Coping with the Challenges of Higher Education in the Twenty-first Century

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Introduction

The importance of education today, more than ever before, cannot be overemphasised. Education is the key to addressing some, if no all the major problems confronting the world during out time. Challenges such as respect for human rights, democracy and the promotion of peace, preservation of the ecosystem, combating corruption, ethnicity, genocide and all forms of violence against society are intimately linked to the problem of education.

Increased investment in education, even basic education can stimulate development in many ways. For example, educated farmers are more likely generally to achieve higher productivity than those who have not been to school, and research has also established that mothers' education enhances the probability of child survival and development, and in industry an educated and healthy labour force, capable of learning new skills is a great economic asset. When it comes to civic affairs, there is no doubt that democracy works better among literate voters who are able to read the newspapers, listen to the mass media critically and are able to analyse and grasp the issues at stake than among illiterate voters who may base their judgements on the opinions of others. Surely, education is the gateway to empowering the people with the basic cognitive skills in order to render them self-reliant participating citizens.

On the other hand cost-benefit studies conducted in a number of African countries during the late 1980s suggested that the social returns on investment in education were greater at the primary

than at the higher levels; being 26 per cent for Primary, 17 percent for secondary, and 13 percent for higher education. [The World Bank 1989 p.77] In other words the social benefits increased in an inverse proportion to the level of education. Because of this, basic education has been assigned a higher priority than higher education in the Less Developed countries. Since the 1980's international funding agencies the World Bank and IMF, and national governments and private investors in Africa have also generally assigned a lower priority to higher education vis-a-vis primary schooling. Higher education, apart from yielding lower returns, was regarded as being unduly expensive, elitist and exclusive, and produced unemployed and unemployable graduates.

The tide has now turned. There is a New World order in which information, scientific and technological knowledge and higher order skills have a higher economic premium than physical capital. The growing economic importance and proliferation of knowledge, the cut-throat competition in all sectors of the world economy and the stream of secondary school leavers seeking admission to universities have combined to make higher education more important today than it has ever been before. The old adage that knowledge is power has never been truer than it is today. There is an enhanced demand for high-level skills, particularly in science and technology, and those countries which are able to produce or acquire them have inestimable advantages over those which are not in position to do so. The industrial countries are engaged in a mad rat race based on computers and information technology to exert greater control over their competitors and the developing world.

The North-South gap between the industrially developed nations and the less developed world is, therefore, widening fast. It is now realised even in the less developed countries hat higher education is a necessary condition for participation and effective competition in the global markets, so as to narrow

if not bridge that gap. This situation poses dilemmas for the LDCs and new challenges for higher education in Africa.

The purpose of this paper is to address the implications of the New World order and some of the challenges they pose for higher education in Africa with specific reference to Uganda. Can higher education help to improve the quality of life in our countries, and to narrow the North-South Gap? What are the major obstacles in its way, and how can they be overcome or at least ameliorated? An attempt is made to suggest some coping strategies for universities.

Economic Challenges

The New World Order and Higher Education in Africa:

There is no doubt that Africa is more seriously affected than the other regions of the world by the profound societal changes of our time. For example:

- the onslaught of economic liberalisation, globalisation and the prevailing predatory world order which serves the interests of the strongest economic and financial powers;
- structural adjustment policies leading to more and more government withdrawal from the provision of basic social services like health and education and have also led to loss of jobs in the public sector (losses which have not been fully absorbed by the private sector, and which have tended to devalue the degrees awarded by higher education institutions;
- loss of markets for local industries and the attendant devaluation of local currencies and the status of traditional craft skills and products;
- the exponential growth of knowledge, with very little direct input from the Africa region for example the African Virtual University; and
- the rapid development of new information and communications

technologies, which are widening the **gap between Africa and** the other regions of the world. **(UNESCO 1998 p.36).**

Thus the more we try to catch up the more we are left behind. Like Alice in Wonderland we have to run as fast as possible in order to remain in the same place.

Knowledge is wealth

In the information and knowledge based economy into which Africa is being drawn, the wealth of nations is being concentrated less and less in physical assets, and more and more in human capital. The knowledge, skills, values, and the resourcefulness and ingenuity of the people are becoming much more important as forms of wealth than the traditional physical assets such as land, buildings, factories, tools and machinery. The time-honoured comparative advantages of rich natural resources such as fertile arable land, forests, minerals, beautiful scenery, navigable rivers, mild climate, fresh water lakes teeming with fish and national parks full of wild game, important as they are, are giving way to competitive advantages associated with entrepreneurial skills, specialised knowledge and management of information. It is the countries which have cultivated the latter that will compete more effectively in the global markets.

