The New Imperialism & Africa in the Global Electronic Village

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Globalisation is enabled by new information and communication technologies (ICTs) that have made it easy to move vast quantities of market information and intelligence, as well as capital, around the world. Conscious of the importance of ICTs in the globalisation process, the World Trade Organization (WTO) has developed a vision for structuring the ICT sector in developing countries. However, although embedded in international efforts to address the digital divide, itself occasioned by uneven access to ICTs at a range of geographic scales, WTO strategy for configuring the ICT sectors of developing countries appears to work in the interest of multinational corporations. Furthermore, WTO policy initiatives, especially those which come under the ambit of the Agreement on Telecommunications, GATs and TRIPs, have tended to exacerbate the digital divide. The result is the resurgence of imperialism, this time represented by knowledge dependence. While locating the marginality of Africa in cyberspace within its colonial past, this paper argues that current international attempts at bridging the digital divide are part of wider efforts to not only secure the virgin markets of developing countries, but also to configure the world in the interest of the new imperial powers. Within this context, therefore, Africa faces the challenge of imperialism anew. The paper discusses the substance of this challenge, and argues that while isolationism cannot be promoted as a counter-force to globalisation, Africa must re-establish the basis of its integration into a globalising world by developing a framework that challenges the dominant assumptions of processes of globalisation promoted by the WTO.

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 has been called the Global Electronic Village (GEV).

Ever since Marshall McLuhan used the phrase ‘global village’ in the 1960s to refer to this contracting world, the GEV concept has gained increasing currency and an apparent objective reality. The world has become fully connected and brought together at the click of a mouse. Beyond this virtual reality, however, lies a social reconstruction of the world through globalisation, which is seen as the integration of
the world into a single market. At the heart of this process is information technology (IT), 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 challenges of such a positioning for the continent? What are the efforts being made to confront these challenges? How viable are they? What other alternative options for confronting these challenges exist? These are the substantive questions that this contribution addresses.

The paper starts by exploring the links between globalisation and ICTs, and the nature of the emerging world within which these links are evolving. It argues that globalisation is not only enabled by ICTs, but that a country’s level of connectivity determines to a large extent whether or not (and how) it will benefit 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 too poorly positioned in cyberspace to benefit from globalisation. Instead, the continent faces the challenges of imperialism anew, this time as represented by knowledge dependence.

There thus follows an attempt to articulate the substance and nature of this new imperialism that is resulting from both globalisation and unequal access to ICTs in a world that is increasingly becoming knowledge mediated. This new imperialism, which is signposted by global governance based on the World Trade Organization (WTO), presents Africa with new development challenges which it has to confront. Finally, 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 to an assessment of current efforts and strategies aimed at addressing the digital divide in Africa, and the realisation that despite the multiplicity of bridging strategies and efforts, the divide is expanding rather than closing. The paper thus seeks to explain the limited success of these initiatives.

The concluding section provides a framework for addressing African’s digital marginalisation which takes as its point of departure that integration of Africa into the global economy is a reality, although 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 characterised imperialist domination of the third world.

**Globalisation Pathways**

Whether seen as an 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 worldwide. 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. 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 liberalisation, necessitating the removal of tariff and non-tariff trade barriers. In addition, states are to withdraw from social provisioning by privatizing state social service organisations. The role of states is being reduced to that of creator of an environment conducive to private sector-led development.

In concrete terms, globalisation 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. Globalisation is also changing the nature of national policy making in that it 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, which is supposed to be about the capacity of citizens to participate in the process of decision-making and, in the process, to influence government policy and action. In the context of globalisation, the space for this has been constrained as policy flows top-down from international trade-regulating institutions to national governments. This means that globalisation disempowers citizens and, therefore, substantively undermines democracy globally.

Although the debate about the nature and impact of globalisation goes on, a consensus of sorts is emerging. For instance, it is now understood to be not ‘just about deepening of financial markets, but [to] include [...] 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 ICTs as being ‘seminal to the globalisation process’. There is also consensus that as part of this process, the World Trade Organization (WTO), an organisation 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 [are] 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 through which the world is brought together, conquering both time and space. ICTs allow the flow of information and market intelligence at incredible speed and very low cost. This means that MNCs have access to the most comprehensive market intelligence and can better coordinate their activities and management. ICTs also link up the new manufacturing outposts of transnational corporations in the South to their markets in the North. The technology of e-commerce has also meant the 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, with the result that 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.

