissertation that follows.

The study grew out of James Ferguson's (1990) *The anti-politics machine: 'Development,' depoliticization, and bureaucratic power in Lesotho* – an analysis of failed rural development projects in Lesotho. In this book, Ferguson contends that the history of development projects in Lesotho is one of “almost unremitting failure to achieve their objectives,” and that throughout Africa one will find “closely analogous or even identical ‘development’ institutions, and along with them often a common discourse and the same way of defining ‘problems’, a common pool of ‘experts’ and a common stock of expertise” (8). His conclusion is very thought-provoking:

Even the particular ‘development’ initiatives promoted in Lesotho may only be specific examples of a more general model. ‘Rural development’ projects are to be found scattered liberally across the African continent and beyond; and, in nearly every case, these projects seem on inspection to be planned, implemented, and justified in very nearly the same way as they are in Lesotho. What is more,

these projects seem to ‘fail’ with almost the same astonishing regularity that they do in Lesotho (8-9).

Ferguson’s presumed certainty of the failure of development projects in Africa was puzzling to me. This dissertation is, therefore, the result of my curiosity to understand how he came about this conclusion. I consider it an important study, especially coming at a time when development experts and agencies hold up ICT as a panacea to ‘underdevelopment’ in Africa. By undertaking this task, I also consider it as my contribution to the understanding of development in Africa by exploring in detail the conceptualization, planning, and implementation of the Ekiti State e-School Project, initiated and funded by the Ekiti State government in Nigeria.

In this work, I have taken the approach of post-development theory to the question of ICT4E and the digital divide in Africa. Post-development requires attention to ideas, experts, institutional organizations, and the voices of those affected by development projects. Crucially, it permits and gives voice to oppositional stances to the integration of non-Western culture into global economic models. While Africa is not its typical site of study, and while ICT has not figured prominently in its research, my work brings it into a productive dialogue with critical communication studies, by reproducing some elements of Turner’s classic study albeit in an African context.

This dissertation’s research on the Ekiti State e-School Project is based on a comprehensive collection of corporate and governmental policy documents as well as interviews with government officials, consultants, industry partners, parents, and teachers. It documents how the operating practices of the computing industry (in this case, Samsung and its representatives) interacted with and shaped the institutions and

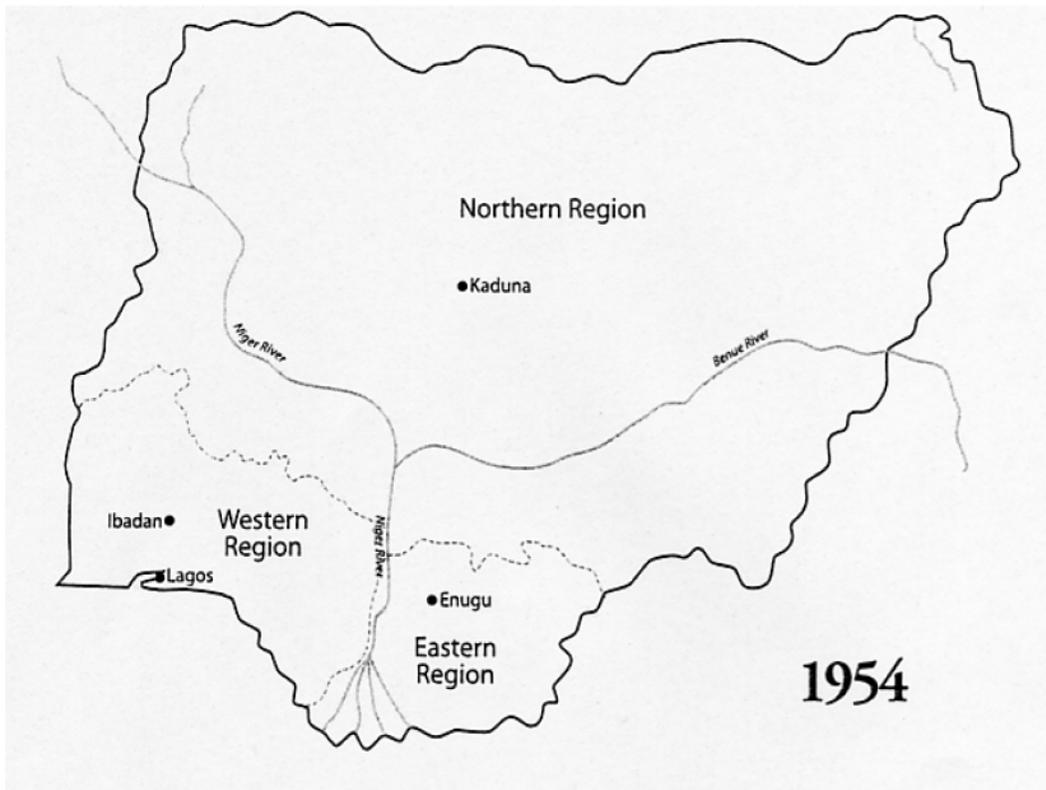
cultures of education in an African society. Ultimately, it offers a case study of how the constructivist/transcendental and the ICT4E/pragmatic approaches have shaped the development, distribution, uses and failures of digital computing in a specific setting in Africa.

More specifically, the study illustrates how the utopian views of the constructivist and ICT4E approaches shaped the conceptualization, planning, and implementation of the project, as well as the lives of those using laptop computers in Ekiti State. Importantly, it shows how influential pedagogies of education and development mediate the relationship of African culture and corporate power in ways failing to ameliorate the social inequality underpinning the digital divide. In addition, it describes the role that the state plays in these efforts and encourages scholars to undertake additional research to better understand the history, institutional organization, and culture of African states in their work, and how they form the backdrop against which all efforts to bring about ‘modernization’ from the outside, so to speak, must reckon and come to terms with.

1.2: Ekiti State: The ‘Fountain of Knowledge’

Ekiti State is located in the Western Region of Nigeria (see Figure 1.1). It was carved out of the old Ondo State in 1996 and is one of “the poorest and least physically developed” among the 36 states in Nigeria (SEEDS, 2004: 14). Underdevelopment in the area is said to have its roots “in low rates of economic growth” (18) and almost every development indicator supports that conclusion. About 97% of the population is poor (National Bureau of Statistics, 2010: 78). While 81% of the households earn less than ₦20, 000 per month – that is, about US\$100 – less than 1.0% households earn above ₦200, 000 (112).

Figure 1.1:
Map of Nigeria showing the three Federal Regions created during colonial rule



Source: Association of Nigerian Scholars for Dialogue at http://www.waado.org/nigerian_scholars/archive/pubs/wilber1_map1.html, accessed 14 January 2016.

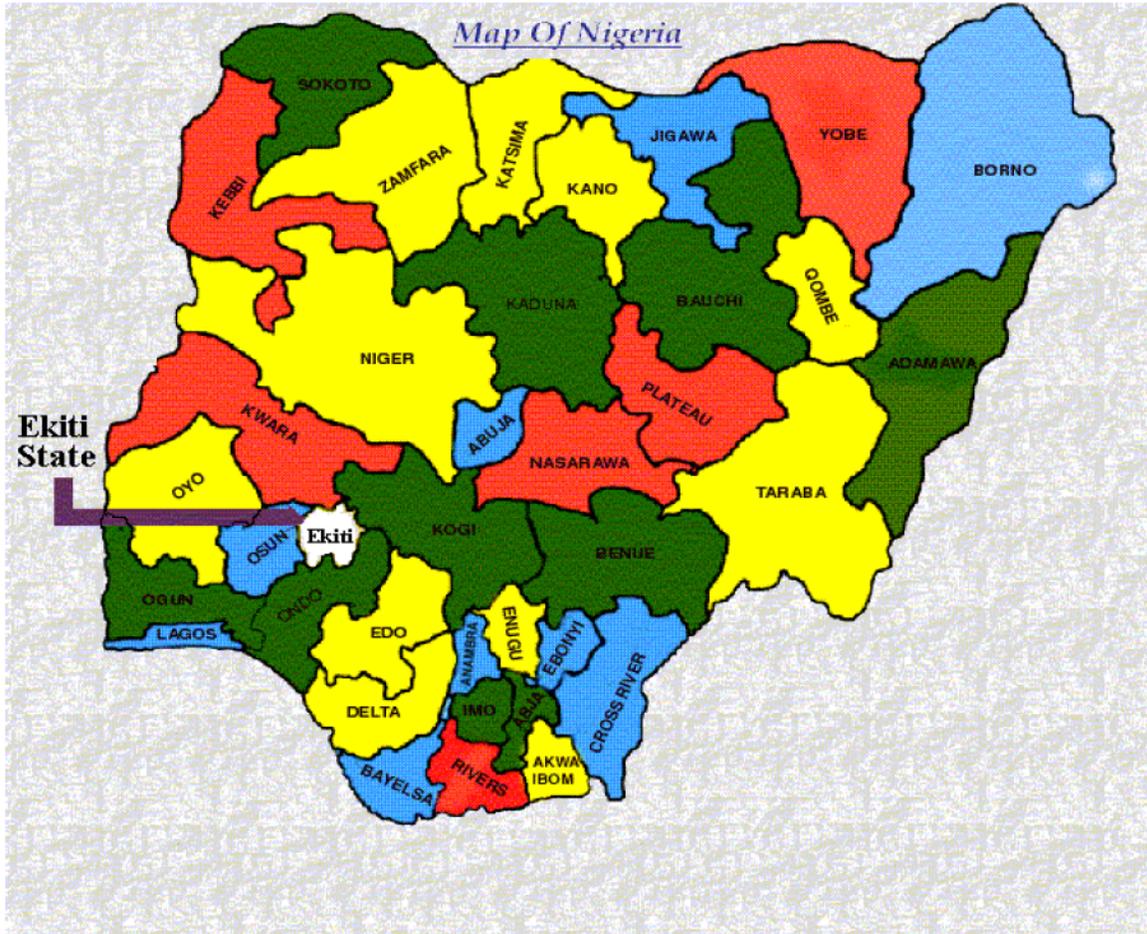
In addition, its transportation and communication systems are poor. At the creation of the state in 1996, the roads were “almost impassable” (SEEDS, 2004: 14). In 2009, federal roads in the state measured 376 kilometres – the least among the states in the country (National Bureau of Statistics, 2010: 442). There are no railways, airports, or seaports in the state. The distribution of ownership of radio in the population is 32.5%, television (17.6%), mobile phone (48.7%), fixed phone (0.1%), personal computer (0.8%), and Internet (0.3%) (474).

If one prefers health measures as indications of development, the picture remains bleak. The crude birth rate is 45 per 1,000, and 16 for crude death rate (SEEDS, 2004: 45). Life expectancy is about 55 years (ibid), far below the average of 79 years across Organization for Economic Co-operation and Development (OECD) countries. Malaria is the leading cause of death, followed by measles, cholera, hypertension, diabetes, HIV/AIDS and heart disease, with cases of nutritional anemia reported among pre-school children (ibid). In 2002, there was one doctor for 36,000 of the population as against the minimum of 1:1000 recommended by the World Health Organization (WHO) (Deo, 2016); one nurse for 5,000 (on the average across OECD countries during the same period, there was one nurse for 250) (OECD, 2015); one pharmacist/pharmacy technician for 89,000, as against the 1:2000 recommended by WHO (Pharmacy Society of Ghana, 2015); and one laboratory technician in 98,000 (SEEDS, 2004: 45).

Education is the source of Ekiti State's reputation and its "key industry" (SEEDS, 2004: 14), although agriculture remains the main occupation of the people. The state is known for its history and reputation as the 'Fountain of Knowledge,' an idea that is complex and difficult to summarize, but which has continuously been reshaped in profound ways by the experiences of colonialism, post-colonialism, and international development. The developmental aspirations of modern Ekiti State are in many ways rooted in and inspired by this illustrious past as the 'Fountain of Knowledge', with the fear of losing that past not only throwing the area's educational systems into perpetual crises but fueling a desire to recover the illustrious past through the rapid embrace and use of new technologies. However, those same technologies and the expertise they presuppose require the people

to abandon the very same cultural practices that they want to recover and rejuvenate in the first place.

Figure 1.2:
Map of 36 states and Abuja, the Federal Capital Territory, indicating the location of Ekiti State



Source: Ekiti State webpage at <http://www.ekiti.com/AboutEkiti/maps.htm>, accessed 14 January 2016

Following S. Ademola Ajayi's account, Ekiti people's association with academic excellence can be traced to the work of early Christian missionaries, who, in the mid-19th century Western Nigeria, began "a process of systemic evangelization, using Western

education as a medium and an indispensable tool” (2006: 33). Ajayi’s contention is that the consequence of this missionary enterprise in Western Nigeria was the beginning of “European influence” in all aspects of life – religious, economic, social and political (36).

As in the entire country, educational development from the closing years of the 19th century in Western Nigeria was considered “grossly inadequate for meeting the needs of a modern state” (Ajayi, 2008: 3). The Christian missionaries designed education to aid evangelization – to enable converts to read and understand the Bible. Primary and secondary schools were built partly for this purpose. In Ajayi’s reckoning, as late as 1945, Christian Missions owned over 95% of schools in Western Nigeria and no less than 97% of school age children attended these schools.

At the end of the 19th century, the British colonial government began to build on the foundation laid by the missionaries. As S.O. Osoba and A. Fajana have pointed out, the primary consideration of the colonial administration at this time was military and diplomatic campaigns (cited in Ajayi, 2006: 33). The advancement of education was of “low priority” and received “perfunctory attention” (ibid). The colonial government’s interest in education was the production of minor functionaries such as clerks, junior technicians in public works and sanitary inspectors.

The 1950s marked a transformation in education and telecommunication, two processes that would be brought together in the Ekiti State e-School Project studied here. During the transition from colonial to self-rule, a Federal Constitution was adopted in 1951, which empowered the legislative houses in the three regions that made up Nigeria – that is, Northern, Eastern and Western regions – to make laws with respect to certain

enumerated areas, including education. With this constitutional provision, the responsibility for education at the regional level was transferred to the governments of the respective regions.

Following the transfer of responsibility for education to the regions in the 1951 constitution, Western Region accorded the sector the highest priority. In its first budget in 1952, “expenditure on services which tend to the welfare and health and education of the people” was increased at the expense of any expenditure that did not “answer to the same test” (Ajayi, 2006: 41). The same year, the region’s Ministry of Education introduced free, universal and compulsory education. An excerpt from the Minister of Education’s remarks during this period speaks to how the region viewed the importance of education:

Educational development is imperative and urgent. It must be treated as a national emergency, second only to war. It must move with the momentum of a revolution. Our past history makes it a matter of paramount necessity to catch up with the rest of the world (cited in Ajayi, 2006: 42).

In the words of Babs Fafunwa, a former Federal Minister of Education, the introduction of free, universal and compulsory education in Western Nigeria was “the boldest, and perhaps the most unprecedented educational scheme in Africa south of the Sahara” (ibid).

Free education became the cornerstone of the Western Region’s development policy. In the transition from colonial rule in the 1950s up to the dawn of independence in 1960, the number of primary schools increased from 3,550 to 6,670. Education took up a remarkable share of the region’s expenses. In 1958, 41.2% of the budget was devoted to education (see Table 1.1), representing “one of the highest proportional expenditures on education the world over” (2006: 42). The culture of mass education in the region was

without precedence in the history of Nigeria. At the same time, Nigeria was embarking on a series of high profile National Development Plans, which were central to the country's aspirations for socio-economic growth (as discussed in Chapter 4).

Table 1.1:
Comparison of recurrent education budget with the Western Region budget from 1954 to the dawn of independence in 1960

Year	Actual Education Recurrent Budget	Actual Regional Recurrent Budget	Education as % of Regional Budget
	£	£	
1954-55	3,806,745	9,283,690	41.0
1955-56	3,873,305	11,366,931	34.0
1956-57	4,496,201	15,522,128	28.9
1957-58	5,506,880	14,288,000	38.5
1958-59	5,616,687	13,604,163	41.2
1959-60	7,161,303	22,152,351	32.3

- Government approved estimated expenditure

Source: Ajayi, Ademola (2006) 'The development of free primary education scheme in Western Nigeria, 1952-1966: An analysis,' *Ogirisi: A New Journal of African Studies* (8).

During this time through to the 1970s, Ekiti people emerged among other Yoruba groups in Western region as a name synonymous with intellectual fecundity. From among the people were outstanding intellectuals in diverse fields of human endeavor. Pioneer academics include Adegoke Olubummo (one of the first generation of Nigerian professors in the field of Mathematics), Ekundayo Adeyinka (the first Professor of Architecture in Africa, south of the Sahara). Among others are Professors J.F. Ade-Ajayi, Niyi Osundare, Sam Aluko, and A.A. Agboola.

In the 1980s, the contradictions of the Nigerian development model were felt in the educational sectors of the region. A sharp decline in commodity prices in the international market led to shortage of foreign exchange to finance essential goods and

services. The country sought loans from the World Bank and International Monetary Fund (IMF), which were granted, but tied to the acceptance of a structural adjustment program (SAP) – basically a neo-liberal recipe for liberalizing trade and investment, the privatization of state-owned enterprises, and policies of restructuring and stabilization.

In short, the World Bank/IMF loans, especially for Nigeria and some other African countries, were tied to meeting certain conditions. Investment was directed to conform more to the interests of the lending bodies. Lenders supplied economic advice in the form of ‘technical assistance,’ and the acceptance of the advice was made a prerequisite to eligibility for the loan. It required the receiving government to encourage policies attractive to the lender dispensing the economic ‘advice,’ yet it also created conditions wherein expertise began to steer national and regional development projects.

This was particularly evident in the context of the telecommunication sector, where the postal and telecommunications divisions were split into separate organizations similar to the liberalization of the industry then taking place in Europe, Latin America and Asia. The process started later in Africa than elsewhere, but in its design, the intentions were much the same, even if execution ultimately took its own unique (idiosyncratic) path. The justification for this approach emphasized the need to dismantle the bureaucratic state and to foster an economy controlled by market forces.

There were repeated attempts at economic stabilization and adjustment and austerity measures that often translated into declining living standards. How the fiscal measures affected education, the purchasing power of teachers, the quality of and access to education, as well as gender gap in the provision of education is the subject of a study

carried out by Joel Babalola, Geoffrey Lungwangwa, and Augustus Adeyinka (1999). In this study, the authors noted how the implementation of SAP resulted in a reduction in per student expenditure beginning from the inception of the program in 1983 (see Table 2.1), and how the inflation that came in its wake led to shortage of funds for teaching materials and school equipment. The erosion of the purchasing power of teachers' salaries compelled many of them "to take up additional money generating activities [outside the classrooms] to supplement their incomes" (88).

In 1996, when Ekiti State was created, the financing of the education system was in deep crisis. The new government could not make adequate provisions for capital development in the various educational institutions. Without a diverse revenue base, sustaining education became intractable in the face of decreasing and unstable revenue allocation from the Federation Account. Available data show that in 2005, the state was allocated ₦16.84 billion (National Bureau of Statistics, 2010: 559). In 2006, the figure rose to ₦21.77 billion (561), and fell to ₦9.48 billion in 2007 (563). In 2005, the Federal allocation represented 78% of the state's aggregate revenue (SEEDS, 2004: 31). While there is no information on the size of the state's loan portfolio, about ₦240 million is spent annually servicing its debts (32).

Table 1.2:
Public expenditure on education during the World Bank/IMF structural adjustment program in Nigeria

Indicator	Conversion Factor	Unit Cost (US\$)	Per capita education spending (US\$)	Education as % of budget
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1980	0.5	190.94	3.4	5.2
1981	0.6	302.55	5.6	7.8
1982	0.7	82.16	4.5	7.9
1983	0.7	82.94	3.9	7.4
1984	0.8	n.a	2.5	8.0
1985	0.9	55.59	2.5	8.0
1986	1.8	n.a	2.1	4.8
1987	4.0	n.a	1.6	2.7
1988	4.5	n.a	1.1	2.0

Notes:

1. The conversion factor is the average annual official exchange rate normally used by the World Bank.
2. The real per capita education spending is in 1987 US\$. Data are calculated using the conversion factors.

Source: Babalola *et al* (1999), 'Education under structural adjustment in Nigeria and Zambia,' *McGill Journal of Education* (86).

With so much to do with such limited resources, in the state's 2005 budget, 6% was allocated to education, and increased to 9.35% in the 2010 budget. Yet these figures fell far short of the 26% recommended by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and of the historical benchmarks of the Western Region in the 1950s. As well, student performance in external examinations declined. In 2007, of the 21,037 students from Ekiti State that sat for the West African Senior Secondary Certificate Examinations (WASSCE), only 298 obtained credit, and above, in English Language, Mathematics and three other core subjects (National Bureau of Statistics, 2010: 234). In 2009, of the 18,778 students that sat for the same examination, 254 passed (236). In short, Ekiti State was constituted with a broken education system characterized by inadequate and volatile funding that affected the quality of infrastructure, programs, and teachers.

1.3: Election campaign and promises of a digital solution

The Ekiti State e-School Project was initiated by the state governor who, during the election campaign that brought him to power in 2011, promised that, if elected, he would put a laptop on the desk of each student in the state's public secondary schools. This aspiration tapped into the principles of the development paradigm, particularly the assumption that the dissemination of ICTs causes positive social, cultural, political, and economic change in a simple, direct, and linear manner. Access to digital technology was expanding quickly due to the success of Nigeria's national development plan and Ekiti State could not risk the future passing them by. It was an assumption that played an important role in the conception and implementation of the Ekiti State e-School Project in 2012.

The governor saw the e-school project as potentially much more effective in generating developmental energy than an appeal to increased welfare of the people. Investing in the project was equivalent to improving the quality of life of the people. Indeed, by inviting multinational technology companies to partner with the state, the state would adapt institutionally and serve as an example for all of Nigeria, if not Africa more broadly, to follow. The state would demonstrate what could be done with digital access to information.

The e-school project blended the legacy of modernization theory with contemporary ideas of digital disruption. It was intended to change the traditional roles of students and teachers. The changes would enable students and teachers to share learning resources through networked computers that promote collaborative learning. Teachers' roles would be updated to reflect the new possibilities afforded by the use of computers and the Internet. Instead of imparting knowledge, teachers would encourage critical thinking

skills among students, promote information literacy, and nurture collaborative working practices, all traits of the globally competitive information worker.

The e-school project would also engender self-empowerment. It would do so by, for instance, teaching students how to collect and make sense of complex data; supporting more diverse and process-oriented forms of writing and communication; and broadening the scope and timeliness of information resources available in the classroom. It would provide a virtual rendezvous point and set of resources for students and teachers to share, organize, and communicate with one another as part of the process of cultivating sound scholarship. It would trigger changes from lecture-driven instructions to constructivist, inquiry-oriented classrooms.

The project would involve not just modern ideas about teaching and future employment, but of logistical management and infrastructure. The software would be designed to embrace or enforce 'sharing'. The learning content management system would embrace several features: it would permit sharing of contents developed by teachers, and organize this sharing in a useful way. It would be interoperable (that is, based on common technical standards that allow the machines to work with one another) and interconnected, which meant that communications and information would flow back and forth among teachers, and between teachers and students. It would enable teachers and students to interact inside and outside the four walls of the classrooms. By reorganizing the communicative environment around the ideals of the free flow of information, subtle changes in the conception of the African child would occur. In addition, assumptions about the ubiquity of electricity and Internet access would be built into the machines themselves. In other words, the machine would demand modernity to function.

In 2011, the state government signed a Memorandum of Understanding (MoU) with Samsung Electronics West Africa Limited. According to the MoU, Samsung would build and manage the technological infrastructure for the project. The MoU adopted a development agenda to improve access to quality education and bridge the digital divide in the state between rural and urban areas, and among students from poor and rich homes. The partnership with Samsung was expected to create a world-class technological infrastructure that was comparable to the best the developed world had to offer. Its very existence would draw attention to the project, and the idea that Nigeria, at least in Ekiti State, was putting education on a high pedestal.

The laptops at the center of the agreement would not only help the state reclaim its ‘lost glory’ in the education sector, but also prepare the transition of the people from traditional isolation to integrated participants in the global economy. Students, rich and poor, urban and rural, would have some of the most powerful digital computers in all of Africa, essentially bootstrapping them into the ‘modern world’ and putting them on par with their counterparts in the Global North. It was a utopian vision bringing together local politics and a major multinational firm (Samsung) in hopes of rejuvenating a cultural treasure – Ekiti’s place as the ‘Fountain of Knowledge’. To this end, investments in the project were significant, giving the project especially high political priority. It was about growth, about technology, and about becoming modern. To modernize, the people would need education. Education would begin with access to information.

1.4: Overview of project

In this study, I wanted to know how the Ekiti State e-School Project was conceived,

funded, organized, and evaluated. Generally speaking, the study attempts to understand development by immersing holistically into the discursive representation, institutional configuration, and on-the-ground effects of the project. It attempts to demonstrate how digital utopianism and modernization theory are operative in the models of international development that have been and continue to be applied in Africa, particularly in ICT4D/ICT4E projects. Part of understanding these processes meant tracking the circulation of expertise and more banal forms of state documentation, as opposed to emphasizing the most ideological or myth-induced examples. In this respect, the rigours of a specific focus on popular representations of computing, the history of development, or ethnography are abandoned to gain a wider (even if messier) picture of how development has failed in Africa.

The meaning of developmental failure emerges as a central problem of the dissertation as for African people more generally. In the case of Ekiti State, the failure of the e-school project intensified the reach of the paradigm, as new turns in the project were advocated in response to the troubles, problems, and failings of previous efforts. At what point might failure, like that of the e-school project, prompt a rethinking of ‘development’ as a concept or paradigm? It is to hold open this question that a post-development perspective was used in this study.

Before turning to the organization of the dissertation, I would like to share one observation. The daily experience of this work was one of contradiction. An industry promising to free information made it exceedingly difficult (and often impossible) to document how global economic systems were integrating into African culture. Students, as we will learn, would gain new and easy access to pornography or other illicit content,

but the commercial relationship forced upon them by Samsung and its representatives remained frustratingly opaque to them, their parents, and teachers. Indeed, Samsung, the main corporate benefactor in the project, would not respond to my queries, instead directing me – a doctoral candidate working from a highly respected university in Canada – to a poorly designed and wholly unsatisfactory organizational chart. This was hardly a unique event as similar experiences were met at several critical steps along the way. As the difficulties persisted, however, I avoided the temptation to emphasize the most easily available documents; instead, I realized that these difficulties and experiences were constitutive of what development meant in Africa, and I resolved to document the fuller, if messier story, of the project.

As a result, the dissertation deals with the documents and experiences of development professionals and those they affect; instead of glossy ads or the boosterism of technology journalism, which are reasonably easy for academics to access, I endeavored to focus on MoUs, contracts and service agreements, user protocols, evaluation frameworks, inventories, government records, and the myriad other documents informing the project that contrary to the popular image of ICTs, do not circulate freely at all. Indeed, the documents informing this research were exceedingly difficult to obtain, and my experience offered a stark contradiction to the way the IT world promises more freely flowing information. Often, it was only by persisting and only by developing relationships with people that possessed fragments of the story, that I could overcome the obstacles and unwillingness of government and industry to provide basic information about the conduct of the e-school program.

The dissertation unfolds as follows: In Chapter 2, the literature on development and communication is reviewed within historical perspective to discuss how ideas of development have transformed over time. The goal is to situate development with respect to modernization theory and to critically assess whether the received narrative about development and communication – its transformation from an elitist paradigm of transferring information and technology to a participatory paradigm of involving people in decisions that affect their lives – is sufficient for posing questions about ICT4D/ICT4E and the digital divide. In Chapter 3, the origins, the theory, methodology, and secondary literature on post-development theory are covered, and the methods of data collection and analysis explained.

In Chapter 4, the liberalization of telecommunication and information infrastructure in Nigeria is discussed to demonstrate how ‘access to information’ as an objective of national development would be harnessed to educational goals – in addition, the successes of Nigeria in facilitating mobile and Internet access are also crucial to the failures of the e-school project. These successes inflamed the ‘network imaginary’ that consumed Ekiti State leaders but which ultimately would lead them to overlook the lack of modern infrastructure (specifically, the fibre optic cables linking places together and to the wider world) that is so necessary for modern laptops to function as designed in Ekiti school settings.

In Chapters 5 and 6, I detail how the e-school project was implemented and the effects in Ekiti State. The aim of Chapter 5 is to demonstrate how, as Arturo Escobar (1995) puts it, “a corpus of rational techniques – planning, methods of measurement and assessment, professional knowledges, institutional practices, and the like – organizes both forms of

knowledge and types of power, relating one to the other,” in the construction of one specific problem: access to information (19). Chapter 6 extends the analysis of Chapter 5 by focusing on the ‘instrument effects’ that underlie the implementation of the e-school project. The concluding chapter draws together the main observations and claims of the study. It provides a general reflection on the role of the state in facilitating the models of development that organize access to digital technology in Africa in the context of the project and how to understand ‘failure’ in development.

Chapter 2

Discourses of development and communication

2.1: Introduction

Development is the subject of a massive literature. It has a long history and a complex set of institutional actors. It has been applied in diverse geographical regions the world over and manifests as a sub-field in a number of human sciences, including economics, political science, sociology, anthropology and communication. It is difficult to comprehensively summarize this literature. Just capturing its evolving relationship with development communication research is a daunting task. The links between power and ICTs are rarely studied from a critical perspective. Instances of such research are dwarfed by the promotional literature on the subject and the constant flow of ‘how to’ manuals that experts and ‘development agencies’ write for projects in which ICT is held up as a panacea to ‘underdevelopment’. Getting a clear view of the literature on development and communication relevant to this project is made especially difficult by the naïve way a ‘participatory’ approach to development communication is sometimes narrated by academics, as the pages ahead in this chapter will demonstrate.

The tendency to prioritize ‘standard histories’ or ‘critical muckraking’ in histories of the field of communication research have tended to leave development communication issues in the dark (Pooley, 2008). Development communication has always retained a tight connection to foundation funding (Escobar, 1995; Zelizer, 2016). It is shaped to this day less by the disciplinary concerns of academics than by the everyday workings of development experts funded by foundations and governments. This chapter recounts not the theoretical debates about international communication and how telecommunications

and ICTs might ‘fit into’ and/or *drive* development, but instead the historical processes, discursive patterns, and institutions that have shaped how development communication is understood and felt within African contexts today.

There is a strong tendency in the literature by proponents of development to narrate its history in terms of a shift from the ‘transfer of information’ approaches of times past to the new kinds of participatory involvement supposedly enabled by the interactivity of ICT. Development, in this account, is largely a post-World War II affair that is initiated through a series of high profile and expensive interventions designed by one part of the world to bring other, ‘less fortunate’ parts of the world up to ‘modern day standards’ – usually quantitatively measured in terms of, for example, gross domestic product (GDP), literacy and birth rates, media and ICT access, and other indicators of ‘being modern’. Over time and in response to the failures and critical challenges of successive development paradigms, there has been a steady shift from ‘information transmission-based’ models of development to a model where the ‘underdeveloped subjects’ are enrolled in participatory approaches for their own well-being within a larger national economic development project.

The approach taken here is somewhat different in its emphasis on how communication expertise gets entrenched within development paradigms, and I attempt to illustrate how modernization theory inheres in both information transfer and participatory approaches to the digital divide. Indeed, in the case of Ekiti State e-School Project as discussed in Chapters 5 and 6, we will see how the promise of a more participatory approach to access to information in educational contexts helped anchor the government to a capital intensive, technological model of modernization. Put differently, the project began with

an emphasis on the transfer model and then transition to the participatory/assessment approach. The failures of the first model entrenched the second approach, yet in both cases the main effect was a depoliticized transformation of the role of the modern state undertaken through pedagogical and communication theory. My literature review is intended to reveal threads that accounts for this outcome.

