

GLOBALIZATION, ICTS AND THE NEW IMPERIALISM: PERSPECTIVES ON AFRICA IN THE GLOBAL ELECTRONIC VILLAGE (GEV)

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Y. Z. YA'U
Centre for Information Technology and Development (CITAD)
Flat 3, First Floor, W/House, BUK Road
P. O. Box 10210, Kano, [Nigeria](#)
yunusayau@hotmail.com

1. INTRODUCTION

The convergence of microelectronics, communication and computing technologies has given rise to new information systems, which have the ability to manipulate information rapidly in a number of ways and deliver such information with incredible speed at very low cost. This manipulative attribute of the new systems has itself given rise to new categories of services while enhancing old ones. The Internet in particular, which is at the centre of the information technology mediated world is critical to the globalization process, that is integrating the world into what is termed as the Global Electronic Village (GEV).

Ever since Marshal McLuhan used the phrase global village in the 1960s to refer to this contracting world, the concept of global electronic village (GEV) has gained increasing currency and an apparent objective reality. The world has become fully connected and brought together at the instance of a click of the mouse. Beyond this virtual reality, however, lies a social reconstruction of the world through a globalization process, which is seen as the integration of the world into a single market. At the heart of this process is the Information Technology, or more broadly, information and communication technologies (ICTs) that ever-pervasive technology that is changing the ways in which we do things. Information Technology has unleashed a torrent of technological changes that have profound implication in the way in which society is organized.

How is Africa located in this new global system? What are the implications and the challenges that such a positioning presents to the continent? What efforts are on ground to confront the challenges? How viable are they? What other alternative options for confronting these challenges exist? These are the substantive questions of this contribution.

The paper starts first by exploring the links between globalization and ICTs and the emerging world that such linkage is evolving. It argues that globalization is not only enabled by ICTs but that the level of connectivity of a country determines to a large degree the possibility of its benefiting from the globalization process. For this reason, the paper undertakes an assessment of Africa's position within the content of the cyberspace. What emerges from such an assessment is a gloomy picture: Africa is poorly positioned in the cyberspace as to benefit from globalization. Instead, the continent faces the challenges of imperialism anew, this time represented by knowledge dependence.

The paper then offers an articulation of the substance and nature of this new imperialism that is resulting from both globalization and an unequal access to ICTs in a world that is increasingly becoming knowledge mediated. This new imperialism that is signposted by global governance based on the World Trade Organization (WTO) presents African with new development challenge, which it has to confront.

The paper argues that for Africa to break the hold of this imperialism, it has to find ways of deploying ICTs, among other things, for development purposes. This leads us to assessing the current efforts and strategies aimed at addressing the digital divide in Africa. One basic fact about this is that inspite of the multiplicity of bridging strategies and efforts; the digital divide is expanding rather than closing. Within this context therefore, the paper seeks to offer an explanation on why these efforts are not successful. The last section provides a framework for addressing African's digital marginalization.

The framework takes as its point of departure that integration of Africa to the global economy is a reality. However, the nature and mode of this integration need to be contested. It also proceeds from the observation that the digital divide, defined as unequal access to ICTs within and between nations, is part of the wider development divide that has been characteristic of imperialist domination of the third world.

THE PATHWAYS OF GLOBALIZATION

Whether seen as an historical process or an ideological construct, globalization brings about greater interaction between countries, and between peoples. John Tomlinson (1996) defines it as "a rapidly developing process of complex interconnections between societies, cultures, institutions and individuals world-wide. It is a social process which involves a compression of time and space, shrinking distances through a dramatic reduction in the time taken - either physically or representationally - to cross them, so making the world seem smaller and in a certain sense bringing human beings 'closer' to one another". Thomas Friedman (1996) sees it as "the loose combination of free-trade agreements, the Internet and the integration of financial markets that is erasing borders and uniting the world into a single lucrative, but brutally competitive marketplace".

Globalization reduces the world into an integrated system of markets. Under the process, international trade is considered to be the major engine of economic growth, and should therefore be facilitated. This facilitation is to be done through trade liberalization, necessitating the removal of tariff and non-tariff trade barriers. In addition, states are to withdraw from social provisioning by privatizing state social service organizations. The role of states is being reducing to that of creating a conducive environment for private sector-led development.

In concrete terms, globalization presents itself as the breaking down of national barriers in terms of trade, flow of information and capital, and in terms of ownership of key industries. Multinational corporations are increasingly displacing local ownership in key and dynamic sectors of national economies. It is also changing the nature of national policy making in that globalization demands conformity with policy prescriptions, which national policy making instruments and processes have no role in articulating. This last has serious implication to the essence of national democracy. Democracy is about the capacity of citizens to participate in the process of decision-making and to influence their governments in the process. In the context of globalization, the space for this has been constrained as policy flows top-down from the international trade regulating organization to national governments. This means that globalization disempowers citizens, and therefore, substantively undermines democracy globally.

The debate about the nature and impact of globalization is ongoing. However, certain consensus is building. For instance, it is now understood to encompass not "just about deepening of financial markets, but includes a whole range of social, political, economic and cultural phenomena" that is simultaneously driven and facilitated by developments in ICTs (Cogburn and Adeya, 1999:2). O'Neill (1999: 1) talks of them as being "seminal to the globalization process". It is also agreed that in this process, the World Trade Organization (WTO), an organization ostensibly established to regulate world trade, has come to assume the role of global governance, whose modus operandi are, as Dot Keet (1999: 9) remarks "the product of self-serving and highly tendentious political processes; and based on upon and reflecting a particular economic model or paradigm favouring the strong".

