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Globalisation, ICTs, and the New Imperialism: Perspectives on Africa in the Global Electronic Village

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Abstract

Globalization as promoted by the World Trade Organization (WTO) is resulting in a new imperialism that is characterized by knowledge dependence and the shrinking of the national space for decision making. It is facilitated by information and communication technologies (ICTs). The centrality of ICTs to globalization has resulted in an international concern for bridging the unequal access to ICTs that has come to be termed as digital divide. However, the discourse about bridging the digital divide tends to mask the reality of the digital deficit which is the consequence of a wider development divide. Yet the reality is that the marginality of Africa cannot be addressed by isolationism as a counterforce to globalization. What is needed is to rethink the terms and nature of Africa's integration in the global economy. This means interrogating among others, the current discourse about bridging the digital divide. This contribution addresses the substantive nature of the new imperialism and offers explanation as to why the digital divide tends to increase rather than decrease in spite of the various efforts aimed at closing it. It concludes by offering some directions in which the digital deficit as part of the wider development divide can be addressed.

Résumé

La mondialisation, telle que promue par l'Organisation Mondiale du Commerce (OMC) est en train de conduire à une nouvelle forme d'impérialisme caractérisée par une certaine dépendance intellectuelle, mais également par la réduction de l'espace national permettant la prise de décision. La mondialisation est facilitée par les technologies de l'information et de la technologie (TIC). Le rôle central des TIC au sein du processus de mondialisation a conduit la communauté internationale à s'atteler à la réduction de l'inégalité d'accès aux TIC, plus connue sous le terme de "

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fracture numérique ". Mais le discours relatif à la réduction de la fracture numérique a tendance à masquer la réalité du déficit numérique existant, qui est lui-même la conséquence d'une plus large fracture développementale. La réalité est que l'on ne peut lutter contre la situation marginale de l'Afrique par l'isolationnisme, comme contre-poids à la mondialisation. Il convient mieux de redéfinir les termes et la nature de l'intégration africaine au sein de l'économie mondiale. Cela implique, entre autres, une analyse de l'actuel discours sur la réduction de la fracture numérique. Cette contribution porte sur les multiples facettes du nouvel impérialisme et explique pourquoi la fracture numérique a plutôt tendance à s'agrandir, au lieu de se réduire, malgré les nombreux efforts destinés à la supprimer. L'auteur conclut en proposant des orientations permettant de réduire le déficit numérique, partie intégrante d'une plus profonde fracture développementale.

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 globalisation 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 a contracting world, the concept of a global electronic village (GEV) has gained increasing currency and an apparent objective reality. The world has become fully connected and brought together at the click of the mouse. Beyond this virtual reality, however, lies a social reconstruction of the world through a globalisation process, which is seen as the integration of the world into a single market. At the heart of this process is 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 implications for the way in which society is organised.

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 are the efforts on the ground to confront the challenges? How viable are they? What alternative options for confronting these challenges exist? These are the substantive questions of this contribution.

The paper starts first by exploring the links between globalisation, ICTs and the emerging world that such linkage is evolving. It argues that globalisation 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 globalisation process. For this reason, the paper undertakes an assessment of Africa's position within the content of cyberspace. What emerges from such an assessment is a gloomy picture: Africa is poorly positioned in cyberspace to be able to benefit from globalisation. 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 globalisation 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 Africa with new development challenges 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 divide is that in spite 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 as to why these efforts are not successful. The last section provides a framework for addressing Africa's digital marginalisation.

The framework takes as its point of departure the fact that the 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 globalisation

Whether seen as a historical process or an ideological construct, globalisation 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'.

