The Digital Development of Labour Organizations in Africa

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This report discusses the challenges and opportunities faced by African labour organizations in adopting computer-based technologies. It outlines the problems African countries face in developing their information technology infrastructure and the specific conditions experienced by labour organizations operating within those countries. It concludes with a number of suggestions for digitally developing labour organizations in Africa.

The report is the result of a study conducted by the Workers' Activities Programme (ACTRAV) unit at the ILO's International Training Centre in Turin. Italy.

1. The Digital Divide

"Digital Divide" is the popular phrase for describing the gap in Information Technology (IT) availability and usage between countries and regions. Often the Divide is described as being between countries in the Northern hemisphere and those in the Southern hemisphere. But that simplification masks a number of complexities. For example, Korea, Singapore, Australia and New Zealand, all in the South, have very advanced IT infrastructures. Meanwhile, regions in North America (such as Indian reservations, migrant worker areas and economically disadvantaged provinces and states) can be described as digitally deprived. Europe also has regions of IT poverty, especially in Central and Eastern Europe. Even in the economically advanced areas of Europe many people are denied the use of IT because of their income levels, or the high costs of phoning the Internet.

What's more, there is not one Digital Divide but many. There are divides created by income levels, gender, race, ethnicity, disabilities, education, literacy, age and other factors. Each of these can contribute to digital deprivation in any country, developed or undeveloped, North or South.

The phrase "Digital Divide" hides as much as it describes. It may have been useful for initially publicising the issues related to technological deprivation, but as awareness develops about the complexity and globality of the problem it becomes less and less useful. We should be promoting "Digital Development" as our goal. We should be working to digitally develop countries and regions, governments and institutions so that more people can benefit from the educational and economic advantages that IT can promote.

No matter what headline phrase is used though, it is undoubtedly true that the vast preponderance of digitally deprived countries and regions (which of course means people) are in the Southern hemisphere. For example, Africa, the subject of this report, has 13 per cent of the world's population [1] but:

? less than one per cent of the world's Internet users (0.6%)

? one telephone for every 52 Africans
? one in 60 of the world's mobile cellular subscriptions
? one in 70 of the world's personal computers[2]

Think of it this way: if the world had 100 people, 13 would be African, but not one African would be on the World Wide Web.

But isn't it just crazy to talk about access to the Web when there are people going hungry every day? What does the Internet matter to a worker who earns barely enough to feed the family? This is why it matters: If the region that worker lives in, or the enterprise she is employed by, does not expand its productive capabilities her children and their children will also spend their lives working for starvation wages. Information technology may not be *the* solution to the problems faced by the people of Africa. But it can be an important part of the solution.

The rest of this report discusses the IT situation in African countries and labour organizations with the aim of provoking a number of initiatives which be used by unionists to produce African-made solutions to African IT problems. It outlines in some detail the issues facing African countries because unions must not only work at digitally developing themselves but also be involved in the political and economic policy questions of digital development in their countries.

2. Information Technology in African Countries

Unions cannot be thought of as somehow disconnected from the economic, political and technological infrastructure of their countries. On the contrary, they are daily engaged in political action, economic bargaining, and technological activities. They are concerned with the technological infrastructure of the workplaces they represent because to a large extent it determines the working conditions of their members. Plus they use technology in their own activities: telephoning, faxing, photocopying, typing and (maybe) computing. For these reasons this section of the report describes the general IT situation in Africa.

Of course there are dangers in generalising about a continent of 52 countries and 739 million people [3]. South Africa is technologically different than Côte d'Ivoire. Eritrea is not Egypt. But there are common factors which can enrich discussions about how organizations can develop policies and programs aimed at supporting African initiatives.

2.1 Internet Use

When people talk about the Digital Divide or digital development they are usually talking about the Internet and its sub-entity, the World Wide Web. This is understandable given the recent advent of the Internet. It's new. And it provides new potential for developing economic productivity, education and North/South dialogue.

In 2001 there were 1,300,000 Internet subscriptions in Africa. South Africa alone accounted for 57 per cent of those subscriptions (750,000). North Africa had 250,000

subscriptions (19 per cent). The remainder - only 300,000 subscriptions – were scattered amongst the rest of the continent's countries. [4]

One subscription may be shared by many people. A recent estimate suggests that there are three to five users per subscription, which would mean that there are about 5 million Internet users in Africa.[5] However, given the problems of data gathering in Africa, this figure may seriously underestimate the actual number of users. It does however provide a commonly accepted benchmark which can be used for these sorts of discussions.