What is the role of ICTs in this process? At one level, ICTs provide the pathways with which the world is brought together, conquering both time and space. The critical role of ICTs here is that they allow the flow of information and market intelligence at incredible speed and at very low cost. This means that MNCs have better access to the most comprehensive market intelligence, they can better coordinate their activities and management. ICTs also link up the new manufacturing outposts of the transnational corporations in the South to their markets in the North

The technology of e-commerce has also means an easy and speedy movement of capital. Multinationals can therefore move their capital to where conditions are most profitable. Moreover, goods and services, including stocks, are traded electronically, thus firms do not have to be involved in the actual movement of funds. Electronic transactions are invisible and therefore difficult to tax, thus allowing for bigger profit margins for the transnational corporations.

One of the pillars of globalization is international trade in services such as education, financial, health and telecommunication services. In the past, a country or firm offering these services in another country had to either be physically located in the country that it wants offer the services or set up a local representative, usually, a subsidiary, whose operations were subject to national policies. Now with ICTs, these services are being offered in a wider scope online. Electronic banking, online educational services, telemedicine, data processing, etc are the deliverables through which the WTO's General Agreement on Trade in Services (GATS) is being operationalized. Increasingly, these do not only constitute a significant volume of international trade, but also major sources of exports by leading industrial countries such as USA, Japan and Germany. For example, today the marketing of bandwidth and satellite channels by US companies constitutes a major trade export to the African continent. The ability of any country to participate in GATs is largely dependent on its level of ICT connectivity. A country that has poor ICT infrastructure cannot offer services such as online education, telemedicine and international bandwidth services, even within its national borders.

Another noted feature of globalization is the internationalization of production. This along with outsourcing of goods and services means that transnational corporations would site different units of their overall production systems in a number of different countries, taking unique advantages offered by each site, such as cheap labour, cheap raw materials, poor labour standards, less stringent environmental protection requirements, etc. This is possible only with a fast and reliable means of communication that is complimented by an equally fast and reliable means of transportation. It is this that has given the border porosity characteristic of globalization. It is not only that liberalization of trade has necessitated the removal of tariff and non-tariff trade barriers but that much of trading today is done via the Internet, which has no national boundaries. In such a borderless space, the capacity of states to legislate in the national space has been critically undermined.

Globalization proceeds with its own myth objectification. It thus seeks to not only contest other rival development paradigms but also subvert them. It tries to rationalize a particular way of configuring the world, including privileging a particular type of **globalization** as there are indeed many types of **globalizations**. ICTs provide the platform and channels through which this ideological rationalization of market orthodoxy globalization takes place.

One other consensus about globalization is that its benefits are not evenly distributed across nations and people. Even within a country, there are losers and gainers. The ability of a country to benefit in the globalization process is dependent among other things, on its access to technology, international bargaining power and the relative strength of its economy. Access to ICTs in particular has been generally recognized as a major enabler for a country and people to benefit from globalization. Countries that are better connected have better chance of benefiting positively than those that are poorly connected. In this sense, it is important to assess Africa's position in the cyberspace.

AFRICA IN THE CYBERSPACE

Africa is presently at the bottom of the ICT ladder. This has serious implications for both the continent as well as globally. To illustrate the standing of the continent in the digital divide, we need to look at some of the statistics.

With a population share of about 13% of the world population, Africa has a total share of only 20,042,100 out of about 10 billions global telephone lines, representing a paltry share of 0.22%. It has just a little over 1 % of total global pc population. Table 1 summarizes the position of Africa in the different aspects of ICTs.

Table 1: Distribution of basic ICT access indicators in Africa as percentage of the world

	Landlines	PC population	Cellular lines	Internet hosts	Internet users
Africa	20,043,100	7,556,000	11,295,000	274,742	6,735,700
World	9,281,040,000	495366,000	727,186,200	141,382,198	498,666,700

%	0.22	1.53	0.16	0.19	1.35
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Source: ITU, 2001, 2002

The precarious position of African is even more revealing if we de-aggregate the data in terms of density or penetration ratio. This is shown in Table 2. It is seen that while the world average for landlines is about 15.36 lines per 100 people, Africa's is 2.55%. Similarly, where the world average for Internet host is 232.66 per 10,000 people, Africa's is only 84.71 per 10,000 people. But the world average is pushed down by the poor showings of Africa and other developing countries. Compared to Europe and the USA, Africa's figures are terribly dismal. For instance, while USA has an average of 67.30 telephones lines per 100 people, 40.00 mobile lines per 100 people, the equivalent figures for Africa are 2.55 and 1.47 respectively. Sweden's figures are 68.20 and 71.37 respectively. When it is taken that more than half of the ICTs in Africa are in South Africa, the rest of Africa appears to have really very little to show. As a matter of fact, by 2000, only about 26 countries in Africa had penetration of ratio of one percent and above (ITU, 2001), the minimum recommended by the International Telecommunications Union (ITU) for dev eloping countries.

Table 2: Some indicators for Africa as compared to other countries

	Landlines/ 100 Inhabitants	PC population /1000	Cellular Lines/100	Internet Hosts/10,000	Internet Users/10,000
Africa	2.55	1.06	1.47	3.44	84.71
World	15.36	8.42	12.06	232.66	820.82
Europe	39.16	17.94	36.14	192.45	1804.60
USA	67.30	62.25	40.00	3,714.01	4995.10
Sweden	68.20	56.12	71.37	825.14	5162.74

Source: ITU, 2001. 2002

Another set of indicators is built around access to traditional or older forms of ICTs. These include radio, television, newspapers and others. This is important because ICTs have integrated these older technologies in a way that modifies their uses. Like in other indicators, Africa presents a poor showing. African share in terms of these older forms of ICTs is very low, although radio has achieved a fairly better penetration than any of the others (see table 3).