Thus, the chapter is divided into five sections. The first section provides a broad perspective on development that emphasizes the role played by discourse in its understanding. The second section looks at modernization theory as the bulwark of development and draws attention to the importance of anthropological and economic expertise in such approaches. In section three, the epistemological foundation for the initial theories in communication-for-development are discussed and cast as reflecting anthropological and economic assumptions regarding modernization. Some important findings by the ‘new historians’ of communication are also included, particularly with respect to foundations and the cold war funding of international development projects (Pooley, 2008; Simpson, 1996).

Since its inception, modernization theory has *always* hinged on issues regarding the availability, uptake and use of ICTs. Early modernization theory focused, for example, on how the availability and adoption of various kinds of different media might reshape people’s minds to fuel development at the nation-state level. In addition, the internationalization of basic telecommunications services underpinned the globalization of the world economy, and drives the thinking about the world in a unified way, as well as seeking to integrate its margins into the centers through improvements in communication. In this respect, the advent of ICTs – that is, computers melded together

with telecommunications – have reinvigorated modernization theory and its derivatives, as exemplified by the rise of the ICT4D paradigm. That paradigm and these trends are central to discussions about the digital divide.

These issues are taken up in section five, and the dotted line between them and similar issues in the past are taken up in the context of the politics and debates surrounding the New World Information and Communication Order (NWICO) and the World Summit on the Information Society (WSIS) over the last nearly fifty years. The debates over ICT are important parts of the story of many countries. In Nigeria, the story crystallizes around the Ekiti e-School Project, and this allows us to situate the general issues that have characterized earlier debates in relation to a more concrete, specific place. Doing so will help put some flesh on to what can otherwise be an overly abstract discussion about technology, development and modernity. The last part of the chapter examines debates over the digital divide in this context.

2.2: What is development?

A frequent reference-point for understanding ‘development’ is the US President Harry Truman’s inaugural speech in 1949 (Esteva, 1992; Ullrich, 1992; Escobar, 1995). The speech was delivered against the background of the post-World War II cold war between the US and the Soviet Union. The battleground in the ‘cold war’ moved to the Third World, and ‘development’ was employed as a ‘grand strategy’ for advancing both the protagonists’ interests in that rivalry. The face-off “lent legitimacy” to the enterprise of ‘development’, in which the extension of “the sphere of political and cultural influence became an end in itself” (Escobar, 1995: 34).

In the US, the fear of communism was one of the most compelling arguments for development. The opinion widely held in the early 1950s was that, “if poor countries were not rescued from their poverty, they would succumb to communism” (Escobar, 1995: 34). Thus, development was cast “as a means of combating communism” and found a welcoming niche in the offices of the US government, in numerous international organizations, and among the American public (ibid). As Escobar aptly put it, “far from being peripheral,” the Third World was pivotal to post-World War II US-Soviet Union rivalry, and thus to the general woof-and-warp of the world.

There are, of course, precursors and antecedents to the post-World War II ‘development’ discourse. The discourse emerged in the inter-war period, when “the ground was prepared for the institution of development as a strategy to remake the colonial world and restructure the relations between colonies and metropolises” (Escobar, 1995: 26). In Africa, the 1929 British Colonial Development Act, for example, was a linchpin between the decline of the colonial order and the rise of ‘development’. The Development Act was fostered by the British government on the basis that, if the economic system in the colonies did not develop, “resources had to be developed” (73).

Thus, the Act was promulgated to aid and develop agriculture and industry in the colonies. It specified the improvement of agricultural equipment, transport, harbours, fisheries, forestry, surveys, land reclamation and irrigation, water supplies, electric power, mineral development, research and instruction in methods of agriculture and industry, and the promotion of public health (British Development Institute, 1964:14). In his contribution to the motion leading to the enactment of the Act, Lord Privy Seal, J. H. Thomas (who later became the British Secretary of State for the Colonies), stated:

As far as our colonies are concerned, we are the main trustees, and a great moral obligation attaches to this country to do all that it can to develop them. This motion lays the foundation for a long-range policy of constructive colonial development ... [N]ot only is this a field that requires exploring and further developing, but surely there is no more opportune time at which to do it than when it will in some way benefit our own unemployed people at home (15).

Seen in this light, development was the *moral duty* of an imperial power like Britain. This link between development and empire would persist in a new form in the rivalry to come between the American and Russian empires after WWII. The history of this earlier form of development discourse, however, dates back to the politics of the League of Nations after World War I. The ‘Mandate System,’ which flowed from Article 22 of the League’s Covenant, and “naturalized the international regulation efforts resulting from the economic imperialism of the great powers” in “backward countries” (Mattelart, 1996: 81), was unambiguous on the subject:

To those colonies and territories... which are inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world, there should be applied the principle that the well-being and development of such people form a sacred trust of civilization and that securities for the performance of this trust should be embodied in this Covenant. The best method of giving practical effect to this principle is that the tutelage of such peoples should be entrusted to advanced nations who, by reason of their resources, their experience or their geographical position, can best undertake this responsibility, and who are willing to accept it, and that this tutelage should be exercised by them as Mandatories on behalf of the League. The character of the mandate must differ according to the stage of development of the people (cited in *ibid*).

In the account of Dwayne R. Winseck and Robert M. Pike (2008), this discourse of development and modernization was, in fact, already there in the latter half of the 19th century. Using David Harvey's concept of 'capitalist imperialism', the authors traced how it created conditions of "uniform models of development" which were emulated worldwide (2008: 9). Capitalist imperialism shared kinship with 'capitalist investment imperialism,' the brainchild of Charles Conant who, writing in the 19th century, used the idea to explain how empires should work to modernize their colonies, and how it was both a necessary stage of development and a crucial part of capitalist modernization. Thus, capitalist investment imperialism was defined as the extension of capitalist (or modern) property relations, "into non-capitalist societies," which

required 'modernizing' the host government's fiscal, budgetary, and taxation systems, the host societies' laws; the host societies' class structure in the direction of the commodification of land and the creation of a wage-earning working class. It required the introduction and spread of secular and instrumental modes of consciousness at the expense of religions and traditionalist modes, through the institutions of education (cited in *ibid*).

In Truman's speech, 'development' was construed as a political strategy in the confrontation between communism and democracy. Thus, Truman characterized communism as "a false philosophy to mankind" – that if democracy "is based on the conviction that man has the moral and intellectual capacity, as well as the inalienable right, to govern himself with reason and justice," communism "is based on the belief that man is so weak and inadequate that he is unable to govern himself, and therefore requires the rule of strong masters" (Truman, 1949: 1). Continuing, Truman added: "I state these

differences ...because the actions resulting from the Communist philosophy are a threat to the efforts of free nations to bring about world recovery and lasting peace” (2).

Elaborating on the program that would bring about ‘world recovery and lasting peace,’ Truman made the following remark in a language reminiscent of the League of Nations’ Mandate System and the British Development Act:

More than half the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas.

For the first time in history, humanity possesses the knowledge and the skill to relieve the suffering of these people.

The United States is pre-eminent among nations in the development of industrial and scientific techniques. The material resources, which we can afford to use for the assistance of other peoples, are limited. But our imponderable resources in technical knowledge are constantly growing and are inexhaustible.

I believe that we should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life. And, in cooperation with other nations, we should foster capital investment in areas needing development.

Our aim should be to help the free peoples of the world, through their own efforts, to produce more food, more clothing, more materials for housing, and more mechanical power to lighten their burdens....

The old imperialism – exploitation for foreign profit – has no place in our plans. What we envisage is a program of development based on the concepts of democratic fair dealing (3).

Deconstructing Truman's speech, some scholars read it to mean the beginning of the post-World War II 'development project.' Gustavo Esteva (1992) relates the history of "the metaphoric use" of the term 'development' to show how Truman "usurped and transmogrified" it in his speech (6). As a metaphor, development connotes "a process through which the potentialities of an object or organism are released, until it reaches its natural, complete, full-fledged form" (8). As Esteva puts it,

The development or evolution of living beings, in biology, referred to the process through which organisms achieved their genetic potential: the natural form of the being pre-seen by the biologist. Development was frustrated whenever the plant or the animal failed to fulfil its genetic program, or substituted for it another. In such cases of failure, its growth was not development but rather an anomaly: pathological, and even anti-natural behaviour (ibid).

"By using for the first time in such context the word, 'underdeveloped'," maintains Esteva, "Truman changed its meaning and created the emblem, a euphemism, used ever since to allude, either discreetly or inadvertently to the era of American hegemony" (6).

For others, such as Otto Ullrich (1992), Truman's speech signalled "the end of the colonial age" and the beginning of "a plan for economic growth and prosperity" for the entire world, explicitly including the 'underdeveloped' areas (275). In the context of the speech, science and technology will "open up the realm of material surplus" and lead underdeveloped countries toward "the sunny uplands of the future" (ibid). Ullrich's understanding of the speech is that, without science and technology, no country will see improved production and, without increased production, there will be no prosperity.

In his interpretation, Escobar (1995) underscores Truman's speech as an attempt to initiate "a new era in the understanding and management of world affairs, particularly those concerning the less economically accomplished countries of the world" (3). For Escobar, the essence of the speech is to bring about

the conditions necessary to replicating the world over the features that characterized the 'advanced' societies of the time – high levels of industrialization and urbanization, technicalization of agriculture, rapid growth of material production and living standards, and the widespread adoption of modern education and cultural values. In [this] vision, capital, science, and technology were the main ingredients that would make this massive revolution possible. Only in this way could the American dream of peace and abundance be extended to all peoples of the planet (3-4).

It is important to note that speeches, even from American presidents, do not change the course of history without institutional developments. Truman's doctrine initiated a broader development discourse that was elaborated through an apparatus extending from the highest reaches of corporate and governmental power in the West, through bureaucracies, policy makers, the majority of world governments, educational programs, non-governmental organizations (NGOs), and well-meaning front-line aid workers. Of special importance were the forms of economic and anthropological expertise that created categories, organizational structures, and legitimation for this project.

2.3: Theories and practices of development

Truman's doctrine was bolstered by the United Nations (UN) in its first comprehensive review of the world economic condition, entitled 'World Economic Report 1949–50'. In this report, underdeveloped countries were singled out as the most important long-run

economic problem confronting the world. The solution, said the report, was a rapid expansion of the world economy to raise the living standards of two-thirds of impoverished population in underdeveloped countries. To achieve this goal, the report forewarned, underdeveloped countries would have a price to pay.

The 'price' to be paid is explained as follows:

There is a sense in which rapid economic progress is impossible without painful adjustments. Ancient philosophies have to be scrapped; old social institutions have to disintegrate; bonds of cast, creed and race have to burst; and large numbers of persons who cannot keep up with progress have to have their expectations of a comfortable life frustrated. Very few communities are willing to pay the full price of economic progress (cited in Escobar, 1995: 3).

J. L. Sadie's (1960) study of South Africa, entitled 'The social anthropology of economic underdevelopment,' fit well with the concept of development put forward by the UN World Economic Report. Sadie's thesis backgrounds the salient points made in the report, arguing that "the economic condition of the underdeveloped community is fundamentally a function of its social-cultural customs and institutions, in consequence of which the generation of economic development of a people by themselves is neither more or less than a socio-psychological process" (294).³

The setting of Sadie's study is the Bantu area of South Africa. Using the tools of development discourse, especially those conducive to comparative study of white settlers

³ Sadie considers the qualification "by themselves" as necessary, since, according to him, it is conceivable that an underdeveloped people could be developed by means of factors of production from developed economies (294n).

and indigenous peoples, Sadie highlights what the World Economic Report describes as ‘ancient philosophies’ that ‘have to be scrapped’ for ‘rapid economic progress’ to take place in underdeveloped societies. The comparative study appropriates a continuum of stages of development, in which white settlers are positioned at the higher ends, while the Bantu are located at the lower ends.

It is instructive to quote at length Sadie’s contrast between ‘Western peoples’ way of life and that of ‘the tribal people,’ because it reveals key features of the development inhibiting ‘ancient philosophies’ referred to in the World Economic Report:

In sharp contrast with the individualism, which characterises all or most Western peoples, and which has been an outstanding factor in their economic development, the tribal people form organic and integrated societies with a strong community-consciousness, and in which the rights and obligations of the individual are well defined and adhered to. Mutual ties, interdependence and responsibility are established by the system of consanguinity, worshipping of the same ancestors, the possession of the same totems, the system of land tenure and other institutions. Social care is the responsibility of each and all, extending from the family through the household and the family group to the whole tribe. There are no special institutions to care for the poor, the hungry, the sick, the disabled and the aged. They are cared for by the more privileged. Thus the community guarantees the security of the individual. Mutual aid is extended on numerous occasions, such as the harvesting of crops, the building of huts, weeding, etc. A person may lend-lease part of his wealth to a less-privileged neighbour to enable him to make a better living. Food, housing accommodation and other living arrangements will always be shared with the most distant of relations, even if the latter are strong and healthy and able to fend for themselves but do not feel inclined to do so (297).

Based on the reading of the World Economic Report, the socio-economic organization of the Bantu will be considered, as does Sadie, to be “inimical to economic development,” as it “obviates, or greatly diminishes, the necessity for continued personal exertion” and the “urge to attain ever-increasing standards of material welfare” (1960: 297). More than anything else, the characteristics that distinguish “the tribal people from technological developed communities is the absence of a regard for, and concern about, the future” (ibid). The ‘sufficient unto the day’ approach of the Bantu limits capital formation: there is no, or little, purposeful accumulation of capital.

The message is very clear. To borrow from Elizabeth Bird, first, it says that the West knows what ‘traditional people’ want; [second], “that what they want is what ‘we’ have; third, that ‘they’ are not yet advanced enough to be able to fully indulge themselves without repercussions; and fourth, that discipline, prudence and forbearance are some of the qualities necessary for success” (cited in Escobar, 1995: 159). It is a cultural assumption in which can be discerned “the authorial stances of a father/saviour talking with selfless condescension to the child/native” (ibid).

This approach to development lays bare the ethnocentric nature of post-World War II development enterprise. Much the same message was amplified by Walter W. Rostow’s “universal mode of the trajectory toward modernization” (Mattelart, 1996: 81) – a form of evolutionary theory, which states that to attain progress ‘backward societies’ “must mount one-by-one the several stages of history,” and that the “golden rule” to attaining progress is to imitate “the models of perfectibility” symbolized by societies that have already achieved the most advanced stage (79).

Rostow's historico-economic model explores these relationships to theorize the stages of economic growth, the sum of which is that all countries go through a linear path of stages in their transition to modernity, with one of these stages being the 'take-off' into self-sustained economic growth. The process is elaborated by the classification of nations as 'advanced' and 'backward.' Accordingly, Rostow's model presents the 'backward' condition of underdeveloped countries as a moment in their historical evolution towards the present 'advanced' condition of developed countries.

Development came to be seen as "the process of transition from traditional to modern principles of social organization" (Colin Leys, cited in Andrews and Bawa, 2014: 924), the primary objective of which is to transform and make productive the economies of underdeveloped countries. The organizing principle of this development discourse is premised on the belief that modernization embodies the force that is capable of destroying "archaic superstitions and relations at whatever social, cultural, political cost" (Escobar, 1995: 39).

Between the 1940s and 1950s, there was a wide embrace of the development discourse, making it impossible "to conceptualize social reality in other terms" (1995: 5).

"Wherever one looked," observed Escobar, "one found the repetitive and omnipresent reality of development: governments designing and implementing ambitious development plans, institutions carrying out development programs in city and countryside alike, experts of all kinds studying underdevelopment and producing theories ad nauseam" (ibid). In sum, 'reality' was 'colonized' by the development discourse.

The colonization of reality by the development discourse did not mean a singular or undifferentiated experience among those affected. Indeed, by the 1980s, a mixture of approaches “under the label of neo-liberal economics became dominant” (Escobar, 1995: 93). Statist and redistributive approaches gave way to myths of the ‘self-regulating market’. In Escobar’s account, “the experience of the ‘newly industrializing countries’ of East Asia” and the “rational choice critiques of the distortional effects of government intervention,” contributed to “the dismantling of the economic development approaches that prevailed until the 1970s” (ibid). The World Bank’s ‘market friendly development’ strategy in the 1990s was “the final crystallization of the return of neoliberalism” (ibid). Utopianism about digital technology would also ascend during this period.

2.4: Development theories and communication-for-development

There are many big and broad concepts employed in reviews of development theories.

They include liberalism, neo-liberalism, colonialism, imperialism, and so on.

Modernization theory is a key feature of my understanding, particularly given the importance of expertise in constituting (or opposing) development projects. In fact, it provided the epistemological foundation for the initial theories in communication-for-development. It explained communication not only in terms of the interplay between the source and the receiver, but also as “a complex system fulfilling certain social functions” (Melkote, 2010: 109).

At the macro level, mass media were initially understood as agents and indices of modernization. At the micro level, researchers drew on the effects of the mass media and on models describing socio-psychological characteristics of individuals “considered

necessary for a successful transition from a traditional to a modern society” (Melkote, 2010: 109). Communication, in this respect, was developed as another site of professional expertise necessary for development, yet it tended to internalize the modernization approach supported by anthropologists and economists.

The conceptualization of this approach to communication-for-development is linked to the ground-breaking work of Daniel Lerner (1958) and Wilbur Schramm (1964) on mass media. It is typical, for example, to situate the work of Lerner and Schramm as responding to the UN’s call for a program of concrete action to build up press, radio broadcasting, film, and television facilities in countries in the process of economic and social development. Yet, Schramm and Lerner are complex figures in the field of communication not least because of the way their work reflected the cold war priorities of the United States. Indeed, recent historiography has illustrated how state and foundation-funded research organized their work in ways that were subsequently whitewashed; that is, the foundation and state priorities that drove their research were occluded by its presentation as the work of discipline-oriented scholars (Pooley, 2008). While their ideas are important, as will be discussed, it is also crucial to recognize *how* they came to be regarded as central in the understanding of the communication-for-development theory.

Lerner and Schramm argue that investment in the mass media will facilitate development in underdeveloped countries by exposing people to Western culture. As articulated by Lerner, exposure to Western culture will modernize traditional societies and bring about rapid economic productivity and social development. His work shares similarities with Sadie’s account of the socio-psychological processes in development. Both describe a

psychological pattern in individuals that is both required and reinforced by modern society.

In Lerner's model, 'a mobile person' is identified with a high degree of empathy, a trait that enables individuals to internalize the process of modernization by not only operating efficiently in modern society, but also with skills necessary to move out of traditional settings (Melkote, 2010: 109). It is, as Tokunbo Ojo (2004) puts it while citing Melkote and Steeve, "the psychic nexus of all the attitudes and behaviour necessary in a modern society" (140). In this setting, it is assumed that people with greater empathy are likely to adapt quickly and reach the take-off point toward modernization.

As the mass media came to be understood as enabling socio-economic development, African countries began to include development communication plans in their policy agenda. The metric system for tracking a country's communication development would include a minimum of 10 copies of newspapers, 5 radio receivers, 2 cinema seats, and 2 television receivers for every 100 people (Nulens, 2003: 72; Ojo, 2004: 141). This minimum requirement was set with due regard to the United Nations' yardstick for measuring national development in the 1960s and 1970s.

At the micro level, the diffusion of innovation theory provided the framework to guide communication planning for modernization. Its emphasis was on communication effects – that is, the ability of media messages and opinion leaders "to create knowledge of new practices and ideas and persuade the target [audience] to adopt the exogenously introduced innovations" (Melkote, 2010: 109). "The necessary route for the change from

traditional to a modern person [was] understood as the communication and acceptance of new ideas from sources external to the social system” (ibid).

The diffusion of innovation theory was used to explain “the process through which the individual arrived at the decision to adopt or reject the innovation” (Melkote, 2010: 110). Differences among adopter groups were calculated in terms of personal characteristics, media behaviour, and position in the social structure. In terms of communication behaviour, earlier adopters were said to have used more mass media and cosmopolite information sources. Thus, the theory provided insights into “the impact of communication (interpersonal and mass media) on the change from traditional to a modern way of life” (ibid).

In the 1970s, these approaches to communication-for-development came under intense criticisms.⁴ They were said to be techno-deterministic and over reliant on quantifiable indicators, while ignoring the importance of involving people at the grassroots in designing development projects according to their own needs. *The failures of development were impossible to overlook, yet as discussed in subsequent chapters, these failures did not lead to a questioning of development so much as a critical search for new approaches to facilitate it.* Following these criticisms, the definition of development was broadened to include growth with equity, provision of basic needs, meaningful employment, and rich and varied interpersonal relationships.

⁴ The period witnessed the emergence of dependency theories and participatory approaches to development communication. For dependency theorists, the assumptions of modernization theories fail to take into account the structure of the global economy, and the role of power in international relationships. Participatory approaches draw attention to the ability of people to recognize and resolve social concerns in their communities (Wilkins, 2000: 2).

Development discourse shifted to include qualitative measures and was understood as providing access to appropriate and sustainable opportunities, as expressed by the participatory and empowerment approaches. The participatory and empowerment approaches were considered more effective in supporting participation in development as an end in itself and as a basic human right, including the right to think, express oneself and have a say “in crucial decisions affecting one’s life” (Melkote, 2010: 110).

The participatory approach was a departure from the top-down and descriptive approach of the modernization theory and favoured the active participation of people at the grassroots. It involved the conscientization that enabled people to take collective action in terms of their needs, identification of constraints, and planning to overcome problems. Its application stressed “collaboration between the people and experts, a co-equal knowledge-sharing between the people and experts, and a local context and cultural proximity” (Melkote, 2010: 113).

The empowerment approach resonated well with community organization, education, and community psychology. It tended to increase the ability of communities to take control over “consequences that [were] important to their members,” and thus, provided “a psychological sense of personal control or influence and a concern with actual social influence, political power, and legal rights” (Melkote, 2010:115). It operated as a multi-level construct applicable “to individual citizens as well as to organizations and neighbourhoods” and suggested “the study of people in context” (ibid).

These critical theoretical approaches to communication-for-development reveal a bias in the diffusion of innovations approach that favours exogenous ideas and innovations over

local experiences. Diffusion theory fit well with the modernization theory's focus on technology and the transfer of expertise. The participatory and empowerment approaches distinguish themselves by seeking to share power and control in shaping developmental outcomes. Unlike diffusion theory, the newer approaches rest with "the individuals or groups involved and not with the experts, the development communication professionals, or the sponsoring organizations" (Melkote, 2010: 117). However, the critiques marshalled against non-participatory forms of development did more to alter the rhetoric of professional and applied approaches to development than it did to change the aspirations of those engaged with actually existing development projects.

The point is an important one given the recent critique of the historiography of communication made by Pooley (2008). For instance, Pooley distinguishes between the origin of myths of communication research circulated by figureheads like Schramm, the critical muckraking of those myths done by James Carey and Todd Gitlin, and the 'new histories' of scholars like Christopher Simpson, Timothy Glander, Rohan Samarajiva, Brett Gary, William Buxton, and J. Michael Sproule (48). The role of social scientists in World War II, their foundation-funding, and their work on cold-war era foreign policy is emphasized in these accounts, such that the psychological manipulations of propaganda and persuasion research is found to be not so distant from development communication: "Much of the federally funded research, Simpson and Glander both show," according to Pooley, "was directed at Third World populations deemed susceptible to Soviet influence" (56).

Lerner's *The Passing of Traditional Society: Modernizing the Middle East*, in particular, resulted from connections he established while working in the psychological warfare division during World War II. It was part of a secret audience research project funded by *Voice of America*, an international US propaganda arm, and aimed at the people of a particularly interesting country laying along the fault-lines of US-USSR geopolitical conflict: Turkey (Pooley, 2008, 56-57). In Samarajiva's assessment, Lerner's presentation of professional development work as neutral academic research instead of acknowledging its integral place within cold war politics, makes 'modernization' a euphemism for psychological warfare (57). For the purposes of my study, this history means that development cannot be studied solely in the arid and detached terms of the typical academic debates and histories that animate the field of communication research, but in terms of how development professionals in government and industry have *actually intervened* with the aim of *changing* African cultures.

In addition, the participatory turn in development communication reflects less an alternative paradigm for development than an alternative role for states and experts in facilitating it. In projects shaped by participatory approaches, the state benevolently facilitates the gathering and participation of diverse perspectives from corporations, NGOs, consultants, government officials, affected people, etc. that it then blends into enlightened development policies. In other words, it is psychological and social engineering with a soul, and the ends justify the means taken to get there.

2.5: ICT4D: Another modernization theory?

Post-World War II advances in communication technologies renewed interest in how new ICTs could enable socio-economic development. Access to ICTs became an organizing concept and key problem to be solved through new discourses and practices of experts in development. From the US and Europe, and the UN to the World Bank, to national planning offices and local communities in underdeveloped countries, access to ICTs came to be actively promoted as an end in its own right. Development professionals concerned with ICTs soon proliferated.

As in the case of the mass media era, ICTs came to be seen as a great multiplier of economic and social development. However, the conceptualization of the multiplier-effect in both perspectives is slightly different. Citing J.P. Singh, Tokunbo Ojo (2004) posits that the new ICTs “were limited to economic and sociological features as opposed to the psychological reconditioning of people’s daily lives planned in the mass media era” (145). In the contemporary era, we are more likely to speak of difficulties in terms of culture than psychology, yet the underlying issue remains the same – that is, instead of remaking people’s minds, it is their communicative patterns that requires upheaval and ‘improvement’.

In the 1960s and the 1970s, the degree of penetration of the printing press, radio receivers, cinema projectors, and television transmitters was a measure of development. With the rise of the new ICTs, the penetration rates of computers, cellular phones and the Internet are the new yardsticks for measuring national development. Investment in ICTs, it is now argued, will permit underdeveloped countries to leapfrog from agricultural-

based development to a post-industrial economy and society, skipping over industrial development and its ills altogether. According to the World Bank,

When done right, ICT infrastructure investment and policy reform can be a key enabler of poverty reduction and shared prosperity. A 10 percent increase in high-speed Internet connections is associated on average with a 1.4 percent increase in economic growth in developing countries (cited in Kunst, 2014: 6).

Therefore, “if African countries cannot take advantage of the information revolution and surf this great wave of technological change,” declares the World Bank, “they may be crushed by it. In that case, they are likely to be even more marginalized and economically stagnant in the future than they are today” (cited in Ojo, 2004: 144). This view is reiterated in both the UN Millennium Report of 2000 as well as the UNDP Human Development Report the following year.

The ‘Washington Consensus’, or the neoliberal model of development that went along with this idea was also based on the holy trinity of privatization, liberalization and globalization, all of which were to be the cornerstones of national communications policies and the great turn to the market that took place at this time, initially in the Global North but by the end of the 1990s and into the early 2000s covering most of the world. Based on this outlook, national regulatory agencies were created to structure and guide the development of information infrastructures and foster a greater role for ‘the market’ in underdeveloped countries.

This regulatory approach was based on the argument that only a rule-governed, politically stable, market-driven system could attract the capital investment needed to modernize the telecommunications infrastructure upon which ICT depended in the first

place. In other words, the pathway to modernization ran through ICT but it also required the seemingly more distant and preceding task of opening up a country's telecommunications system to more competition, new entrants and foreign investment. Stitched altogether, the radical remaking of the role of the state, the market, and telecommunications and ICT were seen as the precursors to bringing about robust, broad-based and sustainable economic progress as well as strong democracies, improved healthcare, and high-quality education in underdeveloped countries.

The creation of national communications and other market policing regulatory agencies, it was also argued, would guide the broad shift towards market liberalization and the privatization of formerly state-owned telecommunications providers. These assumptions ultimately led countries en masse to sign the World Trade Organization (WTO) *Basic Telecommunications Agreement* in 1997 – a critical new cornerstone of the General Agreement on Trade in Services (GATS). The entry of the agreement into force in 1998 marked a shift towards global competition, liberalization and a much greater role for markets in the telecommunications sector (Noam and Drake, 1998; Winseck, 2000).

The principles set out in the basic telecommunications agreement included the need for countries to establish independent and specialized expert regulatory agencies, competitive markets, interconnection rules, transparent universal service policies and fair allocation of scarce resources, for example numbering, radio spectrum, etc. (Winseck, 2000; Guermazi, 2004). These principles were included in a 'Regulatory Reference Paper,'⁵

⁵ The Regulatory Reference Paper was driven by the concern that free trade principles, market access and national treatment commitments were insufficient "to guarantee effective competition in the basic telecommunications sector without rules to ensure that major suppliers do not abuse their position" (Guermazi, 2004: 2).

which was essentially a blueprint for sector reform based on ‘best practices’ in telecommunications regulation. The adoption of the agreement and associated reference paper was described as “ground-breaking” by many observers (Guermazi, 2004: 1).

As an international instrument, the reference paper offered an unprecedented example in international agreements in three major ways. First, it introduced “enforceable competition elements in a trade framework” (2004: 1). Second, it embodied “concepts and elements of telecommunications policy and regulations” that had been developed in the telecommunications markets of the US, the UK, Canada, Japan and Europe over the preceding decade-and-a-half, and then exported around the world thereafter through traveling telecommunication experts supported by their home governments and by the WTO’s newfound role in structuring national telecommunications markets worldwide (ibid). Finally, it suggested “an important answer” to the conflict between “the principles of sovereignty and regulatory autonomy on the one hand and the prerequisites of free trade and harmonization on the other hand” (ibid).

The internationalization of basic telecommunications services was an integral part of efforts to globalize the world economy along lines of the Anglo-American model of capitalism. Central to the concept of a globalized economy is the universalization of modernity, the regulatory state and markets. This also involves the spread of modern values, practices and institutions⁶ through isomorphic processes that exhibit a “certain continuity with an earlier generation of modernization theories ... so that globalization is insinuated to be a continuation at the global level of the processes of modernization that

⁶ Usually based on standardized procedures and the hierarchy of authority. Efficiency is stressed and technology emphasized.

were formally studied and theorized at the nation-state level” (Robinson, 2007: 139).

Africa’s integration into the global economy was promoted by organizations such as the UN Economic Commission for Africa (UNECA), the International Telecommunication Union (ITU), UNESCO, the Canadian International Development Research Centre (IDRC), the United States Telecommunications Training Institute (USTTI), United States Agency for International Development (USAID) and other agencies along these lines from the UK, Europe and Japan. These organizations were instrumental in the design of the African Information Society Initiative (AISI), which became “a reference point for an African digital vision and agenda in a globalized world” (AISI, 2008: ix).

Guided by the framework of the AISI, African countries began to develop the National Information and Communication Infrastructure (NICI) policy with the aim of enhancing the spread of ICTs in all areas of socio-economic development, from regional to national, sectoral and village levels. The implementation of the NICI policy went hand-in-hand with investment in ICT as a precondition of economic growth and broader aims of social and political development. The immediate returns on investment, African countries were assured, may not be readily apparent, but the long-term impact would be enormous and positive in terms of economic growth and social inclusion (UNECA, 2007: 3).

By 2000, almost 40% of countries in Africa had privatized telecommunication services. The privatization of telecommunication services was followed by a speedy growth in the sector, “primarily attributable to the liberalization of telecommunications services” (AISI, 2008: 28). The framework assured that the network revolution was occurring rapidly, spreading slowly at first for fixed telecommunications service but then soared when it

came to the mobile phone and the so-called mobile or wireless revolution. Between 1996 and 1999, for instance, the number of Internet subscribers grew from under 15,000 to over 400,000. By 2001, the number of mobile subscribers surpassed the number of fixed lines. By the end of 2004, the total number of mobile subscribers across Africa stood at 76 million (Hewitt de Alcantara, 2001: 18).

Despite this dramatic growth in the telecommunications industry, the 2015 edition of the ITU 'Measuring the Information Society Report' shows the persistence of substantial digital divides. Indeed, Africa still has the lowest ICT density levels compared to almost all other regions in the world, with some exceptions here and there, e.g. South Africa, parts of Kenya and Cote d'Ivoire, etc. (ITU, 2015: 3). The divides are said to be the result of differences in the quality of networks as well as basic connectivity, but mostly reflect the fact that few can afford many of the new marvels in their midst. In many of the countries, differences occur in telephone and Internet penetration between urban and rural areas, along lines of gender and a yawning gap based on income inequality, to say nothing of outright poverty.

