

## Old paradigm and Information & Communication Technologies for Development Agenda in Africa: Modernization as Context

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### Abstract

*This paper shows the close similarities between the modernization paradigm of Lerner and Schramm and the current Information & Telecommunication Technology for development agenda, promoted by the Washington Consensus group, transnational companies and advocates of the 'freedom of information' doctrine. It questions the use of indicators such as the gross domestic product (GDP) in measuring national development and access to communication technologies. The paper also points to the blurring line between development agendas and commercial interests.*

**Keywords:** Africa, ICT, modernization, development, Washington Consensus group

### Introduction

*"... the urge to develop economically and socially usually comes from seeing how the well-developed countries or the most fortunate people live"- Wilbur Schramm (1964:42).*

This paper explores the theoretical framework for the conceptualization of Information & Communication Technologies (ICTs) for development in the African context. It looks at the modernization theory and contemporary debates about ICTs for development. In this paper, my primary focus will be on the earlier modernization theorists (Daniel Lerner and Wilbur Schramm), whose works, sometimes referred to as the dominant paradigm, are central to the modernization theory. Attention will be drawn to the similarities between the modernization paradigm and current ICTs for development initiatives.

The conceptualization of mass media as both an index of development and an agent of modernization dates back to over four decades ago when the groundbreaking work of Daniel Lerner (1958) and Wilbur Schramm (1964) on mass media was released, following the United Nations' 1958 clarion call for "a program of concrete action to build up press, radio broadcasting, film, and television facilities in countries in process of economic and social development" (UNESCO, 1964 quoted in Schramm, 1964: vii).

Both Lerner (1958) and Schramm (1964) believed that mass media would bring development<sup>1</sup> to developing countries if people in these countries were exposed to the 'modernized' world and culture of the West; and in turn learn new lifestyles, behavior and culture of the West.

Modernization theory presumed that the transfer of capital goods, technologies, industries and Western norms to the developing countries would bring rapid economic productivity and social development in the developing countries, which were considered to be ancient and primitive. This position was well articulated in Lerner's *The Passing of the Traditional Society* (1958). Through exposure to Western values, Lerner argued that people in the traditional societies<sup>2</sup> would become civilized and active participants (like people in modern Western society). They would also develop a psychological pattern, which he called empathy.

Empathy, as Fjes (1976) defined it, "allows the individual to internalize the process of modernization by not only being able to cope with change, but expecting and demanding it...It is the psychic nexus of all the attitudes and behavior necessary in a modern society" (as cited in Melkote & Steeves, 2001: 115). With higher empathy, people would be able to move out of their traditional setting and expand their horizon. They would be able to adapt to Western ways of life and culture faster, especially with the continuous spread of ideas of social mobility and changes such as urbanization, literacy, and other Western belief system in the mass media. Once this happened, "Lerner believed that these institutional developments (which had already occurred in Western nations) would lead to a take-off toward modernization" (Melkote & Steeves, 2001: 85). In other words, modernization is westernization. A nation is developed and modernized when it perfectly resembles industrialized Western countries in economic structures, socio-political institutions, cultural behavior and social-cultural attitudes to science and technology. As Schramm clearly stated in the book that he co-edited with Lerner in 1976, "the essential point was that growth in one of these spheres stimulates growth in others, and all spheres of society moved forward together toward modernization" (Schramm, 1976: 45-46 as cited in Melkote & Steeves, 2001).

### **Mass Media and Development**

Given the high expectation placed on mass media to bring social and economic development, the United Nations (UN) mandated one of its agencies, the United Nations Educational, Scientific and Cultural Organization (UNESCO), to supervise its program of concrete action that was aimed at building communication facilities in developing countries. UNESCO convened a series of meetings with media experts, country representatives, communication organizations and academics. These meetings, which were intended to draw developmental programs for each region of the world, started in Bangkok in 1960 for the Asian communities. Two other subsequent meetings were held in Chile and Paris for Latin America and Africa. (Schramm, 1964).