Table 3: proportion of people having access to various technologies

Region	Online	Radio	Television
Africa	0.3	17	5
North America	27	118	61
Western Europe	12	29	53
Middle East	3	39	25
Scandinavia	35	112	58
Asia Pacific	5	35	19

Source: compiled from Norris (2001)

The effective use of and the production of ICTs is a function of both the available relevant skills and literacy Uses of computers require a certain level of functional literacy. Thus, basic literacy is an important indicator of the potential of the citizens of a given country to use ICTs. On the other hand, the ability of countries to deploy and adopt ICTs is dependent on a core of technical manpower. This is why these two are relevant parameters in measuring the digital divide. The average literacy rate in Africa is about 55% while the percentage of technical graduates is about 2.1% compared to 56% for

the developed countries. While the OECD countries spend on average about 2% of their GDP on R&D, Africa's spending is just about 0.2%. Not surprising therefore that Africa's share of ICTs production is virtually zero. Thus, the continent is a mere consumer of ICTs.

Cost is also a factor in the low use of ICTs in Africa. The cost of PCs is still beyond the reach of many Africans. This is not to talk of the additional cost for access to Internet and payment for staying online. Incidentally, the cost per minute use of Internet is more costly in Africa than elsewhere. The authors of NEPAD put it this way "the connection cost in Africa annually is 20% of GDP per capital compared with the world average of 9% and 1 % for the high-income countries" (NEPAD, 12). The survey for the Global Network Readiness (Kirkman and others, 2002) shows that whereas in Sweden the annual cost of Internet per 20 hours is 0.12% of GDP per capital, in South Africa, which has the best in Africa, it was 5.26%. Zimbabwe and Nigeria have 51.53% and 55.13% respectively. This simply means that access alone is not affordable for most Africans.

But it is not only the citizens that are unable to use ICTs in Africa. Even the governments are not using ICTs, as they should compare to governments in other regions of the world. Table 4 for instance shows the number of government websites in different regions of the world. As can be seen, with per country average of 12 per country, Africa comes last.

Table 4: Government related websites

Region	Total number of websites	Website per country
All	14484	82
North America	1,283	428
Western Europe	5,060	404
Scandinavia	1,156	231
Asia Pacific	2,555	75
Middle East	446	32
Sub Saharan Africa	599	12

Source: Norris (2001)

Africa accounts for almost zero percent of global ICT production and its consumption is equally low. In terms of per capital spending in ICTs, the region also ranked last. This is illustrated in Table 5 below. Indeed other than a few assembly plants and some efforts at local software production in some of the countries, Africa imports all its ICTs needs.

Table 5: ICT spending per capital

OECD Countries	129.11
Middle East and North Africa	18.12
Sub-Saharan Africa	9.25
Latin America and Caribbean	29.77
Eastern Europe and Central Asia	19.90

Asia Pacific	14.99
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Source: Pyramid Research, quoted in *eXchange*, 1999

On the non-statistical aspects of the digital divide, is ownership and control of the major players in the ICT sector. These include multinationals corporations involved in the production and marketing of ICTs, the bandwidth and channel providers and other related agencies. These are dominated by USA, Europe and Japan. Apart from the UN bodies, such as International Telecommunications Union (ITU) that are concerned with the sector, there are many bodies regulating one aspect or the other of Internet. Domain name administration and protocol issuance are handled by Internet Corporation for Assigned Names and Numbers (ICANN). This body, which started as a purely American body has in spite of its global field of operation, remains dominated by America. ICANN actually took over these functions from Internet Assigned Numbers Authority (IANA), a body that was set up by the US Federal Network Council (Hamelink, 1998: 18). Africa has only one representative on the Council.

Debates within the Computer Professionals for Social Responsibility (CSPR) have tended to see the organization as unaccountable, and non-representative. For instance, in a recent article by Hans Klein (2002), the organization was exposed as creating illusion of representation when in fact; it has been systematically doing away with all elements of representation and participation such as election and open decision-making. It is also being seen as responsible for the maintenance of the dominance of the English Language in the Internet (Bridges.org, 2001). Tim Berners-Lee, the inventor of the World Wide Web adds another problem: "the best domain names will wind up with the people or corporations that have the most money" (1999: 139). The Intelsat is another intergovernmental body that provides satellite channels. Representation on the governing body of the organization is based on national contribution to the body, because of which African countries have only marginal presence.

Another aspect of the digital divide is African presence on the Internet. As of now, African content is minimal. In addition, very few African languages have made it to the Internet, with so far very few websites. A related issue is the use of the Internet by Africans. At the level of governance, few African governments and their agencies have set up websites to facilitate the exchange and sharing of public information. By 1999, while in Europe all the governments were online, in Africa only 13 out of 55 were online. Similarly, out of the 45 parliaments in African in that year, only 12 had websites whereas all of European parliaments were online.

Part of the problem is that Africa has low bandwidth capacity. Linkage between African countries are hardly existing. Traffic therefore has to be routed through third party country, usually either in Europe or US. The capacities of these routes are themselves very low compared to other routes as Table 6 shows.

Table 6: Bandwidth in some selected inter-continental routes

Route	Capacity in Gbps
US A ↔ Europe	56
USA ↔ Africa	0.5
Europe ↔ Africa	0.2
Latin America ↔ USA	3.0
Asia Pacific ↔ USA	18

Africa ↔ Latin America	0
Africa ↔ Asia Pacific	0

Source: constructed from DOT Force (2001)

However, even this limited bandwidth is rented from international bandwidth providers. Thus, all the submarine cables and the satellite transponders belong to American and European companies. Africa pays heavily for the use of this bandwidth. For instance in 2002, it was estimated that African ISPs are paying about \$1 billion per annum for connectivity to American and European bandwidth providers (Bell, 2002).