The rise in the availability and uptake of ICTs, however, suggests some grounds for optimism that the inequality across the regions of the world might be abated. However, some see this differential spread as leading to increasing inequality, creating a situation Eszter Hargittai (2003) describes as the 'Matthew Effect,' a term she borrows from Robert Merton, "according to which 'unto every one who hath shall be given' whereby initial advantages translate into increasing returns over time" (9). Put differently, inequality increases as the opportunities afforded by digital technology reach only those

rich enough to access them while leaving others even further behind. Indeed, in Carey's (1989) classic work, it was the ravages and inequalities of industrialism that provoked the wider dissemination of technological and digital utopianism to begin – the suffering and contradictions of the present rendered less significant by the progress promised in the future to come.

2.6: ICT4D theory and the digital divide

In 'The digital divide and development communication theory,' Gert Nulens (2003) begins his analysis with the idea that theories about a global information society and the digital divide are rooted in the older theories about the mass media and development. In both cases, the capacities of communication technologies to bring about social change and the universal applicability of Western models of development are emphasized. Thus, posits Nulens, "the idea that closing the communication gap will also close the development divides" is a recurring theme in the development literature across time (68).

Taking up the strategies of development theories and the role of development in communication studies, Nulens argues that the phenomenon of the digital divide is a consequence of the development divide. The digital divide, in other words, "is symptomatic of a far more serious development divide, constantly limiting possibilities for progress" among underdeveloped countries (74). The new ICTs "by themselves," he maintains, cannot bridge the divide, but can worsen it "if not employed in a conscious effort to improve equity" (75).

The universal applicability of Western models of development, he goes on to argue, suggests a one-sided solution because these models are often "embedded in a Western

culture and context” (75). When models packaged in the West are transferred to societies that do not share similar historical situations to those of the exporting societies, they fail to achieve similar outcomes. Thus, the repetitive failure of development projects in Africa can be said to result from the application of these abstract models that fail to take account of the social context in which the technology is being implemented.

On the other hand, enthusiasts argue that the digital divide is not a crisis and does not require major policy interventions to ensure universal service (Benjamin Compaine, cited in DiMaggio and Hargittai: 2001). The divides will shrink as more people access the new ICTs, according to this perspective. In other words, disparities disappear as ICTs and their related benefits diffuse in societies. In this sense, the phenomenon of the digital divide is understood as a natural process that reflects a period of institutional mismatch associated with the diffusion of innovations.

This process repeats itself in “a different and somewhat compressed form” with the emergence of communication technologies, be it telephone, radio, and television or computers, mobile phones and the Internet (DiMaggio and Hargittai: 2001, 4). In the early stages of the rise of a new technology, access is restricted among those from high socioeconomic brackets, creating a distinction between the ‘haves’ and ‘have-nots’. As penetration increases and access diffuses to the excluded parts of society, the divide between the ‘haves’ and ‘have-nots’ reduces and the dimensions related to the quality of use “become important bases by which the benefits of the technology are stratified” (ibid).

The view that the digital divide is a natural occurring phenomenon that is part and parcel of the 'life-cycle' of many new technologies is consistent with US telecommunications policy, based on the history of telephone access in the country. The policy was used as a guide in monitoring telephone diffusion and universal service obligations in the US (DiMaggio and Hargittai, 2001; Hargittai, 2003). Following the association between the telephone and the diffusion of the new ICTs, discussions about computer and Internet use focused on 'digital' at the expense of 'divide'.

Daniel J. Paré (2004) agrees that the association between telephone and Internet use (and the focus on 'digital' rather than on 'divide') conflates the significant differences between the functionalities of the two technologies⁷ (4). There are distinctions between telephone and Internet use, one of which is that the skills required to use and to benefit from them are different. The other distinction is that the capacity to log on and use the Internet "in an informed manner" is different from the ability to pick up a receiver and find a dialling tone (ibid).

On the shortcomings of a binary distinction between those who have physical access to the Internet and those who do not, Paré argues that the linking of the digital divide to the ability to access the Internet fails to capture the complexity of the inter-networking nature of the various computer networks, hardware and software elements, information flows, and human agents that comprise 'the Internet' (2004: 4). Focusing on 'access' suggests "the presence of uniform social and economic imperatives as well as technological

⁷ In making this assertion, Paré is mindful of innovations in digital mobile technologies, which are blurring the distinction between telephones and computers.

impacts,” and obscures more intractable questions about affordability, adoption and how the new technology is used (ibid). Indeed, it was precisely such problems that have become manifest in the Ekiti State e-School Project, where the infrastructure required for modern networking to function was absent, and anticipated visions of how the technology would be integrated into communities, schools and people’s day-to-day lives did not match up with what ultimately took place, as we will see.

Paré goes on to argue against the assumption that Internet access and use “are one in the same” (2004: 4). In calling attention to Internet penetration rates, he posits that even if they offer a means of quantitatively measuring the ‘speed’ of digitalization, “they do not account for how other factors influence Internet use and diffusion among different population segments and countries” (ibid). The absorptive capacity of societies toward technological innovations, he surmises, is associated with socio-economic variables such as capability/skills, content, literacy, income, and culture.

Against this background, Mark Warschauer’s (2002) alternative conceptualization of the digital divide offers a restoration of “the processes associated with technological adoption as opposed to technology” (Paré, 2004: 5). The basis of Warschauer’s postulation is that “there is no binary digital divide and no single overriding factor for determining – or closing – such a divide” (2003: 47). Technology, Warschauer contends, does not exist as an external variable “to be injected from outside” to overcome deep social and economic divides, but instead “to further a process of social inclusion” (ibid).

By social inclusion, Warschauer speaks of the extent to which technologies assist communities to participate in society and control their destinies, taking into account such

factors as economic resources, culture, and civic engagement. Social inclusion is not only a matter of sharing resources, but participating in the determination of both individual and collective life chances. It reflects “the imperatives of the current information era, in which issues of identity, language, social participation, community, and civil society have taken central stage” (2002: 11).

The promotion of social inclusion in the use of communication technologies involves not only the provision of computers and Internet, but also the development of relevant content in diverse languages, promoting literacy and education, and mobilizing community and institutional support toward achieving community goals (2003: 47).

When the implementation of ICTs is woven around this set of practices, “technology then becomes a means, and often a powerful one, rather than an end in itself”, Warschauer argues (ibid).

Warschauer uses the notion of literacy as an analogy to consider the diffusion of the new ICTs rather than telephony, which informed the US telecommunications policy. For Warschauer, literacy does not exist in a bipolar divide between those who can and cannot read. Instead, there are levels of literacy for functional, vocational civic, literary and scholarly purposes. People become literate not just through physical access to books but through education, communication, work connections, family support and assistance from social networks.

Synthesizing these practices, Warschauer produced the following principal parallels between literacy and ICT access:

- There is not just one, but many types of literacy/ICT access;

- The meaning and value of literacy/ICT access varies in particular social contexts;
- Literacy/ICT access capabilities exists in gradations, rather than in a bipolar opposition of literate versus illiterate;
- Literacy/ICT access alone brings no automatic benefit outside of its particular functions;
- Literacy/ICT access is a social practice, involving access to physical artefacts, content, skills, and social support; and,
- Acquisition of literacy/ICT access is a matter not only of education, but also of power.

These parallels serve as the basis of Warschauer's framework of ICT for social inclusion. As he puts it, this framework re-orientes "the focus from that of gaps to be overcome by the provision of equipment, to that of social development to be enhanced through the effective integration of ICT into communities and institutions" (2002: 11).

2.7: Conclusion

Development is discussed here as a post-World War II historically produced discourse, which deploys a modern regime of government over Third World countries. It stresses the replication of the features that characterize 'advanced' countries in underdeveloped countries. The underlying principles are derived from modernization theory and provide the foundation for the initial theories of communication-for-development.

Communication expertise is layered into a context already shaped by anthropological and economic approaches to development, and is steered to this day by the conceptions of culture and political economy encouraged by those bodies of knowledge. Yet, the more recent emphasis on digital technology and ICTs has raised the importance of communication expertise in these debates, and the fundamental inequities that have long

plagued development are often discussed now in terms of a digital divide. Indeed, one can argue that these debates recognize the global scale of processes of modernization formerly theorized at the nation-state level.

For African countries, the task of articulating alternative development strategies often occurs in the context of previous failures. The options are presented as a shift in focus from the 'gaps' to be overcome by the provision of ICTs to that of social development to be enhanced through the effective integration of ICT into communities and institutions. It is a tension one finds in the history of development communication, and in the constructivist's more contemporary disputes with ICT approaches generally.

Indeed, in the case of Ekiti State, we will see that most of the positions within contemporary and historical debates about the digital divide steer the laptop project as it moves from failure to failure, each time entrenching a modern system of measurement and management into questions of political power, and all in the name of the development of people who otherwise have thus far very little to say in their own fates, sidelined, as they have been, by expert discourses of what it means to be modern, developed, and ready for the future.

Chapter 3

The theory and methodology of post-development

3.1: Introduction

Post-development theory is organized to encourage ‘alternatives to development’ by illustrating how professional knowledge and development institutions are implicated in the export of a model of development that conflicts with the cultures and experiences of those it attempts to change. In this respect, the theory rejects the priority of colonial modes of producing knowledge in favour of a holistic approach that respects the specificity of the historical context and experience of those studied.

This chapter discusses the post-development theory and its methodology as adopted in this study. It summarizes the theory and its foundational studies, and outlines how it is used to conduct research generally and in the context of my study. The first section introduces, contextualizes, and explains the theory. The second section addresses its criticism and the broader issues its critics raise. The third section discusses how it works, with special attention paid to the notions of discourse and power, as well as the concepts of professionalization, institutionalization, and ‘instrument-effects’, which are central to my study.

The fourth section discusses how the theory is used in a way that accommodates the state as a player in ICT4D. It marks the shift from the state as the primary legitimation for the exercise of power to networked understandings that emphasize a proliferation of multiple actors. The section attempts to nuance references to neoliberalism, wherein the state is

viewed as ineffective or a puppet for corporate interests, to emphasize how the state facilitates and legitimates the spaces where arrays of actors meet. Finally, section five discusses the design and conduct of this research, detailing how the observations, interview materials, and documents were obtained and analyzed. Broadly speaking, the chapter brings post-development theory together with the study of ICT4D projects in Africa, using the Ekiti State e-School Project in Nigeria as a case study.

3.2: What is post-development?

Post-development theory emerged from poststructuralist and postcolonial critique – that is an analysis of development as “a set of discourses and practices” that shapes how the Third World is seen as ‘underdeveloped’ and treated as such (Escobar, 1995: xii). In this context, post-development theory designates three interrelated ideas: First, the need to decenter development – that is, to displace it “from its centrality in representations and discussions” about conditions in the Third World and “open up the discursive space to other ways of describing those conditions, less mediated by the premises and experiences of ‘development’” (ibid). Second, in displacing development’s centrality from the discursive imaginary, post-development theory suggests that it is “possible to think about the end of development” (xiii). In other words, it identifies an “alternative *to* development, rather than development alternatives, as a concrete possibility” (ibid; italics retained). Third, post-development theory emphasizes “the importance of transforming the ‘political economy of truth,’ that is, development’s order of expert knowledge and power” (ibid). To this end, the theory proposes that the more useful ideas about alternatives can “be gleaned from the knowledge and practices of social movements” (ibid).

The spirit of post-development theory crystallized around the journal *Development: Seeds for Change*, associated with intellectuals in Latin America, India, Malaysia, France, Switzerland, Germany and England (Nederveen Pieterse, 1998: 361). It is “by no means a homogeneous current,” but “shows many affinities and overlaps with [cultural critiques of development], western critiques of modernity, the Enlightenment and techno-scientific progress, such as critical theory, post-structuralism, [and] ecological movements” (ibid).

Post-development theory’s methodology, theoretical framework and politics are often shaped by its Foucaultian orientation. The methodology incorporates discourse analyses of development (Nederveen Pieterse, 1998: 361). Its program is defined by “local resistance, rather than emancipation” and the rejection of “a universal agenda” (ibid).

Generally speaking, it belongs to “the era of the ‘post’ – post-structuralism, post-modernism” – premised on “an awareness of endings, on ‘the end of modernity’” (ibid).

There are two strands of post-development theory: the neo-populist and skeptical post-development. The neo-populist is associated with anti-developmentalists. Its discourse is linked with a static conception of culture, as a “non-transformed and non-transformative force,” to use Escobar’s language (cited in Ziai, 2004: 1052). It rejects modern industrial society and promotes the return to subsistence communities (Ziai, 2015: 837). It expresses “reactionary consequences,” and dismisses people’s desire for ‘development’ as “the results of ideology and manipulation” (ibid).

The skeptical variant is associated with radical democracy. Its discourse combines “a critique of the eurocentrism and cultural imperialism of ‘development’” with “a constructivist and anti-essentialist perspective” (Ziai, 2004: 1054). It understands culture

as “actively constructed and dynamic” (Stephen A. Marglin, cited in *ibid*: 1052). It “promotes cultural hybridization, is critical towards cultural traditions, abstains from articulating desirable models of society and employs a dynamic, constructivist concept of culture” (Ziai, 2015: 837). This predisposition gives it the radical democratic outlook.

As formulated by Ernesto Laclau and Chantal Mouffe, radical democracy is the “extension of the democratic struggles for equity and liberty to a wide range of social relations” (cited in Ziai, 2004: 1056). It is opposed to representative democracy, where “a small minority decides for the people” (*ibid*) and entails the decentralization of power structures at the local level. This implies a critique of the system of political representation in which “epistemological and economic structures also come into the picture” (*ibid*).

Radical democracy is seen by scholars such as Tariq Banuri as a vision of the future in the Third World – that is, the decentralization of the polity, economy, and society, in addition to epistemological decentralization that challenges the notion of universal, ‘objective’ knowledge (cited in Ziai, 2004: 1057). In this regard, skeptical post-development represents “a manifesto of radical democracy in the field of ‘development’ policy and theory” (*ibid*). Its critique is not restricted to economic issues but “includes the field of culture and knowledge” and a questioning of “the whole perception of some countries being ‘developed’ and others less so” (*ibid*).

Arguably, the emergence of post-development theory is “the most significant shift in development theory in the last decade of the twentieth century” (Ziai, 2007: 3). The first mention of ‘post-development’ was in 1991 at the international colloquium sponsored by

the Eckenstein Foundation in Geneva (2007: *ibid*; see also Rahnema, 1997: xix/n). Following the deconstruction of development, it became possible to imagine a ‘post-development era,’ one in which development will not take place solely “under the Western eyes,” Escobar’s evocative phrase, which he borrowed from Chandra Mohanty (2007: 20).

Inspiration for post-development theory was drawn from the work of Ivan Illich, Michel Foucault, Mahatma Gandhi, and Karl Polanyi (Escobar, 2007: 4; Ziai, 2015: 833). The three major works most frequently referred to as representative of the theory are: *The Development Dictionary: A Guide to Knowledge as Power* (1992), *The Post-Development Reader* (1997), and *Encountering Development: The Making and Unmaking of the Third World* (1995) (Escobar, 1995, 2000; Nederveen Pieterse, 2000; Ziai, 2004, 2007, 2015; Corbridge, 2007; and McGregor, 2009).

These three books provide the tools for “slaying the development monster,” a term Escobar uses to describe “the self-evidence, necessity and unquestionability” of development (cited in Ziai, 2015). Among these books, *The Development Dictionary* prefigured the end of the development era. This disposition was foreshadowed by the idea that development had become “a ruin in the intellectual landscape,” and that its steady companions were “[d]elusion and disappointment, failures and crimes” (Sachs, 1992: xv). Because development failed to deliver on its promises, “the hopes and desires which made the idea fly are now exhausted” (*ibid*). Thus, it is time to dismantle it and “bid farewell to the defunct idea in order to clear our minds for fresh discoveries” (xvi).

The contributors to the book mark the age of development as “that particular historical period” which began on 20 January 1949, when US President Truman, in his inauguration speech, declared the Southern hemisphere as ‘underdeveloped areas’, a label, they say, “provided the cognitive base for both arrogant interventionism from the North and pathetic self-pity in the South” (1992: xvi). That Truman’s idea of development “is on the decline,” they argue, shows that “its four founding premises have been outdated by history” (ibid).

The first of Truman’s premises for development is the claim that the US, along with other industrialized nations, is “at the top of the social evolutionary scale” (1992: xvi). This claim was “shattered by the ecological predicament,” which debunked the idea of ‘advanced’ societies being ahead in the evolutionary scale (xvii). Second, the post-World War II influence of the Soviet Union that informed the US engagement with decolonizing countries in “the struggle against communism” disappeared with the dissolution of the Soviet Union after 1989 (ibid). With the demise of communism, the project of “global development” lost its “ideological steam” (ibid).

Third, in 1960, Northern countries were 20 times richer than Southern countries. By 1980, they were 46 times richer. As most Southern countries “stepped on the gas” of development, Northern countries continued to outpace them, demonstrating that development did not lead to a process of catching up for underdeveloped countries, but to a widening of the gap between developed and underdeveloped countries (1992: xvii).

Fourth, and finally, it came to be seen that development was “a misconceived enterprise from the beginning,” and that the hidden agenda “was nothing else than the Westernization of the world” (xviii).

Thus, *The Development Dictionary* is a clarion call “to clear out of the way” the development discourse, so as “to disable the development professional by tearing apart the conceptual foundations of his [or her] routines,” “challenge those involved in grassroots initiatives to clarify their perspectives by discarding the crippling development talk towards which they are now leaning,” and “expose some of the unconscious structures” that set boundaries on the thinking of the end of development (1992: xix). “[A]ny imaginative effort to conceive a post-development era will have to overcome these constraints” (ibid).

In the second major work, *The Post-Development Reader*, post-development points to the local and the grassroots as the proper place to begin the struggle against ‘development’. This project means providing a platform for ‘the voices’ of what the book describes as “the great losers” in the development project – that is, providing a view of development and its practices from the perspective of the local and grassroots population (Rahnema, 1997: xi). It is in this sense that the book describes post-development theory as ‘subversive’, meaning that it turns a situation around and looks at it from the other side; that is, in its characteristically blunt terms, scholars should take “the side of people who have to die so that the system can go on” (ibid).

On this view, post-development theory is human-centered and represents “a perception of reality” from the perspective of those involved in the process of social change (1997: xii). In other words, the study of post-development theory is about those whom development projects “serve or exclude,” and the effect on the relational fabric of society; and what the ‘losers’ think about their situation and how their lives are affected by it (ibid). Finally, the ideas of post-development theory are radical, in the etymological sense of the word – that

is, it goes “to the roots” of the question; how it “pertains to, or affects what is fundamental” (ibid).

In brief, *The Post-Development Reader* is about the art of resistance that ‘losers’ “continue to refine” in order to build different and more humane futures (1997: xvi). The resistance is designed to show that “the most promising roads” are the ones that the ‘losers’ discover by themselves “as they move ahead” (ibid). On this road, they have to learn “from their own traditions and from each other, the arts of resistance most adequate to the conditions of their journey” (ibid). The book gives inspiring thoughts on the ways different cultures have learned to resist domination.

The third foundational book, Escobar’s *Encountering Development*, outlines the use of post-development theory’s methodology, theoretical framework and politics. Its underlying thesis captures development as “a historically produced discourse” that entails

an examination of why [Third World] countries started to see themselves as underdeveloped in the early post-World War II period, how ‘to develop’ became a fundamental problem for them, and how, finally, they embarked upon the task of ‘un-underdeveloping’ themselves by subjecting their societies to increasingly systematic, detailed, and comprehensive interventions (Escobar, 1995: 6).

In *Encountering Development*, the study of post-development theory follows Edward Said’s analysis of discourses of the Orient, where ‘Orientalism’ is examined as an institutionalized discourse,

... by making statements about it, authorizing views of it, describing it, by teaching it, settling it, ruling over it: in short, Orientalism as a Western style for dominating, restructuring, and having authority over the Orient ... [E]xamining

Orientalism as a discourse [makes it possible to] understand the enormously systematic discipline by which European culture was able to manage – and even produce – the Orient politically, sociologically, ideologically, scientifically, and imaginatively ... (Said, 1979: 3).

‘Orientalism’ is useful in the study of representation of the Third World in various contexts, as demonstrated by V. Y. Mudimbe in the study of “the theme of the foundations of discourse about Africa” – that is, how African worlds were established as realities for knowledge in Western discourse (Escobar, 1995: 6). Work of this kind opens the way for “the process by which Africans can have greater autonomy over how they are represented and how they can construct their own social and cultural models in ways not so mediated by a Western episteme and historicity” (7).

Encountering Development shines light on how regimes of representation are analyzed “as places of encounter of languages of the past and languages of the present, ... internal and external languages, and languages of self and other” (1995: 10). It is the “final theoretical and methodological principle for examining the mechanisms for, and consequences of the construction of the Third World in/through representation” (ibid). To chart regimes of representation brought about by development discourse is to understand “the conceptual maps” that are used to locate Third World people’s experience (ibid).

Thus, *Encountering Development* provides “a general map” for orienting post-development studies in the discourses and practices that account for the dominant form of sociocultural and economic production of the Third World (1995: 10). The goal of the book is to demonstrate how to examine “the establishment and consolidation of [the development] discourse and apparatus”; to analyze “the construction of a notion of

underdevelopment” in development theories; and to demonstrate “the way in which the apparatus functions” through the systemic production of knowledge and power in specific fields (11).

3.3: Post-development theory: Criticisms and responses

Notable among the critics of post-development theory are David Lehmann (1997), Stuart Corbridge (1998), Jan Nederveen Pieterse (1998, 2000), Ray Kiely (1999), Andy Storey (2000), and Andrew McGregor (2009). Even as they object to the tenets of the theory, they acknowledge its strength in keeping “the raw nerve of outrage alive” – E. P. Thompson’s expression, which Corbridge describes as “felicitous” because, as he remarks, the theory not only forces us “to confront our own prejudice about the agendas of development” and “the shocking failures” of “some aspects” of the implementation, it also provides “a human touch that is too often missing in development studies” (1998: 143).

Yet, among these critics, post-development theory is often portrayed as dogmatic, overly assertive, and without scholarly merit. For instance, it is said that the theory rarely resorts “to proper argumentation” (Corbridge, 1998: 143), or is “seriously flawed” (Kiely, 1999: 31), or is “one-sided and old-hat” (Nederveen Pieterse, 2000: 178), or that it lacks “originality” (Lehmann, 1997: 573), or the “compulsion to go beyond dissection of the problem” (Storey, 2000: 41). If you strip away its exaggerated claims and its anti-position, argues Nederveen Pieterse, “there is an uneven ground” (1998: 362), and the weakness of its argument renders “the early brash statements” it epitomized now less apparent (McGregor, 2009: 1688).

The belief that post-development theory presents an essentialized view of development is a matter that draws the ire of most of its critics. This view of development is described as trading in non-sequiturs – the idea of condemning development in all its manifestations because of the failure of development A, B or C (Corbridge, 1998: 139), without “a hint of the extraordinary accomplishments that have defined the Age of Development, or of the unprecedented increases in life expectancies for men and women that have been achieved since 1950” (145). Development, Corbridge cautiously argues, is about “dilemmas,” and its shortcomings “should not be read as the Failure of Development” (ibid).

Post-development theory fails to notice the contestation of development on the ground, the critics say. As Nederveen Pieterse puts it, many popular struggles in underdeveloped countries are about access to development, rather than a rejection of it (1998: 363). While some are concerned with “inclusion and participation,” others are concerned “with renegotiating development, or with devolution and decentralization” (ibid). Borrowing a line from Christine Sylvester to support Nederveen Pieterse’s argument, Storey (2000) writes: “It may well mean that access to western levels of material development is impossible for all, but it does not mean that this is not a desired option for many people in the South” (42).

Post-development’s exclusive focus on discourse is another area that is vehemently criticized. The exclusive focus on discourse, it is argued, “leads to ambiguities” in post-development’s account of the agents of development, and over the question of power (Kiely, 1999: 36). The neglect of “the agency behind discourse,” as Richard Peet terms it, is to Steven Best and Douglas Kellner one of the key weaknesses in Foucault’s

conception of power (cited in *ibid*). For Kiely, Foucault's definition of power as "a machine in which everyone is caught," and as something that "comes from below," is problematic because it "renders the idea of power meaningless" (*ibid*).

Post-development theory's claim that 'traditional' societies are better than 'modern' societies, notes Kiely, leaves the binary opposition between tradition and modern intact, leading to a politics "which is not very far removed from western conservatism" (1999: 43). This politics, he intimates, has a long history, beginning with "[p]opulist rural utopias" in response to "the horrors of British and Russian industrialization," to "the failure of economic growth to alleviate poverty in much of the Third World from the 1970s" (44). The "mythical notions of peasant communities," in Keily's phrase, is, according to Jonathan Rigg, "a feature of the post-developmentalists and their agenda" (cited in *ibid*).

On the designation by Roger Burbach, Boris Kagarlitsky, and Orlando Nunez of social movements as agents of change, Storey differs, arguing that nothing guarantees that these movements are "democratic in their structures and principles" (2000: 43). To argue differently, he maintains, is to assume that after long histories of global penetration, these movements "somehow occupy a space outside the otherwise hegemonic control of development discourse" (*ibid*). Accordingly, he declares: "To trust the political project of development or post-development to these groups, and to assume that the outcome will be a particularly happy one, is to engage in romanticism and wish-fulfillment" (*ibid*).

In Kiely's opinion, the debate reflects the binary between global/evil and local/noble "carried over into an assessment of social movements in the Third World" (1999: 45).

Kiely agrees with Storey's position with regard to post-development's tendency to play the Pontius Pilate of politics by washing "its hands of the politics of these movements" (47). This position, he argues, shows "the inconsistent anti-essentialism of post-development theory," as, quoting Corbridge, "an unwillingness to speak for others is every bit as foundational a claim as is the suggestion that we can speak for others in an unproblematic manner" (ibid).

One of the main implications of post-development theory that remains "seeming intractable," in Escobar's words, is the notion of alternatives to development (1995: xix). For Nederveen Pieterse (1998), the notion of 'alternatives to development' "is a misnomer" because no alternatives to development are offered by post-development theory (366). "There is no positive programme; there is critique but no construction" (ibid). As he puts it:

'Post-development' is misconceived because in the prefix it reinstates the linear concept of time, which is being rejected in 'development'. It attributes to 'development' a single and narrow meaning, a consistency which does not match either theory or policy, and thus replicates the rhetoric of developmentalism, rather than penetrating and exposing its polysemic realities. It echoes the 'myth of development' rather than leaving it behind (ibid).

Notwithstanding these criticisms, in the preface to the second edition of *Encountering Development* (written 17 years after the first edition), Escobar insists that the core message of post-development theory remains valid – that is, "the need to decenter development as a social descriptor, the questioning of development's knowledge practices, and post-development's critique of the ideas of growth, progress, and modernity" (1995: xiii). He identifies what he considers as the "three main objections" to

the theory's proposal as follows: one, post-development's focus on discourse; two, its essentialized view of development; and three, its romanticization of local traditions and social movements.

Taking the criticisms one after the other, Escobar opines that the first criticism displays "limited validity," because it rests on the assumption "that discourse is not material, failing to see that modernity and capitalism are simultaneously systems of discourse and practice" (1995: xiv). The second criticism is problematic "on epistemological grounds" (ibid). That development is heterogeneous, contested, impure and hybridized is a valid criticism. However, the project of post-development theory is "that of analyzing the overall discursive fact, not how that fact might have been contested and hybridized on the ground" (ibid). The third criticism is "a reflection of the chronic realism of many scholars that invariably labels as romantic any radical critique of the West or any defense of the local" (ibid).

However, the implication of 'alternative to development' remains 'intractable,' as Escobar was quoted earlier. In the first edition of *Encountering Development*, he does not see "grand alternatives that can be applied to all places or all situations" (1995: 222). For him, "[t]o think about alternatives in the manner of sustainable development, for instance, is to remain within the same model of thought that produced development and kept it in place" (ibid). Thus, the place to look for alternative practices is "in the resistance grassroots groups present to dominant interventions" (ibid).

One such alternative practice, as he explained in the second edition of the book, is "a novel notion of development centered on the concept of *Buen Vivir*," a Spanish word that

conveys the meaning of ‘living well’, and constructs “a new horizon of historical meaning” emerging from “indigenous resistance against the Eurocentric modern/colonial world system” (1995: xxv). *Buen Vivir*, as it is reflected in the Ecuadorian and Bolivian constitutions issued in 2008, according to Escobar, is receiving “well-deserved international attention” because of its “pioneering treatment of development and, in the Ecuadorian case, of the rights of nature” (ibid).

Thus, Escobar sees in *Buen Vivir* an opportunity for “the collective construction of a new form of living,” quoting one of the architects of the Ecuadorian constitution. The idea evolved “in the context of a panoply of pioneering constitutional innovations, including the rethinking of the State in terms of plurinationality – and of society in terms of interculturality, an expanded and integral notion of rights ... and a reformed development model” (1995: xxvi). The notion of rights represents “the civilizational transformation imagined by the transition discourses”⁸ (xxvii), which exhibits clear parallels to the arguments of post-development theory.

3.4: Researching with post-development theory

Although post-development theory is “sharply criticized and rejected in development theory,” many of its central arguments are “tacitly” accepted at the same time that “the generalizations and homogenizations” of the approach are bemoaned by its critics (Ziai, 2015: 844). In whichever form the debate is seen, it is difficult to ignore Ziai’s position that, by introducing “the discursive or cultural turn in development studies,” post-

⁸ Escobar discusses transition discourses in the context of emerging trends that “reflect the depth of the contemporary crises” in a multiplicity of sites, principally social movements, from some civil society NGOs, from some emerging scientific paradigms, and from intellectuals with significant connections to environmental and cultural struggles (1995: xix).

development theory was able to shine light on development knowledge production, and the dissection of its concepts (846).

This sub-section responds to the critics by introducing the concepts of institutionalization, professionalization, and ‘instruments-effects’ that have been developed in the wake of ongoing disputes in the literature on development. In addition, the following sub-section will incorporate the insights from this discussion to address the issue of state power. At its inception, post-development theory emphasized networked approaches to power at the expense of a more detailed understanding of the state. For reasons that will be explained later, the state is understood in this study as a constitutive actor in ways consistent with post-development theory’s broader ambitions.

– *The concepts of institutionalization and professionalization*

We should admit ... that power produces knowledge...; that power and knowledge directly imply one another; that there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations (Foucault, 1977: 27).

To speak of development as a historical construct, to recall Escobar’s words, “requires an analysis of the mechanisms through which it becomes an active, real force” (1995: 45).

These mechanisms are made possible by the discourse of development and are studied in terms of processes of institutionalization and professionalization. The consolidation of development depends on its effect upon real situations and on the ways in which it is “professionalized as a body of knowledge and institutionalized as a practice” (1991: 665).

Thus, institutionalization and professionalization are both “interrelated and converge in the practice itself” (ibid).

The concept of professionalization refers to “the process that brings the Third World into the politics of expert knowledge,” accomplished through “a set of techniques, strategies, and disciplinary practices that organize the generation, validation, and diffusion of development knowledge, including the academic discipline, methods of research and teaching, criteria of expertise, and manifold professional practices; in other words, those mechanisms through which a politics of truth is created and maintained, through which certain forms of knowledge are given the status of truth” (1995: 45).