Globalisation has stimulated international trade in services such as education, financial, health and telecommunications. In the past, a country or firm offering these
services in another country had to either be physically located in that country or have a local representative or subsidiary, whose operations were subject to national policies. Now with ICTs, these services are being increasingly offered 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, see below) 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 significant export to Africa. 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 feature of globalisation is the internationalisation of production. This, along with outsourcing of goods and services, means that transnational corporations can locate different units of their overall production systems in a number of different countries, taking advantage of the unique opportunities offered by each site, such as cheap labour, cheap raw materials, poor labour standards and less stringent environmental protection requirements. 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 produced the porosity of borders characteristic of globalisation. It is not only that liberalisation 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 governments to legislate within their national space or territory has been critically undermined.

Globalisation proceeds with its own myth objectification. It thus seeks, not only to contest rival development paradigms, but also to subvert them. It tries to rationalise a particular way of configuring the world, including privileging a particular form of globalisation when there exist many types of globalisations. ICTs provide the platform and channels through which this ideological rationalisation of market orthodoxy globalisation takes place.

A final area of consensus is that the benefits of globalisation are not evenly distributed across nations and people. Even within a single country, there are losers and winners. The ability of a country to benefit from the globalisation process is dependent on, among other things, its access to technology, its international bargaining power and the relative strength of its economy. In particular, access to ICTs has been generally recognised as a major enabler for a country and people to benefit from globalisation. Countries that are better connected have a greater chance of deriving benefits 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. To illustrate the standing of the continent in the digital divide, we need to look at some of the statistics. Table 1 summarises the position of Africa with respect to different ICTs, and shows that although its share of global population is about 13%, the continent accounts for only a paltry 0.22% of the total number of landline telephone connections in the world, and less than 2% of global PC ownership.
The precarious position of Africa is even more revealing when we disaggregate the data in terms of density or penetration ratio, as Table 2 shows. Thus while the world average for landlines is about 15.36 lines per 100 people, Africa’s is 2.55 per 100 people; similarly, where the world average for internet hosts is 232.66 per 10,000 people, Africa’s is only 84.71. Indeed, world averages are depressed by the poor showing of Africa and other developing regions. Furthermore, compared to Europe and the USA, Africa’s figures are dismal (compare, for instance, access to land and cellular phone lines for these respective areas). Nor is this all, for when one considers that more than half of the ICTs in Africa are in South Africa alone, the parlous situation in the rest of Africa is thrown into really sharp relief. Indeed, by the year 2000, only some 26 countries in Africa had penetration ratios of one per cent and above (ITU, 2001), the minimum recommended by the International Telecommunications Union for developing countries.

Another set of indicators is built around access to traditional or older forms of ICTs, such as radio, television and newspapers. This is important because ICTs have integrated these older technologies in a way that modifies their uses (see, for example, the papers by Tall and Guèye in this issue). 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.

The effective use and production of ICTs is a function of both available relevant skills and literacy. Computer use 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 manpower. This is why both 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). Similarly, OECD countries spend on average about 2% of their
GDP on R&D, while the equivalent figure for Africa is in the region of 0.2%. Not surprisingly, Africa’s share of ICT production is virtually zero. The continent is a consumer of ICTs.

Cost is also a factor in the low use of ICTs in Africa. PC and internet use remains beyond the reach of many Africans. The cost per minute of internet use 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 capita compared with the world average of 9% and 1% for the high income countries (NEPAD, 2001:12).*

The survey for Global Network Readiness (Kirkman et al. 2002) shows that, whereas in Sweden the annual cost of internet use per 20 hours is 0.12% of GDP per capita, in South Africa, which boasts the most reasonable tariff in Africa, it was 5.26%; the figures for Zimbabwe and Nigeria are 51.53% and 55.13%, respectively. Clearly, for most Africans, economic accessibility or affordability limits physical accessibility.