THE RESURGENCE OF THE NEW IMPERIALISM

Global governance is implicated in an attempt by the industrial countries to privilege a specific articulation of globalization for the benefits of their multinational corporations. This global governance is premised on two principles: the withdrawal of state from the provision of social goods and services and the weakening of national sovereignty. Filling in the space vacated by the states, is the World Trade Organization (WTO), which has been created to enhance international trade of the multinational corporations. WTO has claimed the powers relinquished by the states without any of the responsibility to the citizens that these powers entail. This organization is restructuring the world in such a way as to ensure the domination of the weak by the powerful. Given the critical role of the ICTs in the new world economy, WTO has also set about to configure this sector.

WTO's intervention in the ICT sector is centred around the General Agreement on Trade in Services (GATs), Trade-Related Aspects of Intellectual Property Rights (TRIPs) and the Agreement on Telecommunication. Within the general framework of liberalization and privatization, countries are to dismantle their governments' control of the sector, sell off government service companies, remove tariff and non-tariff barriers and open up the sector for foreign participation. While the argument canvassed for this is that it would accelerate the growth of the sector, the reality is that it could simultaneously transfer control of the sector to multinational corporations and at the same time open up the lucrative markets of developing countries for these firms, whose home markets are already getting saturated. To allow GATs to control our service sectors in these era of the ICTs mediated works, will as the as an UNRISD statement observes, "negate the possibilities that cyberspace offers for a new global forum, and to reduce this space to a marketplace where a controlled volume of ideas will be traded" (quoted in Varoglu and Wachholz, 2001).

The effect of this is to remove access to ICTs from the domain of social provisioning and transfer it to the market arena. By making the market to be the dominant driver of the sector, the choice is very clear: investors would only invest to the extent that they would be assured of profits. This means that national disparities and unequal access to ICTs would not be eliminated. Rather, they could be accentuated by the inability of the poor to afford the cost of access in the absence of government subsidy. The WTO would therefore contract rather than expand access to information systems in its member countries. Global trend in ICTs has shown that the information gap is expanding with those countries that have more developed ICT sector better leveraged to develop faster.

But GATs and TRIPs are concessions given by developing countries in favour of the developed countries (Third World Network, 2001). This is because, with respect to GATs, developing countries that are unable to meet their national obligation cannot be expected to trade these services in the developed countries. They have no capacity to compete. In reality therefore, it only means that developed countries should market their services in the developing countries and not possible the other way round. Given the fact that GATs covers education as well, the implications are enormous. It would not only open up this sector for the transnational corporations but also commoditise education. The consequence of this is that access to education, which has been largely a public good, would be conditioned by the market. This undermines the capacity of African and other developing countries to benefit from globalization since education is a critical requirement in the new information mediated society. Globalization privileges the highly skilled and educated set of people and communities. More

relevantly to this discussion, the access to vast ICT network by the transnational corporations would make it impossible for local educational suppliers to compete with the transnational corporations. The space is thus opened not only for the control of access to education by the citizens of the developing countries but also for laying the foundation of cultural imperialism.

The TRIPs expanded both the scope of traditional copyright protection to include such issues as patents, industrial design, trademarks, geographic indicators and appellations of origins, layout of integrated circuits, and software, among others, and extend the period of patent, in some cases to over 90 years. This means the first to win a patent would enjoy an assured monopoly. Virtually all intellectual property is today in the hands of the developed countries and therefore protecting it as the TRIPs does means that developing countries would find it very difficult to have access to new scientific knowledge and technology. TRIPs in particular is meant to ensure the preservation of the international division of labour in which research and technology reproduction is done in the home countries of the transnational corporations, while the developing countries should remain consumers of such research and technology, and providers of primary products. In this way, the technological gap between the developed world and the developing one would continue to increase.

TRIPs has also other implications. For instance, it would set the cost of access to technology to arbitrary monopoly prices. It is also indicated in the trend to cultural imperialism. Ann Capling (1999) for instance has drawn attention to how TRIPs is facilitating the globalization of a (specific) mass culture of commercialized mediocrity while undermining national local popular culture. The coding and patenting of local indigenous knowledge and cultural motifs would not only commercialize such knowledge and cultural products but also limit their accessibility to the communities.

The Telecommunications Agreement (the fourth Protocol of GATS) is a comprehensive document that provides the framework for the current telecommunication sector reform in most African countries. Among other things, it requires states to end state monopolies, open up the sector for foreign participation and adhere to the WTO rule of non-discrimination against any participant. This last means that government should not assist or give subsidy to local companies operating in the sector. This according to the WTO logic is to ensure a level playing field. Unfortunately, the field had never been level. Local companies cannot compete with multinationals that have access to vast resources, extremely large capital base, access to the most current technology and the advantages of economy of scale.

In practice, what is happening is the edging out of local companies in the sector as in other sectors. The nation as a whole loses any control of the operators of the sector, since most of the framework of their participation has been decided and crafted by the WTO. This is why Hamelink (1998) notes with respect to the Telecommunications Agreement that it is undermining the capacity of states for national policy making. The takeover of the sector by multinational corporations can be illustrated by two examples. When Nigeria called for bidding for GSM licenses two years ago, only one local company was able to participate. This company although won a license but had to forfeit it because it was unable to raise the required funds for the licenses. But even when eventually, it got another license two years later, it became obvious that it is merely a front of German Deutsche Telecoms. In the same vein, no local company could bid for the 40% shares in NITEL, the sole national carrier because of the huge monetary requirements. The second example is to draw attention to the observation Mike Jensen (1999: 12) makes that in all the countries in Africa that ended state monopolies, companies of the former colonial countries took over. This is not just symbolic but a fact of the resurgence of imperialism.

While African countries that have undertaken the liberalization of the telecommunication sector have ended state monopolies they have suddenly found themselves saddled with a new monopoly: that of the foreign investors. The AITEC report on the state of ICT infrastructure in Africa for the year 2000 (Hamilton, 2002) clearly shows this trend.