What is significant is that this benchmark figure has dramatically increased in the past few years. In 2000 the estimate was 2.5 million users as compared to 5 million in 2001.[6] Great awareness of the Internet, some government initiatives and small business development (Internet Service Providers and cybercafés) have all contributed to the increase.

2.2 Internet Adoption Problems

Despite this remarkable growth, the fact is that only .9 per cent of Africans use the Internet. (Compared to 44 per cent of Americans and Canadians).[7] There are a number of factors inhibiting Internet use in the continent, including:

2.2.1 Lack of Awareness

Ninety-nine per cent of Africans have never been on the Internet. What this means is that they have little idea of what it is or what it can do. More importantly, they have no opportunity to think about how the Internet could be used for African purposes. So to them the Internet remains an alien, other-worldly phenomena. They have no reason to push for Internet access, computer equipment or even awareness-training because they see no need.

A large part of the awareness problem in related to the fact that 75 per cent of the content on the Internet is in English.[8] There are not many Web sites written in African languages. That poses a problem of awareness because if Africans do not see themselves and their languages reflected on the Internet they have little reason to use the Internet more or develop their own web sites. Unions, for example, cannot see the need for using scarce resources to build web sites if their members do not use the web. In turn their members do not see why they should consult the Web for union information if their unions do not have web sites. It's a "What came first: the chicken or the egg?" problem.

2.2.2 Government Inactivity

This lack of awareness extends to governments. Because most government officials do not have much experience (if any) on the Internet they do not consider the economic policies and legislative initiatives which are needed to push the country towards greater Internet use.

For example, all of the countries and regions in the world that have successfully adopted the Internet have done so with the help of a national or regional IT strategy. Most African countries do not have an IT development plan. This means, amongst other things that there are no strategies for essential legislation, such as laws which legalise digital signatures. And counter-productive policies, such as taxing the import of computers, are allowed to continue.

(Senegal is a good example of a country which designed and adopted a successful IT strategy. The country's telecom operator, Sonotel, created 10,000 jobs in the country by fostering the creation of community telecentres that offer public access to email and photocopying services.) [9]

A lack of a comprehensive IT strategy also means that investment in IT is not taking place. Because of their high debt loads African countries do not have much money to invest in anything, never mind computers. But a nationally-debated strategy could produce results such as lobbying for debt relief that could be used for IT as well as hospitals and schools.

There are also opportunities for developing made-in-Africa technologies which can produce employment and Africa-specific initiatives. For example, the South African firm which produced the wind-up radio is working on a wind-up computer.[10] The wind-up radio is now being sold very successfully in industrialized countries (maybe because many of them are now experiencing periodic electricity outages). Who knows what other African technologies could be exported.

2.2.3 Commercial Inactivity

The lack of IT awareness and government inactivity also extends into the commercial sphere.

One of the most important commercial activities enabled by the Internet is e-commerce. E-commerce is messaging and other electronic traffic which allows for ordering and paying for products and services via computer communications. Most of this activity is business to business (B2B) for inventory flow control, ordering and invoicing. The productivity improvements of e-commerce can be quite dramatic but it demands that businesses harmonize their computer systems so they can communicate. There is little evidence that African firms are even investigating this. What's more e-commerce also demands high-quality computer communication lines which are not always available in African cities.

E-commerce involves individuals as well. However, B2C (Business to Consumer) depends on the use of credit cards for purchasing products online (via computer communications). Millions of Africans do not have bank accounts, never mind credit cards.

2.2.4 Access

Access to the Internet is a major problem confronting digital development in Africa. And no wonder. Getting on to the Internet usually means placing a phone call to an Internet Service Provider (ISP). But most Africans do not have a telephone or even access to a telephone. In all of Africa there are only 14 million fixed telephone lines – less than Tokyo or Manhattan.[11] Even for many of those with telephones it can be prohibitively expensive to call the Internet. For example, most people outside major centres have to make a long distance call. What's more the Internet transmission capacity of a country may be quite low. So web page display can be extremely slow.

The average cost of a dial-up (to an ISP) connection in Africa is $68 a month for 20 hours. But the rates vary widely according to country: from $10/ month to $100/ month. [12] If there is also slow Web service or expensive telephoning, cost could prove a serious barrier to unions or other organizations that want to get on to the Internet.