One of the functions of professionalization is the progressive incorporation of problems “into the space of development,” which brings troubles to light “in ways congruent with the established system of knowledge and power” (1995:45). The process is preceded by “the creation of ‘abnormalities’” such as the ‘underdeveloped’ (1984/85: 387). By first troubling a cultural practice, or by detailing abnormalities and deviances, specification of these conditions is worked into objective problems through “detailed observation” of the Third World society. These observations are accompanied by an elaboration of complete dossier, and information gathering and dissemination, to form “*a field of intervention of power,*” the establishment of “encompassing domain of intervention” (ibid; italics retained).

Professionalization also makes it possible “to remove all problems from the political and cultural realms and to recast them in terms of the apparently more neutral realm of science” (1995: 45). In other words, professionalization produces the knowledge that enables experts to “scientifically ascertain social requirements” (ibid). The policies and programs originating from this knowledge allow experts “to classify problems and formulate policies, to pass judgment on entire social groups and forecast their future”

(ibid) – that is, “the formulation of *a field of control of knowledge*,” through which “‘truth’ (and, so power)” is produced (1984/85: 388; italics retained).

On the other hand, the concept of institutionalization explains the diffusion of power-knowledge “at various levels,” ranging, as in our case, from the state level to local government and then to community levels and, ultimately, classrooms in Ekiti State’s public secondary schools. The institutions are the agents of the deployment of development, which, taken as a whole, constitutes “the apparatus of development” (1984/85: 388). Through the network and system of regulatory controls, the people “are bound” to cycles of behaviours and rationalities (ibid). This strategy is described as “the *dispersion of local centres of power-knowledge*” – that is, “the establishment of a multiple sites of power,” which makes possible “the disciplinary system of development” (ibid; italics retained).

The analysis of institutionalization and professionalization as mechanisms through which development discourse becomes an active, real force, leads to the conclusion, as Escobar suggests, that “development has been successful to the extent that it has been able to penetrate, integrate, manage and control countries and populations in increasingly detained and encompassing ways” (1984/85: 388). Where it fails to solve the problem of underdevelopment, Escobar further suggests, “it can also be said, perhaps with greater pertinence, that it has succeeded well in creating a type of underdevelopment which has been until now, for the most part, politically and economically manageable” (ibid).

– *The notion of ‘instrument-effects’*

In his study of development in Lesotho, James Ferguson applied the concept of 'instrument-effects' to formulate the following thesis: that 'development' institutions generate their own form of discourse; that this discourse constructs its objects of knowledge; and that interventions are organized on the basis of this structure of knowledge, which, while 'failing' on their own terms, nonetheless have regular effects, which include the expansion and entrenchment of bureaucratic state power, side by side with the projection of a representation of economic and social life which denies 'politics' and, to the extent that it is successful, suspends its effects (1990: xiv).

The thrust of Ferguson's argument "is not to show that the 'development' problematic is wrong" even if the ideas it generated "are indeed false," but to develop an analytic that documents what it does (1990: xv). His work shows that the institutionalized production of ideas "has important effects, and that the production of such ideas plays an important role in the production of certain sorts of structural change" (ibid). These effects, to a large extent, occur regardless of whether the ideas are deemed true or false. This position is not informed by an appeal "to some non-existent 'value-free' social science, or a sign of some sort of improbable indifference or neutrality," but are a reflection of the view that, "in tracing the political intelligibility of the 'development' problematic, the question of the truth or falsity of 'development' ideology is not the central one" (ibid).

For Ferguson, if a development study begins "from the premise that thinking is as 'real' an activity as any other, and that ideas and discourses have important and very real social consequences," then in analyzing systems of ideas, we cannot be content "with interrogating them for their truth value" (1990: xv). Rather, he goes on:

[T]here is always another question: what do these ideas *do*, what real social effects do they have? ... For the question is not ‘how closely do these ideas approximate the truth,’ but ‘what effects do these ideas (which may or may not happen to be true) bring about? How are they connected with and implicated in larger social processes? (ibid).

Given the surprising similarities between Ferguson’s study of development in Lesotho and the Ekiti State e-School Project in Nigeria – the subject of this study – I was drawn to the conceptual apparatus of ‘instrument-effects’ to investigate how specific ideas about the e-school project were generated in practice, and how they were put to use; and to demonstrate what these ideas ended up doing regardless of contestation over their truth or falsity.

3.5: The role of the state in post-development theory

As I noted earlier, post-development theory is informed in its scholarly accounts by Michel Foucault’s conception of power. I also mentioned that, in Foucault’s work, the networked aspects of power were emphasized at the expense of a more detailed understanding of the state, as it became common among those influenced by his work to emphasize the importance of culture and subjectivity.

In viewing power as decentralized and dispersed through various institutions and actors in diffused relation to one another, it was common among Foucault’s followers to critique not the ‘state’ but modernity or Western culture more generally. In this respect, the state came to be portrayed as either a general expression of modernity or as a weak actor, and this theoretical propensity fit well with those emphasizing neo-liberalism and the ideology of deregulation in the 1980s and 1990s.

Today, it is possible to take a broader view. The state is one among many actors, to be sure, but it often has priority as a facilitator of the contexts and networks through which these other varied actors meet and coordinate their activities. The mythos of deregulation, a powerful view for both its main proponents and ardent critics, tends to ignore the specific dynamics that illustrate how the state continues to facilitate development projects today – at least as this has occurred in Ekiti State.

The usual narrative found in post-development theory tends to begin in the 1960s and 1970s, as newly independent states increasingly “blamed the industrialized world for their economic plight” (Hills, 2007: 152). The emergence of dependency theory legitimated states “as the most important actors in ‘development’” (ibid). By the end of the 1980s, the so-called Washington Consensus placed privatization at the core of development policy, “not as in the interests of Western capital but as the indigenization of economic power” and as a means of “empowering the people” in developing countries (155).

The mid-1980s were dominated by a “pragmatic adaptation” – a sort of “eclectic practice dictated by the consideration of special problems – particularly the debt, inflation, and the role of the state” (Escobar, 1995: 90). In the later part of the 1990s, the World Bank, for the first time since the structural adjustment program, acknowledged the role of the state in ‘development’ (158), and the state was again understood as important actor in the acceleration of economic development. Without state regulation, it came to be argued, it was inevitable that public monopolies would become private monopolies.

While this represents a belated recognition of a role the state had mostly retained, it is interesting to note that a recognition of the state as facilitator of development coincided with a growing recognition of the importance of ICT. Indeed, as post-development theory incorporates a fuller understanding of ICT, its understanding of the role of the state might well grow in sophistication (the theory was late to recognize ICT as of crucial significance, perhaps because of its origins in language analysis). It is a contribution this study hopes to make to post-development theory as a field of inquiry.

3.6: Data collection and research methodology

– Data collection

The Ekiti State e-School Project was inaugurated on 14 March 2012. I learned of the project in 2014 through a press release by the state government published online the day after the inauguration. The press release, entitled ‘Fayemi flags off distribution of 33,000 laptops to Ekiti students and teachers,’ read in part: “Ekiti State today made history in the education sector in the country as Governor Kayode Fayemi distributed 11,000 units of laptop computers to students and teachers of public secondary schools in the state ...” (Ekiti State Directorate of ICT, 2012).

The project appeared a perfect match for my study. Previous efforts to study digital development projects on the ground had led to flashy websites carrying big promises and little tangible implementation. This project looked and felt different. It was one of its kinds in Africa, involving a state government, the distribution of 30,000 laptops to students in 183 public secondary schools, and relied upon partners that were well-known names in the ICT world. At the time of my fieldwork, it had been in operation for about

two years and was being positioned as emblematic of how development could work in Nigeria, if not Africa as a whole.

I began my inquiry by arranging an introduction to the state governor's Chief Press Secretary, with whom I discussed the status of the project. After assurances about its 'good health', I travelled to Nigeria on 12 May 2014 to begin a preliminary study, the first of two anticipated visits. I met the Chief Press Secretary, who introduced me to the Director of the e-School Project in the state's Ministry of Education who, in turn, introduced me to the Commissioner for Education, from whom I obtained an authorization letter to facilitate my fieldwork. With this letter, I was able to have access to and build a rapport with those I came in contact as the fieldwork progressed, including school principals, students, project partners and government officials.

I visited four schools: two in the urban areas and two in the rural areas. The four schools were chosen to give me first-hand knowledge of how the project was being implemented and the problems the schools were facing in their different locations. In each school, I met with the principal and the school laptop administrator (SLA) and observed classes in session. It was immediately clear that the project was faring better in schools located in urban areas than in those in rural areas, for reasons that will be made known in later chapters. I made arrangements to observe each of these schools on my subsequent trip. Had I completed my research based only on this visit, I would have given an incomplete and misleading picture of the origins and scope of the development failure that was slowly unfolding.

On 24 May 2014, I left Nigeria, but kept in touch with some officials in the Ministry of

Education, principals, and teachers through emails and phone calls. I procured recording equipment, updated my institutional ethics clearance, and arranged extensive interview and observation schedules. I arrived again in Nigeria on 9 September 2014. On my arrival, the Ebola virus scare was rife in the air, leading the Federal Government to shut down schools in the country for precautionary purposes. In addition, on 15 September, civil servants in Ekiti State, including teachers, embarked on an indefinite strike action, to protest non-payment of a backlog of salaries.

At the time of my arrival in Ekiti State, a new governor was about to be sworn in. There was no love lost between the governor-elect of the People's Democratic Party (PDP) and the incumbent governor, who belonged to the All Progressive Congress (APC). The election in July 2014 was preceded by a vicious campaign. The non-payment of civil servants' salaries, and the general complaint of hardship among people in the state led to the defeat of the incumbent governor, who was seeking a second term. With a pending case in the court challenging the eligibility of the governor-elect, the political tension in the state was palpable.

On 22 September, four days after I met the Commissioner for Education and scheduled interview with him (it would be repeatedly postponed), some people believed to be loyal to the governor-elect were said to have stormed the state High Court, and chased away the trial judge presiding over the case challenging his eligibility in the election. Three days later, the governor-elect himself was said to have led thousands of his supporters to the High Court, where they allegedly beat up the staff, daring the judge to hear the case. The following day, the simmering political tension boiled over when a close associate of the governor-elect was murdered in cold blood in Ado-Ekiti, the state capital.

The morning after the murder of the politician, I woke up oblivious of what was happening in Ado-Ekiti, having retired to my hotel room early to prepare for the interview with the Commissioner for Education scheduled for the following morning. On my way to the commissioner's office the day after the murder of the politician, the city was eerily quiet. At the state's secretariat housing the offices of all the ministries, the hustling and bustling that characterized the complex was gone. Here and there, groups of people huddled together, discussing in hushed tones.

The Commissioner for Education had not reported for work this morning, the secretary informed me and, from the look of things, she was not expecting him. But I chose to wait for him, hoping against hope that he would report for work. About an hour later, the sound of an explosion some distance away resulted in a pandemonium all around the secretariat. Civil servants who were aware of the murder of the politician the previous night but braved the odds to report for work this morning were seen hurrying back home. Suddenly, the roads were empty of vehicles and I was left stranded.

The Desk Officer in the office of the e-School Project Director, my guide during the fieldwork, came to my rescue. He did not show up for work this morning. When the situation got out of hand, I called him on the phone and informed him of my predicament. He knew how dangerous the situation could become and immediately drove to the secretariat to pick me up. Moments later, he was driving me to the outskirts of the deserted city to board a bus to Lagos, from where I monitored events in Ekiti State.

I remained in Lagos following the instruction of my dissertation advisor with whom I kept in touch of the events. Meanwhile, on 29 September, I visited the offices of

Samsung Electronics West Africa and Microsoft both in Victoria Island, Lagos. At the Microsoft office, I met the staff in charge of the Ekiti State e-School Project. He had not joined Microsoft at the early stages of the project, he informed me. But being an indigene of Ekiti State, he had followed the implementation of the project, and the interview with him reflected what he said he was able to observe from a distance.

At the Samsung office, the situation was different. When I explained my mission to the staff in charge of the project, he was not forthcoming about having interview with me. First, he said, he would have to consult the company's legal department. Then, he would decide whether to grant me interview. We exchanged phone numbers. After waiting in vain for a couple of days, I called his number. He was full of apologies, but assured me he would get back to me. I was still waiting for his call when I received a message that life had returned to normalcy in Ekiti State. The last time I called him, a day before my departure from Nigeria, he said he was in Owerri, Imo State, about 424 kilometers away, at the launch of a product. The interview with Samsung never materialized. In retrospect, I find this experience a very significant finding: a promise, endlessly deferred, is a common experience of development in Africa.

Earlier, on September 18, I had made attempts to reach the CEO of Purple Consult/Michael Sarah Ventures (MSV), the Samsung representative in Ekiti State, through her staff. She resides in Lagos, about 360 kilometers from the state. On this day, her staff said she was not in town, but that they were expecting her the following Monday. "If you leave your phone number with us, we will give you a call whenever she is in town," one of the staff assured me. Thereafter, I never heard from them. The following week, after a couple of unanswered phone calls, I started thinking of other

ways of reaching her.

September 18 was full of disappointments. The previous day, I had arranged interview with the representative of ProcentricIQ, one of the project partners. On getting to the office, the warmth with which we spoke the previous day had disappeared. In its place was an attitude tinged with inexplicable hostility. “The interview would no longer hold,” I was told in a matter-of-factly tone. The tone was such that I did not need to be reminded that there was not going to be any interview, unless, the voice quickly added, I got permission from the CEO of Purple Consult. As well the other project partner – Dualsoft – declined to participate in the interviews unless with the permission of Purple Consult.

At the same time, documentation was proving still more difficult to access. Bureaucrats in the state are known to be notorious for secrecy and the inability to carry out the full slate of intended interviews made it difficult to know which relevant documents even existed. During the preliminary study in May 2014, access to these documents was denied on the pretext that they contained sensitive information. Yet I had hopes that my growing relationship with government officials and project partners over the summer would allow my access to the documents.

The 2011 Freedom of Information Act (FOIA) on which I would have relied to obtain the documents was at best “a paper tiger” (Amzat, 2015). While the FOIA established my right to access the documents, experience had shown that it would have taken the state government months or even years to answer my FOIA requests. Although I could have gone to court to compel the release of the documents, “the painful slowness of the court,”

as Alex Hannaford (2015) put it in his comparative study of US-Nigeria FOIA, discouraged me from doing so.

As Hannaford noted in this study, most agencies of Nigerian government operated in deviance of FOIA and attempts to compel compliance through court orders were commonly resisted. Since 2012, the Ministry of Education and its agencies consistently ignored FOIA requests. Summing up the effectiveness of the FOIA in Nigeria, Omoyele Sowore, the publisher of *Sahara Reporters*, an online news agency, has this to say:

It's not made a big impact... There have been cases in court where judges have asked public officials to release documents, but we haven't seen any of those documents. They're paying lip service without actually doing anything. We've not had one situation in which there was something big to report from an FOIA request in Nigeria. It's easy for officials to destroy documents or say they do not know those documents exist (cited in Hannaford, 2015).

Given the constraints and the limited time I had for the fieldwork, the only viable option open to me was to rely on 'insiders' to get the needed documents. Through persistence and consistency, I obtained the documents from various sources on the condition of anonymity.

My interview with the Commissioner for Education was finally held on 2 October in his office after so many postponements. At the end of the interview, I told him about the difficulty I was having reaching the CEO of Purple Consult/MSV. It was not an insignificant difficulty as many project partners refused to speak with me without the permission of this office, a claim that reflected a systematic confusion in the project that I will discuss in later chapters. Fortunately, the previous day I was able to meet the Project

Consultant and had a long discussion with him that stretched into the night at an eatery in Ado-Ekiti. My inability to discuss the project with Samsung made it imperative that I interviewed Purple Consult. I pleaded with the Commissioner for his assistance. He gave me her phone number. My call the following day was received and the interview held in Lagos on 8 October.

On 10 October, a day after the governor-elect was sworn in, civil servants called off the strike action and schools in Ekiti State were reopened. The reopening of the schools came in the nick of time – that is, I had barely one week left to complete the fieldwork. The initial plan was to spend four weeks in the four secondary schools I visited in May. With one week left, I consulted with my dissertation advisor and we agreed to focus on one school: Immaculate Grammar School in the state capital. It was the school chosen by the state government as the pilot site at the inception of the project. The cooperation of the school principal and her staff made the study worthwhile.

– *Research methodology*

Post-development theory sacrifices the rigour of employing a specific scholarly method with single-minded intensity – whether it is discourse analysis, interviewing, archival work, or ethnography – to bring diverse ways of knowing together in a single account. Long immersion, and shifting methodological tactics create a fuller and more politically astute picture of development projects than a focus on easily accessible materials and the usual methodologies would produce. Eclectic approaches make it easier to narrate the multiple conditions, outcomes, and experiences of those affected by development projects.

Thus, my research methodology involved the combination of interviews, use of documents, and site visits. The interviews were aimed at getting the participants to share their experiences and/or articulate their role in the project. The use of documents helped me in reconstructing the events surrounding the project, and in developing taxonomy of subareas that informed the semi-structured interviews that took place during the fieldwork. The site visits involved the observation of interactions between teachers and students in the classrooms.

Among those interviewed were the Commissioner for Education, the Director of the e-School Project in the Ministry of Education, one of the experts hired by MSV to train the teachers, the Project Consultant and his assistant, two students and their parents, three teachers, two school laptop administrators (SLAs), a school principal, and the CEO of Purple Consult/MSV. The interviews were mostly aimed at getting the participants to share their experiences and articulate their role in the project, as they understood it – which was not always very clear even to them!

Equally valuable, however, were the recurrent informal discussions I had with government officials, principals, teachers, and SLAs over the course of the fieldwork. The interviews were recorded using the voice memo of an iPhone, which I then transferred to a laptop. Interviews varied in length of time but were generally within 45-60 minutes in length. Upon my return, I transcribed the interviews by hand over the course of eight weeks' time, and a complete copy of the transcripts were made and secured in the office of my dissertation advisor.

The last week of my fieldwork was spent in Immaculate Grammar School, observing and

recording relevant information. My participation in the classrooms was confined to taking notes. I was focused primarily on observing the interactions of teachers and students. The SLAs took me on a tour of the school's ICT resource facilities and answered questions that were related to the project. In my other activities in the school, I tried to capture the perspectives of the principal, the SLAs, teachers, and students. The goal was to let their experience shape the analysis in the dissertation.

The interviews were both casual and structured. For example, casual interviews were carried out during informal meetings with the school principal or teachers. Casual interviews were also conducted during the tour of the school ICT resource facilities with the SLAs. They were aimed at clarifying what was happening in the school at a particular time. Formal interviews or prearranged interviews were conducted with predefined questions. In the formal interview list, I did not include those with whom impromptu and informative conversations occurred on the issues.

It was only my long involvement with this project that permitted me to understand its main outcome, namely, the expansion and entrenchment of bureaucratic state power, a conclusion I find consistent with the history of modernization in Africa. It was easy to see evidence for clearly articulated differences and shifts – from state control to neoliberalism, from elitist to participatory paradigms of communication, from constructivist to social inclusion pedagogies – and these shifts were both significant and part of the story. Communication scholars are wise to attend to them. Still, there is an older story here as well, one preceding the burst of interest in digital technology. It is that story I sought to observe and tell.

3.7: Limitations of the research

A major limitation of the research resulted from the disruption of my fieldwork itinerary, a story I narrated above. At the outbreak of the Ebola virus, the Federal Government closed all the schools in the country, to prepare school principals, school heads, and teachers on prevention strategies. As the Federal Government was announcing the opening of schools on 22 September, civil servants, including teachers, in Ekiti State, were embarking on industrial action, for reasons I stated earlier. While schools in other parts of the country resumed classes, those in Ekiti State remained closed until the industrial action was called off on 10 October.

What it means is that school principals, teachers, SLAs, and students on which the greater part of my fieldwork depended remained out of my reach from 9 September to 10 October – that is, a full month after my arrival in Ekiti State. Together, these intervening events put my itinerary in a tailspin. With about a week left to conclude a fieldwork that was struggling on a shoestring budget, my research work was narrowed down to one school as against the four schools earlier proposed. Perhaps my analysis would have gained more depth if I had carried out the research work in the four schools as I originally planned, at least in one school in a rural area.

Chapter 4

Communication and development in Nigeria

4.1: Introduction

The failures of development to deliver on its promises of modern progress and prosperity are not a straightforward or self-evident matter. Failures have spurred conceptual and theoretical innovations – like ideas of participatory development communication and the digital leapfrogging of industrialism into the global information society – and can recalibrate the benchmarks for what counts as success. Successes – no matter how partial – are often translated into ‘best practices’, institutionalized in subsequent iterations of a given development project, and applied in ways that become increasingly abstracted from the dynamics of the place and context from which they were originally derived. Repeated failure can lead one to cling tightly to the most fleeting of successes. Furtive glimpses of success become yet further reason to plow ahead, with tactical, short-term adjustments when needed. Indeed, development professionals are remarkably ready to cope with failure: there is always another consultant, a different theory, a better technology, or a ‘proven’ governance structure that can redirect an ongoing failure.

In this chapter, I illustrate how relative successes in the modernization of Nigeria telecommunication – particularly in access to mobile telephony and Internet – created the conditions for failure in the merging of educational policy and investments in digital computing. New and surprising successes in the digital realm did occur and helped to create confidence that modern digital infrastructure (like fiber optic cables and mobile wireless networks) might soon become a ubiquitous feature of Nigerian life. Alas, the

excitement surrounding such novel modes of ‘access to information’ tended to occlude the longer history of failure that continued to steer the distribution of this technology. Put simply, while Nigerians now use mobile phones and the Internet more than ever, there is a significant digital divide: many people (and places) have only fleeting and precarious access to information. In this respect, the question of whether an information revolution would transcend *or* reflect patterns of social inequality was a crucial question, and the Ekiti State e-School Project gambled on the transcendence vision of digital technology. On this account, using market mechanisms to provide access to information was a precondition for eliminating poverty, and the Nigerian telecommunication industry appeared as a shining example of how this might work.

Over the past decade-and-a-half, Nigeria experienced the rapid development of ‘the market’ and the ‘mobile wireless revolution’. As shown by World Bank statistics, between 2005 and 2015, mobile cellular subscriptions (per 100 people) in Nigeria rose from 13% to 82%. Within the same period, the number of Internet users rose from 3.5% to 47% (World Bank 2017). In other words, for many Nigerians, especially those in the cities, the changes were palpable, and they literally could touch and use the ‘tools of modernity’ every single day. With increased foreign direct investment (FDI) and the jobs emerging in sectors related to telecommunication also increasing considerably, the realms of ICT4D/ICT4E were increasingly discussed as ideal pathways to a modern future. The modernization of telecommunication in Nigeria, after decades of disappointment, provided a powerful imaginary and discourse to other sectors of the country’s life that were in crisis.

These realities inspired Ekiti State to reimagine its educational system through this ascendant development imaginary – seeking ‘access to information’ via computational technology in hopes of preparing its people and society for the global world. Indeed, the state would procure some of the most powerful computers for its students. Yet, without the technical and political infrastructures for which they were designed, these machines highlighted the limits of thinking about development in terms of access to information.

The liberalization of telecommunication in Nigeria achieved notable successes. By shifting the role of the state with respect to communication and information technology, past development failures were quickly transcended in ways that promised new economic opportunities to Nigerians. Did it not make sense to adjust the educational system in light of these new realities? In the context of the Ekiti State e-School Project, this meant bringing in the giant, foreign multinational ICT company, the Korean-based Samsung, and local contractors to put 30,000 laptops in 183 schools beginning in 2012. Thereafter, Samsung became both a key player in the state’s public schools and a symbolic indicator of how ICT and access to information would improve the lives of the people while helping them to become more competitive in the global economy.

The rest of this chapter offers a brief history of telecommunications in Nigeria, with a focus on how the original successes, and even some of the glamour, of telecommunication liberalization – the investments, the speed of network building, the restless pace of the market, and the new phones and other devices on offer – primed the mind in ways that made it seem necessary to prepare schools for integration into ‘the world economy’. If telecommunications could overcome decades of development failure, and if these were the tools necessary for inclusion in global opportunities, then to lag in

wiring up the education system (i.e. schools, teachers and students) for the ‘digital economy’ was tantamount to letting the children in Ekiti State fall behind.

4.2: Antecedents of Nigeria’s telecommunication industry

The history of the telecommunications industry in Nigeria dates to 1886 (National Policy on Telecommunications, 2000: 4; Chidozie, Odunayo, and Olutosin 2015: 177). That year, a British company linked Lagos by submarine telegraph cable along the west coast of Africa through Ghana, Sierra-Leone, Gambia and, from there, on to London, albeit with branches to locations all around the world. In some ways, Africa was at the cross-roads of the world’s intercourse: “the west coast of Africa served as an intermediary node in the cable systems that connected . . . to Europe” with additional extensions to the east going to India and the Far East, while another spur in the opposite direction connected to South America on the other side of the Atlantic Ocean (Winseck and Pike, 2008:16). Conceivably, any Nigerian could send a message by telegraph to anyone, anywhere at the time. Of course, such an idea was preposterous. The telegraph was the ‘rich man’s’ post under the best of conditions but in the colonial context at the time, the idea that a Nigerian would use the telegraph was absurd. The telegraph in the country arrived late, was enormously expensive to use, of inferior quality and used mainly to meet the needs of the British Empire.

Submarine cable projects followed and underpinned the growth of the global media system in the last half of the 19th century. While historians have usually given political, military and imperial needs pride of place when explaining the major impetus behind their development, in fact, commercial pressures and capital investment decisions were

probably stronger forces. Key players from the telegraph and cable industry in Europe, the UK and the US “parleyed their domestic experience into positions at the apex of the global media system” (Winseck and Pike, 2008: 10). While telegraphs were a tool for the administration of European, Japanese and, after 1898, American empires, they were also a significant “component of business transactions,” providing business with “knowledge about markets before they enter them” (13). Telegraphs accelerated the pace, enlarged transactions, and integrated national markets into the world market. New institutional arrangements were also created in response to the greater technological, economic, political and military interdependence that the telegraph and later forms of telecommunications fostered. The birth of the International Telegraph Union (ITU) in 1865, exemplifies the point (it became the International Telecommunication Union in 1932).

Yet, as noted earlier, the telegraph was only brought to Nigeria in 1886, nearly two decades after it had been extended to and throughout North America, Europe and, somewhat later, Latin America and Asia. And in the case of Africa and Nigeria, a branch of the world’s largest company, the British-based Eastern Telegraph Company, constructed the new telegraph system after receiving “ample subsidies” not just from the British Government but several other European imperial powers (Winseck and Pike, 2008:15). The effort also coincided with the imperial ‘scramble of Africa’ when 90% of the continent was swept “firmly under the sway of imperial states” in a single decade between 1880 and 1890 (ibid). In this context, communications technology was a powerful tool of imperial integration. That said, it was a colossal failure too. As Winseck and Pike (2008) observed, “poor technology, a lack of security and a tangled body of

subsidies stood as evidence of feeble imperial communication policies” in Africa and other formal zones of empire in the Caribbean and Southeast Asia (15).

The companies that built, owned and operated these systems “were often exploitative, arrogant and corrupt,” and “exacted huge concessions and charges as they ventured into European settler colonies” (Winseck and Pike, 2008: 29). Those who opposed this mode of economic imperialism “were brutally suppressed by Western military power” (ibid). The linking of Lagos to London during this period marked Britain’s attempt to bring the area under the sway of modern capitalist imperialism. In a nutshell, as Winseck and Pike noted, the late 19th and early 20th centuries became “the ‘belle époque’ of early globalization” (28).

The global communication policies established during this period continue to shape the relationship between the global media and empire to date. Write Winseck and Pike:

[I]t is important to note that the global communication policies of the American governments in the late 19th and early 20th centuries... are the precursors of the country’s policies today. Indeed, drawing on the principle of reciprocity... the US still leverages access to its own markets in order to prise open foreign markets... In the current age of the security-conscious imperial state, cable landing licenses remain a powerful instrument for achieving hegemony in markets and embedding the security interests of the nation-state deep into the fabric of global communication networks (30).

To borrow the language of Bob Sutcliffe, these policies created a “hierarchy of nations in which some oppress or exploit others, or strive to do so” (cited in Chidozie *et al*, 2015: 175). This period marked the first wave of imperialism in Africa, signalling the use of

force “in the expansionist activities of Europe as well as the struggle for domination [among] its major powers” (ibid).

4.3: Evolution of Nigeria’s telecommunications industry

The next step in the evolution of Nigeria’s telecommunications industry took place in 1893 when the colonial government offices in Lagos were connected with telephone lines. In 1923, the first commercial trunk telephone service was commissioned. In 1952, a three-channel line carrier system was commissioned connecting Lagos and Ibadan, and was later extended to Oshogbo, Benin, Enugu (in the southern part of the country), Kaduna and Kano (in the north), thus connecting the colonial office in London with local authority offices, and commercial centres. At independence in 1960, there were a total of 18,724 telephone lines in the country, meaning that there was roughly one telephone for every 2,000 people (National Policy on Telecommunications, 2000: 4). Clearly, what began as the barest of telecommunications development in 1886 remains in a similar impoverished state three-quarters of a century later, when Nigeria began to take its first post-imperial steps as an independent nation-state.

In keeping with post-imperial patterns associated with independence elsewhere, efforts to consolidate that standing also became, at least in rhetoric and formal policy, interwoven with the development of telecommunications – the information infrastructure of modern nation-states everywhere, including Nigeria, at least in theory. The 1955-1960 National Development Plan signalled the first attempt to develop the telecommunications industry in Nigeria. This and subsequent plans to modernize the industry focused on technical benchmarks, and for the most part recorded a series of failures until the relative successes

of liberalization in the 2000s. If there was ever a point in time when modern development appeared to take-off on a wider scale, this was it.

At independence in 1960 and thereafter, the government embarked on periodic national development plans to expand and modernize telecommunications networks and services with the intention of promoting socio-economic and political development in the country. As noted in the account of G.O. Ajayi, R.I. Salawu, and T.I. Raji in an undated article entitled ‘A century of telecommunications development in Nigeria – what next?’ during these initial, post-independence decades, the development plans focused on the expansion of the telephone network, and a cornerstone of the efforts was the creation of the Nigerian External Telecommunications (NET) Limited by the end of the decade.

Only a few of the objectives in the development plan were realized. Of the projected 60,000 telephone lines to be constructed over the decade only about 26,000 lines were installed. The Nigerian Civil War from 1966-1970 disrupted all aspects of the nation’s socio-economic and political life, and not surprisingly this hit telecommunications hard as well. The only real achievement recorded during the period was the installation of a microwave radio transmission system to link the cities of Lagos, Ibadan, Enugu, Benin, and Port Harcourt, all of which were in the southern part of Nigeria’s transmission system. It was also during this period that the foundation work for the establishment of NET Limited reached advanced stages.

The next development plan covered the period from 1970 and 1975. It, too, focused on expanding the reach and quality of telephone and telegraph services in the country. Old equipment for both systems was also replaced with automated technology capable of

supporting new 'teleprinter' services. New radio connections provided links to rural areas. Plans were also made to add more local subscribers in the country's biggest cities. The new plan, however, largely ended up in a familiar pattern: failure.

The next 1975-1980 Development Plan was even more ambitious. It targeted adding 700,000 new telephone lines by the end of 1980. Three contracts were awarded to add over 340,000 lines to the networks. A proposal was made to add a domestic satellite (DOMSAT) and aerostat (balloon) system to serve remote and hard to reach places in the country, while coaxial cables and microwave radio relays would form the backbone of the country's national information infrastructure. As a result, 177 telephone exchanges were added and the DOMSAT system completed. The aerostat balloon system and a second antenna for the DOMSAT system were also added, while a much-expanded international telephone-switching centre was commissioned in Lagos. Finally, a new microwave link connecting Lagos with Cotonou (Benin Republic) was put into place, and the Nigerian External Communications (NECOM) House in Lagos was put in charge of expanding the range of computerized telex, telegraph, and data switching centres on offer in the country.