WTO itself is increasingly becoming a counter force to the UN system. This has three implications in the shaping of the world that promoters of WTO want. First, is that while the UN system tends to focus on human development and peace building, the WTO's focus is international trade as an end in itself. To that extent issues of human rights and democracy would only receive lip service in the struggle to create the environment for profitability. Indeed, the WTO makes nonsense of all the fine UN

declarations on human rights. This is because in the first instance, states have been restricted from providing resources for the realization of these rights. The contradiction between WTO's regime of minimum state responsibility on the one hand and the popular consensus of the other UN bodies, demanding that more resources should go into social welfare provisioning is increasingly being resolved in favour of WTO, subverting both the traditional role of the state in meeting the basic needs of its citizens and the UN's role in regulating international relations. An example of this is the demand by WTO, through its Bretton Wood sister organizations, that developing countries should cut public spending, including on education while UNESCO on the other hand has been calling on states to devote as much as 26% of their national budgets on education.

Secondly, the fact that these services have been removed from the domain of social responsibility to that of market relationships means that they would be provided with the sole aim of making profits. And where subsidy does not exist people have no option. Thus while the services could become indeed more available, they would equally become more unaffordable to the majority citizens of the third world countries. Such is the paradox of the WTO that availability and affordability have become mutually exclusive. There have, for instance, never been opportunities for distance education as today, yet because of the commercialist overreach of these programmes, those who should benefit from them cannot.

In spite of its many flaws, the UN system is still relatively opened, accountable and representative. The WTO on the other hand is opaque, non-representative and accountable only to multinational corporations and the governments of the big countries. It is clear as the current attempt to bomb Iraq shows, that the big powers do not want the inconveniences of the UN system and would rather want a short cut where they can act independently without the pretence of democracy. The imperialist imperatives of this are too obvious.

Third, WTO is undermining the capacity of states to pursue independent development agenda in their respective countries. This undermining of the capacity of the state to pursue independent development agenda in the national space also weakens state capacity in delivering development programmes. However, it is as Bangura notes (2001: 8) "now an accepted axiom that no country has ever developed under conditions of weak state capacity". It means therefore that globalization that seeks to undermine state capacity holds no promise for the development of those societies.

One of the promises of the information age is that access to information and channels of communication would produce a truly plural world. However, the reverse is happening: instead of a plurality of voices, what we see is a homogenizing tendency (Schechter, 2001), towards the reproduction, amplification and circulation of the voices of the big and the powerful. This homogenizing tendency is the result of three aspects of the distribution of ICTs across nations and people. One is that those who have better access to them are better placed to project their voices and vision. Secondly, ICTs are further deepening the earlier trend of vertical concentration in the media. Increasingly a few mega sites such as yahoo, hotmail and CNN are meeting the information needs of the majority. In this process, the smaller platforms have no chance of getting heard. Thirdly, and worse of all, however, these few sites are also owned by corporations that dominate other key sectors of the economy, accelerating horizontal concentration.

To make it worse for the developing countries, ICTs have created new drains that are contributing to capital flight. These included the inability of third world countries to tax transactions done over the net as in e-commerce, the fact that capital is now extremely mobile and the equally important fact that ICTs represent high level of profit repatriation from developing countries. Apart from direct transfer in the purchase of ICT equipment, African countries have also been paying huge amounts to international backbone providers through both unfair settlement rates and payment for bandwidth. The high mobility of capital in a world that is called upon to rely on foreign direct investment (FDI) is forcing developing countries to lower tax regimes in order to attract FDI. This has resulted in eroding their revenue from taxation (Torres, 2001). Additionally, in terms of trade and commerce, local firms are not able to compete with transnational ones thus exacerbating the capital flight.

Typical of the era of imperialism, there is now a scramble for markets and territories by the major powers. However, unlike in the past where such scramble was conducted through open wars, this time it is fought using a variety of means including control of technology standard setting. In the

telecommunications sector, the International Telecommunication Union (ITU) traditionally has this responsibility but it has now been joined by a plethora of new standard organizations, reflecting the breath of the ICT spectrum. One of the fiercest battles was over GSM standards. The USA has developed the Code Division Multiple Access (CDMA) standard while its European rivals have gone for the Wideband Code Division Multiple Access (W-CDMA) standard. In arguing their case for the a different standard, the companies spearheading the European standard argued that the USA standard was developed for military purpose and building a network that would be controlled by the USA defense department was politically not wise (Lembke, 2002: 163-220). They won and have been giving the USA a serious competition not only in Europe but also elsewhere such as in Africa.

The nature of this imperialism is characterized by knowledge dependence by the new re-colonized countries on the new imperial powers. It is a soft type that does not involve the physical occupation of the countries but whose path walks are mediated by the vast network of ICTs. It is signposted by a control mechanism exerted through the WTO, which acts on behalf of the western powers and their transnational corporations. It is supported by an array of means of ideological internalization that control the flow of news, entertainment and literature, as well the whole cultural space. Today, the media scene is dominated by a few organizations such as CNN, BBC, Yahoo, and Times. They decide what is news, what should be circulated and listened to or read, and ceaselessly block those that conflict with the values they want to spread. All of this of course is only possible through their control of the ICTs.

ICTs are also reinforcing old international division of labour while at the same time creating new ones. Because of the ease with which capital could now be moved around the world, multinational corporations select the most profitable locations for their operations. Although a few developing countries such Taiwan, Korea, China have been able to build national ICT production capacity, the truth is that many cannot and would therefore remain consumers of ICT products and services. This would mean that they would remain producers and exporters of primary commodities.