Japan illustrates this point very well. Here is a nation of 126 million people crowded on a land area of only 145,000 square miles, of which only 11 per cent is arable. Pitiably poor in raw materials and sources of energy, Japan's main comparative advantage just forty years ago was abundant cheap labour, and the label "Made in Japan" was synonymous with shoddy low-quality product, compared to "Made in England" or "British made" which was a trade-mark for quality.

Today, Japan is one of the world's economic giants, whose industrial output is exceeded only by that of the USA. It surpassed U.K. in the production of motorcycles, USA in automobiles, Germany

in cameras and electronic equipment and Switzerland in the production of watches. It is the leading developer, producer and user of robots. One can say that Japans wealth and comparative advantage is in the knowledge, skills and ingenuity of its high-level manpower stock. Of all the Japanese aged 17 years and above over 90 per cent have completed high sc

Bachelors degree or above. In addition to mastering the very difficult Japanese language, (which involves memorising an alphabet of over 2000 characters), English, Mathematics and science, Japanese children must take courses in ethics that stress proper social behaviour, work and community obligations. (LeBoeuf 1976 p.59).

The basic requirements of universal primary education and universal adult of literacy and numeracy with which African countries have been grappling since the Addis Ababa Conference of 1961, although necessary, are no longer adequate tools with which to prime the pump of economic and social development so as to enable individuals and nations to compete even minimally, let alone effectively in the global information and knowledge-based economy. Knowing how to read, write and count, for example, without being able to access and process information through the computer is no longer regarded as functional literacy in the modern technological era. Sadly, for the majority of the pupils who entered school, literacy acquired at the primary level was regarded as terminal.

How will these early school levers be able to cope in the new information society? For, as one delegate at the World Conference on Higher Education in the Twenty-first century put it, "Science and education are what will determine the future well-being of individuals and nations." [UNESCO 1998 p.1]

This situation makes higher education overwhelmingly more important today than it has ever been before in human history for as Federico Mayor stated at the World Conference:

"It is, above all within the framework of higher education that science and education meet, unite and stimulate one another by advancing and disseminating knowledge." [Ibid.]. It was because of this role, among other things, that the World Conference asserted that higher education should no longer be regarded as personal investment, but as "a public good" (Ibid. p.8).

The Rich are becoming Richer and the Poor, Poorer

Another important feature of the current global economic order is that global wealth is concentrating more and more in the northern countries which have the scientific knowledge, information and technology and less and less in the developing and least developed countries. And within countries, whether north or south, the "haves" are becoming more of "haves" and the "have-nots" are also becoming more of "have-nots". Abject poverty is increasingly found side by side with unprecedented affluence. According to UNDP Human Development estimates, in 1960, for example the 20 per cent of the world's people who live in the richest countries had 30 times the incomes of the poorest 20 percent- by 1995 they had 82 times as much income. (UNESCO 1999 p.9). Thus the incomes of the richest nations are growing by leaps and bounds, while those of the poor countries stagnate or recede.

Economic Growth without Social Development

In the developing countries apparent economic growth is not necessarily accompanied by any visible social-economic development by way of improvements in the general quality of life of the citizens, particularly in the rural areas. The Economy of Uganda, for example, has never been more buoyant than it is today, with the GDP growing at 7 to 8 per cent per annum, and multi-storey [not multi-party] buildings mushrooming up everywhere. Four-wheel drive vehicles

belonging to Government officials and external donors and minibus taxis owned by well-placed individuals choke the streets of the city at rush hour.

And yet, paradoxically Uganda remains one of the twelve poorest countries in the world, with a back-breaking debt burden which increases every year despite HIPC relief given by the World Bank to Highly Indebted Poorest Countries which conform to the requirements of The World Bank.: Uganda is one of the few countries that are proud to have qualified for HIPC debt relief recently. The paradox is, however, that in order to continue to enjoy this privilege, Uganda must maintain its position in the ranks of Highly Indebted Poorest Countries, or else run the risk of ceasing to qualify for HIPC relief. The vicious circle continues.