The plan was a qualified success at best, however, and illustrated how the development imaginary could drain national energies and money. The aerostat balloon project was abandoned as a colossal waste of money. The proliferation of technologies in the network over the decades made obtaining spare parts difficult and expensive. It also complicated manpower training by limiting the number of personnel who could be moved from one part of the network to another due to the limited amount of knowledge that any one person could reasonably have about a system that had been cobbled together in bits and

pieces, and which had been for nearly a century by this time, always under-funded. A lack of funding and expertise continued to stand out as major barriers to improvements.

The 1980-1985 Development Plan responded to this pattern of failure by aiming to complete all outstanding projects. It also called for the addition of another 370,550 telephone lines, which, if successful, would increase the total number of installed telephone lines to 612,000. More long distance transmission networks were added in order to link more areas of the country. Telex exchanges were also refurbished with new lines plant and teleprinter machines. Again, though, the signature feature of these efforts was once more that of failure.

Instead of 612,000 telephone lines being in service, by the end of 1985 there was only enough installed switching capacity to serve 200,000 lines for a population of 84 million (Ajayi *et al.*: 1; Ijewere and Gbandi, 2012: 193). Telephone penetration remained poor and equalled one telephone line per 440 people, well below the target of one telephone line to 100 inhabitants that the ITU's Maitland Commission⁹ recommended at the time as a reasonable goal for developing countries to achieve. Moreover, all the exchanges were analogue, and service quality was poor. Telephone service was unreliable, congested, expensive and unfriendly – in other words, a failure (National Policy on Telecommunications, 2000: 5).

⁹ In recognition of the importance of communication infrastructures as an essential element in the economic and social development of all nations, the Maitland Commission was set up by the ITU in 1982 to recommend ways of redressing the telecommunications gap between industrialized countries and developing countries. While recommending that “all mankind” should be “within easy reach of a telephone,” developing countries were encouraged “to set themselves specific targets, taking into account of their own particular circumstances” (ITU, 1984: 5).

At this time, the Department of Posts and Telecommunications (P&T) had a monopoly on telecommunications within Nigeria while Nigerian External Telecommunications (NET) Limited stood in such a position for international telecommunications services. By the late 1980s and into the next decade, the huge gap that existed between planned targets and ‘the real world’ was cast as being the consequence of monopoly supply and poor management that lacked expertise, adequate funding, accountability and transparency (2000: 4). In short, instead of adding further to the ramshackle patchwork of the existing systems and institutional framework, it was increasingly agreed that it would be better to start from scratch with an entirely new and modern governance structure if the goal really was to develop a modern telecommunications system.

In 1985, in what would become a standard template for ‘developing countries’ around the world, the P&T was split into separate Postal and Telecommunications divisions. The telecommunication division was merged with NET Limited to establish the Nigerian Telecommunications Limited (NITEL), while the Postal Division was reconstituted into the Nigerian Postal Service (NIPOST). NITEL became the national monopoly service provider for domestic and international services. It was also charged with rationalizing investments and the provision of accessible, efficient and affordable services (Ijewere and Gbandi, 2012: 194). NITEL was still very close – too close, many would say – to the state. It was still state-owned, and the Federal Government appointed its board of directors (Ajayi *et al*: 6).

NITEL operated on the basis of territorial system that divided the country into five zones, with each zone consisting of four and six territories. The zones were semi-autonomous, and were coordinated by the office of the managing director at the headquarters. NITEL

would oversee and manage the provision of telecommunications services across the country, and take charge of planning and coordination as well as marshaling the technical and financial resources needed to run the country's telecommunications system. It would also take charge of research and development and, from internally generated revenue, contribute 60% of the ₦12 billion invested in digital exchanges and transmission links. It was also tasked with ensuring services that were accessible and affordable (Chidozie *et al*, 2015: 178).

Early developments in the digital network ensured the availability of services such as electronic mail, video telephone, and telefax. By 1993, NITEL had introduced these and other services, such as phone cards, which, while perhaps seeming to be a pedestrian point, were in fact important because phone cards increased the affordability of telephone service (Chidozie *et al*, 2015:178). In other words, telecommunications was undergoing the far-reaching reform that had become increasingly prominent in countries around the world, first in the US, the UK and Japan, but then Canada and Europe and ever more broadly after that.

Indeed, in this regard, Nigeria was somewhat early to the game, and had some successes in terms of developing a stand-alone telecommunications operator with fairly clear lines of authority and operation, a plan on how to do things, and a widening range of new services that were being heralded as the cutting edge of 'the information/knowledge society'. Yet, despite these qualified successes, it was common to lament NITEL's mismanagement and its lack of accountability, transparency and inefficiency, to say nothing of the fact that the telephone system remained congested, erratic, non-customer friendly and very expensive.

More decisive steps towards telecommunications liberalization occurred in the 1990s. This included opening the telecommunications market to newcomers, “typically by creating, or easing the creation of, competing providers of communication services” (Mosco, 2009: 177). Advocates contended that the move would lower prices, expand services, and generally speed up innovation. On the other hand, critics feared that it would “substitute [] private oligopoly regulation for state regulation, carrying out price, service, and innovation mandates that advance the interests of an oligopoly cartel and its more privileged customers” (ibid).¹⁰

4.4: From state monopoly to liberalization

Following the establishment of NITEL in 1985, the development of telecommunications in Nigeria can be best described as modest (National Policy on Telecommunications, 2000: 5). There was a public network of about 700,000 lines capacity, out of which 400,000 lines were connected. Yet, Nigeria lagged behind “comparable and even less endowed African countries” (ibid), and liberalization was proposed as panacea “to tackle” these long-standing shortcomings. The promulgation of Decree 75 of 1992 that created the Nigerian Communications Commission (NCC) helped to pave the way (ibid).

The NCC was the country’s first telecommunications regulator. Its tasks were to regulate the supply of telecommunications services while promoting competition and the overall development of the industry. It would grant operating licensees and authorized carriers to offer services in the country, while also being responsible for the economic and technical regulation of the industry (Federal Republic of Nigeria, 1992: 1-6). Competition was

¹⁰ Oligopoly is a market in which “a few number of producers control the supply of a commodity and also influence the price” (Chidozie *et al*, 2015: 177).

permitted beginning in 1996 for basic telephone services, and additional privately owned companies were licenced to compete with NITEL. However, five years later, these new competitors added mere 146,500 subscribers to the fixed telephone network – 19% of the market compared to NITEL’s 81% share. The reasons for the unimpressive performance, as Simon Moshiro (2004) observed, was due mainly to competitors’ inability to get fair conditions to interconnect with and access NITEL’s infrastructure. This, of course, only compounded their inability to access the capital investment they needed to build networks and roll out of services of their own.

In 2000, a new National Telecommunications Policy was adopted. The policy’s overriding objective was to achieve “the modernization and rapid expansion of the telecommunications network and services” in order to enhance Nigeria’s economic and social development, and its integration “into the global telecommunications environment” (National Policy on Telecommunications, 2000: 10). The policy promoted the values of efficiency, availability, affordability and reliability of services, and the need to remain abreast of rapidly changing nature of technology in telecommunications. It also expanded the NCC’s role by giving it responsibility over the issuing of new licences, assigning the use of radio spectrum, and making sure that carriers operated according to the terms of their licences. The NCC was also directed to ensure that its decisions were guided by the principles of fairness, equity, and transparency, albeit limited by the need to defer to the rights of operators to *not disclose* proprietary and competitively sensitive information (2000: 14; italics added). To maintain the independence of the NCC from the government of the day, its board of directors was given tenured terms lasting five years.

In keeping with the spirit of liberalization and privatization, the government gave up its controlling ownership interest in NITEL, to make way for the board of directors to reform the organizational, management, and operational structure of the company according to market-oriented business practices. The privatization and reform of NITEL was meant to ensure that the company's operations were ruled by the market rather than by politics and the government, and that its prices were cost-oriented and sustainable, while the interest of consumers and competitors were protected. In other words, from here on, when it came to the telecommunications industry, the market was supposed to rule.

Of course, the bigger backdrop was, at least in principle, "to enable all Nigerians access to all forms of modern information and communications technologies and services" (2000: 21). And, of direct relevance to this study, it was meant to ensure that educational institutions had "access to basic and advanced telecommunications services" that would "enhance and sustain educational standards nationwide," with particular attention given to rural areas (26). In short, the policy defined access to information as the most efficient path to economic, social, and political development, and the integration of the country into the global information society. Ekiti State would bring each element of these objectives together with the implementation of the e-school project.

Following the policy guidelines, NITEL began to provide cellular mobile telephony services. However, even here, by 2000 there were less than 26,500 connections out of a capacity of around 210,000 lines. To meet the target set by the telecommunication policy, the NCC licenced three Global System for Mobile Communication (GSM) operators in

2001: Econet Wireless Communications, MTN Limited, and M-Tel, the latter a subsidiary of NITEL. The following year, another firm, Globalcom was also licenced, and fixed wireless access licences were issued on state-by-state basis “to extend services more evenly throughout the country” (Moshiro, 2004: 8).

These steps changed the face of the telecommunication industry in Nigeria. In less than a year, there were 1.6 million telephone subscribers, exceeding the three-year target of 1.2 million set in the telecommunications policy. Within a year, the number of mobile phone subscribers surpassed the number of fixed telephone subscribers. This was a first; not failure, not partial successes unevenly and thinly spread, but a huge leap in mobile phone use that *exceeded* targets. The publication of the Telecommunication Act of 2003 pushed things along even further by encouraging local and foreign investments in the industry, which Chidozie *et al* (2015) argue further increased “the intensity of competition in the sector, as each company [introduced] competitive and innovative packages” (179).

Between 2001 and 2004, teledensity increased ten-fold from 0.4% to 3.9%. Competition among service providers saw a reduction in retail tariffs for mobile services (in the case of MTN) from ₦20, 000 (US\$ 198.41) for a prepaid mobile line in 2002, down to ₦5, 000 (US\$39.68) in 2004. At the same time, the number of Internet users increased from 113,289 to 1.7 million, an increase in penetration from 0.1% to 1.3%. (Moshiro, 2004: 8). Foreign direct investment (FDI) soared and private investment grew from US\$50 million in 2001 to over US\$6 billion in 2004. This represented the largest source of FDI in Nigeria after the oil and gas industry (Urama and Oduh, 2012: 25). Equity investments in the industry constituted about 56% of total investments made by Nigerian banks under

the Small and Medium Enterprises Investment Scheme (SMEIS) (ibid). FDI came from international agencies and multilateral institutions. They included the International Finance Corporation (IFC) – the private sector arm of the World Bank, which played a significant role in the US\$395 million syndicated loan to MTN Nigeria, its second largest investment in Africa at the time. Others were the US Export-Import Bank (US Exim Bank), African Export-Import Bank (AFREXIM), African Development Bank (ADB), Development Bank of South Africa (DBSA), and DMO Germany (Urama and Oduh, 2012).

Network operators injected about ₦160 billion annually into the economy in the form of taxes and ₦55 billion as regulatory levies, in addition to the ₦640 million paid as licences and spectrum fees (Chidozie *et al*, 2015: 180). In the area of infrastructure, MTN invested US\$7 billion in fixed assets and facilities nationwide and US\$120 million in a digital microwave backbone. MTN's fibre-optic cable in Africa ran 10,137 kilometres through Nigeria. Airtel – a major Indian telecommunications company – invested US\$1.5 billion in infrastructure, while Globacom constructed a 4,000-kilometre fibre-optic cable in the country (ibid). Clearly, a flurry of activity now characterized the once backwater and ramshackle telecommunications market and, for those living in cities in the country, the developments were palpable as mobile phones became widespread, more affordable and heavily used rather than rare, luxuriously expensive and badly run.

The industry also contributed to the economy by way of employment. It is estimated that in 2014, mobile operators directly provided employment for over 13,000 Nigerians, with a further 151,000 estimated to be generated in the wider mobile ecosystem. There were over 118,000 airtime dealers and retailers operating from supermarkets, technology stores

and smaller independent points of sale on street corners and out of people's homes. As employees and beneficiaries spent their earnings they stimulated additional benefits across the ecosystem, thereby creating another estimated 60,000 jobs (GSMA, 2015).

Even as the market grew, however, service affordability remained a challenge. According to GSMA (2015), the price of owning and using a mobile phone was still a significant barrier to access and regular usage. Although the country represented Africa's largest economy, a third of the population lived in poverty, earning US\$1.40 or less a day.

Although mobile phones offered the most affordable means of Internet access, the country ranked 99th out of 126 countries for a prepaid 500MB mobile broadband connection in 2013. Access and coverage gaps were especially limited among rural and northern populations, and threatened to worsen the socio-economic divide in the country. In sum, conditions changed dramatically, but old problems persisted as new ones arose.

Development, in this context, was no longer discussed as a continuing failure to meet technical indicators; instead, the very evident 'successes' at providing 'access to information' was now debated in terms of a broadening digital divide, and the question of 'access to information' that drove telecommunication reform reshaped the broader politics of development as well. Education, in some circles, seemed the perfect vehicle for addressing the digital divide. If laptops were made accessible via public schools, then access would no longer be determined by social inequality; in addition, the innovations in governance structure represented by the changing role of the state with respect to telecommunication might be extended to other aspects of Nigerian politics.

4.5: Conclusion

The Nigerian telecommunications industry began in 1886 as part and parcel of Britain's 'imperial project' based on the conquest and control of people and territory as well as the exploration of new sources for raw materials and the expansion of markets for European industries. It marked the first wave of imperialism and involved the use of force to obtain its goals. The idea of access to information for Nigerians was not even a remote thought at the time. In the decade of transition from colonial to self-rule heralded by the adoption of the Federal Constitution in 1951, the 1955-1960 National Development Plan marked the first indigenous attempt to develop and extend the industry. At independence in 1960, the government embarked on periodic national development plans for the expansion and modernization of the telecommunications networks and services as a key ingredient for promoting socio-economic and political development of the newly independent country. Underfunding, poor management, shortage of technical manpower – some of the legacies of the departing colonial government – consistently undermined these efforts.

These failed efforts at development led to more intense forms of intervention in the telecommunications industry. Structural adjustment programs and liberalization were proposed as solutions and produced some relative successes, at least when measured against past failures. As discussed above, teledensity and the number of Internet users did increase greatly after the liberalization of the industry. In addition, FDI in the industry soared and was second only to the oil and gas industry – both of which are extremely volatile industries and the source of much violence in contemporary Nigeria.

The boom in the telecommunications industry generated jobs in the downstream sector and brought along technology companies like Samsung and Microsoft. It also changed

the imaginary and discourse associated with Nigerian development. If ICTs were now necessary constituents of development, then it made sense to more rapidly and fairly distribute it throughout the Nigerian life. The metrics for 'access to information' that demonstrated the successes of telecommunication reform would soon reshape the development agenda more broadly. The digital divide became a dominant way of discussing the social inequalities and exclusions produced by development.

Education was an obvious site for extending this development imaginary. Why? It could close the digital divide if computers were made available through schools. In this case, access to information would no longer be determined by social inequality or geography. In short, it would prove far easier to reconfigure how wealth and power were distributed if it were done in the name of African children.

Chapter 5

Implementing e-schools in Ekiti State

5.1: Introduction

As the partial successes from the liberalization of telecommunication became apparent in Nigeria and some other African countries, SchoolNet Africa (2005) published the African SchoolNet toolkit. This was the first attempt to design a curriculum for schoolchildren that aimed to integrate and expand information infrastructure, with a strategy of how people could be encouraged and trained to use it. The toolkit was pragmatic in design, yet transcendent in discourse. It promised development for countries that encouraged the adoption and adaption of ICT4E. The idea was not only to foster young people's felicity with ICTs but to encourage them to use the mobile wireless and Internet access networks built over the last decade-and-a-half or so.

The African SchoolNet toolkit bears a striking resemblance to similar projects in Southeast Asia because they come from the same place: a UNESCO project in the 1990s that imagined a universal curriculum for the computerization of education. Among those who created the UNESCO's proposal to 'computerize the curriculum' were Stephen Marquard, the proposal's lead author; Shafika Isaacs, the Executive Director of SchoolNet Africa; and UNESCO's Carmelita Villanueva. The Southeast Asia e-School toolkit was UNESCO's first attempt to translate the ideas into practical programs before it found its way to other regions of the world, including Africa.

The Ekiti State e-School Project gives us a concrete case in which to examine the

processes. As discussed earlier in Chapter 3, the consolidation of development depends on how its effects intersect with and influence real situations and how bodies of knowledge are drawn on (or not), professionalized and institutionalized. In the abstract, the processes of professionalization and institutionalization intersect and are interrelated. The former explains how power-knowledge is cultivated, stored and dispersed over time and space, while the latter refers to how it operates within a field that functions to organize, validate, and diffuse development knowledge in the form of specific projects that aim to deliver defined and durable results.

This chapter uses this framework to explain the implementation of the Ekiti State e-School Project. It structures the discussion around three events that will help to reveal how the project was designed, funded and implemented:

- the schoolnet toolkit,
- the Memorandum of Understanding between the Ekiti State Government and Samsung;
- the initial implementation of the project.

The analysis of these three steps will lead to an understanding of how a particular vision of ICTs was professionalized and institutionalized within the specific context of the schools and the lives of students in Ekiti State. It becomes possible to pinpoint the details by which an abstract vision of computers, children, communities and schools was translated into a living thing in a particular place at a specific moment in time.

5.2: The SchoolNet Model: ICT4E from UNESCO to Nigeria (by way of Southeast Asia)

In 1994, a curriculum for ICT in secondary education was published by UNESCO, and updated in 2000 (UNESCO: Curriculum, 2000: 1). One of the core ideas of the publication was that the introduction of ICT into secondary schools was already becoming “high on any political agenda.” It called for a curriculum “capable of implementation throughout the world to all secondary age students” (UNESCO: General Aim, 2000: 1), that would help ministries of education, educational managers and schools develop “a systematic and controlled secondary education ICT policy” and “to systematically and effectively develop ICT in their programs” (UNESCO: Forward (Coping with change, 2000: 1).

The language of ‘leapfrogging’ up the evolutionary chain was prominent in the promotional material for the initiative. The lessons from “ICT-education that has already taken place elsewhere” were there for new projects to draw from, observed the publication (UNESCO: Forward (A state-of-the-art curriculum), 2000: 1). In other words, the map of what needed to be done, implied the report, was already in place. This was the confidence of expertise, written down on paper under the authority of UNESCO, and circulated to the highest levels of government and educational ministries in some regions of the world.

In 2004, the curriculum metamorphosed into the UNESCO Asia and Pacific Regional Bureau for Education SchoolNet toolkit. The schoolnet toolkit was “a recipe book or a blueprint” for UNESCO pilot projects in Southeast Asia “at the national and sub-regional levels” (UNESCO, 2004: i). Schoolnet was set up as a non-governmental organization that operated “to improve education access, quality and efficiency” through the use of ICTs in schools in countries and regions around the world (SchoolNet African, 2005: iii).

Regional schoolnets worked with learners, teachers, policymakers and practitioners through country-based schoolnet organizations.

The Southeast Asia SchoolNet toolkit provided information that could be translated “into a handy and practical set of do’s and don’ts” to underdeveloped countries about to embark on school networking. The guidelines were “tailor-made for those in different stages [of development] with different needs” (UNESCO, 2004: i). It was designed to accelerate “technology-based modernization of the education systems and schools” and to address problems associated with the digital divide (ibid). The global ambition of the toolkit overlooked differences in technological infrastructure and political realities – that is, differences between electricity/telecommunication networks and modern forms of political governance.

SchoolNet Africa published the African SchoolNet toolkit in 2005. It followed the model of the Southeast Asia SchoolNet toolkit closely. The African SchoolNet toolkit told educators straightforwardly that the integration of ICTs into schools would enable the continent to “remain internationally competitive in a global economy” (SchoolNet African, 2005: 1). The toolkit was pitched as “a practical resource” for ICTs in education. It was all about setting up and operating ICT4E programs and projects in Africa to promote the “sharing of educational resources by teachers and students at schools,” it enthused (ibid).

The African SchoolNet toolkit addressed issues such as connectivity and infrastructure, curriculum integration, assessment, pedagogy, training of teachers, content and software. The practicality of it all was part of its imaginative appeal. For example, if schools were

already prepared to receive ICTs, then was it not reasonable to assume that demand for fibre optic Internet access was just around the corner? If telecommunication companies were urgently building new networks, should not schools be prepared to use them? In the happy promotional jargon of such things, this was a 'win-win' for everybody.

The toolkit was structured into four sections. The first section outlined the functions that ICTs in education could perform, made the case for why ICTs were a useful addition to the education system, and reviewed some of the key processes that were needed to ensure sustainable results. It also looked at different organizational and leadership models that characterized the use of ICTs in education (SchoolNet African, 2005: 2). The second section examined the policy and planning implications of including ICTs in education programs. It did so in relation to economic and educational development goals, the financial and other resources needed to work effectively, appropriate partnerships, and how to use change management strategies. It also described how the education system should adopt changes to curricula, assessment strategies, and teacher training in response to the introduction of ICTs (2005: 2).

The third section covered the key elements of project planning and implementation. It provided advice on choosing appropriate technologies and how to support, maintain and troubleshoot ICT systems. It described how to create and operate online services and ICTs in education, and indicators for measuring participation and impact. The final section offered pointers about how educators, school managers and others involved in producing or using educational resources could effectively use ICTs in the classroom and beyond (SchoolNet African, 2005: 3).

SchoolNet Nigeria evolved from SchoolNet Africa and reflected this approach to ICT development. Its commitment was to the effective use of ICTs for enhancing teaching, learning, and management processes in Nigerian schools (SchoolNet Nigeria, 2012: Official webpage). Its programs were designed to address the key components of school networking and building “populations of high performing and responsible global citizens.” The cornerstones of the SchoolNet Nigeria program were: digital inclusion, professional development, and the effective integration of information infrastructure and content platforms into the classroom and educational system more broadly (ibid).

In summary, the following features of ICT were emphasized. One, for underdeveloped countries to be competitive in a global economy, the integration of ICT4E would be a priority on the political agenda; two, ICT4E would be a pathway for underdeveloped countries to leapfrog to the front of development; and, three, the control of secondary education and ICT policy in underdeveloped countries would address problems associated with digital divide and prepare young people for the demands of the knowledge society. The arguments were made more compelling by presenting ICTs as a fix for underdevelopment rather than tackling what could reasonably be argued as the number one issue: the political choices that determine the allocation of the state’s resources.

The toolkit was emblematic of the professional and institutional processes that would follow. Its professional discourse provided the ‘facts’ for the implementation of ICT4E projects, and the set of techniques, strategies, and disciplinary practices required in organizing the generation, validation, and diffusion of knowledge about such projects – that is, as in our case, the mechanism through which the Ekiti State e-School Project was

given the status of truth by the state government. By the time the Ekiti State government was committed to the project, this model of development and its associated professionals were global in nature, with illustrative cases of best practices close to hand to reassure or counter those who still might doubt the idea that ICTs in the classroom would be ‘a good thing’.

The discourse relied on textual and documentary forms that were independent of the local historical context of Ekiti State. The faith in ‘access to information’ meant that getting machines into the hands of children was the primary goal. All of the proposals, organizational charts, memorandum of understanding, loan and service agreements, infrastructural requirements, and so forth were little more than mechanisms for rearranging cultural practices in ways that made the scale and scope of the changes appear inconsequential. In other words, if the experts’ plans were followed, the people of Ekiti State – and Ekiti State, itself – would benefit, catapulted from backwater to the frontiers of the global information/knowledge society.

The opposite was, however, true. Indeed, as the following pages show, the conception and implementation of the Ekiti State e-School Project was preordained by a discursive scheme whose genesis lay elsewhere but made invisible when the Southeast Asia SchoolNet toolkit was imported into Africa, and a new label slapped on the outside: African SchoolNet toolkit. It is just such banal documentary practices, as Escobar (1995) puts it, that are “important constituents of social relations” (109). In other words, textual and documentary procedures represent “a significant dimension of those practices” through which the state uses its power to reorganize educational culture – and is itself reorganized in the process (ibid).

5.3: The Memorandum of Understanding (MoU) and the design of the Ekiti e-School Project

One of the campaign promises of the Ekiti State governor during the election that brought him to power in 2011 was to put a laptop on the desk of every student in the state's public secondary schools as a way of re-establishing the academic excellence that the people of the state were in the time past identified with. The faith in ICT4E played an important role in elaborating and justifying the Ekiti State e-School Project. The Memorandum of Understanding (MoU) that the state government signed with Samsung Electronic West Africa Limited in 2011 exemplified the point, as did its earlier discussions and proposals with Samsung before the MoU was signed.¹¹ Together, these two documents organized the logistical details of the project: the hardware, software, and networking equipment, and how much of each were needed, when they would be delivered, and who would pay how much, how and when. The documents were also replete with cultural assumptions about the positive role that ICTs would play in education, progress, and the state's economy. Finally, they reflected the political views and aspirations of those within and outside the state government who were part of their making.

The Ekiti State government proposal to Samsung, undated, and titled 'Proposal to Samsung-Nigeria for Ekiti State Government,' began with the definition of the nature, the scope, and trends of ICT in education that could be observed elsewhere in the world. It also set out a preliminary statement of broad objectives. The 'big picture' vision was a

¹¹ Some of the documents used in Chapters 5 and 6 were obtained from a variety of sources. The documentary information is supplemented with information from interviews with those involved in the execution of the project, including project partners, school principals, teachers, parents and students. Many of the informants released the documents or spoke on condition of anonymity. For this reason, I am unable to identify them or the sources of the documents in even a general way.

system that would “allow schools and teachers to implement e-education (online and offline),” provide content for students, and empower teachers to use various information technologies “to advance the educational experience of students at school and home.” It entailed the configuring of the “e-education environment for schools” in a way that would allow teachers “create educational contents and operate various educational activities.”

For these purposes, according to the proposal, the e-education system would require “educational portal to schools by ASP (application sharable program)” to allow teachers “implement e-education including e-learning” in classrooms. It would require learning content management system (LCMS) and content repository that would be used “in sharing the content developed by teachers.” It would also require content authoring software – the LectureMaker for lecture contents and TestMaker for assignment contents – to enable teachers “create their own contents and share them in LCMS.”

The e-education environment the proposal anticipated would be “community based,” where teachers could execute online teaching and learning activities in the e-class “on the school site with various online educational functions.” Teachers could also “post class announcement, Q & E [question and answer] on the bulletin board, conduct online education and assessment, [] view participant results, carry out one-on-one counseling sessions with student[s], and effectively manage students’ information, including grade and learning progress.”

The interoperability of functions was emphasized in the proposal, as were the ideas of how lectures, content and other teaching materials would be reusable, manageable, and

accessible. Interoperability meant that all the systems would be connected to each other to enable information to flow back and forth among teachers, and between teachers and students, using computers and the Internet. It would enable the schools to operate virtual classrooms, and the teacher to assess students and have them complete tasks in real time.

To use Thomas Friedman's (2005) phrase, the learning content management system would 'in-form' or 'democratize information' (153). Teachers and students would be able to build and deploy information and knowledge on their own, and on their terms. They would become self-directed and self-empowered. The content, methods, and overall quality of the teaching and learning process would change from lecture-driven instruction to constructivist, inquiry-oriented classrooms, enabled by connected ICT and the computerized curriculum.

The proposal offered a new vision of the African child wrapped in the language of empowerment. Students would be empowered to collect and make sense of complex data; acquire diverse and process-oriented forms of writing and communication; and have access to a broader scope of more timely information resources available to them. The content authoring software would empower teachers to create interactive lessons, delivered in various ways. The question-creating software would enable teachers to deploy assessment. While the language of the proposal was technical and administrative, the goal was distinctly political: a new African child was being made ready (empowered) for the global economy.

In the MoU signed on 13 October 2011, the state government adopted "a development agenda" to "improve access and quality of education towards the creation and

consolidation of a knowledge society”, to bridge “the digital divide in Ekiti communities,” and provide “a world class technological infrastructure that can stand the test of time and comparable to what is obtained in the developed world.” The customized “Devices and Solutions,” in line with the specifications of the state government and its agencies, would also include “value added software content by Samsung partners and its global affiliates.” The desire for world-class infrastructure comparable to the developed world would put an extremely sophisticated, powerful, and expensive set of machines in the hands of children. It might, perhaps, serve as a portal that would allow Ekiti State to leap into the global economy. Yet, the laptop is a machine and, once distributed, will necessitate a modern political and technical infrastructure.

Each party’s obligations were also spelt out in the MoU. In the initial stage of the project, Samsung would supply 18,000 laptop computers (RV 510 models) to teachers, 100,000 units of its NC2155 Solar Netbook computers to students, and undertake the training of teachers in the third party software that would run on the computers. Samsung would also establish a service centre in the state so as to maintain the machinery upon which the whole e-school project would run. On the other hand, the government would pay the contract sum, make monthly deductions from teachers’ salaries in order to ensure prompt payment for the computers, and provide bank guarantees to secure the payment for the computers that the teachers would buy and use. By signing the MoU, the state, in brief, facilitated a deal through which students and teachers would buy, use, and repair their laptops via Samsung and its representatives in the state – a one stop, integrated system of computers, pedagogy, repair, commerce and policy all rolled into one.

At the signing ceremony, the state governor brimmed with optimism. His speech¹² reflected the conviction that there was one right way for the state to move forward, namely, ICT4E. He recalled that during his “electioneering some years back,” he mentioned everywhere that he went that “if elected as the Governor of the state” he would “make computer available on each student’s desk before year 2014” (2). He noted that, to many people at the time, “it looked like a tall dream, going by the resources at the disposal of the state,” but that he was convinced that “with God, ‘All things are possible.’” Today, that dream has become a stark reality with the signing of a memorandum of understanding MOU, with the Electronics giant, Samsung Electronics (Nig.)” (ibid).

He likened the world to “a global village” and, in it, saw Ekiti State as “a well recognized component” that could not afford to remain “at the lower rung of the ladder Technology wise” (2). The signing of the MoU was, therefore, “the beginning of greater things to happen to Education” in the state (ibid). He goes on:

In this scheme, 18,000 teachers will be given Samsung, RV 510 Model Laptop computer each, while 100,000 of our students will get the NC 2155 Solar Netbook Laptops between now and 2014 at 33,000 units each. These will further reinforce the teaching and learning processes in our classrooms with the introduction of e-learning and networking processes... Ladies and gentlemen our partnership with Samsung Electronics is not an accident. Their products and services are world class and excellent. I do hope the M.O.U. we are signing today will further cement our relationship (ibid).

¹² The speech is titled ‘A key-note address read by Mr. Governor of Ekiti State, Dr. John Kayode Fayemi on the occasion of the signing of memorandum of understanding (M.U.O) between the government of Ekiti State and Samsung Electronics (Nig.) on the 13th of October, 2011.’

The state Education Commissioner's speech¹³ recapitulated that of the state governor.

The signing of the MoU, he said, was an “epoch making occasion which is unprecedented in the history of Educational development since the State was created about fifteen years ago” (2). He noted that the global community was “fast shifting emphasis from the old ways of teaching and learning in schools to the era of e-learning with the use of computers and Internet connectivity.” Ekiti State, he informed his listeners, could not afford to lag behind and that the event of the day was “the actualization of the desire of the government to bring about mass computer literacy among the teachers and the students in the state” (ibid). With the signing of the MoU, he affirmed, “the foundation for a major landmark achievement [was] being laid” (ibid).

The understanding of both the governor and commissioner implied that the project would not only amplify material progress; it would also confer on the people a sense of direction and significance. ICT4E was portrayed as a moral force that would operate by creating, to borrow the words of Escobar (1995), “an ethics of innovation, yield and result” (36). Knowledge of computers was acclaimed as a critical resource that would add value to the labour of Ekiti people in the new economy, because the knowledge-based economy would require analytical skills and a capacity to understand and innovate. If the people of Ekiti were not helped to master the competencies in computer use, they may suffer exclusion from the knowledge economy and society.