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<sup>1</sup> The development in the context that Lerner, Schramm and et al. perceived it was "a fateful procedure whereby poor nations should imitate the social, political, and economic steps of their wealthier counterparts (Huesca, 2003:52).

<sup>2</sup> From the standpoint of Lerner, traditional societies are the developing countries, which sometimes are also referred to as third-world countries. The modernized world or societies are the industrialized Western countries.

Based on the inputs gathered from these meetings, UNESCO submitted a survey report to the UN. In December 1962, the UN General Assembly adopted a resolution “expressing its concern that the survey discloses 70 percent of the population of the world lack adequate information facilities and are thus denied effective enjoyment of the right to information.” The resolution further went on to say: “Information media have an important part to play in education and in economic and social progress generally” (UNESCO, 1964 as cited in Schramm, 1964).

In the light of this, UN and UNESCO urged every country, especially African countries, to include communication development plans in their national development and policy agenda. Much as advocates of the ICTs for development trajectory do today with enumerating the penetration of ICTs (such as the numbers of telephone per 100 people or a unit area), UNESCO introduced a metric system to track each country’s communication development. UNESCO expected each country to have a minimum of 10 copies of newspapers, 5 radio receivers, 2 cinema seats, and 2 television receivers for every 100 people. This minimum requirement was set with due regard to the United Nations’ yardstick for measuring national development in the 1960s and 1970s. The UN considered a country “underdeveloped if the average per capita income is less than \$300 annually” (UNESCO, 1961 cited in Schramm, 1964:95). Until this moment, numerous Sub-Saharan African countries still have an annual average per capital income that is lower than \$300. According to the 2003 Human Development Report from the United Nations Development Program (UNDP), almost all of the low human development countries are in the Sub-Saharan Africa region; thirty out of the total of 34 bottom countries in the UNDP’s human development index are in the Sub-Saharan African region (UNDP, 2003: 1). The measuring index for development has not changed much from what was used in the 1960s and 1970s. The UNDP still uses indicators such as per capita income and gross domestic product (GDP) to measure national development.

However, the use of quantitative measures for national development and access to communication technologies is flawed. Although there is a large influx of television sets and radios to many African countries, the use and access of these older communication technologies (radio and television) have relatively little significant impact on the social and economic well being of the users. More so, high per capita income and high gross domestic product do not necessarily mean that there is an improvement in the lives of every citizen in a given country. For instance, in the 1980s, there was a vast growth in the US economy. But this economic growth did not trickle down to the people at the bottom. Rather it was the rich ones that benefited from the growth. The incomes of those at the bottom drastically fell, as there was a widening gap between the poor and the rich in the country.

Although renowned economist and Nobel Prize winner Arthur Lewis argued that this inequality was good for development because the rich save more than the poor and thus increase capital accumulation, Joseph Stiglitz, the former World Bank’s chief economist and senior vice president, saw it differently. In his book, *Globalization and Its Discontents*, Stiglitz pointed out that the Washington Consensus’ trickle-down economic policy, which African countries and other developing countries are being pressurized to adopt, is nothing more than just “a belief, an article of faith” (2003:78). He likens the condition that the trickle-down economic policy cum developmental agenda of the Washington Consensus could create in a country, especially in a developing country, to pauperism in the 19<sup>th</sup>-century England. Despite 19<sup>th</sup> century England’s

economic prosperity and growth, pauperism also simultaneously grew in high proportion to their prosperity. The gap between the rich and the poor was extensively widened as well. In other words, the insistence on quantitative measures for national development and for access to communication technologies does not equate to ‘development.’

Schramm worked for UNESCO as an independent expert on the UN/UNESCO’s program of concrete action. The ultimate aim of Schramm’s work was to provide scholarly interpretation and understanding on the role of the mass media in economic and social progress. His mandate was also to “help the developing countries in the practical application of this knowledge for the welfare of their peoples” (UNESCO, 1964 as cited in Schramm, 1964 viii). Just like Lerner, he believed “greater accessibility, exposure, and the use of mass media correlated positively with literacy, economic well-being and political participation” (Huesca, 2003: 52).