Absolute poverty is rampant in the rural areas. For example, 69.17 per cent of the population of Uganda lives on the equivalent of less than US $1 a day. [World Bank 1995 p.2]. The number of HIV/AIDS destitute orphans and street children remains unabated as is that of sex workers which is a new brand of labour force in Africa. Corruption is endemic from top to bottom, and Uganda is ranked by Transparency International 1998 as the fourteenth most corrupt nation in the world. [World Bank 1998].

The waste of the rich is being dumped on the poor. [Shiva, 2000]. For example, it is difficult today for a university professor in Uganda to afford a brand new suit, let alone a new car, things which were taken for granted for a fresh graduate thirty years ago. Our people have to wear used clothing even women's underwear from the rich countries.

As smoking is being seriously phased out from the industrial countries on health grounds, our governments which do still value financial, more than human resources, do lure the tobacco companies to intensify their marketing in the poor countries because the rug

they pay will help to "modernise" our backward economies.

How can we get out of this malaise?

The first, and perhaps the central economic challenge for higher education in Africa is to address the problem of

to develop and market higher education in Uganda as a sector rest of the world.

In today's world, everybody and every organisation live by selling something. While we can benefit greatly from knowledge produced elsewhere, we must guard against the danger of regarding the knowledge industry as the preserve of the industrially developed nations. It is essential that we to foster and develop endogenous knowledge to enable us to find a niche in the globalised knowledge society. One of the challenges facing higher education in Africa today is to identify and develop those good things in or cultures which we sell to the rest of the world through internet and other information technology channels.

Moral Challenges

As we have already pointed out, we are increasingly being drawn into the vortex of a predatory a market-driven world society in which economic considerations are paramount and the absolute power of money and the pursuit of profit at all costs overrides everything else including ethical values and any form of human sensitivity. In the world of today everything, including sports, assigning and marking students homework, and even church work is seen in terms of its money value, and is done or not done depending on its financial rewards, rather than for its intrinsic worth.

Universities, both public and private, are also transforming themselves from cost-service centres into mega-profit centres, where everything is weighed in terms of its cost-effectiveness. While the market-driven economy, and cost effectiveness are useful concepts and a factor of life, we must be careful not to turn our educational institutions into completely mercantile or mercenary institutions, where private students, for instance, who pay fees are more valued than Government sponsored students, and in primary schools UPE

pupils who do not pay extra money are not assigned homework, and subjects like the humanities which contribute to the liberally educated person, but do not have an immediate commercial salable value are neglected. The state must also not completely abandon its responsibility for higher education to market forces in which the needs of people with disabilities, for example, may not be addressed for lack of cost-effectiveness. Money, and the global market-based economy as Dr. Iga suggested in his presentation must not be allowed to become the horizon of society and the raison-d'etre of human existence.

Another moral crisis is that of violence.

Violence instead of retreating, proliferates in various, and hitherto unknown forms [Mayor 1988] such as those in Uganda, exemplified by the Kicwamba students' inferno in Kabarole District, the Kibwetere cult holocaust in Kanungu and Buziga, the sporadic abduction and sacrificial killings of children in Buganda in the pursuit of getting rich through sorcery and witchcraft and the defilement of babies, to say nothing of the ethnic cleansing in Eastern Europe, genocide in Rwanda and Burundi, the inverted form of Apartheid in Zimbabwe and senseless wars in some parts of Uganda and elsewhere in Africa.

What do these problems have to do with higher education? Although education alone cannot solve all problems of society, there is no doubt that they cannot be solved without it. Education particularly higher education must be challenged by these trends. When there is a crisis, it is to education that society turns for reflection and possible solutions. Higher Education must have a new mission and a moral purpose too. It is the duty of academics to research and debate these issues and to try to suggest solutions to them. In addition to their traditional core missions of research, dissemination of knowledge, and providing services to the

community, universities should also educate qualified graduates who are responsible and responsive citizens who can think critically and act morally. To educate means to assist the students to learn not only how to know, but also how to do, and above all, how to feel, so that they can become not only competent, but al reflective, concerned and participating citizens throughout life Teachers should, therefore, inspire as well as instruct. It is an important responsibility of academics to research and debate the issues mentioned above and sensitise the people about them; so as to create a civic society. Remaining oblivious to or acquiescent with the status quo at a time of a great moral tribulations is one of the greatest crimes that higher education can commit, and as the Italian Philosopher, Dante said: "The hottest places in Hell are reserved for those who, in a time of great moral crisis, maintain their neutrality." [Kennedy J.F. 1956 p. xiii].