There has been much talk about teleworking being able to transfer many online jobs to the third world countries. Yet, the nature of these jobs reflects the sort of international division of labour that ICTs is recreating. While industrialized countries have been luring the best and experienced brains from Africa and other third countries, especially in the ICT sector, they are locating non-skilled ICT jobs and environmentally degrading production outfits to these countries. De Alcantera notes (ibid: 12):

With the exception of some groups (like software programmers), it seems that most teleworkers - who are predominantly women - are receiving extremely low wages; and some of them work in the kind of modern-day sweatshop conditions that characterized export-oriented manufacturing throughout the developing world

Africa is already suffering the result of the brain drain. A report for the UNECA shows that by 1999, more than 30,000 Africans with PhDs were living and working outside the continent (Cogburn and Adeya. 1999: 12), a situation that made the African Development Forum to set up a Commission on how to tap from this African Diaspora in the efforts to build the AISI. The immediate implication of this is that research in technology and in particular, ICTs would be done only in the industrialized countries, thus ensuring the ever widening of the digital divide. But there is a parallel to the colonial period here: while Africans were taken to Europe and America as slaves to supply physical labour, now they are taken to supply brain labour, which is needed there. On the other hand, there are all restrictions to stop migration of physical labour. The strategy of export processing zones has done away with the need for physical labour to migrate. Instead the new slaves would work in their countries for the consumption and needs of the metropolitan centers. This has the added advantage that environmental pollution could be relocated to those backward countries, and that labour standards do not have to apply, thus making it very cheap and convenient.

THE CHALLENGE BEFORE AFRICA

Globalization is thus a euphemism for the new imperialism. Its instrumentality is a world of decision-making process in which policy choices are determined by the government of the developed countries and by international institutions that are mainly under their control or influence (Khor, 2002). To confront this new imperialism, Africa has to strategize its integration in the global economy. This

strategizing must proceed from the recognition that integration into the global world system is a reality. What needs to be contested is the nature and manner of this integration. Isolationism cannot provide a counter development option nor a strategy for countering the re-colonizing impulses of globalization.

The strategizing is also multi-faceted. One aspect of this is how to address the issue of the digital divide, not the least because ICTs are engines of economic development. In pointing out the key elements of this strategizing with respect to the digital divide, it would not be out of place to first review the current efforts at addressing this problem.

The pioneering work of the United Nations Commission on Science and Technology for Development (UNCSTD) starting from 1995 placed the issue of ICTs as development tools on the global development agenda. In two major studies (Howkins and Robert 1997, Mansell and Wehn 1998), the UNCSTD sought to understand the relationship between ICTs and development, and how ICTs could be diffused across the world. One of the issues that these efforts highlighted was the digital divide. Since then bridging the divide has become an omnibus upon which every organization hopes to latch on.

There is a consensus on the need to bridge the digital divide. However, the motivations for the bridging and the strategies being employed purportedly to bridge the gaps are as diverse as the players. While organizations like the WTO see the need to bridge the gap as part of the efforts to promote global trade, others see the need to close the gap in order to either enhance the economic development of the those countries that are on the negative side of the divide or in order to escape from the recolonizing impulses of the new global order.

Over the time, there have been several initiatives at bridging the digital divide. These efforts would be divided into four categories:

- Those by development organizations such as the United Nations Development Programme (UNDP), UNESCO and the UN itself. The UNDP has been the most intensively involved in building the capacity of developing countries to utilize ICTs for development purposes. Its involvement also started earlier in 1993 when it established the Sustainable Development Networking Programme (SDNP) with the goal of addressing connectivity and networking issue. By 1996, the network had expanded to 42 islands that were connected through the Internet for information sharing (UNDP, 2001). The following year, the UNDP started two regional programmes, the Internet Initiative for Africa (IIA) and the Asia-Pacific Internet Programme, both of which provide assistance and advice to a select sets of countries in the two regions in developing Internet connectivity. Since 2000, it has been involved in the Global Network Readiness and Resources Initiative, which is a partnership with several other organizations.

The World Bank has also, apart from its banking assistance programmes in the ICT sector, been active through its infoDev unit, doing work in the area of evaluating strategies, advising governments on policy framework and generally promoting market reforms in the sector. The infoDev is a global partnership involving private sector organizations and governments that pools the intellectual, technical and financial resources of the public and private sector, facilitating market development and promoting the use of information and communication technologies (ICT) in areas such as education, health, government, commerce and environment (infoDev, 1999). Both the World Bank and the UNDP are serving as joint coordinating secretariat of the DOT Force programme of G-8.

The UN itself in 2000 set up a Task Force on ICTs. Its mandate is to advise the UN Secretary General on policy and initiatives to promote greater access to ICTs in the developing countries. UNESCO has also been involved with the use of ICTs for education, especially in the area of distance learning. ITU's contribution has centered on policy development and in the building of regional capacity for ICT administration. Both the United Nations Conference on Trade and Development (UNCTAD) and United Nations Industrial Development Organization (UNIDO) are active in building the capacity of developing countries to partake in e-commerce.

- Those by the governments of the industrialized countries, especially the Digital Opportunity Task Force (DOT Force) of the G-8: Driven by the need to capture the virgin markets of the

developing countries, G-8 member states have also taken the issue of bridging the digital divide. When in 1995, they organized a Summit on Information Technology; they invited Thabo Mbeki of South Africa to deliver the keynote address. Expectedly Mbeki used the occasion to call for partnership for the information society (Mbeki, 1998: 185). Subsequently, the G-8 set up the DOT Force charged with the responsibility of coordinating the activities of the group in the area of bridging the digital divide. Individual governments of members of the G-8, especially USA, UK and Japan have all been giving unilateral assistance to developing countries. The G-8 initiative and those of the individual governments, inspite of their 'rhetoric', aim more at capturing the African market that is virgin compared to the saturated markets of the developed countries. Thus while it could lead to a general improvement in connectivity, it cannot deal with the digital divide.