### **Communication Technology Development and Debts**

Hence, with the pressure from UNESCO and its team of experts, the governments of many developing countries started to build communication facilities to speed up “modernization”. At the expense of other sectors of the economy such as health care, transportation and education, many African governments, with loans and bilateral aid from Western donors and UNESCO, “embarked upon a program of expanding communication facilities already available in the region, while introducing color broadcasting, telecommunications, microwave, satellites, computers and other new communication technologies” (Boafo, 1991: 106) from the 1960s to the 1980s. This step was taken in anticipation that information and communication media would bring socio-economic development. But sadly enough, these programs of expanding communication facilities ended up being wasteful and abandoned projects. In the end, some of these countries became seriously indebted after investing a significant amount of national capital and funds on these communication technologies, which were not useful to them. For instance, in the late 1970s and the 1980s, Ghana spent \$14 million USD on the earth station project, which was intended to improve its telecommunications system and enhance the nation’s contact with the rest of the world. The anticipated telecommunications improvements and socio-economic benefits did not materialize because Spar Aerospace of Canada, the main contractor that worked on the project “supplied an international telephone switch that was obsolete, ill designed and incompatible with the specifications of the satellite earth station” (Boafo, 1991: 113). Ghana spent \$14 million USD on the project. Of the \$14 million USD that Ghana spent on the project, \$5.7 million USD came in the form of loans from Canada, which is the home country of Spar Aerospace.

Another case in point is the Aerostat Balloon System project in Nigeria. The country spent over \$200 million USD on this project, which was meant to improve the country’s communication infrastructure. Having spent millions of dollars on the project that was handled by an American company, the project was called off “on the grounds that the balloons would be a risk to aviation and that, in any case, the idea was obsolete” (Sonaike, 1989: 5). This meant that Nigeria spent \$200 million USD, which could have been spent in other sectors (such as tourism, health care, education and agriculture) of the economy, on a project that never materialized in any economic advantage or social benefit.

In August 2004, Senator Baba Tela, chairman of the Nigerian Senate Committee on Communications, told reporters and the public in the nation's capital city, Abuja, that a British company named Rural Radio System (RRS) absconded with \$3.2 million USD without delivering rural telephony services in 125 municipal areas in Nigeria. In 2001, under the national rural telephony programme, the Federal Government awarded RRS a contract worth \$3.8 million USD. Eighty percent of the total contract worth was paid upfront to RRS, which was to provide rural telephony services to a total of 125 municipalities in Nigeria. Since 2001, RRS has not fulfilled its obligation of the business contract. Nigeria's national rural telephony programme is being funded with a \$200 million loan facility from the Government of China.

It is important to note that many of these multinational companies assisted Nigeria, Ghana and several Sub-Saharan African countries in arranging and getting huge loans from the Paris Club, the London Club, the World Bank and other international lending institutions for these "over-ambitious projects, which they executed, thereby drawing these countries into the so-called 'debt trap'" (Sonaike, 1989:5). These countries still have huge loans to pay back to some Western countries and lending institutions such as the Paris Club. For instance, Nigeria has a debt of \$30 billion USD. These debts are not sustainable. "Even our development partners are aware that we cannot meet up with the challenges of development, with the present high debt burden," said the President of Nigeria, Olusegun Obasanjo on May 29, 2004 at the fifth year anniversary of Nigeria's return to democracy (Punch Newspaper, 2004).