The Challenge of Access, Relevance and Quality

(i) Access

Until recently access to higher education in Africa was severely restricted and elite-based. It was for the sole purpose of producing what Sir. Philip Mitchell called "an aristocracy of culture, which must necessarily be very smalt" [Kagenda Atwooki 1973 p.91] and confined to the ivory-tower. Admission criteria were pegged to the international gold standard, which made it very difficult for most potential learners to make it to the "campus". The result was that even today enrolments in higher education remain dismally low in Africa. For example the whole of sub-Saharan Africa with a population of over 500 million people, had in 1983 less than 500,000 university students (World Bank 1988, p.13) compared to the State of California in USA with 13 million people and university enrolments of over one million students. In

1995 most countries in sub-Saharan Africa had Tertiary gross enrolment ratios of less than 5 per cen

13] compared to North America, with over 85 per cent [UNESCO, 1998 p.3], although today higher education is every where regarded as a sine qua non for development and as a human right. African universities cannot, therefore afford to remain ivory-tower institutions in their admission procedures. "Admission to higher education", as the Declaration to the World Conference on Higher Education in the Twenty-first Century, stipulates, "should be founded on the merit, capacity, perseverance and devotion showed by those seeking access to it, and can take place in a lifelong scheme, at any time, with due recognition of previously acquired skills." [UNESCO, 1998. p.22]

That is the new outlook to access to higher education. It calls for commitment to a policy of flexible and open access to education, based a combination of conventional (if you like) and non-conventional admission criteria such as:

- secondary school results
- life experiential learning, which may be more valuable than formal school grades
- credit accumulation and transfer (CAT) in order to open the gates of the university to as many potential learners as possible and to make entry, exit and re-entry more flexible.

It is now believed that the ideal student is the one who really wants to learn, who has a thirst for knowledge and a desire for wisdom no matter what his or her test-taking ability or previous achievements at secondary school might have been. [Solomon 1993 p.22.]

One of the functions of a university today is to identify and create student scholars out of those individuals - the Mazrui's, for example, who really want to learn, and who might have been left behind and stigmatised as failures by elitist education systems.

Students who do not have the MERIT, should be assisted by the university to acquire it through flexible remedial modular, or what Miss Nakkazi referred to as Access courses.

a great need for "Entandikwa" - a kind of soft loan or study-work scheme to assist those individuals who have the merit, capacity perseverance and devotion, but lack the financial means to access higher education. Universities which do not heed the need for the massification of higher education in the 21st century will render themselves irrelevant and in the long run become academic DINOSAURS - those giant lizards which were fossilised 65 million years ago, when they failed to adjust to the environment.

One of the greatest challenges of our time, therefore, in the least developed countries, is to generate the resources, both human and financial to bring mass higher education integrated with life long learning within the realm of possibility.

(ii) **Relevance**

It's not what they know, but what they can do which matters! Relevance is not an abstract concept, but rather a functional and dynamic relationship that must be adapted to changing circumstances. There is, therefore, no curriculum, which is universally and always relevant, which every university in the world must follow. Relevance means relating education offered to the needs and demands of society from time to time. Relevance must, therefore be conceived and judged in terms of the congruence or fit between what society expects of higher education institutions and what they do.

When there is a mismatch between what the universities produce and what the market demands, their curricula are irrelevant no matter how elegant they might be academically. Fore example, when universities send out graduates who cannot read for interest or for information and cannot write reports or even business letters

properly, graduates who lack the entrepreneurial skills to generate self-employment, there is a mismatch between university outputs and what the market demands, the academic programmes are irrelevant to the highest degree no matter what else the graduate know. Higher education must be accountable not to academia, but to society. Not only will higher education in the twenty-first century have to become relevant, but also relevance will be judged primarily in terms of outputs, the contribution that higher education makes to national economic performance, and through that to the enhancement of the quality of life of its citizens. [Gibbons 1998 p. 1-2). The litmus test of relevance should not be "what and how much the graduates know, but what they can do". It is a big challenge to our universities to demonstrate their value for money in visible concrete terms.

Relevance therefore requires closer links between the universities and the world of work. Universities should therefore regularly convene conferences, seminars and other forums both within and among themselves and the outside community, for the purpose of examining their aims, policies, programs and methods and what the communities expect of them so that they can be more responsive to the needs of society. The society should also have an opportunity to know what the universities expect from it.