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

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

The debate about the nature and impact of globalisation is ongoing. However, a certain consensus is building. For instance, it is now understood to encompass not 'deepening of financial markets, but includes a whole range of social, political, economic and cultural phenomena' that are 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 globalisation process'. It is also agreed that in this process, the World Trade Organisation (WTO), an organisation ostensibly established to regulate world trade, has come to assume the role of global governance, whose modus operandi is, as Dot Keet (1999: 9) remarks 'the product of self-serving and highly tendentious political processes; and based 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 by 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 multi-national corporations have better access to the most comprehensive market intelligence, and 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 meant 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 globalisation is international trade in services such as education, financial, health and telecommunication provision. In the past, a country or firm offering these services in another country had to either be physically located in the country, 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, tele-medicine, data processing, and so on are the deliverables through which the WTO's General Agreement on Trade in Services (GATS) is being operationalised. 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, tele-medicine and international bandwidth services, even within its national borders.

Another noted feature of globalisation is the internationalisation of production. This along with the outsourcing of goods and services means that transnational corporations can 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, and less stringent environmental protection. This is possible only with a fast and reliable means of communication that is complemented by an equally fast and reliable means of transportation. It is this that has given rise to the border porosity characteristic of globalisation. It is not only that the liberalisation of trade has necessitated the removal of tariff and non-tariff trade barriers but that much 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.

Globalisation proceeds with its own mythical justifications. It thus seeks to not only contest other rival development paradigms but also subvert them. It tries to rationalise a particular way of configuring the world, including privileging a particular type of globalisation over others, as there are indeed many types of globalizations. ICTs provide the platform and channels through which this ideological rationalisation of market orthodoxy takes place.

One other consensus about globalisation 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 globalisation 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 recognised as a major enabler for a country and people to benefit from globalisation. Countries that are better connected have a better chance of benefiting positively than those that are poorly connected. In this sense, it is important to assess Africa's position in cyberspace.

Africa in 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 percent of the world population, Africa has a total share of only 20,042,100 out of about 10 billion global telephone lines, representing a paltry share of 0.22 percent. It has just a little over 1 percent of total global Personal Computer population. Table 1 summarises the position of Africa regarding 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	495,366,000	727,186,200	141,382,198	498,666,700
%	0.22	1.53	0.16	0.19	1.35

Source: ITU, 2001, 2002.

The precarious position of Africa is even more revealing if we disaggregate 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 around 2.55. Similarly, where the world average for Internet hosting 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 dismal. For instance, while USA has an average of 67.30 telephone lines per 100 people, 4,000 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 a penetration ratio of one percent and above (ITU 2001), the minimum recommended by the International Telecommunications Union (ITU) for developing countries.

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

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	1804.6
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. As with other indicators, the African share in terms of these older forms of ICTs is very low, although radio has achieved a 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. The use of computers requires 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 skills. This is why these two are relevant parameters in measuring the digital divide. The average literacy rate in Africa is about 55 percent while the percentage of technical graduates is about 2.1 percent compared to 56 percent for the developed countries. While the OECD countries spend on average about 2 percent of their GDP on R&D, Africa's spending is just about 0.2 percent. It is 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 of access to the Internet and payment for staying online. Incidentally, the cost per minute use of the Internet is more costly in Africa than elsewhere. The authors of NEPAD put it this way: 'the connection cost in Africa annually is 20 percent of GDP per capita compared with the world average of 9 percent and 1 percent 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 the Internet per 20 hours is 0.12 percent of GDP per capita, in South Africa, which has the best in Africa, it was 5.26 percent. Zimbabwe and Nigeria have 51.53 percent and 55.13 percent 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 capita speeding in ICTs, the region also ranked last. This is illustrated in Table 5. Indeed other than a few assembly plants and some efforts at local software production in some of the countries, Africa imports all its ICT needs.

Table 5: ICT spending per capita

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

Source: Pyramid Research, quoted in eXchange, 1999.

On the non-statistical aspects of the digital divide, there are the issues of ownership and control of the major players in the ICT sector. These include multinational corporations involved in the production and marketing of ICTs, and the bandwidth and channel providers and other related agencies. These are dominated by USA, Europe and Japan. Apart from the UN bodies, such as the International Telecommunications Union (ITU) that are concerned with the sector, there are many bodies regulating one aspect or the other of the 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 remained 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).