According to Jubilee 2000, an international pressure group that is advocating for debt cancellation for the less developed countries, 33 of the 41 heavily indebted countries in the world are in Africa. Although it is imperative to mention that communication technologies might have accounted for the smaller portion of these debts when one looks at the amount of dollars being spent in purchasing military arms, the huge debt of these countries still has a profoundly negative impact on genuine communication development. As a result of the magnitude of these countries' debt, the *Media Development* journal in 1989 maintained that it would take "a long time before the majority of Africans -more than 70% - have good reading lights, access to television or perhaps worst of all, access to telephone" (Media Development, 1989:1). The primary reason cited for this is that developmental initiatives such as rural and semi-rural electrification programs were being scrapped in order to service the huge debts to the foreign lenders and creditors. In some cases, countries spent over half of their annual budgets to service debt. Now, Sub-Saharan Africa is three times more indebted that it was in 1980. At the end of the 1990s, Sub-Saharan African countries have a debt of over 235.4 billion USD. Although the World Bank, in its 1986 World Development Report, predicted that in the worst case the debt of the developing countries would be \$864 billion USD and that of Sub-Saharan Africa would be \$29 billion USD in the mid-1990s, this was not the case (Charlton, 1999). "By 1994, according to the World Bank's own figures, the external debt of all developing countries stood at nearly \$2 trillion USD, while the debt of Sub-Saharan African countries was \$210 billion USD" (George, 1996 cited in Charlton, 1999: 381). This debt burden is bondage on these countries, and does have an adverse effect on their sustainable social development and economic growth.

### ICTs and 'New Modernization' Approach

With the significant advancement in communication technologies in the last two decades, there has been a renewed interest in information and communication technologies (ICTs) as “an icon for modern development” (Heeks, 1999:15). It is driven by corporate ICT vendors such as Microsoft, international organizations such as the World Bank and the International Monetary Fund, academic scholars and civil society groups. Since the mid-1980s and increasingly in the 1990s, the World Bank and the International Monetary Fund (IMF) have also strategically positioned telecommunication networks as a key paradigm for development of countries. In one of the earlier World Bank discussion papers on communication technologies and economic development in the Sub-Saharan African region written in 1977, communication infrastructure is regarded as “the nervous system of both the economy and society” (Dickenson, 1977 as cited in Riverson, 1993). This notion is still upheld in most policy papers and discussion papers emanating from “Washington Consensus” group<sup>3</sup> – the World Bank and the IMF. Examples of the World Bank’s policy papers that affirmed this belief include its 1994 World Development Report, “Infrastructure for Development,” and its 1997 World Development Report, “The State in a Changing World.”

In most of the documentation and policy reports from the Washington Consensus group, there is a strong belief in the potential of ICTs to bring social and economic development to developing countries. The World Bank clearly states in one of its report that “if African countries cannot take advantage of the information revolution and surf this great wave of technological change, 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 M’Bayo, 1997: 351). This similar view was reiterated in both the UN Millennium Report of 2000 and the UNDP Human Development Report for 2001. Between the 1960s and now, the involvement of the World Bank in the telecommunications sector has changed greatly. From being a mere financial adviser and loan provider in telecommunications in the 1960s, the World Bank (alongside others in the Washington Consensus group) has moved to being involved in the reforms of the telecommunications sector. Wellenius and et.al (1992) summarize the World Bank’s involvement in the telecommunication since 1960s as follows:

Initially, the Bank focused on financing investments to modernize and expand physical plant. . . . In the 1970s, broader efforts were made to strengthen the telecommunications enterprises’ organization and management. In the mid-1980s the Bank further expanded the scope of its support for telecommunications, emphasizing sectoral reforms including, where appropriate, the privatization of state telecommunications enterprises (cited in Wallsten, 1999: 3).

As expressed in the earlier modernization literature, the role of state governments remains a blind spot in the literature from the Washington Consensus group, reflecting the beliefs of experts in the free-market ideology. The viewpoints of the current Washington Consensus group and the

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<sup>3</sup> ‘Washington Consensus’ group denotes the IMF, the World Bank, and the U.S. Treasury. They are tagged ‘Washington Consensus’ group because of the usual “consensus between the IMF, the World Bank, and the U.S. Treasury about the “right” policies for developing countries” (See Joseph E. Stiglitz’s *Globalization and its Discontents*. Norton: New York, 2003, page 16).

previous modernization paradigm view on communication and development are similar because both views are rooted in neoclassical economic theory, which uses indicators such as per capita income and gross national product (GDP) to measure economic growth and social development. In the modernization paradigm of Schramm and Lerner and in current ICT for development discourse (from the Washington Consensus group, the ITU, academic experts and civil society groups with related views to the Washington Consensus group), “development is simplified to quantitative variables” (Nulens & Audenhove, 1999: 461). Both perspectives see ICTs (in the current age) or mass media (in the 1950s and 1960s) as a great multiplier of economic and social development. However, the conceptualization of the multiplier in both perspectives is slightly different as “the conceptualization of new technologies (telecommunications, satellites) were limited to economic and sociological features as opposed to the psychological reconditioning of people’s daily lives planned in the mass media era” (Singh, 2002: 480). Apart from this slight difference in the conceptualization, the principles behind these perspectives are still basically the same.