But things are improving. With deregulation of the telephone services many more ISPs are appearing. Countries such as Nigeria (which in 1998 had very few access points) have dramatically increased the number of Internet providers and the speed of their access to the international Internet lines. [13]

Some countries are establishing special long-distance Internet calling numbers. This allows people to phone a local number, from wherever they are in the country, and connect to the Internet.[14]

At the same time a number of major Internet-supplying companies are developing. AfricaOnline is the largest operation with offices in Egypt, Namibia, Swaziland, Tanzania, Uganda, Zimbabwe, Ghana, Kenya and Côte d'Ivoire. As well, free access services are starting to appear. A major bank in South Africa, for example, is providing free access to the web.[15]

In most African countries – admittedly still in the major centres – cybercafés have appeared. These are small businesses – sometimes even micro businesses – which rent time on the Internet. The average cost is the local equivalent of about $1.00 an hour. (There are of course exceptions: in Mali, for example, a cybercafé hour costs a steep $3.00 an hour). Some cybercafés are reducing costs for their clients even further by offering email-only services.

Yet, even cybercafés can pose problems for users. For example, most cybercafés do not allow files to be downloaded from the Internet. And, for fear of viruses, they do not allow users to bring in their own diskettes. This means most people could not go to a cybercafè to download a file on International Labour Standards from the ILO web site. At the same time, Internet access in the cybercafés may be quite slow so that even people using free email services such as Microsoft's Hotmail have to spend more time (and therefore money) on the computer. Still, the advent of cybercafés is a significant factor in getting more and more Africans on the Internet.

A less widespread, but still significant initiative, is the installing of public terminals in clinics, community phone-shops, police stations and schools.[16]

2.3 Education

If there is any consensus on how problems in Africa can be confronted it is that education is the key to success. Only by expanding educational opportunities for their young people will African countries be able to take advantage of the employment and productivity potential of computer communications. Everybody agrees on this; there is no argument. However, there is very little agreement on how the necessary educational opportunities can be generated.

Ever since the 1960s technologies have been deployed in attempts to increase educational activity in Africa. Most of these initiatives have been abject failures.

Take for example, satellite technology. Televisions in villages were supposed to be the instruments by which people could receive high quality educational programs. All people had to do was turn on the TV. This experiment very quickly dwindled because of the lack of planning for staff salaries (for the people who turned on the TVs and guided the local discussions) plus geographic/cultural insensitivities.

Not much has changed. A recent project by the World Bank to install educational videoconferencing centres across Africa wasted millions of dollars. Students had to travel for hours in order to get to the centres. Programs consisted mainly of American content. And the Centres, which were loaned money and expected to be self-sufficient, have been left with no feasible business plans.

Another recent project is the African Virtual University. Millions of dollars have been granted to the AVU from the World Bank and other donors.[17] It is to be hoped that the university will be successful. But, the track record for those sorts of grand projects sponsored by outside agencies is not very good.

The key to success in Africa is not a idealistic commitment to some vague concept of "education" or worse, grandiose technological projects. It is to hire more African teachers. Then provide those teachers with the training they need to be excellent educators who are working within specific geographical/cultural/linguistic environments. An Ethiopian professor has argued that many African professors at their salary of $4,000 US per year could have been employed for the amount of money such projects are costing. [18] Presumably, many more primary and secondary teachers could have been engaged.

There is a role for technology though and specifically the Internet. It should be used to interconnect and train local teachers and provide them with resources. Simple text-oriented computer communication networks could be more effective than a hundred videoconferencing centres.

2.4 Women and the Internet

Although the use of the Internet by women has expanded dramatically since its early technically-oriented days they are still minority users. This is not because the Internet is inherently of less interest to women. On the contrary the women's movement and women unionists in industrialized countries are using it extensively for building networks and researching. In fact, in

those countries where the Internet is widely available and used, the percentage of women users is about 50 per cent.[19]

In Africa a much smaller percentage of women use the Internet. In Ethiopia the percentage of women users is 13.9 per cent. In South Africa it's only 19 per cent. But the percentage is higher in other countries: Uganda, for example, has a women-users percentage of 31.5 per cent; in Zambia 37.5 percent of the Internet users are women.[20]

What these figures mean is that if women are given access to the Internet they will use it in numbers equal to men. They may use it for different reasons, but that is good. Women are the prime agents for improving education in a society. Give them more access to the educational opportunities of the Internet and African countries could see their educational initiatives increase dramatically.

2.5 The Workforces

Africa has three plagues: HIV/AIDS, unemployment and poverty.