The implementation of an ICT4E project was seen as a means of modernizing the state – that is, to prepare the people in their transition from traditional isolation to integration

¹³ The speech is titled ‘An address by the Honourable state Commissioner for Education and Technology on the occasion of the signing of the memorandum of understanding (M.O.U) between the government of Ekiti State and Samsung Electronics (Nigeria) on the 13th of October 2011.’

with the global economy. The discourse utilized the tropes that defined development as growth, technology, and modernization. To modernize, the people of the state would need access to ICTs. The speeches of the governor and commissioner achieved the integration of these statements, which reproduced a world of developed and underdeveloped, of progress and happiness.

It is difficult not to interject from the perspective of critical communication theory at this point. For instance, it is clear that information and knowledge are “generally taken as identical and synonymous” (Carey, 2009: 149). Reality is assumed to consist “of data or bits of information and this information is, in principle, recordable and storable.

Therefore, it is also possible, in principle, for a receiver to know everything or at least to have access to all knowledge” (ibid). In this sense, computer information systems became ‘synonymous’ with “not merely objective information-recording devices,” but with “emanations of attitudes and hope” (150).

On 14 March 2012, six months after the signing of the MoU, the state governor commissioned 11,000 laptops for teachers and students. The event, he said on this occasion, was “a pragmatic step in taking a further walk in our talks on the much needed innovative approach to reclaim the lost glory of our education sector” (Fayemi, 2012: 2). He recalled the MoU the state government signed with Samsung, and assured the people that his administration was “irrevocably committed to the promises already made to make computers available on the desk of each student in the state’s public schools before the end of 2014” (3). Noting that “this promise” featured prominently during his campaign “for this office,” he said:

To some skeptics at the time, this was just a vote catching gimmick of a typical opportunistic and desperate politician. Even to genuine admirers, the realization of this dream was unfathomable given the well-known limited resources available to our State. The realization of this dream is therefore a study in leadership focus, careful planning, single-mindedness and unquenchable optimism (3).

The speech was a rallying call whose appeal was based on the return of the state to its rightful place as the ‘Fountain of Knowledge’ for which it prided itself in the past:

Distinguished ladies and gentlemen, our government has gone this far to ensure that everything is done to make us stand shoulders higher than other states by recreating our feat in the areas of academic excellence that our land was in the time past identified with. Even then education, from the perspective of those who impact the knowledge (the teachers) and those who receive the knowledge being impacted (the students), has gone far beyond what it used to be. This is why it has become very imperative for those involved in the teaching and learning processes to be computer literate in line with global standards in knowledge acquisition.

The computer appeared as a technical device in the project design. However, aspiring to ‘global standards’ in computer literacy and knowledge would necessitate institutional, cultural, and infrastructural changes yet to become evident. The liberalization imaginary, so successful it seemed in the case of Nigerian telecommunication, was creating a simplistic sense of how digital solutions could succeed.

5.4: Implementing a digital solution

– Constituting the project partners

On signing the MoU, Samsung appointed Purple Consult Limited as its fulfillment partner. As a fulfillment partner, Purple Consult would administer the things that

Samsung agreed to in the MoU with the government of Ekiti State – that is, delivering the computers, training of teachers, and establishing a service center in the state. To accomplish the task, Purple Consult then created Michael Sarah Ventures (MSV) as service partners responsible for “after-sales and training functions of the project.”

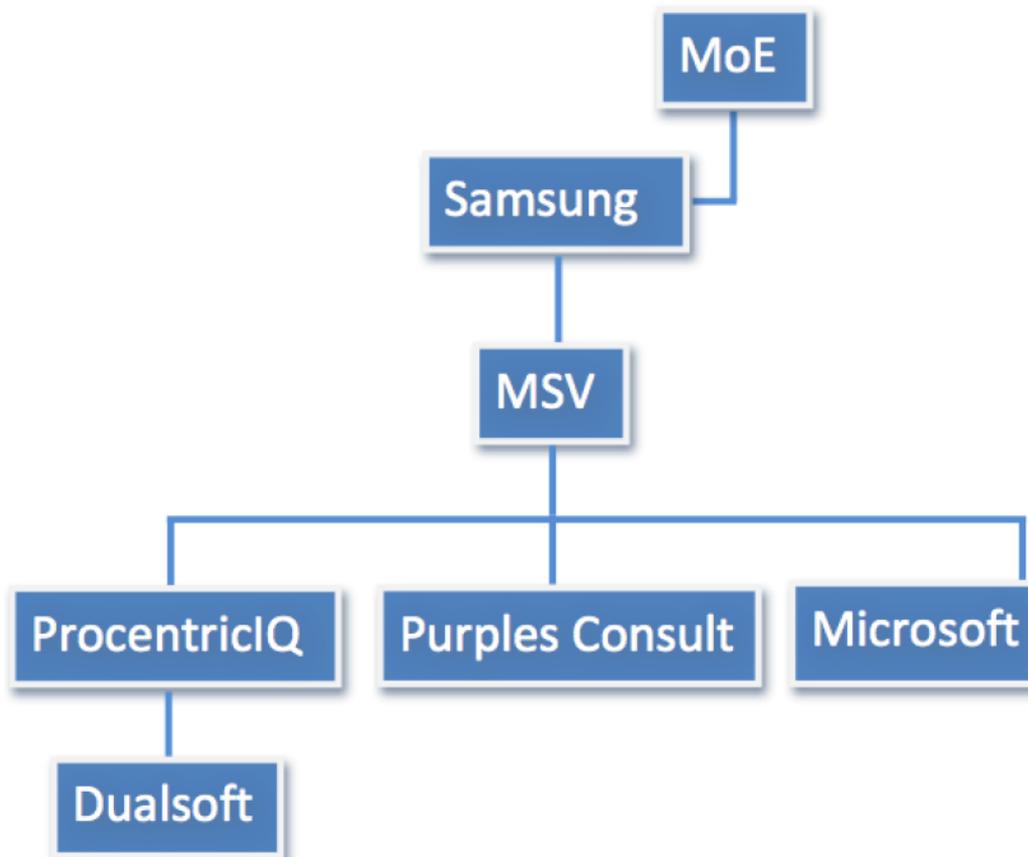
In a memo dated 23 May 2012 and addressed to Ekiti State’s Permanent Secretary in the Ministry of Education, entitled ‘Introducing Michael Sarah Ventures as our service partners,’ the Chief Executive Officer (CEO) of Purple Consult formalized the role of MSV. The memo stated: “In our commitment to ensuring a successful and professional execution of every deliverable on the Samsung-Ekiti State MoU, we are pleased to introduce our sister company, Michael Sarah Ventures Limited which will be responsible for the After Sales and Training functions of the project.” As a registered and certified Service Partners with Samsung, the memo intimated, “further correspondence regarding the service center, after sales support and training will come from MSV.”

In my interview with the CEO of Purple Consult, she made it known that the project partners were ‘a Samsung package’. Yet, the computers required much more than Samsung, even if Samsung itself would only speak through these intermediaries. While Samsung provided the hardware, Dualsoft and ProcentricIQ provided the software, and Microsoft the licence for the operating system of the computers. The agreement signed with Microsoft stated that the licence would cost \$15 per laptop, payable in installments. The sum of \$5 would be included in the price of the laptops, while \$10 would be outstanding.

In the project organogram (see Figure 5.1), as operational at this stage of the project

implementation, Dualsoft reported to ProcentricIQ. ProcentricIQ and Microsoft reported to Purple Consult. Purple Consult, in turn, reported to Samsung and to Ekiti State

Figure 5.1
Organizational chart of project implementation partners



Source: Project Management Office

Ministry of Education. Purple Consult managed MSV, but it operated as a separate entity.¹⁴ The creation of professional and institutional interfaces between the state and the

¹⁴ This organizational chart does not conform to the description given by the CEO of Purple Consult and MSV, on which I based my analysis. If one follows the organizational chart, the impression is that MSV created Purple Consult. It should be the other way round. In other words, Purple Consult should not be reporting to MSV. This conclusion is supported by the memo she sent to the Ministry of Education, wherein she introduced MSV as “our sister company.” In the light of her deposition, MSV should be standing alone, reporting directly to Samsung. This clarification is necessary, as there will be more to say about the organizational chart in the next chapter.

technology industry was just beginning, and over time became something of an impenetrable shield in terms of anyone trying to get information about the project, as I found out during my research for this dissertation. In other words, MSV was not so much a conduit for communications with the responsible parties to the project but a severe dyke in the flow of communication.

– *Integrating ICTs into teaching*

During the launch of the Ekiti State e-School project in 2012, MSV recruited experts to train teachers and principals in the state public schools, as agreed to in the MoU between Samsung and the state government. Before now, these experts had gone through a training program organized by Microsoft. To facilitate the training program, MSV opened eight training centres in the state and, by the time the training ended in 2014, about 8,000 teachers had gone through the program. The program, however, proved to be contentious.

At the beginning, the teachers went on strike action and refused to attend the workshops. The strike was to protest what they perceived as the state government's insensitivity towards their quickly changing circumstances. When the e-school project was launched in 2011, the Ekiti State government's Executive Council released ₦178 million¹⁵ (about US\$1.1 million) to pay for the initial 3,000 units of laptops for students. In the 2012 budget, ₦1.7 billion was approved as grants to students for the purchase of additional 27,000 units. To ensure that the project was institutionalized, the expenditure was

¹⁵ In the agreement between the Ekiti State Government and Samsung, the exchange rate was fixed at ₦160 to US\$1.

“captured in the state’s annual budgets, given a heading, and approved by the state House of Assembly.” The teacher’s machines were handled differently.

Teachers were expected to pay for their machines out of their salary – in fact, they would find themselves mired in an expensive loan scheme. The scheme spread the repayment of the loan over a two-year period. In the agreement, the teachers would pay a rate of 15% of the loan per annum for two years; pay 1% of the loan as processing and management fee; and a default charge of 1% per month. The agreement was on the condition that the government would make deduction from teachers’ salaries, and remit it to the bank on a monthly basis. In this respect, the government made teachers pay ₦96,000 for a laptop which market price was estimated at ₦64,000. Now they were being asked to attend a weeklong training program without any allowances to help them offset the cost of transportation. Thus, the strike action was the culmination of the teachers’ grievances that found outlet during the training.

The teachers had interpreted the situation politically. As one of them put it, “from behind the tinted glass of his chauffeur-driven car, the governor could not see the suffering of the masses who voted him into office.” He went on: “Good governance is all about people. When you say [you want to know how well] this person has done, you balance pleasure over pain. If pleasure is more than pain, the people will say this government has done something. If pain is more than pleasure, you have done nothing.”

The CEO of Purple Consult/MSV saw the issue from a different light. The teachers should have been grateful that they were being offered training that would benefit them in the long run – typical of ICT4D approaches, a rosier vision of the future should make

present suffering more manageable:

They [teachers] went on strike in the middle of it [the training]. We had to beg them to come. The teachers felt government should pay for everything. We should pay them allowances to come for training... All these caused a lot of challenges. When we realized that we were getting a lot of issues, we held a stakeholders forum where we pulled in all the representatives of teachers, principals. They [the representatives of teachers, principals] were the ones who came up with how to work it out. That helped a bit.

The government preferred to emphasize the economic motivations of teachers and viewed them as motivated by way of monetary reward. There was a 27.5% increase in the teachers' basic salaries. Teachers who accepted postings in 'hard-to-staff' schools – a term for schools located in the rural areas – were paid extra 20% of their basic salaries. Teachers who taught 'core' subjects – English Language, Mathematics, Physics, Chemistry, Biology, General Science, and Computer Science – received extra 20% of their basic salary. In other words, a teacher who taught a core subject and accepted posting in a rural area received an extra 67.5% increase in his/her basic salary.¹⁶

The MSV training for the teachers was a one-off, topic-led, five-day program aimed at developing specific skills, and limited to the use of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, as well as LectureMaker and TestMaker, the third party software that came with the computer. It was an industry oriented software tutorial and did not emphasize ICTs as a class of tools that must be matched to specific content areas and learning goals nor did it discuss the material and professional conditions that must be in place before the teachers could begin assimilating ICTs into their day-to-day instruction.

¹⁶ Interview with the Commissioner for Education.

The idea was to appoint School Laptop Administrators (SLAs) in each school. The design, it seems, was straight out of diffusion theories of development. The SLAs were drawn from ‘early adopters’ of information technology in each school’s teaching staff. Because they were considered more knowledgeable on information technology, MSV built on their experiences and placed them in charge of the laptops and further training of their peers and students in the schools. Said the CEO of Purple Consult/MSV: “This was the process we were building, like a structure, which would replicate itself as we went along with the implementation of the project.”

As will be seen in the next chapter, the major problem facing teachers was infrastructural: inconsistent electricity and the absence of Internet connectivity, presumed by the project as well as the designers of the laptops. Those teachers who were experienced enough devised other means of going round these problems. Some built in some degree of interactivity, including using multimedia components such as audio or video clips. Some used Internet materials offline and downloaded the materials on a single computer, printed them out, and then put them on CD or on the local network. The daily experience of teachers and their students was rapidly changing.

– Preparing students for laptop use inside and outside the school

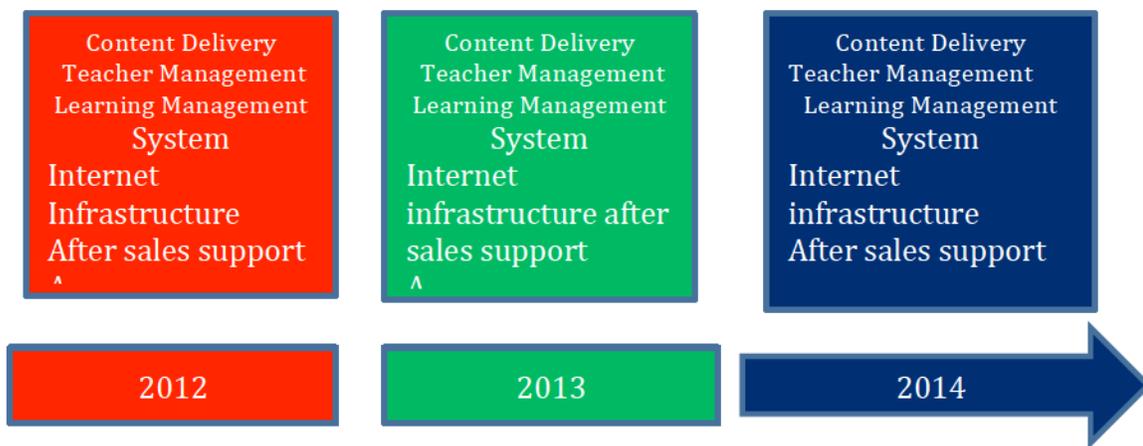
In the first phase of the project, Purple Consult delivered 30,000 units of NC2155 Solar Netbook computers that were distributed to the students (the project was staggered in three phases, as shown in Figure 5.2). The delivery of the laptops was made before payment. The state government handled the distribution of the laptops to the students.

Figure 5.2

The project plan, in phases, at the inception of the project



TOTAL = 100,000 Laptops



Source: Directorate of Information and Communication Technology

The students' laptops were engraved with special numbers and letters – the name of the school and the serial number of the laptop. In Immaculate Grammar School, Ado-Ekiti, for example, a laptop was engraved with the school's initials: IGS/serial number.

Students kept the laptops while schools were in session and returned them at the end of the year. The engraved letters/numbers helped to trace a laptop to a student in the event that it was missing or damaged.

At the end of the year, the laptops were retrieved from students by the SLA. At the point of collection, the SLA went through a checklist on which the condition of each laptop

was crosschecked. On the checklist was the name of the student, the laptop's serial number, and date of submission. The laptops were redistributed the first week of school resumption. Laptops retrieved from graduating students were redistributed to in-coming Senior Secondary School 1 (SSS1) students. SSS1 students moving to SSS2 and SSS2 students moving to SSS3 retained their laptops.

Policies were put in place to restrict students from misusing the laptops, in which parents, organized through the Parents/Teachers Association (PTA), were made participants in the monitoring of their wards' use of the laptops. Through what they called a 'social and education approach,' parents were educated on the parameters of the uses of the computers. At the same time, students were taught how to use the computers responsibly with the guidance of their parents. For purposes of replacing lost laptops or the repair of damaged laptops, parents signed an undertaking to bear the costs. The technical and repair practices of Samsung were mediated through MSV but enforced by school officials, teachers, and parents, all of whom were affected by those policies with little to say in their design or implementation.

It is clear that authority resided with the hardware and software companies. The machines would be used, maintained, and repaired only via Samsung, and only commercial software was deployed – free and open source software were entirely absent as options to even consider. At the same time, enforcement of this authority was dispersed throughout the state, educational system, and even among parents. For example, the supervision of laptops in the school was the responsibility of the school principal. The principal led the pedagogical and other change processes, to achieve the best use of the computers and ensure the proper development and execution of plans for the schools. It was the

principal's responsibility to inform parents when a student was found to be abusing the use of the laptop. The SLAs managed ICT infrastructure and other processes, such as staff training, ICT integration in the schools and laptop repairs.

Students' laptops and those of teachers were intended to have the same e-content and school syllabi installed on them. The e-content or ProcentricIQ, as they called it, was a courseware application, which included pre-installed subject modules covering 15 subjects, spread across science, art, and commercial subjects. ProcentricIQ developed the subject modules in conjunction with Subject Matter Experts (SMEs) selected by the Department of Standards and Evaluation (DSE) in the state's Ministry of Education. Yet, as discussed in Chapter 6, the difficulties that developed from this model of collaborative sharing would necessitate wider systems of administrative oversight and control.

Students were not allowed to install applications other than the ones installed by the SLAs, an odd arrangement if the goal was to increase digital literacy. There were two user accounts on each laptop. The one was the student's account or standard user account, and the other was the SLA's account or the administrative user account. The SLA's account was meant for system administration, control and maintenance. It was also used for recovery purposes. The password was known only to the SLA, to prevent students from adjusting or tampering with the control settings. The machines, in short, required an elaborate form of administrative, parental, and technical control. These would be severely tested, however, by other competing forces, namely, downloaded movies and pornography, as will be discussed in the following chapter.

– Project management: A top-down process

It is evident that the Ekiti State e-School Project was a ‘top-down’ initiative, yet its authority was institutionally dispersed in confusing ways. Its management began at the level of the state Executive Council, down to the Ministry of Education, the state Project Implementation Committee and the local government Project Implementation Committee, made up of stakeholders such as PTA, school-based project management committees, and the project partners. They met from time to time to resolve issues concerning the project. The Director of the e-School Project in the Ministry of Education coordinated the meetings. It was expected that the continuous administrative and technical interventions that included parents, teachers, and principals would keep political dissent from challenging the project.

The state Project Implementation Committee met once every month to assess progress on the project and discussed reports from the local government Project Implementation Committees, the outcome of which was passed on to the state Executive Council, through the Ministry of Education. In the chain of communication, the SLA reported to the ICT officer at the local government area education office. The area education officer reported to the Director of the e-School Project in the Ministry of Education, who reported to the Commissioner for Education. The Commissioner for Education reported to the state Project Implementation Committee, who, in turn, reported to the state Executive Council.

In the words of the Commissioner for Education, to this point of the project implementation, the work had been “preparatory” – that is, the view of the difficulties in experimental terms, as a necessary phase in social and educational trial and error of developmental processes. A pilot school was created in each local government, “to test our ideas – to be able to know where there are flaws,” continued the commissioner. As he

put it, “it was when we engaged a Project Management Consultant that we were able to know that *there were a few things that we needed to do that we did not know.*”

As hinted at obliquely by the commissioner, there would be a shift in focus, one in which the constructivist approach to putting machines on the desk of students was displaced by the administrative planning of ICT4D advocates. The initial and provisional failures would lead to still more intense applications of development expertise, only this time focused not on technical devices but governance structure – failure, in short, would permit the expansion and entrenchment of the state as a facilitator of technical goods while serving to depoliticize the problems of poverty that those goods were supposed to solve.

Chapter 6

The effects of the Ekiti State e-School Project's failure

By uncompromisingly reducing poverty to a technical problem, and by promising technical solutions to the sufferings of powerless and oppressed people, the hegemonic problematic of 'development' is the principal means through which the question of poverty is de-politicized in the world today. At the same time, by making the intentional blueprints for 'development' so highly visible, a 'development' project can end up performing extremely sensitive political operations involving the entrenchment and expansion of institutional state power almost invisibly, under cover of a neutral, technical mission to which no one can object. The 'instrument-effects,' then, is two-fold: alongside the institutional effect of expanding bureaucratic state power is the conceptual ideological effect of depoliticizing both poverty and the state
(James Ferguson, 1990: 256).

In about two years into the implementation of the Ekiti State e-School Project, the state's Directorate of Information and Communication Technology (DICT) published a paper entitled 'A review of the Ekiti e-School Project,' in which the progress of the project was reviewed against the stated objectives of the state government. In this paper, the DICT identified what it termed "some gaps in the project." These gaps are itemized and categorized as follows and worth listing in full detail:¹⁷

- Teachers: Low adoption rate; limited utilization of laptops for in-class learning
- ICT co-ordinator: Limited deployment; sub-optimal student/teacher access to in-school support and training
- Sustained funding: Inability to implement program enhancements

¹⁷ In most cases, the wording may appear 'incoherent' but, based on what has been discussed so far, the message conveyed is, however, not difficult to understand.

- Agency collaboration: Focus outside core competencies resulted in distraction and sub-optimal program performance
- Ownership and accountability: Inefficient use of time and resources
- Ongoing skills development: Skills may not align with future program needs
- Measurement and metrics: No visibility into program performance; inability to react to, and fix performance issues
- Documentation: Lack of clarity regarding vendor obligations, timeliness, deliverables, functionality, and service levels
- Virus protection software: Student/teacher laptops at risk; student/teacher performance reduced
- Reliable power: Inability to enhance/expand program functions beyond current state
- Internet access: No access to central server; limited access to third party content and tools; and inability to collaborate
- Central server: Inability to save files for reuse; limited peer-to-peer collaboration and sharing of best practices.

Some of the issues identified with these problems included lack of structure; communication gap between project partners, stakeholders and project owners; unspecified content format and system functionality; potential copyright infringement in content; lack of synergy between project partners and the government; and unspecified project delivery mechanisms. Others were the non-inclusive beta testing environment created for key stakeholder feedback; hardware security issues; lack of cooperation from teachers; lack of proper feedback and issue resolution mechanisms; nonexistence of quality assurance structure; and negative publicity.

Despite the diversity of these problems, the solutions appeared rather singular in nature.

The DICT proffered the following advice:

- A clearly defined governance structure
The project's governance structure was not clearly defined and therefore the project lacks the necessary support for success, timely delivery and quality control.

- A Project Steering Committee [to be established]
The Project Steering Committee will comprise the following members: the Commissioner for Education; the Special Adviser, Bureau of Infrastructure and Public Utilities; the Special Adviser, Office of Transformation, Strategy and Delivery; the Permanent Secretary, Ministry of Education; the Permanent Secretary, Bureau of Infrastructure and Public Utilities; and the Director General, Information and Communication Technology.
- A Project Implementation Committee [to be established]
The Project Implementation Committee members will be drawn from the Ministry of Education, Directorate of Information and Communication Technology, teachers' representative and the Project Management Office representative
- A Fulfilment Partners Committee [to be established]
- A detailed project organogram showing the line of communication
- Establishment of a Project Management Office (PMO) – well-funded PMO, with provisions of office consumables, allowances for ad hoc staff, a dedicated project vehicle, and a well-furnished office.

In short, committees, offices, organizational charts, and governance structure. Among the antagonists involved, as discussed below, the explanations for failure were reduced to a debate between those blaming the lack of an appropriate infrastructure, such as electricity and Internet, pitted against those identifying the lack of a proper governance structure. In this chapter, I document the changing nature of the problems faced by the project while also attempting to put the failure in a broader context.

As in Ferguson's study in Lesotho, the 'development' apparatus in Ekiti State led to the depoliticization of poverty, expansion of bureaucratic state power, restructuring of social relations, and the deepening of Western-modernizing influences (1990: xv). It is at the level of these side effects that this chapter examines the productivity of the 'development' apparatus; instead of dwelling on the fact of failure, which can be said for most development projects in Africa (for a list of failed landmark development projects in the continent, see *The Associated Press*, 2013).

6.1: Documenting failure

On 18 October 2013, the recommended PMO was set up. It was launched during a meeting of members of the Project Implementation Unit, where issues relating to its mandate and the objectives of the project were discussed. The PMO would develop “a monitoring and evaluation matrix and establish updating intervals to assess the use of laptops and their contents.” It would review “the laptop delivery to the Ministry of Education and final distribution to schools,” to meet the “global standards of inventory keeping systems.” It would publish a detailed “critical milestones” to be covered in the implementation of the project.

In December 2013, the PMO submitted its first report, entitled ‘The Ekiti State e-School Initiative: Interim situation report.’ The issues and opinions contained in the report were based on the documentation provided by the project partners. Other sources were town hall style focus group meetings, on the spot interviews with, and administration of questionnaires to, teachers, principals, parents and students. It was an inclusive and participatory process based on what the report referred to as “the Kaizen continuous assessment and improvement model,” which encouraged “anonymous and open discussion.”

It is worth noting briefly that ‘the Kaizen model’ introduced an especially intensive form of monitoring and assessment, one inspired by philosophies of business administration in Japan. In the context of the sort of top-down implementation that characterized the previous experience of many participants in the e-school project, it appeared more collaborative and consultative; in the context of concerns about the restructuring of

educational culture via modern forms of the bureaucratic state, it appeared as a more intense form of control and acculturation.

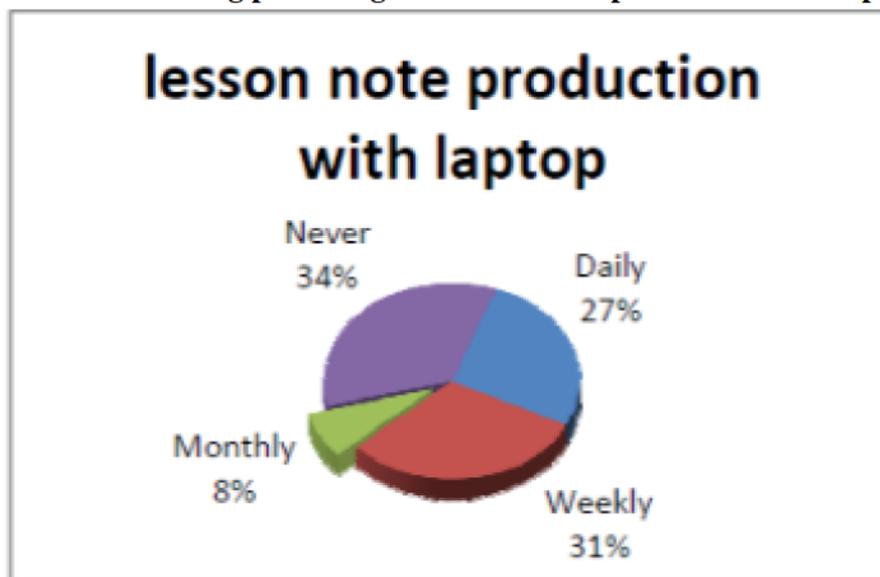
The purpose of the report, the PMO noted, was “to put forward” issues that would serve as “the basis for further deliberations” to achieve long-term sustainability of the project. While noting that the project was “a very ambitious undertaking” never before attempted by “any national or state government on the African continent,” the PMO called for “a carefully planned” deployment guideline, and “structured logistics management plan.” For a successful project implementation, it further noted, the deployment guidelines would incorporate both incremental and phased implementation approaches. Tried and true management protocols would now mediate how the project was administered by taking into account the social and cultural conditions needed for its success.

As we noted previously, teacher training was a particular sore spot in the report. Over 80% of the teachers surveyed considered the MSV training program insufficient to maximize the utilization of the computer. The training failed to equip the teachers with the capacity to integrate ICTs into teaching and learning processes and to adopt appropriate assessment and evaluation strategies. Most of the teachers were not able to design and adapt content materials to suit student needs. As shown in figure 6.1, about 34% of the teachers could not use the laptop to produce lesson notes. In Figure 6.2, less than 50% could perform curriculum activities with the laptop. As indicated in Figure 6.3, 34% never used the laptop for curriculum activities.

One of the problems identified with teacher training was the lack of policy with respect to developing teachers’ ICT capabilities. Although the state government viewed ICT as an

important new field for education development, ICT programs for teachers were low in terms of spending priorities. Teacher training institutions in the state were under-funded. There was also a shortage of locally developed, contextually relevant course content for teachers, as well as the absence of ICT infrastructure and technical support required during professional training programs.

Figure 6.1
Pie chart showing percentages of lesson note production with laptop

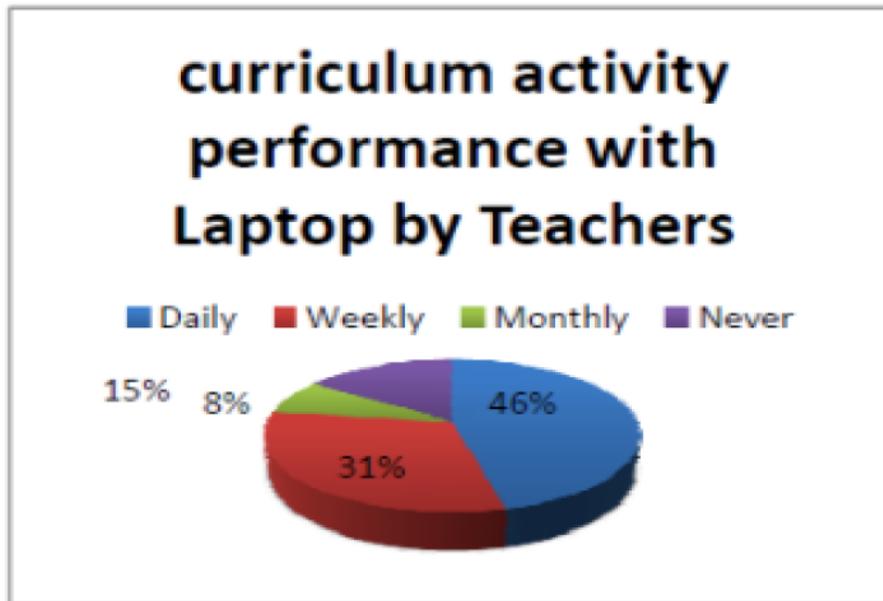


Source: Project Management Office

However, this problem was often discussed in terms of teacher 'attitudes' towards training. From the onset, the teachers were reluctant to identify with the project. Without their willingness to learn and integrate ICT into the curriculum, the project was bound to fail. In interviews with some of the teachers, the following reasons were given for their indifference. One, in the conception of the project, they were not consulted by the state government. Two, the idea that they would pay for their laptops was unpopular. Finally, they considered the loan given to them for the purchase of the laptops as one too many,

especially those of them who were already repaying other loans while also having problems paying tuition fees of their wards in universities and/or secondary schools.