- Those by non-governmental organizations: Many local and international NGOs have been working to improve access to ICTs by marginalized groups in the developing countries. The International Development Research Centre (IDRC) has been the most active in Africa. Other NGO's that have been active in the bridging the digital divide in Africa include Computer Aid International, World Computer Exchange, and a number of foundations, such as the Saros Foundation, Ford Foundation, Kellogg Foundation, Carnegie Corporation and others (Hafkin and Wild, 2002). Much of the activities of these NGOs have centred in bringing in computers, setting up access centers such as telecentres (Ya'u, 2000), imparting ICT skills and providing networking platforms such as Association for Progressive Communication (APC), OneWorld and Kabissa. Although they have also been engaged in advocacy for improving access to ICTs and bridging both internal and international aspects of the digital divide, the effort of NGOs does not address the fundamental problems that ensure the prevalence of the gap. Another problem of the NGO intervention is the issue of sustainability. This is particularly true of project-based interventions such as telecentres and micro-credit projects. After the initial funds are exhausted, the project quickly winds up.
- Those by governments of the developing countries which are on the negative side of the digital divide: individually and collectively, the developing countries have themselves been carrying on their own initiatives at bridging the digital divide, often taking into consideration efforts by other actors. In Africa, the UN Economic Commission for Africa (UNECA) has spearheaded the continental efforts, which commenced in 1996. Under the guidance of UNECA, African countries agreed on the African Information Society Initiative (AISII) document (UNECA, 1996), which was to be implemented in the countries using what was called the National Information and Communication Infrastructure (NICI) framework. .

In 1999, the ECA convened the first African Development Forum, with the theme Globalization and the Challenges of Information Age to Africa, to assess progress made in the implementation of AISII and to draw up new initiatives. As part of the preparation for the Forum, it commissioned a continent wide assessment report on the ICT situation in each of the African countries. This report (UNECA, 1999) showed that while there were some progress, much still remained to be done to leverage Africa into the information society (Ben Soltane, 1999). The document adopted at the end of the Forum (UNECA, 1999a) was to move the tempo forward.

The policy thrust and aspirations of this document have now been largely incorporated into the New Partnership for Africa's Development (NEPAD) under its Bridging the Information Divide section. So far, apart from the deployment of technology, which has seen the evolution of mobile networks in many African countries, the major area of activities at national level has been policy development and the building of capacity for regulation. The policy framework involves liberalization and privatization of state monopolies. Many countries have liberalized the sector; some have ended state monopoly through the licensing of second national carriers while some have ended state control through privatization.

In spite of the so many efforts and initiatives, the digital divide seems to be increasing rather than decreasing. Several reports (USIC, 2000, Bridges.org, 2001, OECD, 2001, etc.) have shown that while there is a general improvement of connectivity globally, the rates are unequal across countries. The industrialized countries' networks are growing faster than those of the developing countries. This has

seen the widening of the digital divide. For instance, a 2001 report of the OECD noted that the gap between America and Africa rose from a multiple of 267 in 1997 to a multiple of 540 by 2000.

A number of observers such as Howkins and Robert (1997), Mansell and Wehn (1998), Cogburn and Adeya (1999) tend to think that the digital divide would hardly ever be bridged. While Mansell and Wehn's modeling led them to conclude that it would take Africa about 100 years to reach the 1995 level of Ireland (1998: 25), Howkins and Robert in their scenario building concluded that even the most optimistic of the four possible scenarios arrived at by the UNCSTD Scenario Building Workshop, the **Networld**, ends up with a world that is afflicted by poverty and deprivation. But they also draw the conclusion that the **Networld** is unlikely to happen because "its causes and the circumstances that might lead to its coming into existence are fuzzy" (1997: 46). Instead, they see more of the symptoms of the **March of Follies**, the worse of the scenarios in the current reality. The **March of Follies** is based on a global community that is exclusive and fragmented.

A number of factors are implicated in the failure of these efforts to bridge the digital divide. First, there is the fact that fundamentally, the sector reforms that are taking place do not aim at bridging the gap but providing access to markets for the transnational corporations, which have seen their home markets getting saturated relative to the virgin market of Africa and other developing areas. FDI goes to lucrative markets rather than where there is a need to promote universal access to ICTs. Secondly, and which flows from the first is that the efforts treat those countries that are on the negative side of the digital divide as essentially consumers of ICT goods and services. This would reproduce and perpetuate the digital divide rather than closing it. Without building a capacity for the production of ICT goods and services, they cannot hope to catch up with those countries that already have better access to ICTs, which they deploy to their economic advantage.

Thirdly, the digital divide is restrictively defined without taking into consideration the ownership and control of the networks. What does it mean that people have access to information or channels that they do not own? Citizens are provided access to channels which they have no control. Increasingly also, they are offered content from which they have little or no real choice.

Fourthly, the bridging strategies tend to see the digital divide in isolation of the large development divide that characterized the world past and present. They ignore the fact that the digital divide is not just the lack of diffusion of ICTs but both a structural problem and a product of some historical phenomena, whose legacies are several other divides in relation to the developed and developing countries (Ya'u, 2002). We have to realize that the digital divide is part of a larger social divide, which is at the core of imperialist relationship. To that extent, the digital divide can never be eliminated in isolation of this wider divide. This means that the question of access to ICTs should not be seen in isolation of the other development problems of Africa.

Fifthly, it is important to interrogate the grammar of the bridging the digital divide. Bridging the digital divide rather universalizing access to ICTs implies that there is only one possible development trajectory, which is to retrace the steps taken by the industrialized countries. This is not only fallacious but also ignores the fact that the development of the telecommunication sector of the West and the corresponding underdevelopment of that of Africa and other third world countries is a consequence of colonial conquest (Sy, 1996). To the extent that Africa cannot colonize any other continent to develop means that it has to seek for other paths to industrialization.