The United Nations Joint Program on HIV/AIDS (UNAIDS) has estimated that 25 million Africans have AIDS. In some communities of sub-Saharan Africa more than one-quarter are infected with HIV. In 1999, 2,380,000 Africans died from AIDS-related diseases. In the same year 12.1 million children in sub-Saharan Africa became orphans. The American Foundation for AIDS Research has noted 80 percent of those dying are workers between the ages of 20 and 50 -- workers in their prime. Africa is headed into an enormously expensive health care crisis, without the $2.3 billion a year that is needed for an effective and comprehensive prevention program. (It is spending only $165 million a year now, all of which is donated by industrialized countries).[21]

Poverty also adds to African suffering. In 1996, the average of GNP (Gross National Product) per capita in the industrialized world was $27,086. At the same time, in Africa it was $528. This means that industrialized countries are roughly 51 times wealthier than African nations. At an annual growth rate of three percent it would take Africa about 120 years to reach today's level of wealth in the industrialized countries. [22]

Meanwhile, decent work is often very difficult to find. No country in sub-Saharan Africa has an unemployment rate less than 20 per cent. In Kenya the unemployment rate is 50 per cent. Zimbabwe suffers with a rate of 45 per cent. South Africa, which leads the region in economic development, has at least 30 per cent of its work force unemployed. And these are just the official figures. The real rates of unemployment could be much higher.

The issue of unemployment is so complex and tied to so many political, economic, legislative and labour-market questions that it cannot be adequately addressed in this report. However, it can be pointed out that IT development can be a positive factor in developing employment in Africa. An extensive ILO study (World Employment Report 2001) concluded that "the positive potential of the technologies for employment growth, a better quality of life and as a tool for reinforcing the development agenda is beyond doubt." But it went on to point out:

Not beyond doubt is whether this potential can be translated into reality for the majority of the world's people anytime soon – or whether the risks of change can be avoided. A passive policy stance that leaves to markets alone the direction of change will reinforce divides. It is also the case that the quality of life and work for women and men will be exposed as much to the potential for negative outcomes as positive ones. For all these reasons, social choices and the social institutions through which those choices are moulded are essential to the digital era.

Unions are one of those social institutions. In considering digital development they need to not only consider their own technological conditions but at the same time develop the awareness, political will and expertise to be fully engaged in the issues which will determine the IT futures of their countries and members. They should be demanding IT training for their members and national IT strategies for their countries. But they can only do that effectively if they have first grappled with digital awareness and development issues in their own organizations.

3. Unions and the Internet

All the unionists interviewed for this report had access - or at least potential access - to the Internet either in their offices or via cybercafés. About 30 per cent had used the Internet before the IT workshops they attend in Turin or in the regions. This means there is a natural interest in using the Internet amongst union activists, but there are also problems in the adoption of the technology.

3.1 Internet Adoption Problems

Most of these problems are the same as those faced by the general population: lack of awareness, expensive Internet services, slow Web speeds, etc.

Office-based use of the Internet amongst unions is low because of the lack of telephone lines, ancient computer equipment, scarce financial resources and the fact that these organizations have other political and economic priorities.

3.1.1 Lack of computer equipment and software

The lack of computer equipment is of course crucial. Not only is a computer needed in order to link to the Internet, but this computer must include an extra piece of equipment (called a modem) and be fast enough to handle the communication traffic.

A solution that has been promoted to address this lack of adequate equipment has been to provide renovated computers. But this usually results in computer equipment that is unable to operate common software programs or have severe maintenance problems. What's more the equipment, once supplied, is not up-dated. A study prepared by the International Federation of

Building and Wood Workers has argued that renovated computers are not a solution to the computer needs of African unions. [23]

There is also the problem of illegal software. Computer programs are easy to copy, but putting copies on other computers without paying for that right is an illegal act. As African countries develop their national IT strategies they will pay closer attention to the problem of pirated software. That could put many unions in jeopardy because a union that operates illegal software could be charged by a government looking for any excuse to attack it.

The lack of legal software also has a negative training effect. Usage manuals are provided only to registered users. If unions do not have access to a program's manual their ability to train their staff and members in the use of the software is severely limited.

Another software-related concern is the fact that most African unions do not use anti-virus software. Or if they do, it is often illegal and therefore not updated to handle the latest viruses. A virus is a computer program which can destroy the data on a computer's hard disk. It is transmitted via diskettes or computer communications. African unions often pass computer viruses to each other in this fashion. They need to use legal, updated virus programs to protect themselves and not jeopardize the organizations with which they are communicating.

Another point that has to acknowledged: often the union's one good computer, (the one that is connectable to the Internet) is found in the office of the secretary-general or other top official. This may enhance the prestige of the official, but it doesn't help build awareness or use of the Internet amongst other members and staff.

Also to be noted is that computer equipment is not the only technology these unions have or need. Photocopiers, for example, are almost essential for communicating to members. But most unions have old machines which need maintenance or replacement. The same holds true for fax machines and typewriters.

3.1.2 Open Source Free Software

One of the most important advances in the development of computer technology in the past few years has been the Open Source Free software movement. It could contribute significantly to the digital development of organizations in Africa and other parts of the developing world.