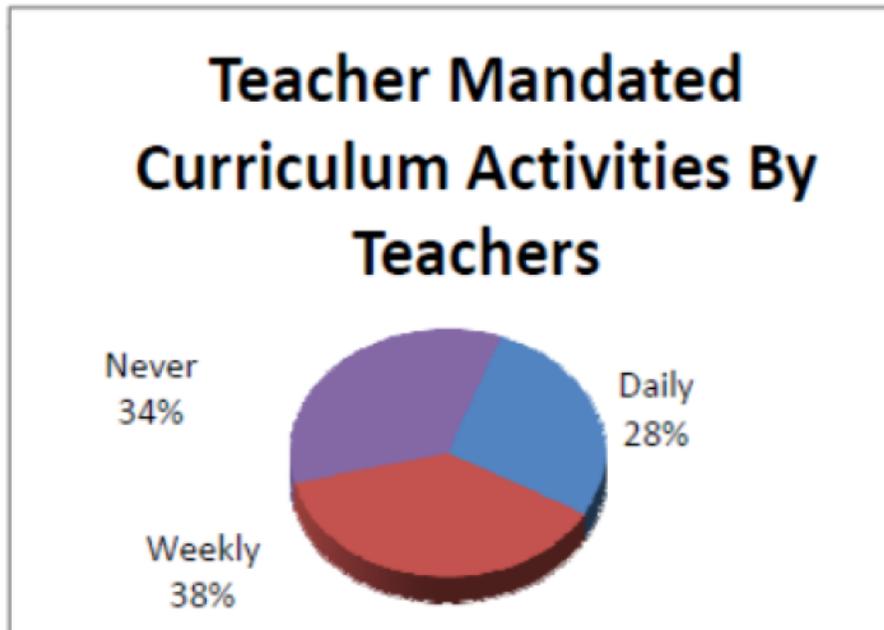
Figure 6.2
Pie chart showing percentages of curriculum activity performance with laptop



Source: Project Management Office

It is interesting to identify the problem as teacher ‘attitude’ because there were other problems close to hand to which some participants in this project pointed before getting to the issue of ‘teachers’ attitudes’. The problem, for example, could have been discussed in terms of the particular machine. The laptop was powerful, capable of advanced networking and expensive, while arguably a much cheaper tablet based on a ‘cloud’ or utility model of data storage could have worked just as well. If that option had been selected, the loans would have been a less pressing concern, as would the initial outlay of governmental capital.

Figure 6.3
Pie chart showing percentages of teacher mandated curriculum activities



Source: Project Management Office

This was the path followed by the neighbouring Osun State in its implementation of the Opón Ìmò Technology Enhanced Learning System Initiative¹⁸. Opón Ìmò is a Yoruba word that translates to ‘Tablet of Knowledge.’ The ‘tablet’ is a portable electronic device, controlled through its touchscreen interface, and is available across the open source Android operating system. Opón Ìmò is targeted at final year students preparing for the West African Senior Secondary Certificate Examination (WASSCE). It is meant to alleviate under-sourcing in the area of textbooks and other learning support materials. Its major content categories are textbooks, tutorials and practice questions. The e-textbook library consists of 55 textbooks that cover 17 subjects, and 10 years of past questions.

¹⁸ Opón Ìmò: Empowering minds. Enriching lives, at <http://osun.gov.ng/education/opon-imo/>, accessed 15 June 2017.

Between the Osun State Opón Ìmò Initiative and the Ekiti State e-School Project, the former is easier and cheaper to implement. For one, at \$100 per unit, the Opón Ìmò tablet cost less than the \$700 laptop that is the fulcrum of the e-school project. Two, the coverage of the Opón Ìmò is limited to final year students preparing for the WASSCE. The e-school project is more extensive, covering students from Senior Secondary School (SSS) 1-3. Three, the Opón Ìmò does not require Internet connectivity. By contrast, Internet is the backbone of the e-school project. Four, the tablet is utilized for a specific function: as educational resource material. The laptop allows for greater interaction between teachers and students. Its functionality expands into the realm of multimedia and virtual reality.

When it comes to introducing ICT to beginners, the tablet may be a preferred device. Its uses are limited to the storage of educational resources. The laptop, on the other hand, is an advanced computing device that requires Internet connectivity and regular electricity to run it, both of which are in short supply in Ekiti State. It requires advanced knowledge of the computer and the capabilities it offered. In Ekiti State, most of those charged with the e-school project, including the teachers, were beginners and were ignorant of the impact the laptop would have when placed in the hands of an inquisitive child. On these accounts, a tablet is not only a better device for beginners learning the ABCs of ICT, it is also much cheaper and easier to implement.

Yet, the PMO situation report focused on teachers' 'attitudes', perhaps because these were adjustable in ways the machines were not and because in a world where technologies are solutions people tend to be seen as problems.

The second problem pointed out in the PMO report was the subject modules developed by the Subject Matter Experts (SMEs) in conjunction with ProcentricIQ. It was found that the subject modules did not include e-textbooks for students in the senior class, based on the WASSCE syllabus. It was not aligned with or given direction by national curriculum frameworks, either. Besides, the quality of the subject modules submitted by the SMEs left much to be desired, as they were found not to be relevant to the content areas, not pedagogically sound and implementable and, therefore, could not be integrated into existing curricula.

The subject modules, according to the report, were not based on experiences gleaned from the use of ICT in education generally, industry requirements for school-leavers or international best practices. Instead, the use of ICTs in the curriculum was based on a top-down policy process that was not generalized from practical experience and external requirements. Given the close alignment between best-practices use of ICTs and pedagogical changes, the use of ICTs did not conform with the curriculum to ensure maximum advantage to the education process.

A curriculum is a means of influencing the outcomes of learning. It determines the knowledge and skills students are expected to achieve and the tasks required of teachers. In the policy framework of the Ekiti State e-School Project, curriculum measures were planned to integrate ICT in school subjects and the development of methods for ICT-assisted learning. There was a clear link between digital instructional materials and curriculum that would help the teacher to choose the right ICT applications. ICT was viewed as part of student learning activities, to promote opportunities for students to learn with the laptops.

Instead of consulting publishing companies to negotiate for standardized and ready-made texts, the SMEs invited selected teachers to write the course outlines. However, the course outlines submitted to ProcentricIQ contained grammatical and typographical errors and the software did not encourage editing. The subjects did not contain introductions, and there were no accompanying exercises to test students' understanding of the topics. Coping with the grammatical and typographical errors became a nightmare for the teachers. The errors could not be edited and the teachers ended up skipping some of the lessons for fear that students may commit the same errors.

Describing the problems posed by these errors and their effects on teaching and learning, one of the teachers interviewed said:

The errors are in-built. That means they cannot be edited; they cannot be corrected because [the subject modules] are programmed in such a way that they cannot be edited. It is like PDF. You can copy and paste, but you cannot edit it. But here now, it has been prepared in such a manner that the teacher will have to ask the students to abandon that topic in that content, and uses the conventional teaching method. The teacher relies on his own notes to teach the students. After teaching, the teacher writes the notes on the blackboard and the students copy the note on their notebooks. This is contradictory to the spirit of the e-learning program.

The absence of Internet services, the unreliable power supply, and the inadequacy of technical support stood out as sore thumbs in the PMO's report. The absence of Internet connectivity, as the report noted, made it difficult for teachers and students to have "access to additional educational resources online." The use of the factory-installed LectureMaker and TestMaker software could not be implemented. The result was the de-

motivation and disruption of online learning and teaching. It became difficult to integrate technology into instruction and enhance learning. In other words, there was no shared experience among teachers and between the teachers and students.

At the inception of the project, the state government started work on a fibre optic cable link in Edo-Ekiti to complement the existing radio link. The radio link served the state government and telecommunication companies. There was traffic congestion on the link, and the fibre optic cable was intended to alleviate that problem. Since fibre optics could carry data and digitized voices much faster and farther in vastly larger quantities at a lower cost, the expectation was that on completion, it would relieve the existing radio link in the state. This situation reveals the shortcomings of the process of telecommunications liberalization and the mobile wireless ‘revolution’ referred to earlier in Chapter 4. In simple terms, Ekiti State was not one of the beneficiaries of those developments, and now an attempt to set things aright was put into motion. However, with a dwindling budget from the central government, the state government soon ran out of funds and work on the fibre optic link came to a crawling halt.

Running out of options, ProcentricIQ was contracted to design a stand-alone application that would not need Internet. It included offline methods of sharing files, such as the use of Bluetooth, USB flash drives and/or SD Cards. The process itself was time wasting and cumbersome. For example, with the use of Bluetooth, it took a teacher over 15 minutes to share a file in a class of about 40 students. A teacher would send the file to one of the students. The student would send it to another student, and so on. By the time the file got to all the students, there would be little or no time left for teaching. In the meantime, the

method demonstrated to students how to use SD cards to load illicit materials onto their laptops.

The offline file sharing came at a heavy cost. The practice created an environment that supported the proliferation of system debilitating viruses and put students and teachers laptops at risk. The laptops came with Norton anti-virus that expired after a trial period. At expiration, the laptops became vulnerable to virus attacks. To reactivate the software, the state government needed to pay about \$20 for each laptop. With 48,000 laptops between the teachers and students, it meant that the state government would have to spend close to US\$1 million – that is about ₦160 million every year to activate the anti-virus. Apparently, anti-virus was not factored into the project over-head cost. At the end of the Norton anti-virus trial period, the systems began to shut down automatically.

The problem of anti-virus was one of the issues I discussed with the Samsung representative, the CEO of Purple Consult/MSV, during my interview with her. The question and answer is reproduced as follows:

Q: The question about anti-virus...

A: *Anti-virus... We had an anti-virus agreement with Microsoft.*

Q: Microsoft?

A: *Yes, because Microsoft was essential.*

Q: Was it part of the agreement with Microsoft to provide anti-virus?

A: *It was part of the package.*

Q: The package... what was it like?

A: *We bought Microsoft Professional. That was what we bought.*

Q: Professional?

A: *Windows Professional ... whatever they call it ... I can't remember. Within that Professional, we had access to downloading free Microsoft anti-virus program. But because of lack of access to the Internet, we could not download the anti-virus program.*

Each system came with a trial version of the Norton anti-virus. But the state government was not ready to pay periodically for the Norton anti-virus. The Microsoft option cannot be activated generally. It has to be activated per unit. You go to their website, download it and activate it online. No anti-virus works offline.

The PMO report on power supply was equally dire. There was a pressing need, the report pointed out, for alternative power supply sources in order “to backup laptop batteries to run throughout the school hours.” As in the case of Internet connectivity, power supply hung over the project like a dark cloud. As one of the teachers interviewed put it, “if the issue of electricity can be resolved, then every other problem concerning the project can be managed.” If power supply was a problem in schools located in the urban areas, it was even more so among those in the rural areas. While schools in the urban areas were more likely to have electricity supply for about two hours in two or three days in a week, those in the rural areas go for weeks without electricity supply.

The Project Consultant brought up the matter with the CEO of Purple Consult/MSV at a stakeholders meeting. This is how he described the discussion:

I asked her, ‘How long does it take to charge the laptop to full on the solar?’ The answer I got was 18 hours to charge it to full. It will last anywhere from four to six hours depending on how you use it. We have an eight-hour school day, and it takes 18 hours to charge it. Of what benefit is the solar panel?

Inadequate technical support was another issue raised in the PMO report. The report’s assessment of technical support was summed up as follows: “MSV Limited is expected to fix damaged laptops within 72 hours (3 days) of fault reporting and delivery to the MSV facility [Samsung SmartCare Centre]. Currently, repairs are an indefinite process as access to replacement parts is difficult and payment for out-of-warranty replacement

parts is expected in advance of repairs.” As a rule, these laptops were not to be taken elsewhere for repairs, except the Samsung SmartCare Centre. Yet, the Centre – run by MSV – could not service the demand, and seemingly with little to no firm timelines for getting computers back to students and schools that needed them.

The laptops were new to the students and they did not know how to manage them. At the early stages, there was a lot of damage. The laptop screens seemed to crack at the slightest pressure. In the hands of 12 to 19-year olds, this was treacherous, of course. Samsung SmartCare Centre was receiving an average of 100 broken screens in a week out of 30,000 laptops ‘in service’. In the calculation of one SLA, the average cost of maintenance was about ₦5,000 per device per year. As he puts it, if there are 30,000 devices sent to MSV, the cost of maintenance will amount to ₦150 million (over US\$900,000) a year.

In the interview with the Samsung representative, the CEO of Purple Consult/MSV, she addressed the issue of repairs thus:

When we were putting the project together, *we did not think of damages*. The initial plan was not to give the students the laptops to take home. They were supposed to be kept in the schools. But the schools were dilapidated. When burglars began to break into the office of principals to cart the laptops away, the governor decided to let the students take them home.

The cost of repairs was not all there was to it. Add the ₦1,000 insurance premium charged parents per student annually, multiply it by 30,000 laptops, and it equalled ₦30 million paid by parents every year to augment the cost of repairs. In the words of the SLA interviewed, “the backlash [from parents] was phenomenal.” He said: “You cannot put

this type of bills on parents across the state and expect that you are not going to get a negative backlash. I know one principal who paid out about ₦250, 000 in repairs of laptops because the students absconded without repairing them.”

There were students who paid for repairs and yet were unable to retrieve their laptops from the Samsung SmartCare Centre. One of the schools produced 20 receipts confirming that the students paid for the repairs. “Are you saying there is no repair work going on at the Samsung SmartCare Centre,” I asked the SLA who produced the receipts:

A: I doubt it.

Q: How many laptops do you have at the Samsung SmartCare Centre to be repaired?

A: We have many laptops there.

Q: How many laptops do you have at the Samsung SmartCare Centre before the school went on vacation?

A: We should have at least 50 laptops there. You will find at least 300 laptops from all the schools in the state. In some cases, students drop their laptops there and run away because they cannot afford the cost of repairs. A charger that is sold for ₦1, 500 in the open market is sold for ₦15, 000 in the centre – the same quality. They charge ₦2, 500 to replace power button, which is sold for ₦1, 000 in the open market. A broken screen costs about ₦30, 000 to replace. Many parents cannot afford the cost of repairs.

Some students dropped out of school because their parents could not afford to replace lost laptops or pay for repairs. Parents relocated without forwarding addresses because they could not afford to replace lost laptops or pay for repairs. In 2012, Immaculate Grammar School lost 48 laptops, according to the principal. The following year, another 18 units of laptops were found missing. The principal and some of her staff “hunted for the students for several days in the town without luck.” In other cases, students were arrested and detained by the police “for multiple nights” to account for stolen laptops “and parents

have had to borrow to pay for replacement in order to secure their children's release," noted the PMO report.

It is worth interjecting that training in modern technology necessitates familiarity with maintenance and repair, not just the norms of its usual operation. Yet, the agreement with Samsung pre-empted the negotiation of maintenance and repair that are crucial components of literacy with digital technology. Students and parents were forced to use a particular repair centre and required to adhere to the norms of a global company that would only communicate with them through its surrogate, MSV. The Samsung Smart Centre, in turn, charged premium rates to do what needed to be done, if it did what it was supposed to do at all. The results were a travesty on these grounds alone.

At the time the laptops were distributed, the hardware was left open in terms of being able to access the Internet. Some students used this powerful capability to access inappropriate resources. There were few protective measures from anything that might tempt an inquisitive child, and parents were unprepared for how to turn transgression into a teachable experience. In the wee hours, parents began to notice that their children, who pretended to be studying, were actually watching pornography and movies downloaded off the Internet. They would download the materials on their phone, remove the SP card and insert it on the laptop, for a bigger screen. Parents were alarmed and there was a general concern that the laptops were becoming a source of distraction for the children.

This conversation with a parent is instructive:

Q: How does the use of computer affect your child's extra-curricula activities at home?

A: *She uses her laptop to watch movies a lot. I try to discourage her. I give her instruction to do something, but she prefers watching movies. I think it distracts her a lot... What I don't like is, when it is time to go to bed that is when she likes to use the laptop most.*

Q: Is that a problem to you as a father?

A: *I think it is a problem...*

Q: What are the changes you have noticed in her since she started using the laptop?

A: *What I have noticed – not only me – is the idea of writing. Though she writes well. But when it comes to writing composition, I don't think she ...you may not like what she writes.*

Q: I don't understand...

A: *Ask her to write a composition. What she writes ... what she will present, I don't like.*

Q: What is it you do not like about what she writes?

A: *Too short. In our days, we were used to writing ...gave to our teachers to do this or do that. That is lacking.*

Q: How do we explain it?

A: *I don't know.*

Q: She is not interested in writing essays?

A: *Yes.*

Q: You think it is as a result of her use of the laptop?

A: *It may not be, but it is contributing.*

Q: In what ways do you think the laptop affects her ability to write essays?

A: *What I am saying is that, without that [the laptop], she would have had ...I don't want to say something. But I don't know if it is lack of concentration.*

Q: In other words, the laptop is a distraction?

A: *That is my observation!*

Parents, principals, and teachers were beginning to vent their frustrations in a more public manner. The laptops had implicated them in onerous loan agreements, concerns with policing and theft were rife, and the children were watching porn and seeming to lose the ability to concentrate, and to write and read lengthy prose. This was not the dream they dreamt about e-learning. What was unfolding before their eyes was close to a 'nightmare scenario'.

6.2: Depoliticizing failure

The uproar created by parents and the resulting negative publicity led the state government to engage Thirteen Scribes Incorporated as the Project Management Consultant, to intervene and breath new life into the project. Thirteen Scribes was incorporated under J. Programming in Tampa, Virginia, USA, in 1988. In 2003, the company moved to Lagos, Nigeria, and worked in the area of point-of-sales terminals in the financial sector. In 2005, they moved to Abuja, the federal capital, restructured and returned to software engineering. In 2006, they started work in the education sector as the success in telecommunication in Nigeria promised to spill into that sector.

The Opón Ìmò Initiative in Osun State was Thirteen Scribes' first major work in the education sector. The company designed and installed the software, from conception to implementation. At the launch of the project, a chance meeting between the CEO of Thirteen Scribes and the Governor of Ekiti State started the discussion that would eventually lead to the engagement of Thirteen Scribes as the Project Management Consultant in the Ekiti State e-School Project.

The engagement followed a letter of proposal by Thirteen Scribes on 26 July 2013, to the Ekiti State government through the Special Adviser, Office of Transformation Strategy and Delivery, headlined: 'Adding value to existing ICT initiatives in education.' The proposal itself followed discussions between Thirteen Scribes and representatives of the state Bureau of Infrastructure and Public Utility, the Ministry of Education, and the Office of Transformation Strategy and Delivery, during which the "strategies and methodologies" for pulling the e-school project "back on track" was discussed.

On the basis of the information gleaned from the discussions, Thirteen Scribes, in the proposal to the state government, concluded that the project could not “fulfil its potentials in the form and manner” it was being implemented. There was “no clear cut definition of objectives, scope, deliverables, and system specifications.” The key to a successful implementation of the project, Thirteen Scribes stated, lay not only in selecting the “appropriate technology but also in the appropriate application of knowledge, skills, tools, and techniques.” The proposal offered to “assist in moving this initiative to the next level by providing a diversified service base” to “allow for a very strategic unification of services offered by software development partners, educational content development professionals and hardware provisioning partners” that would reflect the vision and goals of the state government. To make this “valuable contribution,” the company would require “a mandate letter” from the state government to give it permission to work with the state’s ICT team, under the guidance of the Office of Transformation Strategy and Delivery.

On 22 August 2013, the Ministry of Education invited Thirteen Scribes to another meeting. As indicated in a letter from Thirteen Scribes to the Commissioner for Education, headed: ‘Proposal for engagement as project management consultants for Ministry of Education, Science and Technology on laptop distribution initiative,’ the meeting highlighted the “current trend of poor performance” that must be arrested “in a timely fashion” for the project to reach “completion anytime soon.” It should be “tackled with vigour in order to guard against total project immobilization.”

In the letter, Thirteen Scribes assured the Commissioner for Education of its ability to “rectify” all the outstanding issues, establish “a stable delivery mechanism and plan for

the final delivery of the laptops to students within six months of engagement.” The letter further assured the state government that the involvement of Thirteen Scribes “with and successful delivery of the Opón Ìmò Project” gave it “an up-to-date insight into taking an ICT initiative from conceptualization in the council chambers to implementation in the classroom.”

On 23 November 2013, in a letter to the Special Advisor, Bureau of Public Infrastructure and Utilities, headed ‘Billing rate overview for Project Management of Ekiti State e-School laptop distribution project (post negotiation),’ Thirteen Scribes “agreed to complete the proposed services listed as item 1-12 in Table 2 (see Tables 6.1 and 6.2) for an approximate 53% discount. The request of the government to fast-track activities “to bring the project back on track and expand its usage” resulted in additional fee of ₦4 million, however, bringing the total contract sum to ₦18 million.

Table 6.1
Table of activities desired by the Ekiti State government and the key areas

Table 1		
#	Description	Total Cost
1	Project structuring and documentation <i>(Items are listed from 1-12 below in Table 2)</i>	₦14,000,000
2	Dedicated fund to enable fast tracking the start of key areas 2 and 3. <i>This will enable the PMO, PIU and PSC to begin activities to identify platform weaknesses and take initial step to improve the platform. Exact use of funds will be decided in partnership between the PMO, PIU and PSC. The funds may also be used to finance activities, which are not part of key areas 2 and 3 of this table, but other activities like fast tracking rollout of services to additional campuses.</i>	₦4,000,000

2	Project Evaluation Assessment and kaizen compliant way forward management for the 6 month period <i>(our proposal can not formally include this step because it can only be given in estimate as venue, materials, compensations, number of attendees, etc. will vary and affect final costing. Identified as item 15 below in Table 2)</i>	Estimated ₦5,400,000
3	Project component assessment and improvement <i>(our proposal can not formally include this step because it can only be given in estimates until key areas 1 and 2 above are substantially underway identified as items 13&14 below in Table 2)</i>	Estimated ₦10,600,000

Table 6.2
Thirteen Scribes proposal, specifying tasks, and cost estimates

Table 2			
#	Description	Estimated Workload (man hours)	Cost (₦)
1	Existing Document Compilation and Review – this will be done in order to create a central document outlining the current state of the project and allow for the proper creation of a gap analysis document for submission to the Project Steering Committee (PSC). These findings will assist in the development of the remaining documents	180	₦ 740,000
2	Gap Assessment Report – this will specify what we have identified as the key lapses in the project management structure so far. Many weaknesses have already been identified during the afore mentioned meetings, but partners should be given adequate time to formally respond to the requests for documentation as well as the PMO must be setup with proper mandates to request such responses from the partners.	130	₦ 534,200

3	Project Charter – General overview of project components, types of partners necessary to deliver them and contracts outlines for partner retention	190	₦ 780,800
4	Hardware Security Subsystems Specification Guide – Types of security feature to be included in each of the project components to curtail inappropriate or undesirable usage as well as maximize potential for full product lifespan attainment with minimal support and maintenance requirements.	125	₦ 513,600
5	Logistics Management Plan – a document outlining the processes and procedures for initial product delivery, reclamation, transfer, redistribution, technical support submission. This will also include sample of the associated materials and documents for use at recipient locations	150	₦ 616,400
6	Communications chains and documentation – this will include a project organogram specifying the overall project management hierarchy. It will also specify the procedures for communicating both down and up the hierarchal chain of command. It will unbundle the project management creating teams whom are of like responsibilities and allow them to operate within a structured environment in order to maximize productivity.	120	₦ 493,150
7	Roles and Responsibilities Documentation - the identification of qualified partners allows for creation of a document, which capitalizes on the special skill sets of those partners outlining the specific role, and components, which they are mandated to handle, and also the general responsibilities for assistance to the project management structure. A project of the magnitude will most definitely have variation and change in definition over the lifespan so the general responsibilities of the partners will ensure that they are active in the growth process and not individually overburdened	150	₦ 616,400

8	System Requirements Specification Document – this document defines the desired usage principles of the entire platform. The integration guidelines specifying how the platform is intended to be incorporated into the pre-existing environment. It will thusly define what each component must achieve in terms of infrastructural dependency, stand-alone usability, battery life, etc.	185	₦ 760,200
9	Content Curriculum Compliance Specification – this project is intended for use by junior and senior secondary school students. It has a projected lifespan per device of five (5) years and we know that the curriculum is modified every three (3) years so the process of ensuring that the student devices are able to be kept up-to-date and in line with the curriculum is critical	125	₦ 514,000
10	Content Receipt, Validation and Deliver Recording Process – this will be designed in conjunction with the MoEST STM unit and S&E unit.	105	₦ 431,250

Source: Thirteen Scribes Incorporated

6.3: The clash between Thirteen Scribes and Purple Consult

A key construct in the ‘development’ problematic, writes James Ferguson (1990), is “the idea that societies, economies, and government bureaucracies respond in a more or less reflexive, straight-forward way to policies and plans” (194). In this conception, the state apparatus is represented as “a neutral instrument for implementing plans,” and the government as “a machine for providing social services and engineering economic growth” (ibid).

Alongside these functions, argues Ferguson, there are “a host of instrumental uses to which the state apparatus is put, on behalf of individuals, cliques, factions, and class

interests” (194). Consequently, the government bureaucracy becomes “the vehicle for the exercise of a particular kind of power” for the benefit of some, and to the detriment of others (ibid). As Ferguson puts it, this use of power is neither a ‘mistake’ nor ‘pathology’, but “an essential part” of what state bureaucracy is all about (ibid).

These two sorts of functions are mixed, but “may not always be so easy to see,” the reason being that “formal structures are visible and maintain a high profile,” while “the other uses and purposes of the state structure are characteristically unseen and unacknowledged” (194). In this scenario, bureaucracy is taken “at its words” to be neutral and, hence, the temptation to ignore the fact that the state is “a political apparatus” (195). The confrontation of plans by the ‘conceptual apparatus’ of ‘development’ with a state bureaucracy is illustrated by the Ekiti State e-School Project.

The project was initiated and funded by the Ekiti State government. As we have already noted, it was a promise made by the governor while campaigning for the office: namely, that if elected he would put laptop on the desk of every student in the state’s public secondary schools. He kept his word, but at a very high cost: about ₦2 billion (US\$12.5 million) at the beginning just to purchase the laptops. For a state that was not self-sustaining and depended on allocations from the Federation Account for about 80% of its aggregate revenue, the project was a huge investment. Then there was electricity, Internet access, and timely repairs – or, it would be better to say, the absence of a reliable (and affordable) supply of any of these critical infrastructures of the e-school dream. In about two years into the project, early ‘digital dreams’ were already clashing badly with the realities of everyday life in Ekiti State.

The governor's original belief was that the project would raise the standard of education and bring about prosperity. But as time went by, the project, to use the language of Escobar, "progressively turned into a nightmare" (2012: p. 4). Instead of the prosperity it promised, the strategy produced its opposite: more debt for teachers, a backlog of salaries owed civil servants and teachers, the available supplies of electricity and bandwidth that could not be met, the high costs of maintenance that parents could hardly afford and new causes of concern for them, as some worried that their children were no longer able to concentrate and others dealt with the misuse of the laptops by students to access inappropriate materials. By 2014, the project had become a black hole into which the state's scarce resources kept disappearing at the expense of other pressing projects.

Given all these problems, the project increasingly appeared as an unnecessary imposition. The people did not ask for the laptops to be given to their children; it was the governor's idea. Why should they bear the brunt in repairs and replacements? On repairs alone, parents spent close to ₦240 million, and an additional ₦30 million in insurance premium every year. Add to that the frustration that the laptops were not serving as learning tools as envisioned, but a source of distraction for the children. The more negative publicity the project drew, those who supported it began to run for cover. The transcendent rhetoric of leapfrogging development now collided with the people's realities and real concerns. Yet, rather than bending to that reality, a new tack was taken. The emergence of Thirteen Scribes into the story marks yet another moment in the arrival of ICT experts on the scene to set aright things that, arguably, their blind faith in technology had brought about to begin with.

On 13 August 2013, Thirteen Scribes started its work as Project Management Consultant on the project. One of the first assignments it undertook was to look at the governance structure to ensure proper performance of the project partners. To remedy the flawed governance structure then in existence, as the CEO of Thirteen Scribes told me in an interview, required an understanding of what had been put in place. Certain things were basic across platforms in all ICT4E projects, he said, and the first task of his company's mission was to see if all of those things were there. Above all, it meant, as he put it, putting the management of the project back into the hands of the state government.

In its initial investigation, Thirteen Scribes found that there was no established line of communication between the project partners and the state government. Thus, no one knew to whom the project partners reported. The implementation of the project was set up in a way that only one of the four project partners had any legal responsibility to answer any question from the state government. The other three project partners could hang up the phone. The state government was in no legal position to speak to the companies providing the software. The project partners took orders from the hardware provider. The constructivist approach to 'access to information' had encouraged the state to focus primarily on hardware but not the software or infrastructural conditions – for example, electricity, Internet access, timely and affordable repairs, etc. – that were necessary for computers to operate.

The hardware provider was Purple Consult, the Samsung representative in Ekiti State. The CEO of Purple Consult and the state governor knew each other way back in 1984, as students at the University of Lagos. After graduation, they parted ways only to meet again on 1 January 2000. At this meeting, they exchanged contacts and kept in touch with

each other. Not long after his election as Ekiti State governor, he appointed her Chairman of the Restructuring Committee to resuscitate the Broadcasting Service of Ekiti State, the position she held until her involvement in the e-school project as Samsung's representative.

After the signing of the contract, Samsung deferred their representation to her as the CEO of Purple Consult. Legally speaking, therefore, the state could not even talk to Samsung. They could only talk to the CEO of Purple Consult, who would then convey whatever concerns, questions, and comments they might have to Samsung and report back to the state. Following the discovery of this issue, Thirteen Scribes drew up an organogram in which project partners were put in a position where they would answer to the Project Implementation Unit through the PMO.

In terms of the old structure and how it affected the running of the project, the CEO of Thirteen Scribes had the following to say:

The e-school project was a noble idea. The strategy was appropriate, but the governance structure was wrong from the beginning. They [the government of Ekiti State] did not understand. They were carried away by the idea of putting a computer on the desk of every student in the state. They contacted someone that can provide the computers, and everything about those computers fell under the control of that individual. This individual contacted Microsoft, ProcentricIQ, and Dualsoft to provide certain components that would be included on the hardware. Microsoft, Dualsoft and ProcentricIQ reported to this individual who, in turn, reported to Samsung and to Ekiti State government. In essence, Samsung reported to this individual. All communication between Ekiti State and South Korea, where the devices were manufactured, passed through this individual.

The irony should be clear: a project promising the free flow of information lived up to no such ideals in its own right. Under this arrangement, there was lack of clarity regarding vendor obligations, timeliness, deliverables, functionality, and service levels. There was a communication gap between project partners, stakeholders and the state government. There was lack of proper feedback and issue resolution mechanisms. There was no quality assurance mechanism. The governance structure was not clearly defined and, hence, there was lack of support for success, timely delivery and quality control for a project of this magnitude.

The organogram that emerged (see Figure 6.4 below)¹⁹ was a four-tier implementation structure. At the top was the government of Ekiti State/the Governor's Office, followed by a three-man Steering Committee made up of the Special Assistant in the Bureau of Infrastructure as the Chairman, and the Commissioner for Education (member). Beneath the Steering Committee was the Project Implementation Unit, an eight-member body representing major stakeholders – the Project Management Office, representatives of the government, school principals, Parents/Teachers Association, and teachers.

The fourth layer was made up of the project partners and other special departments in the Ministry of Education. They included representatives of the PMO, Purple Consult, MSV,

¹⁹ A more detailed Project Steering Committee released after the publication of this organogram comprised the Commissioner for Education (Chairman), Special Adviser Bureau of Infrastructure and Public Utility (co-Chairman), Permanent Secretary Ministry of Education (Member), Permanent Secretary Bureau of Infrastructure and Public Utility (Member), Special Adviser Office of Transformation, Strategy and Delivery (Member), and Director General ICT (Member). That of the Project Implementation Unit are as follows: Senior Special Assistant ICT (Project Coordinator), Thirteen Scribes – Project Manager (Deputy Coordinator), Ministry of Education – Director of e-School Project Department (Member), Ministry of Education – Director Planning, Research and Statistics (Member), Ministry of Education – e-School Project Desk Officer (Member), Technical Assistant (Project Monitoring) to Special Adviser Bureau of Infrastructure and Public Utility (Member), Media Relations (Member), and ICT (Member).