Infrastructure is another problem. Africa has low bandwidth capacity. Linkages between African countries hardly exist. Traffic therefore has to be routed through third party countries, usually in Europe or the US. Moreover, not only is the capacity of these third-party routes very low when compared to other routes as Table 3 shows, but even this limited bandwidth is rented from international bandwidth providers. Thus, all the submarine cables and 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 were paying about $1 billion per annum for connectivity to American and European bandwidth providers (Bell, 2002).

Africa accounts for almost zero percent of global ICT production; the continent’s consumption of ICT is equally low. In terms of per capita spending in ICTs, the region also ranked last (Table 4). Indeed, other than a few assembly plants and some local software production in some countries, Africa imports all its ICT needs.

The non-statistical aspects of the digital divide include the ownership and control of the major players in the ICT sector. These include multinational corporations involved in the production and marketing of ICTs, the bandwidth and channel providers and 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 the Internet Corporation for Assigned Names and Numbers (ICANN). This body, which started as a purely American body, remains dominated by America in spite of its global field of operation. Africa has only one representative on the Council. Debates within the Computer Professionals for Social Responsibility (CSPR) have tended to portray the organisation as unaccountable and non-representative. For instance, in a recent article by Hans Klein (2002), the organisation was exposed as creating an illusion of representa-
tion 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 seen as responsible for the maintenance of the dominance of the English Language on the internet (Bridges.org, 2001). Tim Berners-Lee, the inventor of the World WideWeb, adds another problem: ‘the best domain names will wind up with the people or corporations that have the most money’ (1999:139). Similarly, African countries have only a marginal presence on the governing body of Intelsat, an intergovernmental body that provides satellite channels, as representation is based on national contribution to the body.

Finally, there is the minimal presence of African content on the internet. For example, by 1999, all governments in Europe were online, compared to 13 out of 55 in Africa; similarly, out of the 45 parliaments in Africa in that year, only 12 had websites whereas all European parliaments were online. In addition, very few African languages have made it to the internet, with, so far, very few websites using any these languages. (The United Nations Economic Commission for Africa reports a slight improvement in all these indices, particularly e-government, by 2002 (www.uneca.org/codi – eds.).

The Resurgence of a New Imperialism

Global governance is implicated in an attempt by industrial countries to privilege a specific articulation of globalisation for the benefit of their multinational corporations. Thus 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 states, is the World Trade Organisation (WTO), which has been created to enhance international trade by multinational corporations. WTO has claimed the powers relinquished by states without assuming 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 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 liberalisation and privatisation, countries are to dismantle governmental controls over the ICT sector, sell off government service companies, remove tariff and non-tariff barriers, and open up the sector to 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 to these firms, whose home markets are already becoming saturated. To allow GATS to control African service sectors in an ICT-mediated world will be, as UNRISD observes, to ‘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. Making the market the dominant driver of the sector means that national disparities and unequal access to ICTs will not be eliminated, as investors will only invest to the extent that they are assured of profits. Indeed, these disparities are likely to be accentuated by the inability of the poor to afford the cost of access in the absence of government subsidy. WTO activity could therefore result in the contraction rather than expansion in access to information systems in some of 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 positioned to develop faster.

Significantly, too, GATS and TRIPs are concessions given by developing countries in favour of 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 developed countries. They have no capacity to compete. In reality, therefore, while developed countries can market their services in developing countries, the latter are not in a position to undertake reciprocal trade in developed country markets. Given that, in addition to IT, GATS also covers education, the implications are enormous. Not only would GATS open up the education sector to transnational corporations, it would also commoditise education. Access to education, which has been largely a public good, would be conditioned by the market. This would undermine the capacity of African and other developing countries to benefit from globalisation, since education is a critical requirement in the new information mediated society. Furthermore, transnational corporation access to vast ICT networks would make it impossible for local educational suppliers to even compete with them. The possibility must therefore be entertained that non-endogenous control of access to the education of citizens of developing countries also lays the foundation of/for cultural imperialism.

TRIPs both expanded 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 patent, in some cases to over 90 years. Effectively, therefore, those who first register a patent are to enjoy an assured monopoly. As virtually all intellectual property is currently in the hands of developed country interests, protecting these rights in the way TRIPs does means that developing countries are likely to find it very difficult to access new scientific knowledge and technology. In particular, TRIPs 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 transnational corporations, while developing countries remain consumers of such research and technology, and providers of primary products. In this way, the technological gap between the developed and developing worlds would continue to increase.