OpenSource Free Software is computer software which is being developed by the democratic technological community. It includes operating systems such as Linux which will most probably replace Windows (but is not at that stage yet). As well it includes word processing, spreadsheet, computer presentation and web page design prgrams which are right now as good as any on the proprietary market, including the Microsoft Office Suite (Word, Excel, PowerPoint).

By using OpenSource Free Software organizations in Africa and elsewhere could save themselves thousands of dollars in software costs and maintain themselves within a software upgrade path.

But another characteristic of OpenSource Free Software might prove to be even more important than the fact that it can be legally distributed free of charge. The programming of the products (the "source" code) is also freely available. That means programmers in developing countries could adapt the programs for their particular needs. This could lead to the creation of software designed specifically for the needs and conditions of developing countries. Unions should be part of this technological design movement.

3.1.3 Lack of Internet-facilities

There are three major methods of connecting to the Internet: dial-up, local area network and cybercafés.

"Dialup" service means the organization has a computer which has a modem (a piece of equipment which allows the computer to place telephone calls). Via a telephone line the computer dials up an Internet Service Provider (ISP) and is then connected to the Internet. Once that connection is established, the user can start a computer program which works with the Internet such as a Web browser (to read Web pages) or an email program.

The problems associated with a dialup connection include the cost of the ISP and the need for a telephone line. If the organization has only one telephone line the line becomes engaged if the computer is connected to the Internet. That means the line cannot be used by other people in the office. It may also be that there are simply no telephone lines available. For example, the Ghana Labour College (GLC) has a very modern computer training lab of six computers. But there is no telephone line into the lab and therefore no connection to the Internet for the students.

A way of sharing a telephone line and a modem is by the use of a Local Area Network (a LAN). The GLC, for example, uses a LAN so that the six computers can share a central printer. However, LAN equipment can be expensive to purchase and maintain.

The other alternative is to use local cybercafés. These little businesses are found in almost every major city. They are often the only way union officials can get to the Internet. But, as has been noted, they have disadvantages too. They may be expensive (though most are priced for general-public use). They do not allow users to install their own programs on the computer. And they prohibit the downloading of files to a diskette – which means that users cannot transport the information they find back to their office computers.

3.1.4 Lack of financial resources

Dues collection by African unions is often a process of voluntary payment by members. The result is often poor cash-flow situations. As well, the dues are inadequate to provide the level of service that is needed.

All of which means that unions often have trouble funding their core activities such as collective bargaining, grievance handling, educational activities or health and safety campaigns. In this environment IT is often relegated to the bottom of the priority list.

Many African unions cannot afford to hire staff, part-time or full-time. Those that can afford staffs are forced to pay low wages. This has IT implications because when staff members are asked to use the Internet via cybercafés they are hesitant because they are not compensated. If they pay for the service themselves they are likely to minimize their time on the Internet and therefore not develop their awareness of what the Internet can do for unions. Then there is the question of available work time. Union staff anywhere, but especially in resource-starved unions, are extremely busy. They simply do not have the time to visit a cybercafé if their union does not have an Internet-connected computer at the office.

3.2 Advantages of Internet Use

Despite the challenges, there are many substantial and important reasons why Internet use by unions in Africa should be encouraged.

3.2.1 Confronting Globalisation

It has almost become a cliché, but it is never the less true: we are living through a period of rapid economic globalisation – the integrating of world economies on a scale previously unknown. One of the prime factors promoting this integration is the use of computer communications which allows corporations, governments, unions and individuals to interact with others around the globe, around the clock.

Globalisation is having a dramatic effect on Africa. Since 1980 – the year the microcomputer was introduced – Africa has fallen behind in its share of global production.[24] This may be a coincidence. Or it may be an indication that global production is becoming increasingly centered on activities and countries that compatible with computer communications. Africa may be being affected by globalisation in a negative way because it does not have the legislative and technological infrastructure to participate in the new global markets.

At the same time multinationals operating in Africa are taking advantage of the fact that computer communications allows them to quickly move work from one country to another in order to avoid unionisation or bargaining pressures. They threaten to move if they are bothered with health and safety regulations or pestered by unions.

Globalization is a serious issue that has to be tackled by African unions because the continent is falling further behind economically and, at the same time, not being able to take advantage of IT to create new jobs and improve existing ones. The phenomena may be titled "global"-ization but the effect is quite local: at the workplace where union members are employed. Unions need to adopt policy positions on globalisation's negative and positive effects. They can

only do this if they are engaged in understanding the issues both for their own operations and the operations of the employers with which they bargain.