In the 1960s and the 1970s, the emphasis was on the penetration of mass media, that is, in “sending radio and TV transmitters, cinema projectors and newspaper printing systems to Africa” (Alhassan, 2004: 97). Now, the new mission is digitization and ‘computerization’ of Africa. Computers, cellular phones and the Internet are being promoted under the doctrine of the free market as the inroad for African development. “Benefits for telecommunications such as diversifying the rural and urban economic bases, reducing business and administrative costs, and for delivering social services such as health, education, and emergency services” are greatly emphasized (Singh, 2002:487).

Underlying these market-oriented initiatives around communication technologies is the transformation of communication activities into commercial commodities (D. Schiller, 2003). Mosco (1996) explained that the enlargement of the market deepened market penetration for the distribution and the use of ICTs. It would be naïve to say that millions of potential customers in the Sub-Saharan Africa region do not appeal to the transnational companies and their home government, especially in light of the fact that few Africans with access to the telephone make international calls that is approximately three times the world average of 200 minutes per year (Winseck, 1997; Tarjanne, 1994). Since the 1960s and in particularly the 1980s and the 1990s, “major transnational manufacturers of computers – IBM, NCR, ICL, Wang, Amstrad, Apple, and Olivetti – have established distribution networks throughout black Africa to sell and service their hardware and software products” (Boafo, 1991: 107). Likewise, in the 2000s, there is a strong presence of transnational telecommunication companies such as Alcatel, Philips, Nokia and Ericsson on the continent.

From the business standpoint, Africa is a lucrative market if it is opened up to Western companies. The US Clinton Administration acknowledged this when it launched the Africa Growth and Opportunity Act (AGOA), part of its Trade and Development Act, in 2000. The US, which is home base to many transnational communication companies, passed AGOA “to advance US economic and security interests by creating incentives to fuel the continuing liberalization of economies in Sub-Saharan Africa and the Caribbean Basin (Robins, 2002:240).

Given that communication is treated as a product and at the same time as the multiplier of economic growth within the two paradigms, Norton (1992) calculated the economic significance for nation-states by “using data from 47 countries for the period 1947 to 1977 and controlling for the initial stage of the level of telecom development and a number of macroeconomic variables” (Gebreab, 2002:5). From his calculation, Norton discovered that telecommunications has a positive impact on economic growth. However, this positive impact of telecommunications on economic development is only evident in the developed countries such as Japan that already possess both a good telecommunications infrastructure and a proper regulatory framework. This is because transaction costs are lower and the output is on the rise when there is a well-structured and properly maintained infrastructure in place. A similar conclusion to Norton’s was also reached by Roller and Waverman (2001) who examined the relationship between telecommunications infrastructure and aggregate output using Organization of Economic Cooperation and Development (OECD) data for the period 1970 to 1990 (Gebreab, 2002).

While there is an important link between ICTs and economic growth, there is still a complex set of questions in the literature on the actual role of ICTs for social and economic development. Does the mere introduction of ICTs into an economy bring development and growth? Should market forces be the primary determinant of the operative regulatory framework for the telecommunication sector? Without political and cultural forces, can these ICTs truly bring both economical and social development in Africa? As Melkote & Steeves (2001) ask: “Are ICTs a boon or bane for development?” (262).