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 to foreign participation and adhere to the WTO rule of non-discrimination against any participant. This last means that governments are not allowed to protect or subsidise local companies operating in the sector. This, according to WTO logic, is to ensure a level playing field. Unfortunately, the field has never been level. Local companies cannot compete with multinationals that have
access to vast resources, an extremely large capital base, the most up-to-date technology and the advantages of economies of scale.

In practice, local companies are being edged out of this, as of other sectors. The nation as a whole loses control over operators in the sector, since most of the framework for 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 using two examples. When Nigeria invited bids for Global System for Mobile Communications (GSM) licenses two years ago, only one local company was in a position to tender a bid. And although the company’s bid was successful, it subsequently forfeited the license, as it was unable to raise the required funds. Similarly, no local company could bid for the state’s 40% shares in Nigeria Telecommunications PLC (NITEL), the sole national telecommunications carrier because of the huge monetary requirements involved. Second, as Mike Jensen (1999:12) has observed, companies from former colonial metropoles have, without exception, assumed control in cases where African state telecommunications monopolies have been privatised. Thus, as the AITEC report on the state of ICT infrastructure in Africa for the year 2000 (Hamilton, 2002) shows clearly, African countries that have undertaken the liberalisation of their telecommunication sector have ended one form of monopoly – state monopolies – and found themselves saddled with a new monopoly – that of foreign investors. This is not just symbolic; it is direct evidence of the resurgence of imperialism.

WTO itself is increasingly becoming a counter force to the UN system. This has three implications for shaping the world that promoters of WTO want. First, 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. Thus, issues of human rights and democracy are likely to receive only lip service in the struggle to create an environment conducive to profit generation. Indeed, the WTO makes nonsense of all the fine UN declarations on human rights. For a start, 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 widespread consensus among UN bodies that more resources should go into social welfare provisioning, on the other, is increasingly being resolved in favour of WTO, subverting, in the process, both the traditional role of the state in meeting the basic needs of its citizens as well as 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 that on education, while UNESCO has been calling on states to devote as much as 26% of their national budgets to education.

Second, the fact that social service provision has been removed from the domain of social responsibility to that of market relationships means that profit generation becomes the main driving force behind their provision. This means that while the services could become more available, they are just as likely to become more unaffordable for the majority of developing country citizens. Such is the paradox of the WTO: availability and affordability have become mutually exclusive. For instance, the opportunities for distance education have never been greater; however, the commercialisation of these programmes ensures that those who should or would benefit the most from them can neither access nor afford them.
Third, the WTO is undermining the capacity of states to pursue independent development agendas. This 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’. Globalisation that seeks to undermine state capacity holds no promise for the development of African societies, among others.

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), in the direction of 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 are better placed to project their voices and vision. Second, 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 the process, smaller platforms have little or no chance of being heard. Third, and worst of all, these few sites are also owned by corporations that dominate other key sectors of the economy, accelerating horizontal concentration. Significantly, too, ICTs have created new channels for capital flight from developing countries, including the following:

- the extremely mobile nature of capital allied with the inability of third world countries to tax e-commerce or online transactions;
- the extremely high level of profit repatriation from developing countries by ICT companies or businesses;
- direct transfers during the purchase of ICT equipment;
- large sums of money paid to international infrastructure providers;
- worsening settlement rates imposed by Northern telecommunications companies on telephony;
- the costs of connection to the international internet backbone;
- the high mobility of capital in a world dependent on to foreign direct investment (FDI) is forcing developing countries to lower tax regimes in order to attract FDI, and thereby eroding their revenue from taxation (Torres, 2001); and, finally,
- in terms of trade and commerce, local firms are ill-equipped to compete with transnational ones, thus exacerbating 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 warfare, 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 standards organisations, reflecting the breadth of the ICT spectrum. This new imperialism is characterised by the attempted creation of knowledge dependence in the newly re-colonised countries. It is a ‘soft’ type that does not involve physical occupation of countries, and whose paths
are mediated by the vast network of ICTs. It is signposted by a control mechanism exerted through the WTO, which acts on behalf of western powers and their transnational corporations. It is supported by an array of means of ideological internalisation that control the flow of news, entertainment and literature, as well as cultural space as a whole. Today, the media scene is dominated by a few organisations such as CNN, BBC, Yahoo, and Times. They decide what is news, what should be circulated and listened to or read, and block those that conflict with the values they want to spread. All of this is only possible through their domination of ICTs.