The Internet can be used by unions to research information on employers, especially multinationals. It can allow labour organizations to co-operate internationally via computer networks for global lobbying and bargaining campaigns. And it can help them communicate with their global unions or labour centrals such as the ICFTU.

Globalization cannot be confronted with purely local tools. African unions need access to global instruments such as the Internet and the World Wide Web.

3.2.2 Developing Educational Materials

The Internet is a huge information storage depot. Unions could use it to find information on: health and safety issues; comparative wage schedules; company profits; HIV/AIDS; employment legislation; the environment; gender equality; organizing and much more. With this information they could develop educational and training material for their members.

3.2.3 Distance Education

The Internet can be used very effectively for distance education. It may be a few years before members in the workplaces may have access to online (via computer communication) educational courses. But it is quite feasible to provide online courses for union staff members who have access to communicating computers in their union offices or in cybercafés. In fact, a number of unions and labour-oriented organizations around the world conduct online courses – including the ACTRAV unit at the Turin Centre.

3.2.4 Creating Web Sites

African union members may not now be searching for labour-oriented web sites. But that is partly because there are few web sites relevant to their interests or in their language. By creating simple web sites unions could begin the process of attracting more union members to their sites. Over time these sites could grow in size and sophistication.

But web sites are not only potentially useful for communications to members. They can also be very useful for sharing information amongst different unions. Staff members who have access to the Internet could consult the web sites of other unions for educational material, examples of bargaining campaigns, employer information and computer-training material.

3.2.5 Attracting Young Workers

Young people are more likely to use the Internet because they have been exposed to it at school, have visited cybercafés to play computer games, or simply because they are willing to try new things. By having labour web sites available unions could teach young people about the labour movement and conduct organizing campaigns amongst young workers.

3.2.6 Build Greater IT Awareness

By learning how to use the Internet for email, web-site production and researching, unions could become more sensitive to IT issues in their countries. This could encourage them to lobby for national IT employment policies, research projects and African-produced technologies. Again, it must be emphasised: digital development means more than just equipping the unions. It also means enabling and encouraging them to be involved in the IT development of their countries and regions.

Part Two: Possible Initiatives

Organizations can play an important role in promoting the digital development of labour unions in Africa by helping to:

1. Promote information technology educational sessions
2. Create a labour education computer system.
3. Establish a Web page hosting service.
4. Develop a communications network for African unions

1. Education

1.1 Regional Awareness-Building Sessions

A program of one or two day awareness-building seminars in major African centres could be organized.

These seminars would be aimed at introducing unions to the basic concepts of computers, computer project management and the uses of the Internet for email, international co-operation and research.

While conducting these seminars volunteer instructors from the regions could be trained in how to conduct similar seminars. In this way, a network of regional computer trainers could be developed. These trainers could be supplied with training manuals and access to computer communications.

The budgetary implications of building a network of trainers include: the cost of travel for the facilitator of the initial awareness-building seminars, the production of training material, and the reimbursement of communication expenses to regional instructors if they have to use cybercafés. The cost of this program would depend on the number of awareness seminars that were planned, as well as the number of regional instructors recruited.

The regional orientation seminars, and the development of an IT instructor program, could have a significant impact in developing the awareness of information technology questions amongst African unionists.

2. A Labour Education Computer Communicatins System

A labour education computer system which African unions could use to conduct educational courses via computer communications should be developed.

2.1 Building the technological infrastructure

The technological infrastructure which African unions and labour colleges need to conduct their own online courses and seminars should be established This would demand a central computer system (at a cost of about $10,000) and the technical expertise to operate the system.

2.2 The Internet CourseReader

The key to the successful development of a labour education computer system would be the further development of Hekima – the Internet CourseReader.

The CourseReader is a computer program which allows users to participate in educational courses via computer communications without spending a lot of time on the Internet. It helps lower Internet costs and resolve problems related to undependable electrical supplies or expensive telephone services. It has been developed as a free-of-charge program by the Turin Centre and its ACTRAV unit. It order to expand its capabilities to act as the communications program for an African labour education system the CourseReader would need further development. Because the CourseReader is currently available only in English the primary focus of this development would be to add a facility which would allow the CourseReader to be easily translated into other languages such as French, Portugese Spanish, Swahili and Ouolof. This work would cost about $50,000 US.

3. Provide Web Hosting Services

Organizations could help solve the two major problems African unions face when they consider the creation of web sites: where the sites are hosted and how they will be created.

A central computer could be configured to act as a web server. A web server is a computer which stocks web pages. It could be the same computer as the one used for hosting the educational computer communications network mentioned above.