TOWARDS DEMOCRATISING ACCESS TO ICTS: CONCLUDING REMARKS

In Africa ICTs must be deployed to facilitate addressing the chronic development problems that the continent is facing, such as access to education, good healthcare services, good governance, etc. But ICTs in themselves do not provide these. ICTs have to be deployed within a framework that seeks improvement of the existential conditions of people than the volume of international trade as the measure of development. This is why the priority in Africa should be democratizing access to ICTs rather than some mirage chasing of bridging the digital divide. Unfortunately, market alone cannot provide incentives for democratizing access to ICTs. The historical experience of the most connected countries of the world such as the Scandinavian countries and the USA shows that their high level of connectivity was achieved largely by public investment rather than through the market. The market took over only when the network had matured.

This is why the first requirement for making ICTs accessible to African citizens and organizations is to challenge not only the content of WTO agreements but also their legitimacy. Africa countries should resist making education, health and knowledge as tradable commodities. Africa needs the development state, and such a state cannot come into being under the market orthodoxy of the WTO. It also needs a breathing space by curtailing the sweeping powers of the WTO, which undermine the capacity of states for independent development policy-making agenda.

Secondly, African countries, along with other countries need to demand the reform of WTO towards a more democratic and open organization. Its structures should be representative of countries, while its decision making processes should be transparent. Simultaneously, they have to put back the mandates of UN development bodies, which the WTO is increasingly taking over. For instance, the issues of intellectual property right should return to World Intellectual Property Organization (WIPO) where they are more appropriate. They are not simply matters of trade, but part of mankind's cumulative heritage.

Thirdly, there has to be a shift in what Dani Rodrik (2001: 5) calls the development mindset in the WTO. One of these shifts is to allow for greater autonomy by states in policy making. The other is to shift the focus of WTO from harmonizing and reduction of national institutional differences to that of managing such differences.

The elements of such a strategy should include:

1. ICTs for Development: much of the discussion about bridging the digital divide treats access to ICTs as end on its own. For the developed countries that are looking for markets to sell ICTs goods and services, this is understandable. For Africa however, access should only be a means to address Africa's development problems. This means that ICTs should be used for development purposes such as providing access to education, healthcare services, etc. In this context, it is important to realize that it does not make sense to have hospitals connected to the Internet when there are no drugs in the hospitals or schools that have no chairs to be connected to the Internet. We need to deploy ICTs creatively and appropriately to address our development needs. The Rowing Upstream Advisory Committee puts it nicely: "In planning for and using ICTs, remember to emphasize what you want accomplish with the technology, rather than the technology itself"(Levey and Young, 2002: 81)
2. Universal Access versus Market-led ICT sector: the reforms that WTO agreements have forced on developing countries is not only to liberalize the sector but also to seek the withdrawal of access to ICTs from the domain of public social provisioning to that of the market arena. This is in line with creating conducive environment for investors to make profits. However, the market cannot promote universal access. Universal access for Africa is not only desirable but also a necessary condition for the deepening of democracy in the continent. This is because it is only when people are informed and have access to the means to communicate that they can participate in the decision making process in their society. Africa must remain committed to universal access through appropriate state subsidy to economically poor citizens.
3. Who Owns the Local Networks? One of the myths of the Internet is that it is not owned by anybody. The truth is that there are those who owned the means with which to access the Internet as well those who own the content. The question of content is already a hot issue under the rubrics of Intellectual Right Protection. Current reforms on this being advocated by the industry giants would make it impossible to even read things on the Internet without paying for the content. The strategies of bridging the divide focus on having people to have access to the channels without a stake in the ownership of the channels. Liberalization and privatization are only handing over the sector to companies of the former colonial countries. The channels are not only means of communication but also a mechanism for control. Africa must therefore own its local networks.
4. Financing ICT Infrastructures: having a stake in the ownership of the channels of communication means that Africa must find the funds to finance the deployment and building of adequate ICT infrastructures. Current practice relies on loans and FDI. Both have not produced good results. Instead, they tie the continent in a subordinate relationship to the western countries. Africa can finance this by mobilizing local resources, by for instance, establishing ICT development fund or bank. Africa is already saddled by the debt burden. Such a burden cannot allow for the speedy building of an adequate ICT infrastructure in the

continent. This is why the debt question should be resolved quickly through either cancellation or repudiation.

5. Production of ICT goods and services: Africa must transcend its status of a consumer of ICT goods and services by engaging in the production of ICT goods and services. With respect to goods, it is generally accepted that the economy of scale, market proximity and capital demand will make individual national capability for production very difficult if not entirely impossible (Dedrick and Kraemer, 2000). In such a case, Africa must engage in both regional and continental efforts, to pool resources, expertise and national endowments to achieve a continental production capacity. As for service production, this can be done simultaneously at the level of individual states and continentally. Content production is particularly critical but it is also easy to do. We need to provide content that is useful to our people and relevant to our development needs, represent Africa's cultures in an authentic manner and be in a position to counter the homogenizing tendency that globalization promotes.
6. Education: Content production requires both skills and technical literacy in the use of ICTs. There is increasing acceptance that the landscape of literacy has today dramatically changed to include basic computer skills, as part of the minimum education one requires to lead a meaningful and productive life. Thus in addition to democratizing access to ICTs, citizens must be empowered to acquire technical competence and skills for effective use of ICTs. Africa must therefore integrate ICT education at all levels of its educational system. It must also reinvent its educational system, and remain committed to state responsibility in the provision of education as a public good.
7. Promoting African Languages: Democratizing access to ICTs requires more than technical literacy. It demands the ability of citizens to not only use content but also generate content on their own. At the moment, much of the content on the Internet is in European languages, which are not understood by the majority of African citizens. This means that the content of the Internet is largely incomprehensible to them. At the same time, because there is little presence of African languages on the Internet, they cannot effectively participate in the generation of African content. There is therefore the need to promote the presence of African languages on the net so as to make it truly a meaningful development and information tool for all.

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