Debates within the Computer Professionals for Social Responsibility (CSPR) have tended to see the organisation as unaccountable and non-representative. For instance, in a recent article by Hans Klein (2002), the organisation was exposed as creating the illusion of representation when in fact, it has been systematically doing away with all elements of representation and participation such as elections and open decision-making. It is also 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, refers to 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 organisation is based on na-

tional contribution to the body. As a result, African countries have only a marginal presence.

Another aspect of the digital divide is the African presence on the Internet. As of now, African content is minimal. In addition, very few African languages have made it onto 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. Similarly, out of the 45 parliaments in Africa 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. Linkages between African countries hardly exist. Traffic therefore has to be routed through a 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 globalisation for the benefit of their multinational corporations. This global governance is premised on two principles: the withdrawal of the 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 Organisation (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 organisation is restructuring the world in such a way as to ensure the domination of the weak by the powerful. Given the critical role of 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), the Trade-Related Aspects of Intellectual Property Rights (TRIPS), and the Agreement on Telecommunication. Within the general framework of liberalisation and privatisation, 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 these steps is that they would accelerate the growth of the sector, the reality is that this approach 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 becoming saturated. To allow GATS to control our service sectors in this era of the ICTs mediated world, will, as a 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 the dominant driver of the sector, the choice is very clear: investors will 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 subsidies. The WTO approach would therefore contract rather than expand access to information systems in its member countries. Global trends in ICTs have shown that the information gap is expanding, with those countries that have more developed ICT sectors better leveraged to develop faster.

But GATS and TRIPS are concessions made 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 obligations cannot be expected to trade these services in the developed countries. They have no capacity to compete. In reality therefore,

it comes down to developed countries marketing their services in the developing countries and not the other way round. Given the fact that GATS cover 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 globalisation since education is a critical requirement in the new information mediated society. Globalisation privileges the highly skilled and educated set of people and communities. More relevant to this discussion, the access to vast ICT networks 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 foundations 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 extended the period of patents, 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 it. 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 at arbitrary monopoly prices. It is also implicated in the trend to cultural imperialism. Ann Capling (1999) for instance has drawn attention to how TRIPS is facilitating the globalisation of a (specific) mass culture of commercialised mediocrity while undermining local popular culture. The coding and patenting of local indigenous knowledge and cultural motifs would not only commercialise such knowledge and cultural products but also limit their accessibility to 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 governments should not assist or subsidise 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, an 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 over 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 regarding 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 in 2001, only one local company was able to participate. This company did win a license but had to forfeit it because it was unable to raise the required funds. But even when eventually it obtained another license two years later, it became obvious that it was merely a front of German Deutsche Telecoms. In the same vein, no local company could bid for the 40 percent share in NITEL, the sole national operator, because of the huge monetary requirements. The second example draws 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 liberalisation 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 wish to see. The 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 realisation of these rights. The

contradiction between the 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 the 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 Woods sister organisations, 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 percent of their national budgets to education.

Secondly, the fact that these services have been moved from the domain of social responsibility to that of market relationships means that they will be provided with the sole aim of making profits. And where subsidies do not exist, people have no option. Thus while the services could become indeed more available, they would equally become more unaffordable to the majority of citizens in 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 so many opportunities for distance education as today, yet because of the commercialised overreach of these programmes, those who should benefit from them cannot.

In spite of its many flaws, the UN system is still relatively open, 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 recent invasion of Iraq shows, that the big powers do not want the inconveniences of the UN system and would rather prefer a short cut where they can act independently without the pretence of democracy. The imperialist imperatives are too obvious.