Once the web server was installed it could be stocked with an easy-to-use template for producing a simple web site. Templates are web-pages which can be easily modified by users in order to add content. Online tutorials or printed manuals could be produced in order to teach people how to use the templates.

(The same web server, by the way, could also be used by labour organizations in other regions, such as the Asia-Pacific, for little additional cost.)

Of course, the African unions which wanted to use the web-page server would have to have a computer and a telephone line so their staff members could create and update the web site. A cybercafé could not be used for this because content would have to be stored on the local computer while creating and maintaining the site. Cybercafés do not allow clients to store information on a long-term basis or use diskettes they bring with them.

Therefore, during the first phase of the project, only African unions with computer equipment and telecommunication capabilities could use the web hosting service. But still, this would be an important start towards the digital development of African unions. What's more, the project could be started quickly and for a small budget.

4. An African Labour Communications Network:

TALKnet

The single most important factor for enhancing the digital development of labour organizations in Africa is to improve their communication capabilities. If they have access to the Internet they can research information and develop international contacts which can help them build their digital development plans on a long-term basis. Communication is power.

All of which is easily said, but not so easily acted upon. However, there are initiatives which can be taken.

For example a Digital Partnership program involving unions in the developed and the developing world could be developed. In Africa the goal of this digital partnership program would be to create The African Labour Knowledge network (TALKnet) The two main components of TALKnet would be: the equipment to enable computer communications and the knowledge needed to sustain educational activities online. Here is how TALKnet could work:

4.1 Providing the technology for TALKnet

A developement program could be started which provided the technological necessities African unions need in order to use the World Wide Web and communicate amongst themselves. The funds for this program would be come from the creation of Digital Partnerships between unions in the developed and developing world.

For approximately $3,000 a labour organization in Africa could be connected to the Internet for email, World Wide Web communications and online education for three years.

This $3,000 would provide a union with a communications terminal, a printer, a telephone line and the connection to the Internet. (See Appendix A for details).

But of course, multiplying that $3,000 by hundreds of installations adds up to a substantial amount of money – money that is not available to any single labour organization. Connecting 500 unions would cost one and a half million dollars in the first three years alone. What's more, the history of grandiose, centralised projects in Africa is not good. So what's the solution? The solution is to decentralise the project right down to the individual unions involved in project. Here's how it could work:

4.2 Finding the Funds: An African Digital Partnership Program

An African Digital Partnership program would promote direct ties between individual unions in a developed countries and unions in Africa. Unions in the developed countries could be asked to include a $3,000 Digital Partnership item in their computer budget every three years (or alternately: $1,000 per year).

The secret to the success of this project would be very clear targeting of the unions in the partnership. A hospital union in England, for example, could be digitally partnered with a hospital union in Zimbabwe. Personal contacts between people in the two unions via email would not only encourage North/South dialogue but also ongoing support and monitoring of the project through its lifetime.

The Digital Partners program could be started if only five unions in the developed world could be found to partner with unions in Africa. Afterwards, the example set by these five unions could be used to encourage other unions to also participate as digital partners.

The building of a communications network for African unions is not a question of money. It's a question of appropriate technological design and political will.

4.3 Knowledge Building in a Communications Network

However, even if many African unions were paired with unions in the developed countries to create TALKnet, the network would fail if the African unionists were not trained in how to use the network. Creating a network and just telling people to use it, is like renting a hall and telling people to go have a meeting. People need to know how to book a meeting hall, devise goals, set an agenda, stimulate discussion and draw conclusions. It's the same thing with electronic networks. The people using them need training in how to operate them, create online seminars, promote discussion and most importantly build new knowledge collaboratively.

New knowledge is built when people come together (in this case, online) to collaboratively analyse a problem, suggest solutions from the different perspectives and experiences of the participants, and most importantly, produce new ideas. Knowledge-building amongst African themselves is the key to digitally developing the continent and its labour organizations. The IT solutions discovered in the developed countries relate specifically to the IT problems in those countries. They do not necessarily translate into the African experience. The best thing that people in the developed countries can do is to supply the technological infrastructure which enables

Africans to communicate amongst themselves and build new African-specific knowledge. This is not to suggest that ideas, experiences and practices from the developed countries are to be ignored. On the contrary, they can be essential seeds. But they cannot be the final answers. They need to be considered as fodder for collaborative work by Africans working on African solutions. TALKnet could be the technological infrastructure that allows this to happen with African unionists

5. Summary

Organizations could make a significant contribution to the digital development of African labour unions. The proposals that have been suggested in this document are:

1. Build a computer education program by sponsoring a series of regional computer awareness seminars and create a network of regional IT trainers. The costs of this initiative would depend on the number of workshops and the number of instructors recruited.