### **Communication Technology Development and Dependency?**

From the critical school of thought in the political economy of communication, these emerging ICT and telecommunications systems are examples of what Herbert Schiller called “all-service-supplying cultural media-environment” (Schiller, 1993:100). These technologies, in Schiller’s view, are vehicles of cultural imperialism (Nulens & Audenhove, 1999: 456) because they are “expression of the capitalist structures and the striving from which it [they] emerged” (Schiller, 1976 as cited in Hamelink, 1986). The trend in the global ICT market reforms since the early 1990s shows an increasing privatization of the telecommunications industry and the transnational companies’ dominant take-over of telecommunications services in the market structure. In 1995, the worldwide investment in the telecommunications market was \$152, 000 billion USD. In 1998, revenue of over one trillion dollars came from the communication sector that included telecommunication services, broadcasting services and communications equipment (Thussu, 2000; OECD, 1999). This sector has gradually become the economic engine as well as an enabler of social, educational and medical progress (ITU, 2002). In spite of the huge investment return from the telecommunication and the missionary-like-zeal that some transnational companies and the international development agencies have taken in designing and funding ICT initiatives and the construction of telecommunication networks in the developing countries, the benefits of telecommunication have not started to flow to the hardy peasants toiling in the Himalayan ranges of Nepal, the tribes of Papua New Guinea, the Indians of Brazil and the people of Africa (ITU, 2002; Robins, 2002; Panos Institute, 2002).

Scholars such as Oliveira (1992) from Latin America, which is one of the primary targets of Western developmental projects, have shown in their research that development projects have done relatively little to improve the social-economic conditions of the people in Latin America. "In their studies of literacy, mass culture, journalism and television, they showed how Western media companies were the chief beneficiaries of modernization programs (Mosco, 1996:123). The common theme in the work of the Latin scholars is that Western designed developmental programmes actually further create underdevelopment in the region and make Latin America more dependent on Western countries. In the 1960s, the annual growth rate in this region was 5.4 percent. But in the 1990s, the annual growth rate of this region has plummeted. It is "at 2.9 percent [in the 1990s] after the reform, was just more than half that in the 1960s" (Stiglitz, 2003: 86).

The result of these development attempts in Latin America is also akin to the outcomes of the development initiatives in Sub-Saharan Africa since the 1960s. As it is the case in Latin America, many of these development initiatives, carried out under the influence and pressure of the Washington Consensus, transnational companies and their home governments, have "spawned such social pathologies as massive rural-urban migration, widened gaps between the few rich and the many poor, increased distance between the political leadership and the populace, and marginalized roles of the people in establishing development goals, policies, and strategies (Boafo, 1991: 104). Sussman and Lent (1991) have argued that these developmental initiatives have failed to yield positive benefits in the developing countries because the design and the implementation of most of these Western sponsored initiatives are misguided. Often, they obfuscate "the historical and political economic bases of increasing inequality, global dependency, and social dislocation, while protecting exotic and deprecating colonial folklore about Third World peoples and poverty" (Sussman & Lent, 1991: 2).

Schramm, one of the key architects of the modernization paradigm, eventually criticized his own work (1964) and the modernization approach. Schramm (1979) argued that the failure of the development initiatives in the developing countries was due to the total applicability of the Western-model of development in these countries. He suggested, however, that the design and the implementation of the development projects should be revised to integrate the cultural and community needs of the developing countries.

However, it is still believed that ICTs have the potential to accelerate development<sup>4</sup> in developing countries if there are "drastic changes in international and national economic, social, political and legal structures" (Melkote & Steeves, 2001:266). As it is presently constituted within the international economic, social, political and legal regimes, African countries are at a disadvantage because of their inability to "influence the global communication agenda, which continues to be set and implemented by the world's most powerful nations" (Thussu, 2000: 6). Likewise, at the national level, the local elites control and set the pace of the communication agenda.

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<sup>4</sup> Development as used here refers to improvements in living conditions.

### Summary and Conclusion

This paper has drawn information from the modernization paradigm, the current ICTs for development discourse, and critics of both the modernization paradigm and the current ICTs for development agenda to show the close similarities between the modernization paradigm (derived from Lerner and Schramm) and the current ICTs for development agenda (from the Washington Consensus). The paper also showed “the blurred line between the development planning and foreign government and commercial interests” (Robins, 2002: 246).

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