Relevance also requires better articulation with the lower levels of education because what happens in the primary and secondary schools affects what happens in higher education and vice versa. For example, when schools teach practical subjects like agriculture, technical drawing, games and sports or even character and integrity, but these areas are not weighted in the entrance requirements and the curricula of the universities, the schools will ultimately be frustrated and ignore them.

The challenge of HIV/AIDS

It has also been sadly observed that an increasing numb students die in their first or second year of university or re i posthumous degrees as a result of HIV/AIDS contracted when they were at school, which means that the counselling services universities try to lock the stable when the horses are already out World wide six million people were infected with HIV in 1998. Four million of them live in sub-Saharan Africa. Of the two and a half million people who died in 1998 of AIDS, two million were African. [UNESCO 1999 p. 17]. Although the rate of new infections is reducing in Uganda, according to TASO records an estimated 2.73 million Ugandans have been infected with HIV since the first reported AIDS Case in 1984. Of those infected 1.8 million have died. The HIV/AIDS epidemic disproportionately affects women. For every 5 HIV/AIDS positive men there are 6 women living with HIV/AIDS in Africa today. AIDS has emerged as the single greatest threat to development in Africa today. Unfortunately the question of HIV/AIDS has not been given enough attention in Higher Education. It was not addressed by the World Conference 1998 nor was it raised by the Dakar Declaration and Action Plan on Higher Education in Africa. But what is the cost and effect of HIV/AIDS to investment in higher education and human capital when a student receives a BSc or Ph.D. Degree posthumously or when a school is closed because teachers have died, when a lecturer or professor dies? Can we afford to continue taking a laissez-faire attitude, to play ostrich on this matter by regarding HIV/AIDS merely as a health or moral question without economic and development implications?

The industrialised world has managed to stabilise the rate of new infections and to sharply reduce the number of AIDS deaths through new drugs. There is no vaccine as yet, and the new drugs are still far too expensive. For us in Africa, the only available weapon

is pevention through change of behaviour, which makes education ever more vital since the majority of new HIV infections are among young people, who are likely to be more amenable to learning about safer sexual behaviours.

Higher education therefore should not ignore what goes on at the lower levels of the education system. Universities should try to make a contribution to the improvement of the entire education system through carrying out relevant research in education, and improving the education of teachers.

Now let me share with you some examples in which closer co-operation between the universities and the lower levels of the education has had a great impact on the system as a whole.

Elementary and Early Childhood Education

One example was when the Russians successfully launched sputnik - the first artificial satellite into the orbit of the earth on 4 October 1957. The Americans were taken unawares, and they realised for the first time that there was something seriously wrong with their education system. What was it?

They did not go to university lecture theatres and laboratories first, but distinguished professors like psychologist Jerome Bruner of Harvard, Physicist Jerald Zacharias of MIT, among others, moved from their lofty chairs in the universities to fit their big bodies into kindergarten and elementary school chairs. It was discovered that not enough emphasis was being put on mathematics, science and logical reasoning skills in the lower levels of the education system. The children were being taught arithmetic, and nature study alone instead of scienc

Cognitive psychologists such as Jerome Bruner, Piaget Benjamin Bloom and many others, who studied the intellectual growth and development of children, came to the conclusion that early childhood, the period from birth to about the age of 8 years, is of vital importance in an individual's cognitive development. O.K. Moore a Yale sociologist, contended that the early years are the most creative and intellectually productive years of our lives. [Moore 1975]

Indeed, Zacharias believed that both professional and non-professional education can begin with play things in early childhood. [Zacharias 1975 p.30]. Robert Fulghum asserts that all that one really needs to know about how to live and what to do and how to be learned is learned in kindergarten. It is at the kindergarten that one learns: to share everything, to play fair, not to hit people, put things where one found them, clean up one's mess, not to take other people's things, to say sorry when one hurts someone, to wash hands before one eats and after using the toilet - to live a balanced life … In other words, "wisdom is not found at the top of the graduate School Mountain, but there in the sandpit at Sunday School [Fulghum 1993 p.6].

Teachers, as we all know, are of crucial importance as determinants of educational quality. No education system can be better than the quality of its teachers, and teachers cannot be better than the quality of teacher education that produces them.