   Total cost: determined by number of seminars

2. Build an African labour education system to be used by unions for conducting their own courses via computer communications. A computer costing approximately $10,000 would be needed for this activity.

   Total Cost: $10,000

3. Provide a web hosting service. If the computer mentioned in point 2 above were purchased it could be used for web hosting as well as the labour education system. However, web hosting software would be needed.

   Total: $3,000

4. Development of an African computer communications network – TALKnet The costs associated with this network would be covered by a Digital Partnership program between unions in developed and developing countries (See Appendix A). However labour organizations would have to provide in-kind services for the staff coordinating the project.

   Total Cost: In-kind services

In other words, labour orgnaizations in the developed world could significantly improve the prospects for digitally developing African labour organizations at a cost of approximately $13,000, some in-kind services plus the costs associated with the regional awareness workshops.

If the above strategies were adopted the first step would be to conduct an initial survey of the current IT situation in Africa unions in order to provide a baseline level for measuring the effect of it initiatives.

6. Conclusion

This report should be considered no more than a seed. Its proposals need to be considered and debated by African unionists before any potential action is designed. However, its central ideas could be used as starting points:

? We should orient our discussions towards “Digital Development” instead of “Digital Divide”.

? Unions need to be engaged in the digital development issues of their countries as well as their own information technology needs.

? Educational communication is the key to digitally developing the continent and its labour organizations.

? The Internet can be used for confronting globalization, producing educational material, conducting distance education, creating web sites and organizing young people.

? Labour Organizations in the developed worled can play an important role by:

> ? Sponsoring educationals on information technology in Africa
>
> ? Creating an educational computer communications facility, based on the further development of the CourseReader, to be used by African unions and labour colleges for online educational activities.
>
> ? Constructing a web hosting service for web sites created and maintained by African unions.
>
> ? Promoting the establishment of a Digital Partnership program which would create a communication network: The African Labour Knowledge Network (TALKnet).

If these ideas prove potentially feasible more detailed action plans and budgets could be prepared.

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Appendix A
A Digital Partnership for the International Labour Movement

The minimum necessary for an organization to use the Internet and therefore the World Wide Web and email is:

- ?? a communications terminal ($600)
- ?? a printer ($200)
- ?? a telephone line ($25/month)
- ?? an Internet Service Provider – ISP ($40/month).
- ?? communications software (free)

The communications terminal and printer would have to be replaced every three years. The communications software would be free because the CourseReader and Microsoft's Internet Explorer are available without charge.

The budget for an average installation, three-year program would be:

Year one:	$1,580	(terminal, printer, telephone line, ISP)
Year two:	780	(telephone line and ISP)
Year three:	780	(telephone line and ISP)

Three year project total: $3,140

The actual cost would vary between countries, but the above provides an accurate assessment of a typical installation. The Internet Service Provider (ISP) costs would be paid directly to a provider such as AfricaOnline. This would help guarantee that the money was being spent on Internet costs and not other expenses incurred by income-starved unions. The telephone costs would be paid by the local organization from a one-time grant provided at the start of the three year project and paid upon receipt of an invoice letter from the local telephone company.

A Digital Partnership program would twin a union in a developed country and one in developing country. The union in the developed country would include a Digital Partnership cost of $3,000 in its computer budget every three years.

Appendix B
Labour Organizations and Countries

Unionists from the following countries and labour centrals were interviewed

Country	Labour Organization	
Algeria	UGTA	
Benin	CSA	
Botswana	BFTU	
Burundi	COSYBU	
Burkino Faso	ONSL	
Cameroon	CSTC	
Central African Republic	USTC	
Congo Bramivate	CSTC	
Chad	UST	
Côte d'Ivoire	UGTC	
Democratic Republic of Congo	CDT	UNTC
Djibouti	UDT	
Egypt	ETUF	
Ethiopia	CETU	
Eritrea	NCEW	
Gabon	CO.SY.GA	
Ghana	GTUC	
Guinée	SYNASERP	USTG
Lesotho	LFDU	
Mauritius	MLC	NTUC
Kenya	COTU	
Malawi	MTUC	
Mali	UNTM	
Madagascar	FMM-CDT	
Morocco	UMT	
Mozambique	OTM	
Niger	USTN	
Namibia	NUNW	
Nigeria	NLC	
Rwanda	CESTRAR	
Senegal	CNTS	UNSAS
Seychelles	SFWTU	
South Africa	COSATU	FEDUSA
Swaziland	SFTU	
Togo	CNTT	UNSIT
Tunesia	UGTT	
Uganda	NOTU	
Zambia	ZCTU	
Zimbabwe	ZCTU	

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