Third, WTO is undermining the capacity of states to pursue an independent development agenda in their respective countries. This undermining of the capacity of the state to pursue its own development agenda in the national space also weakens state capacity in delivering social progress. However, as Bangura notes (2001:8), it is 'now an accepted axiom that no country has ever developed under conditions of weak state capacity'. It means therefore that globalisation 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 homogenising tendency (Schechter 2001), towards the reproduction, amplification and circulation of the voices of the big and the powerful. This

homogenising 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 being 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 financial drains that are contributing to capital flight. These include the inability of third world countries to tax transactions completed over the Internet as in e-commerce, the fact that capital is now extremely mobile, and the equally important fact that ICTs contribute to high levels 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 it 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 organisations, reflecting the breadth 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 different standard, the companies spearheading the European standard argued that the USA standard was developed for military purposes and that building a network that would be controlled by the USA Defence Department was politically not wise (Lembke 2002:163–220). The European partners won and have been giving the USA serious competition not only in Europe but also elsewhere, as in Africa.

The nature of this imperialism is characterised by knowledge dependence by the new re-colonised countries on the new imperial powers. It is a soft

type that does not involve the physical occupation of the countries but whose pathways 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 methods of ideological internalization that controls the flow of news, entertainment and literature, as well the whole cultural space. Today, the media scene is dominated by a few organisations such as CNN, BBC, and Yahoo!. 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 the old international division of labour while at the same time creating a new one. Because of the ease with which capital can now be moved around the world, multinational corporations select the most profitable locations for their operations. Although a few developing countries such Taiwan, Korea, and China have been able to build national ICT production capacity, the truth is that many cannot and will therefore remain consumers of ICT products and services. As producers they will only export primary commodities.

There has been much talk about teleworking being able to transfer many online jobs to the Third World. Yet the nature of these jobs reflects the sort of international division of labour that ICTs are recreating. While industrialised countries have been luring the best and most experienced brains from Africa and other third world countries, especially in the ICT sector, they are locating non-skilled ICT jobs and environmentally degrading production outfits to these countries. De Alcantera notes (2001:12):

> 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 results of the brain drain. A report for the UNECA shows that by 1999, more than 30,000 Africans with Ph.Ds were living and working outside the continent (Cogburn and Adeya 1999:12), a situation that moved the African Development Forum to set up a Commission on how to tap this African Diaspora in the efforts to build the African Information Society Initiative (AISI). The immediate implication of brain drain is that research in technology and in particular, ICTs would be conducted only in the industrialised countries, thus ensuring the ever widening nature 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 mental labour, which is needed there. On the other hand, there are all the restrictions on the migration of manual labour. The strategy of export processing zones has done away with the need for manual labour to migrate. Instead the new slaves work in their countries for the consumption and needs of the metropolitan centres. This has the added advantage that environmental pollution can be relocated to those backward countries, and that labour standards do not apply, thus making it very cheap and convenient.

The challenge before Africa

Globalisation is thus a euphemism for the new imperialism. Its instrumentality is a world of decision-making processes in which policy choices are determined by the governments 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 strategise its integration into the global economy. This strategising must proceed from the recognition that integration into the global world system is a reality. What need to be contested are the nature and manner of this integration. Isolationism cannot provide a counter development option nor a strategy for countering the re-colonising impulses of globalisation.

The strategising is also multi-faceted. One aspect 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 strategising 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 organisation hopes to latch.

There is a consensus on the need to bridge the digital divide. However, the motivations for the bridging and the strategies being employed are as diverse as the players. While organisations 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 either to enhance the economic development of those on the negative side of the divide, or in order to escape from the recolonising impulses of the new global order.

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

- Those by development organisations 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 utilise 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 the 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 set 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 organisations.

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 frameworks, and generally promoting market reforms in the sector. The infoDev is a global partnership involving private sector organisations and governments that pool 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 the 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 centred 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 Organisation (UNIDO) are active in building the capacity of developing countries to partake in e-commerce.