ICTs are reinforcing old international divisions of labour while at the same time creating new ones. 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, most cannot and will remain consumers of ICT products and services. This implies that they will remain producers and exporters of primary commodities.

There has been much talk about teleworking being able to transfer many online jobs to third world countries. 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 countries, especially in the ICT sector, they are locating non skilled ICT jobs and environmentally degrading production outfits to these countries. De Alcántara 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 characterised export oriented manufacturing throughout the developing world.

Africa is already suffering the result of the brain drain. A report for UNECA shows that by 1999, more than 30,000 Africans with PhDs were living and working outside the continent (Cogburn and Adeya. 1999:12). The immediate implication of this is that research in technology, and in ICTs in particular, would be done only in the industrialised countries, thus ensuring the continued widening of the digital divide. But there is a parallel with the colonial period here: while Africans were enslaved to provide unskilled labour in Europe and the Americas, now they migrate voluntarily to seek employment in the knowledge economy in the advanced economies. However, there exist many restrictions on the migration of unskilled labour, particularly as the strategy of export processing zones has done away with the need for physical labour to migrate. Instead the ‘new slaves’ are encouraged to work in their own countries to satisfy the consumption needs of distant metropolitan centers. This has the added advantage that environmental pollution can, in this way, be relocated to producer countries, where labour standards considered acceptable in advanced industrial economies do not necessarily apply, and where production is, as a consequence, both cheap and convenient.

**The Challenge Facing Africa**

Globalisation is thus a euphemism for the new imperialism. Its instrumentality is a world of decision-making in which policy choices are determined by the governments of 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 into the global economy. This strategizing must proceed
from the recognition that integration into the global world system is a reality, and that what needs to be contested is the nature and manner of this integration. Isolationism provides neither a counter development option nor a strategy for countering the re-colonising impulses of globalisation. Furthermore, strategizing must be multi-faceted, with one aspect addressing the issue of the digital divide, not 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.

Starting in 1995, the pioneering work of the United Nations Commission on Science and Technology for Development (UNCSTD) 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), 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 a bandwagon, which every organisation hopes to join. Yet although there is a consensus on the need to bridge the divide, the motivation behind calls for, and the strategies purportedly employed in this bridging are as diverse as the players involved. Thus while organisations like the WTO see the need to bridge the gap as part of efforts to promote global trade, others see the need to close the gap in order to either enhance the economic development of those countries on the ‘wrong’ side of the divide, or to help these countries escape the re-colonizing impulses of the new global order. Over time, there have been several initiatives at bridging the digital divide. These can be divided into four categories:

1) Initiatives by development organisations such as the United Nations, notably its Scientific and Cultural Organisation (UNESCO) and Development Programme (UNDP), with the latter being the most active in building the capacity of developing countries to enable them to utilise ICTs for development purposes. Indeed, its involvement started in 1993 with the establishment of the Sustainable Development Networking Programme (SDNP), which had the goal of addressing connectivity and networking issues. By 1996, the network had expanded to 42 nodes 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 in developing Internet connectivity to a selection of countries in the two regions. Since 2000, it has been involved in the Global Network Readiness and Resources Initiative in partnership with several other organisations. Similarly, UNESCO has been involved in promoting/facilitating the use of ICTs for education, especially in the area of distance learning, while 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 Organisation (UNIDO) are active in building the capacity of developing countries to enable them to participate in e-commerce. Significantly, the General Assembly of the UN set up a Task Force on ICTs in 2000, with a mandate to advice the Secretary-General on policy and initiatives for promoting greater access to ICTs in developing countries.