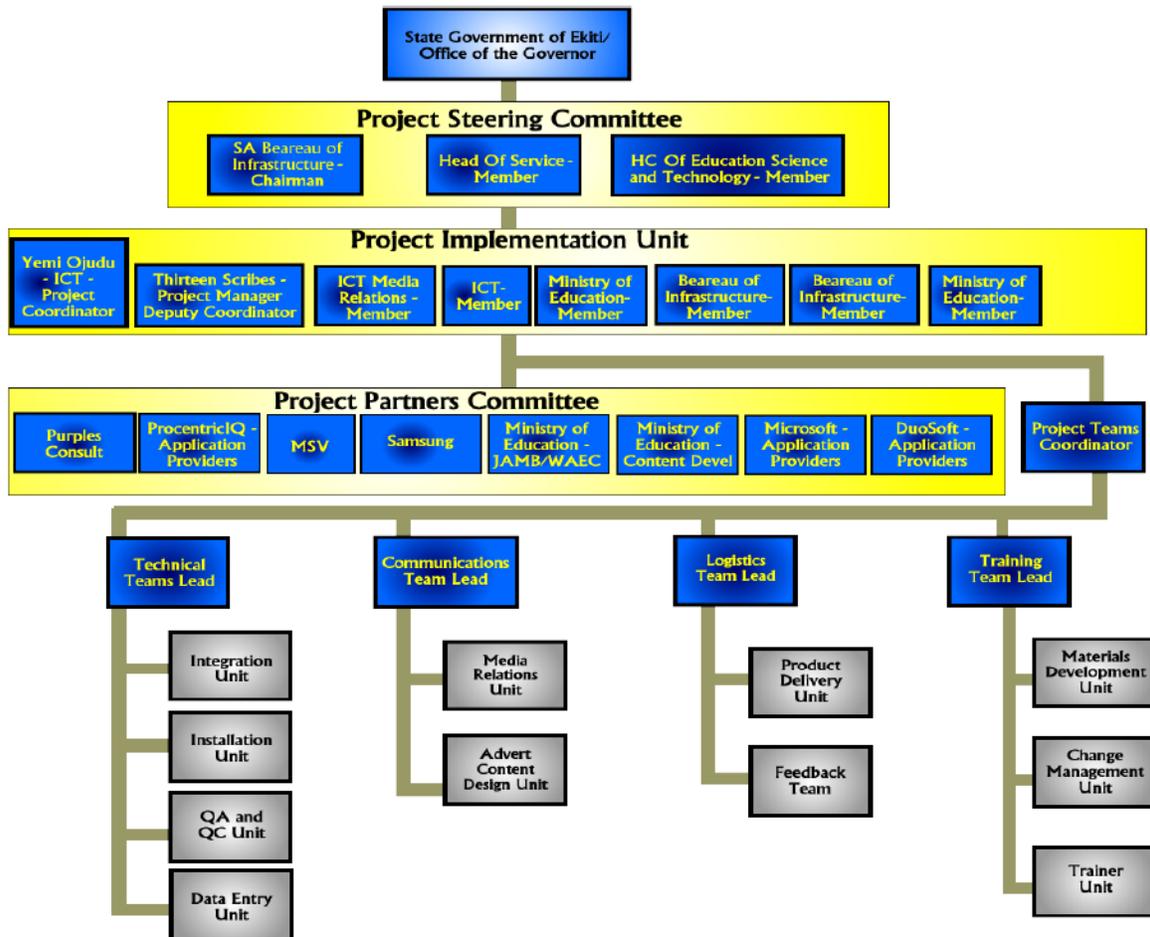
ProcentricIQ, Dualsoft, Microsoft, Ministry of Education (JAMB [Joint Admissions Matriculation Board] and WAEC [West African Examinations Council]), and the Ministry of Education (Content Development). This last layer of the organogram carried out orders from the Project Implementation Unit after the endorsement of the Steering Committee. The communication chain passed through the PMO and not through the CEO of Purple Consult.

The inclusion of Purple Consult and MSV in the fourth layer of the organogram, alongside the other project partners, created a fight between the CEO of the incumbent consultancy and Thirteen Scribes (the PMC). In the interview with the CEO of the latter, he said that the purpose of having Purple Consult and MSV in this layer of the organogram was to ensure accountability and responsibility; it meant that each of the project partners would have to answer to a higher authority where, in the past, Purple Consult and MSV combined as a cartel that controlled the state government.

This is his account of what transpired:

The CEO of Purple Consult/MSV sought appointment to the Implementation Unit as an individual, based on what she called her being a founding father of the initiative. I wrote to the governor, stating clearly the conflict of interest for having the head of two of the companies at the project partner level – a single individual being a representative of two of our companies at the project partner level was already a conflict. We have one company that was being paid twice under two different names. It is just like me collecting a cheque under my first name and another cheque for the same job under my second name. The ethics of that was already wrong. It was wrong to allow the head of two of the project partners to be on the body that supervises those project partners. She refused to show up at subsequent meetings.

Figure 6.4
The four-tier organogram



Source: Office of the Project Management Consultant

In defence of her decision, the CEO of Purple Consult told me that she stopped getting involved in the project the moment Thirteen Scribes was appointed project management consultant.

The state government now has a structure they have set up. It has a Steering Committee. I am not included in the Steering Committee. But because I am probably the repository of the whole project from the beginning, they cannot do without me. I am the only person still left on this project who understands where

we are coming from, where we are going, and how much we have come. The responsibility of implementation within the state is no longer mine. I used to be the one responsible to make it work. Now, they have this consultant, they have a Steering Committee in the state.

The kind of things we have achieved on the project has never been achieved anywhere in this area and we did it silently without any noise, without any fanfare. Give Ekiti State another three years and they will start to see the benefit of what we have done. *There were lots of challenges, there were things we did not envisage, there were things we thought we planned for, but our planning was inadequate.* Trying to manage change – to get people to see something differently from what they are used to – is usually challenging.

It is a unique project. The only country that has done something like this is Rwanda, and they did it at the kindergarten level. But to deploy this kind of infrastructure state-wide – to all the public secondary schools – it has never been done. If we make it work, it will become a pilot project for the whole world. But ICT cannot run only on that kind of infrastructure. You need support infrastructure like the Internet. Those things cost money. This is where the government started running into challenges.

The dispute between Thirteen Scribes and Purple Consult illustrates how different accounts of failure were coming into focus. For Purple Consult, the problem was technological. The anticipated technical requirements never materialized and the sort of modern infrastructure presumed by the machines – the sort of modernity these machines were supposed to bring into existence – never came about. For Thirteen Scribes, the problem was one of governance or of state administration – certain forms of modern organization were needed to administer an ICT project of this sort, and this required reconfiguring how the educational sector, state, and ICT industry were managed. In both

cases, the goals and strategy of the project were viewed as admirable. The difference of opinion involved implementation.

Thirteen Scribes restructured how the laptops were distributed in six months. The customized educational software was reviewed for usability inside and outside the classrooms. The use of the software was restructured and teachers were trained on how to use it in the classroom. The implementation of the project was reorganized in stages and a proposal was made where, instead of putting a laptop on the desk of every student, those in JSS1 (Junior Secondary School 1) to JSS2 would be encouraged to use the schools' computer lab to get an understanding of how to handle the computer.

Thirteen Scribes recommended that students should go through a two-year appreciation program, to learn the different software on the computer. When the laptops were turned in at the end of each year, the state government would be responsible for routine repairs, maintenance, reinstallation, upgrade and update. Once a student entered SSS2 (Senior Secondary School 2), the laptop automatically became his/her property. At the point of graduation, the student should take the laptop with him/her, based on the fact that after six years of use, the laptops would have become almost obsolete.

Thirteen Scribes rationalized the project in light of a different conception of the state's role in managing the use of ICT in schools. The second and third phases of the project would adopt this administrative structure: Phase one began in 2011/12, with the supply of 30,000 laptops. The second phase was due in 2013 with the supply of 30,000 more laptops, and the third phase was due in 2014 with another 40,000 laptops. The second and third phases never materialized, however, primarily due to a lack of funds – the reality of

economically weak, ‘developing’ state once again proved its brute force against the hopes and dreams that technical and administrative expertise would put laptops in students’ hands and all would be well as they ‘developed’ into citizens of ‘the global knowledge economy’. At the end of 2014, however, the government was 70,000 laptops behind schedule.

It was generally known among some government officials, school principals, and teachers that the project might not survive beyond the governor’s term in office. As one teacher put it, “it will cost the in-coming administration more to continue with the project than already had been spent running it. Given the level of the state’s indebtedness, there is no guarantee that the project will be on the priority list of the in-coming administration.” To be sure, the overt signs of politicization did not augur well for its continuity. To leave a lasting mark on the project, and as if to seal the fate of the project as the mere plaything of an ambitious politician, the picture of the governor was used as the screen saver of the laptops. His picture was also emblazoned at the background of the ProcentricIQ software for the e-content, and was difficult to erase. Examples of abandoned projects litter all over Nigeria, for the simple reason that every administration wants to be identified with the project it initiated and executed, and with the hopes and dreams associated with those projects. However, when one administration leaves its indelible mark on a project, this only serves as added incentive for the next administration to jettison it.

6.4: The ‘death’ of the Ekiti State e-School Project

By 2013, anticipations of failure were becoming evident. The problems became more

evident with each passing day. So much money, so many expectations, yet few anticipated outcomes. There were many explanations: some involved the technical infrastructure, some the governance structure, and some faulted the close association of the project with the election of the governor. Politics, governance or technology were each, or altogether, to blame for the 'death' of the digital dream.

It is hard from a post-development perspective to overlook how the development system extends itself through failure. The net effect of the project was to entrench an approach to modern governance that positions the state as a provider of 'services,' and as a facilitator for global industries to reshape local culture. Yet, even if the 'development' discourse sees the provision of 'services' as the purpose of government, it is clear, argues Ferguson (1990), that the question of power "cannot be written off quite so easily" (153). As he puts it, instead of conceiving the phrase 'government services' "as a reference simply to a 'government' whose purpose is to serve, it may be at least as appropriate to think of 'services' which serve to govern" (ibid).

If we take for the moment Ferguson's observations to be true, then we must keep it front and centre in our mind that a central aim of the e-school project from the beginning was to fulfil a campaign promise. While this was going on, the structure constructed by the project took on a political significance. Ferguson terms this kind of pattern the extension of "the governing apparatus of government services/government controls" (153). The project may not have caused the fight between Thirteen Scribes and Purple Consult any more than it caused the appointment of Purple Consult as Samsung's fulfillment partner. In both cases, the project "unintentionally played what can be called an instrumental role" (254). That is, it afforded opportunities for no good and what appeared to be questionable

contracts based on personal relationship rather than either the technical or organizational needs of the project, or in terms of the capabilities of those who got ‘the deals’.

Earlier in this chapter, it was argued that dwelling on the failure of the e-school project might be asking the wrong question. Even as the Samsung fulfillment partner admitted that the planning of the e-school project was inadequate, in the same breath she declared that its benefit would be evident in the not-too-distant future. But as the project neared its demise, the government was willing to spend additional ₦18 million on a consultant to give it a breath of life. That the project eventually failed was symptomatic of most development projects in Africa.

While the e-school project may have failed, it is important to note that it produced some positive impacts. Prior to the e-school project, most of the teachers could be described as ICT illiterate. With the training they received and the exposure to laptops that preceded the project, their ICT skills were raised to a relatively higher standard. Even older teachers, who thought computer knowledge was beyond their ability, learnt how to use laptops to perform task as simple as preparing lessons notes. In some schools, such as Immaculate Grammar School, preparing lesson notes in long hands was proscribed. Keyboarding was no longer a far-fetched idea among teachers.

The students were even ahead of their teachers in terms of the uses of the laptops. Shortly after the distribution of the laptops, those charged with the implementation of the project were pleasantly surprised to notice that the students had learnt how to switch them on and off without being aided. When the students came under surveillance following parents’ complaints that they were using the laptops to access inappropriate materials, teachers

found that they had developed ingenious ways of hiding files containing such materials. For those who supported the project, this was an indication of the dexterity the kids were able to bring to the use of the laptops. Irrespective of the student's socio-economic background, what computer could do and what it could be used to accomplish was no longer a myth but a reality.

With 48,000 laptops distributed between the teachers and students, many homes in Ekiti State had access to laptops. When students took the laptops home, they did not only share the knowledge of the uses with their siblings, they also shared it with their parents. Teachers also introduced to their spouses and children the rudiments of computer literacy. For many, especially those who look at the long-term effects of the project, when this aggregate number of people become used to computers and its functions, the ripple effect can be felt at the four corners of the state and has the potential to generate a high quotient of ICT literacy among the people overtime.

In this respect, the focus should not be on the fact of failure, but on its consequence or “what it does do” (Ferguson, 1990: 255). What the failure of the project ‘does do’ can be examined in terms of its ‘side effects,’ whether intended or not. In other words, the ‘development’ apparatus was not a machine for “eliminating poverty,” but “a machine for reinforcing and expanding the exercise of bureaucratic state power, which incidentally takes ‘poverty’ as its point of entry” to launch an intervention that may not have any effect “on the poverty but does in fact have other concrete effects” beyond the planners’ intentions (255).

6.5: Conclusion

The implementation of the Ekiti State e-School Project was presented as the solution to the problem of access to information and the gateway to prosperity in the state. It would also be an example for the rest of Nigeria – and the continent of Africa as a whole – of how people, aided and abetted by computers, a modernized education system and curricula and a connection to the Internet, could be leapfrogged into ‘the global knowledge economy’. Yet, from top to bottom, the mechanisms and procedures devised for the implementation of this grandiose ‘field of dreams’ project embodied the structures and functions of modernity that are run counter to indigenous ways of life. The project not only failed to achieve the aims for which it was implemented, and thus failed on both technical and administrative grounds, but, as will be seen in the following concluding chapter, it also produced side effects with powerful and far-reaching impact on the people who were supposed to be its beneficiaries.

There were various problems, including the inadequate training of teachers, the lack of a reliable power supply, Internet connectivity and technical support, misuse of the laptops by students, parents’ worries, politicians whose ambitions outstripped the resources (grasp) of the government, as well as the high costs of repairing broken laptops or replacing stolen laptops. Attempts to reorganize the project resulted in a fierce fight between the project consultant and Samsung’s fulfillment partner in the state, revealing the extent to which the structure constructed by the project had political undercurrents all along and generated complex and unintended effects as a result.

The unintended effects of the project were found in the instrumental uses to which the state apparatus was put. The government bureaucracy became a vehicle for the exercise of power for the benefit of some and to the detriment of others. This is, of course, an old

story, one of infighting or corruption. More broadly, however, the state changed how it operated – by facilitating the more intense involvement of corporate actors in hardware and software and digital consulting in hopes of developing African children for the global economy. One comes away from this experience, however, with the unmistakable sense that those who had always found their opportunities circumscribed by the power and control over resources by others – teachers, students, parents and communities, in the e-school project case – ended up where they so often do: left out, marginalized, relatively powerless to shape their situation, and with more broken dreams than realized potentials.

Chapter 7

Conclusion: A case for skeptical post-development theory

As I write this conclusion, I find myself wondering how I might explain the failure of the Ekiti State e-School Project to all the people I encountered over the course of this study. I am particularly troubled that many of the explanations for the project's difficulties (political corruption, the failings of a technical infrastructure, the lack of a modern governance approach) showed little awareness that the mind of the African child was at stake. In summing up this study, therefore, the question on my mind is not only how to explain the failure of the e-school project and its effects but also the suggestions can I put forward with regard to minimizing development failure in Africa.

It is easier to describe the effects of development failure than its deeper significance. In fact, as Ferguson reminds us, development seems to constitute and extend itself through failure. As these projects falter, further bureaucratization and administrative governance of culture take hold. There is always another theoretical paradigm, alternative pedagogy, new technology, or innovative governance technique to be tried. In this respect, I attempt to question the significance of failure from a perspective exterior to the discourse and institutions of development itself. From this vantage point, the longer historical continuities are more evident, yet the outcomes no less satisfactory.

I discuss these continuities below by summarizing the effects of the e-school failure much as Ferguson himself would likely describe them. I do so in hopes of re-politicizing the importance of development. Yet, instead of affirming the usual conclusions of perspectives critical of development, and instead of suggesting that development is

always destined to fail, I raise the question of whether we might instead hybridize our accounts of development following Arturo Escobar's formulation.

7.1: The 'instruments-effects' of the Ekiti State e-School Project

The construction of Ekiti State as underdeveloped was an essential feature of the development apparatus. This representation viewed the problem of poverty as a result of lack of access to information; it situated the task of the state government as providing technical tools as a way of stimulating progress in the state. Tropes such as regaining the state's lost glory in academic excellence repeated themselves in endless speeches and with many variations by government functionaries during the conception and implementation of the project. The result of this representation was an understanding of 'the problem' that called for the distribution of laptops in classrooms.

While noting that the project was a good idea, the Samsung fulfillment partner and the CEO of Purple Consult, one of the original planners of the project, said it failed because the enabling technological infrastructure, such as Internet connectivity, was not in place. In response, the envisioned saviors of the project, Thirteen Scribes, suggested the problem was not technical but institutional – the failure to conform to ICT4E expertise. A multinational hardware provider could not provide development; it was an effect of the professional organization of a modern governance structure. In short, one had a classic instance of responsibility displacement, as the failure was reduced to a debate between those blaming the lack of an appropriate infrastructure pitted against those identifying the lack of a proper governance structure.

As the Ekiti State e-School Project approached its end, there was a move by the state government, as was the case in Lesotho, “toward a rehabilitation of the project’s reputation” (Ferguson, 1990: 254). The Commissioner for Education attested to this when he described the work at this stage of the project as ‘preparatory’. The CEO of Purple Consult conceded that there were lots of challenges, that there were things they did not envisage, things they thought they planned for – but that their planning was inadequate. In both cases, the goal was to reframe expectations.

In these explanations, the goals of development were never interrogated, only their practical materialization. The ‘side-effects’ were viewed as unfortunate outcomes. Yet, if ‘failure’ could be seen as the norm for development projects in Africa, and if important effects were realized “almost invisibly alongside with that of ‘failure,’” then we should agree with Ferguson that,

there may be some justification for beginning to speak of a kind of logic or intelligibility to what happens when the ‘development apparatus is deployed – a logic that transcends the question of planners’ intentions. In terms of this larger unspoken logic, ‘side effects’ may be better seen as ‘instrument-effects’ ...; effects that are at one and the same time instruments of what ‘turns out’ to be an exercise of power (255).

For the Ekiti State government, the primary task of the e-school project was to reclaim the state’s reputation as the ‘Fountain of Knowledge’. Yet, as Ferguson argues, if one considers the expansion and entrenchment of state power to be the principal effect of the project, then the state government’s promise of achieving this purpose “appears simply as a point of entry for an intervention of a very different character” (255). Thus, the e-school project became “a machine for reinforcing and expanding the exercise of bureaucratic

state power,” which incidentally took ‘access to information’ as its point of entry – launching an intervention that may have no effect on access to information “but does have other concrete effects” (ibid).

The most enduring effect of the e-school project was the restructuring of how the state facilitated the involvement of global technology firms in education and culture. It was a distinctly political outcome that resulted as a solution to the problem of access to information. But as Ferguson argues, by uncompromisingly reducing underdevelopment to a technical problem, and by promising technical solutions to the sufferings of powerless and oppressed people, “the hegemonic problematic of ‘development’ is the principal means through which the question of poverty is de-politicized in the world today” (256). He further argues:

[B]y making the intentional blue-prints for ‘development’ so highly visible, a ‘development’ project can end up performing extremely sensitive political operations involving the entrenchment and expansion of institutional state power almost invisibly, under cover of a neutral, technical mission to which no one can object. The ‘instrument-effect,’ then, is two-fold: alongside the institutional effect of expanding bureaucratic state power is the conceptual or ideological effect of depoliticizing both poverty and the state (256).

Thus, following Ferguson’s argument, if the unintended effects of the e-school project ended up having political uses, even seeming to be ‘instruments’ of some larger political deployment, “this is not any kind of conspiracy; it really does just happen to be the way things work out” because even as the project ‘failed’, it successfully accomplished important strategic tasks (256). Perhaps this may explain why ‘failed’ development projects are replicated again and again.

Nevertheless, Ferguson inclines us to focus less on the project failure. Instead, he asks us to illuminate the productivity of the failure of the project – that is, its ‘side effects’ or ‘instrument-effects’ of the failure of the project – which include its depoliticizing of poverty, expansion of bureaucratic state power, restructuring of social relations, and deepening of Western-modernizing influences. I use these as a guide for summarizing my results.

Bureaucratic control was an essential component of the e-school project. It managed and transformed how communities conceived and organized their lives. It created “relatively homogeneous strata through the imposition of certain practices” (Escobar, 1995: 145). Changes in the strata resulted in changes in other power configurations in domestic relations and cultural relations. Essentially, the project functioned as a productive technique that redistributed forces with a significant impact on people, visibilities, and social relations. Put more simply, cultural practices of the project governed the institutional ways of knowing.

The ‘instrument-effects’ were far-reaching and expansive among the communities in Ekiti State. It did not only contribute to the entrenchment of the state’s bureaucracy, it also depoliticized the problems of poverty the project was supposed to solve. It engendered a set of policies that regulated the problem of access to information, which inevitably introduced a particular ordering of society itself. It altered the sensibilities of the people, transformed the ways they saw and lived their lives, the way parents and children related to one another and set in motion how political technologies contribute to recreating society and culture.

New practices were introduced in the schools and the communities. There was a shift in the classrooms from the age-old traditional teacher-centered pedagogy to learner-centered methods intended to herald a knowledge-based student population. The building and deployment of information and knowledge was constituted to enable teachers and students become self-directed and self-empowered researchers. The change in the approach of teachers and students to ‘teaching-learning activities’ was supposedly intended to maximize the use and benefits of the computers. These practices were different from those that teachers, parents and students were accustomed to follow.

Subject modules were developed that necessitated wider systems of administrative oversight and control. The elaborate forms of administrative, parental, and technical control, originated in the conventional norms of the global technological industry, were enforced locally. Standard practices were put in place for the surveillance of students. Teachers, students and parents tried to abide by the rules as they dealt with the new practices. Yet, at no time were alternatives vocalized.

It is difficult to avoid the conclusion that the e-school project was a normalizing mechanism. Parents became participants in the monitoring of their wards’ use of the laptops at home. In addition to bearing the cost of replacing their wards’ stolen laptops and/or broken laptops, parents were also tasked ₦1,000 insurance premium per student per year, throwing them into unexpected expenses. Students spent nights in police cells because they lost their laptops. Some dropped out of school because their parents could not replace/repair lost/broken laptops. To pay for their laptops, the teachers were forced into a debt for which they did not bargain.

The technical and repair practices of Samsung, mediated through MSV, were enforced by school officials, teachers, and parents, all of whom were affected by those policies with little to say in their design or implementation. Although the authority resided with the hardware and software companies, the enforcement was dispersed throughout the educational system, and even among parents. The local culture, in countless examples, was distorted to accommodate the norms of the computing industry (norms, it bears remarking, that are far less flexible and adaptable in Ekiti State than they are in North America).

The children's ownership of the laptops exposed them to pornography and movies downloaded off the Internet, and kept them preoccupied with activities that were unrelated with their academic striving. The distraction caused by the laptops was such that they neglected household chores in preference to watching movies. Parents and children were set against each other over the use of the laptop. While the language of the e-school project was technical and administrative, the goal was distinctly political: Ekiti State children were being transformed in the wrong image.

As Escobar would want us to understand, the 'instrument-effects' of the deployment of the development discourse in cases such as the Ekiti State e-School Project are "the result of a certain economy of discourses," which dictates that projects "show a significant degree of uniformity worldwide" (1995:145). The strategies rely on "a relatively undifferentiated and context-independent body of knowledge and expertise; they are part of a relatively standard discursive practice, a sort of 'devspeak' and 'devthink'; at a general level, they produce similar results, particularly in terms of governmentalizing social life" (146).

7.2: An emblematic exchange over development failure

Before ending this dissertation, I would like to consider the possibility that future scholarship might generate a method that conforms to the notion of hybridization associated with skeptical post-development theory. I will introduce this possibility by illustrating how the contestations over the failure of development projects unfold in Africa.

In 2000, the publication of *Culture matters: How values shape human progress* sparked a debate about the causes of development failure in Africa. The book explored how culture affects the ways in which societies achieve or fail to achieve progress (defined as a movement toward economic development and material well-being, social-economic equity, and political democracy). The contributing authors approached culture either as an independent variable or as a dependent variable, to determine whether ‘cultural factors obstruct’ human progress, or whether ‘political action remove cultural obstacles’ to progress.

The suppositions of the authors were grounded in Alexis de Tocqueville’s theory that a political system works in a culture congenial to democracy; Max Weber’s theory that the rise of capitalism was a phenomenon rooted in religion; and Edward Banfield’s theory on the cultural roots of poverty and authoritarianism. The common thread running through these theories is the notion that a link exists “between cultural values and the political – and economic – performance of nations” (Huntington, 2000: xxii). In other words, if we agree with David Landes, “culture makes all the difference” in development matters (cited in *ibid*).

The chapter of interest here is entitled ‘Does Africa need a cultural adjustment programme?’ contributed by the Cameroonian scholar Daniel Etounga-Manguelle, where he makes the following claims: that Africa “can no longer reasonably blame” colonial powers for its underdevelopment; that Africa “is more dependent than ever on rich countries;” and that the need to question “the African culture [] is evident” (2000: 66). Faced with “a powerful, immovable culture,” Africa is “condemned either to change or to perish” (75). To survive, Africa needs a cultural adjustment program “to eradicate the layer of mud” that prevents the societies “from moving into modernism” (77). Following this argument, Etounga-Manguelle asserts:

If Europe, that fragment of earth representing a tiny part of humanity, has been able to impose itself on the planet, dominating it and organizing it for its exclusive profit, it is only because it developed a conquering culture of rigor and work, removed from the influence of invisible forces. We [Africans] must do the same (ibid).

Responding in an article entitled ‘Post-development theory and the question of alternatives: A view from Africa,’ Sally Matthews (2004) describes Etounga-Manguelle’s ‘anti-culture’ suggestion as “ridiculous and abhorrent” (380). While acknowledging that development projects “premised upon a set of values cannot succeed in the absence of those values,” Matthews argues that by making this assertion, Etounga-Manguelle ignores an obvious conclusion: If African values are ‘incompatible’ with development, perhaps the values ought to remain and development should go (ibid).

Matthews’ position is made more pungent when considered against the background of Hassan Zaoual’s (1997) thesis that offers to explain why the transfer of technology and

development in general is a failure in underdeveloped countries. The premise of Zaoual's argument is that the 'culture of development' is "one culture among many others," and that it is not simply transferable to underdeveloped countries, "since the latter, like the culture of development itself, have their own 'culture software', their own 'symbolic sites', their own 'deep cultural matrices'" (29-30).

When development projects fail in African sites, posits Zaoual, it is because they are standardized "in the image" of capitalism (32), which, as we saw in Chapter 2 with regard to Sadie's study among the Bantu in South Africa, contrasts "the local milieu" that is based "on the principle of diversification of social links," an economic principle "inherent to a culture of relationship, sharing and solidarity" (ibid). While the African economic rationality "improves the security of the group's members by reducing hazards and risks," the individualistic rationality of the Western economic model "makes individuals more fragile" and can "plunge them into absolute poverty" (ibid).

In conclusion, Zaoual states:

It is not always easy to replace one world by another, especially when rejecting local customs. There is therefore conflict, tension and searching in the fog of the local harmony of the site and in a perturbed world ... The African sites are in a restless state of equilibrium since they are forced to adapt continually to an environment brought about, from the outside, by development. Even if the latter does not succeed, it messes things up by the debris strewn from its crash (37).

The debate provides two perspectives on how to understand the failure of development projects in Africa. On the one hand, the 'anti-culture' perspective, advanced by scholars such as Etounga-Manguelle, argues that the failure of development projects in Africa is

attributable to inhibiting cultural practices. On the other hand, the ‘anti-development’ perspective, as represented by Matthews, attributes the failure of development to the incompatibility of projects with African worldviews.

A third perspective advanced by Escobar (1995) is based on the concept of hybrid culture, which exemplifies skeptical post-development theory noted for its pragmatic position on issues relating to culture and modernity. As mentioned in Chapter 3, the theory does not endorse the ‘eradication’ of tradition or promote the ‘triumph’ of modernity. Rather, it advocates a “complex process of cultural hybridization encompassing manifold and multiple modernities and traditions” (218). Hybrid culture, therefore, is not “modernity-generating processes of modernization that operate by substituting the modern for the traditional but of a hybrid modernity characterized by continuous attempts at renovation, by a multiplicity of groups taking charge of the multitemporal heterogeneity peculiar to each sector and country” (ibid).

A development project based on skeptical post-development theory encourages the survival of African ‘traditional cultures’ “through their transformative engagement with modernity” rather than being eliminated by development (219). The result is what Escobar terms ‘popular culture’, which he defined as “a present-oriented process of invention through complex hybridization that cut across class, ethnic, and national boundaries” (ibid).

This approach to development projects “does not imply the belief in pure strands of tradition and modernity that are combined to create a hybrid with a new essence; nor does it amount to the combination of discrete elements from tradition and modernity, or a

‘sell-out’ of the traditional to the modern” (220). It entails “a cultural (re)creation that may or may not be (re)inscribed into hegemonic constellation” – that is, the result of negotiated realities in contexts “shaped by traditions, capitalism, and modernity” (ibid).

When applied to Ekiti State, where the people are already facing worsening economic conditions and, at the same time, are being controlled according to the new dogma of modernity, “the call to resist modernization while acknowledging the existence of hybrid cultures that harbor modern forms seems utopian” (221). There is, as Escobar insists, “a utopian content to this admonition, but not without a theory of the history that makes it possible” – that is a cultural theory that confronts “the logics of capital and instrumental reason” (ibid).

As we noted in Chapter 2, whereas the liberalization of telecommunications sector in the late 1990s and 2000 led to a global growth in telecommunication services, Africa still recorded the lowest ICT density levels compared to almost all other regions in the world. In many of the countries, differences occurred between urban and rural areas, along lines of gender and income inequality. The same phenomenon was recorded in Nigeria as we saw in Chapter 4. As the market grew between 2001 and 2004, teledensity increased ten-fold from 0.4% to 3.9% and the number of Internet users increased from 113,289 to 1.7 million. However, in the presence of this growth, service affordability remained a challenge. The price of owning and using a mobile phone remained beyond the reach of the rural and northern populations, and threatened to worsen the socio-economic divide. In fact, it was the divide *created* by telecommunication liberalization that fostered the political impetus to *close it* via development initiatives like the e-school project.

As this digital divide widens among regions, and between and within nations, there are consternations that the phenomenon will lead to a new form of dependency, as suggested by Manuel Castells and Roberto Laserna (cited in Escobar, 1995: 221). If that were the case, the choice before African countries and the 'losers' generally will be either "a dynamic renegotiation of dependency" or "the further marginalization from the world economy with the concomitant progressive decomposition of social and economic structures" (ibid: 222).

Escobar agrees with Castells and Laserna that the phenomenon of digital divides in a globalized economy will imperil underdeveloped regions of the world, including Africa, bringing with it 'sociocultural perversion' and political disarticulation (222). If all of these processes take place, Escobar surmises, can one accept that the answer should be "a policy capable of articulating social reform with technological modernization in the context of democracy and competitive participation in the world economy... [o]r are there other possible perspectives, other ways of participating in the conversations that are reshaping the world?" (ibid).

One way of answering this question would be to approach development projects from the perspective of hybrid culture. Instead of emphasizing the eradication of tradition or the promotion of modernity in development projects, scholars would instead encourage a complex process of cultural hybridization encompassing manifold and multiple modernities and traditions that are characterized by continuous attempts at renovation, by a multiplicity of groups taking charge of the multitemporal heterogeneity peculiar to each sector and country.

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