- Those efforts by the governments of the industrialised 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 organised 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 in 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, in spite of their 'rhetoric', aim more at capturing the African market which is not saturated as in 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 organisations. Many local and international NGOs have been working to improve access to ICTs for marginalised groups in the developing countries. The International Development Research Centre (IDRC) has been the most active in Africa. Other NGOs that have been active in bridging the digital divide in Africa include Computer Aid International, World Computer Exchange, and a number of foundations, such as the Soros Foundation, the Ford Foundation, the Kellogg Foundation, the Carnegie Corporation and others (Hafkin and Wild 2002). Much of the activities of these NGOs have centred on bringing in computers, setting up access centres 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, developing countries have 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 (AISI) 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 Globalisation and the Challenges of Information Age to Africa, to assess progress made in the implementation of AISI 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 was some progress, much still remained to be done to leverage Africa into the information society (Ben Soltane 1999). The policy thrust of this document has 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 activity at the national level has involved policy development and the building of capacity for regulation. The policy framework involves the liberalisation and privatisation of state monopolies. Many countries have liberalised the sector, some have ended state monopoly through the licensing of second national carriers, while others have ended state control through privatisation.

In spite of the 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 industrialised 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 will 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 becoming 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 flowing from the first, there are the efforts to treat those countries that are on the negative side of the digital divide as essentially consumers of ICT goods and services. This will 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 over which they have no control. Increasingly also, they are offered content in which they have little or no real choice.

Fourthly, the bridging strategies tend to see the digital divide in isolation from the large development divide that characterised 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 historical phenomena, whose legacies are several other divides in relation to the developed and developing countries (Ya'u 2002). We have to realise that the digital divide is part of a larger social divide, which is at the core of imperialist relationships. 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 bridging the digital divide. Bridging the digital divide rather than universalising access to ICTs implies that there is only one possible development trajectory, which is to retrace the steps taken by the industrialised 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 colonise any other continent, it has to seek other paths to industrialisation.

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, and so on. But ICTs in themselves do not provide these services. ICTs have to be deployed within a framework that seeks improvement of the existential conditions of people, rather than accepting the volume of international trade as the measure of development. This is why the priority in Africa should be democratising access to ICTs rather than some mirage of bridging the digital divide. Unfortunately, the market alone cannot provide incentives for democratising access to ICTs. The historical experience of the most connected countries of the world such as Scandinavia 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 organisations is to challenge not only the content of WTO agreements but also their legitimacy. African countries should resist making education, health and knowledge 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 an 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 organisation. 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 rights should return to the World Intellectual Property Organisation (WIPO) where they are more appropriate. They are not simply matters of trade, but part of humankind's cumulative heritage.

Thirdly, there has to be a shift in what Dani Rodrik (2001:5) calls the development mind-set 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 the WTO from harmonising and reducing national institutional differences to that of managing them.

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 ICT 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, and healthcare services. In this context, it is important to realise 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 to accomplish with the technology, rather than the technology itself' (Levey and Young 2002:81).

2. Universal Access versus a Market-led ICT Sector: The reforms that WTO agreements have forced on developing countries is not only to liberalise 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 a 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 subsidies to poorer 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 own 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 Rights Protection. Current reforms being advocated by the industry giants would make it impossible even to read things on the Internet without paying for the content. The strategies of bridging the divide focus on allowing people to have access to the channels without a stake in the ownership of them. Liberalisation and privatisation 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. Neither has produced good results. Instead, they tie the continent in a subordinate relationship to Western countries. Africa can finance ICT infrastructure by mobilising local resources, for instance, by

establishing an ICT development fund or bank. Africa is already saddled with the debt burden. Such a burden cannot allow for the speedy building of an adequate ICT infrastructure on 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 as a consumer of ICT goods and services by engaging in their production. With respect to goods, it is generally accepted that the economies 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 homogenising tendency that globalisation promotes.

6. Education: Content production requires both skills and technical literacy in the use of ICTs. There is an increasing acceptance that the landscape of literacy has 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 democratising access to ICTs, citizens must be empowered to acquire the 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: Democratising access to ICTs requires more than technical literacy. It demands the ability of citizens not only to use content but also to generate it 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 Internet so as to make it truly a meaningful development and information tool for all.

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