2) 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 ICT strategies, advising governments on information and communications policy and generally promoting market reforms in the ICT sector. The infoDev is a global
partnership involving private sector organisations and governments that pools the intellectual, technical and financial resources of the public and private sector, facilitating market development and promoting the use of ICT in areas such as education, health, government, commerce and environment (infoDev, 1999). Both the World Bank and the UNDP serve as joint coordinating secretariat of the DOT Force programme of the G-8.

3) Activities involving 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 developing countries, G-8 member states have also taken up 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. Predictably, Mbeki used the occasion to call for a global partnership for the information age (Mbeki, 1998:185). Subsequently, the G-8 set up the DOT Force and charged it with the responsibility of coordinating the activities of the group in the area of bridging the digital divide. Individual G-8 member governments, especially USA, UK and Japan, have all been providing assistance to developing countries as part of bi-lateral programmes (see Unwin’s discussion of UK initiatives in this issue – eds).

4) Non governmental organisation (NGO) schemes: Many local and international NGOs have been working to improve access to ICTs by marginalised groups in developing countries. The International Development Research Centre (IDRC) has been the most active in Africa in this respect. Other NGOs that have been active in bridging the digital divide include Computer Aid International, World Computer Exchange, and 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 on 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. However, the sustainability of NGO intervention, particularly project based activity such as telecentres and micro-credit projects, is an issue, given the likelihood that some projects are unlikely to survive the inevitable withdrawal of external funding.

**Intervention by Government**

Individually and collectively, developing countries have themselves been encouraging local initiatives at bridging the digital divide, often taking into consideration efforts by other (external) actors. The UN Economic Commission for Africa (UNECA) has spearheaded 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 the 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 African country. This report (UNECA, 1999) showed that while there was some progress, much still remained to be done to leverage Africa into the information society (Soltane, 1999). The document adopted at the end of the Forum (UNECA, 1999a) contained a recommendation for the pace or tempo of progress to be increased. 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 areas of activity at national level have been policy development and the building of capacity for regulation. The policy framework involves 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 these initiatives, the digital divide is increasing rather the decreasing. Several reports (USIC, 2000; Bridges.org, 2001; OECD, 2001) have shown that while there is a general improvement of connectivity globally, the rates are unequal across countries. The industrialised country networks are growing faster than those of developing countries. 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 (see, inter alia, Howkins and Robert, 1997; Mansell and Wehn, 1998; Cogburn and Adeya, 1999) think that the digital divide will never be bridged. Mansell and Wehn’s modelling led them to conclude that it would take Africa about 100 years to reach the 1995 level of Ireland (1998:25). Howkins and Robert (1997) concluded that even the most optimistic of the four options developed by the UNCTAD Scenario Building Workshop, the Networld, ends up with a world that is afflicted by poverty and deprivation. But they also draw the conclusion that 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 at providing access to markets for transnational corporations, which have seen their home markets becoming saturated relative to the markets of Africa and other developing areas. However, within this evolving context, Foreign Direct Investment will go to lucrative markets rather than where there is a need to promote universal access to ICTs. Second, most efforts treat those countries that are on the negative side of the digital divide as simple consumers of ICT goods and services. This reproduces and perpetuates the digital divide rather than closing it. Without building a capacity for the production of ICT goods and services, the ‘digitally challenged’ cannot hope to catch up with those countries that already have better access to ICTs, which they deploy to their economic advantage. Third, 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 little or no real choice over content. Fourth, the strategies for bridging the digital divide tend to see the latter in isolation from the broader development divide that has characterised the world, both past and present. They ignore the fact that the digital divide is not just the lack of diffusion of ICTs, but also a structural problem and the product of a complex history (Ya’u, 2002). It is worth emphasizing 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; consequently, the question of access to ICTs should not be seen in isolation of the other development problems of Africa. Fifth, it is important to interrogate the
language which characterises discussions about the (bridging of) the digital divide. Talk of ‘bridging the digital divide’ rather than of ‘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 telecommunications sector of the West, and the corresponding underdevelopment of that of Africa and other third world countries, are the consequence of colonial conquest (Sy, 1996). As Africa cannot colonise any other continent in order to develop itself, it has to seek other paths to economic progress.

Towards Democratising Access to ICTs: Concluding Remarks

In Africa, ICTs must be deployed to facilitate solutions to the chronic development problems that the continent faces. But ICTs in themselves cannot provide these solutions. ICTs have to be deployed within a framework that seeks improvement of the existential conditions of people rather than 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 ultimately futile attempts at bridging the digital divide; the market alone cannot provide the incentives. The historical experience of the Scandinavian countries and the USA, the most connected countries in the world, shows that their high levels of connectivity were achieved largely by public investment rather than through the market. The market took over only when the network had matured.

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 attempts to make education, health and knowledge tradeable commodities. Africa needs the developmental state, and such a state cannot come into being under the market orthodoxy of the WTO. The continent also needs relief from the sweeping powers of the WTO which undermine the capacity of states for independent development policy-making.

Second, along with other countries, African states need to demand the reform of the WTO to make it a more democratic and open organisation. Its structures should be made more representative of all member countries, while its decision-making processes should be more transparent. At the same time, the mandates of UN development bodies which the WTO is increasingly taking over should be restored. For instance, issues of intellectual property rights should be returned to the World Intellectual Property Organisation (WIPO), which is a more appropriate home; these rights are not simply matters of trade, but are part of mankind’s cumulative heritage.

Third, there has to be a shift in what Dani Rodrik (2001:5) calls ‘the development mindset’ in the WTO. Such a shift should allow for greater autonomy in policy making by states, while moving the focus of the WTO from attempts to reduce and harmonise national institutional differences, to that of managing such differences. Overall, the elements of an Africa-focused ICT strategy should include:

- **ICTs for Development**: much of the discussion about bridging the digital divide treats access to ICTs as end in itself. 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 for 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 emphasise what you want to accomplish with the technology, rather than the technology itself' (Levey and Young, 2002:81).

- **Universal Access versus Market-led ICT Sector:** the aim of WTO-supported reform agreements which have been forced on developing countries, is not only to liberalize the ICT sector but also to seek the transfer of questions about ICT access from the domain of public social provisioning to that of the market arena. This will facilitate the emergence of an environment conducive to investment and profit generation. However, the market cannot promote universal access, although such access is both necessary and desirable for the deepening of democracy in Africa. It is only when people are informed and have access to the means to communicate that they can participate in decision-making in society. Africa must remain committed to universal access through appropriate state subsidy to its economically-disadvantaged citizens.

- **Who Owns the Local Networks?** One of the myths of the internet is that it is not owned by anybody. The truth of course is that there are those who own the means for accessing the internet, as well as those who seek to both own and trade as much of the content as possible. The question of content is already a hot issue under the rubric of Intellectual Rights Protection. Although many strategies for bridging the digital divide focus on people having access to the channels without a stake in their ownership, current reforms being advocated by industry giants would place significant restrictions on internet use for the free exchange of information. Similarly, content is increasingly controlled by companies of the former colonial countries. Nonetheless, the channels are not only a means of communication but also a mechanism for scientific, cultural and ideological influence. Africa must therefore develop its own local networks.

- **Financing ICT Infrastructure:** 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 infrastructure. Current practice relies on loans and FDI. Neither have produced good results. Instead, they tie the continent in a subordinate relationship to western countries. Africa can finance ICT development by mobilizing local resources, for instance by establishing ICT development funds or banks. However, Africa's existing debt burden does not allow for the speedy construction of an adequate ICT infrastructure on the continent. This is why the debt question should be resolved quickly, through either cancellation or repudiation.

- **Production of ICT Goods and Services:** Africa must transcend its status of consumer of ICT goods and services by engaging in their production. With respect to goods, it is generally accepted that 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, both at the level of individual states and on a continent-wide scale.
Content production is particularly critical, but it is also easy to do. We need to produce content that is useful to our people and relevant to our development needs; but such content should also be capable of representing Africa’s cultures in an authentic manner and be in a position to counter the homogenizing tendency that globalisation promotes.

- **Education:** Content production requires both skills and technical literacy in the use of ICTs. There is increasing acceptance that the landscape of literacy has recently changed dramatically, 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 technical competence and skills for effective ICT use. 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.

- **Promoting African Languages:** Democratising 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 most Africans. 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 a truly meaningful development and information tool for all.

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**Endnote**
1. This section draws from an earlier paper (Ya’u, 2002a)

**Bibliography**