In Uganda at the time of independence the standard of education in the primary schools was very low, for out of 20,000 primary school teachers, 6,500 were Grade I or Vernacular teachers who, themselves had only 4 years of primary schooling and two years of teacher training. The rest were mostly Grade II teachers with six years of primary schooling and four years of teacher training. In 1964, the National Institute of Education was established at Makerere and it was charged with the responsibility for the

development of curricula of the Primary teachers Colleges and, the examination and certification of primary school teachers in order to bring the teachers nearer to the university and to take the university nearer to them.

Through that process the universities were able to promote the continuing education of primary teachers from lowly grades to university entrance and even to postgraduate degrees and managed to raise the quality of teaching in teacher's colleges and the primary schools. But, unfortunately many members of Senate in other disciplines were irked by the idea of the university dabbling in the business of primary education, and when I personally left Makerere in 1986to go to Kyambogo, the National Institute of Education was wound up.

Fortunately, Government agreed to the proposal to transform Kyambogo National Teachers College from a mere teacher training College into an Institute of Teacher Education to be a centre for improving the education of teachers and promotion of research in education. The institute developed two-year programmes for experienced Grade V teachers leading to the award of B. Ed. degrees of Makerere University, instead of requiring them to take the 3 year's undergraduate degree intended for secondary school leavers.

Also at ITEK a programme known as Child-to-Child was developed. This project teaches primary school children to be mindful of their own health needs and to share that basic health knowledge and life skills with other children in their families and communities through approaches such as stories, drama and by example.

Another innovative strategy started at Kyambogo is MINDSACROSS - A school community Integrated system for Living Literacy. One of the objectives of MINDSACROSS is to improve learning in primary schools and communities through enhancing the writing and communication skills of children and their access to reading materials produced at lowest cost by the learners

themselves. "minds across' as one child described it, is "writing me and writing for you." Children write for themselves and their peers on topics which do really interest them as children rath than writing for the teacher for grades. Those who cannot write draw and adults who cannot read or write, narrate for others to write for them. In this way, I think universities can enhance the reading and writing abilities of children and help to create a culture of reading and writing in the society.

Thus, as Federico Mayor (1998 p.2) emphasises: "Higher education in the twenty-first century must be seen to be part of the global project of continuing education for all, it must become the motivating force of that project, the place where it all happens, and it must help to integrate into that project all other levels and forms of education by strengthening its links with them."

(iii) **Quality**

Quality, as the World Conference observed is a multidimensional concept, which should embrace teaching and academic programmes, research and scholarship, staffing, buildings, equipment, services to the community, as well as periodic internal and external evaluation.

Teachers should inspire as well as instruct.

But, among all these, I think the quality of staff is a much more important determinant of the quality of education. What students often carry away from schools and universities is not so much the academic content of the courses, as the impressions made on them by certain teachers or professors. As Mr. Baguma stated in the presentation of his paper superior teachers are those who inspire. There are many different ways of inspiring students, and they vary from one teacher to another, but what all the great teachers appear to have in common, as [Epstein (1981 p xii)] says, is "love of their

subject, an obvious satisfaction in arousing this love in their students, and an ability to convince them that what they are being taught is deadly serious." This is a good enough standard against which to measure our own performance as teachers. Do you love your subjects? What do you do to make it interesting to your students and to convince them that it is worth learning?

Universities are not built by bricks and mortar alone, but by those who teach and study in them. A well-qualified and highly motivated staff is, therefore, critical to the quality of higher education institutions. One dictum I would like to see written at the entrance of every classroom is: "Teachers should inspire as well as instruct".

Unfortunately, although the academic levels of university staff are rising fast, we still have a large number of members of staff without postgraduate training and research experience, to say nothing of professional training in teaching methods. The result of this is that teaching methods are often formal, involving exposition on the part of the lecturers, rote learning and recall of information on the part of the students, to the neglect of critical thinking, discussion and creativity. Cheating in examinations is also endemic. Because salaries are low, moonlighting at three or more institutions is also very common, which makes it very difficult to develop and maintain an esprit de corps of the institution in order to inspire commitment and enthusiasm.

University teachers have little time and money to read, let alone, to buy books and journals. Learned associations such as the Uganda Society, the Uganda Education Association, the Economics, Historical, Geographical and Mathematical Societies, as well as learned periodicals such as the Uganda Journal, Transition, Mawazo, and the East African Geographical Review, which used to be the torch-bearers and sparking plugs of intellectual life in Uganda, are either in limbo or are long dead and forgotten.

But, Rome was not built in a day. At this workshop, I have been most impressed with the level of talent that we have in universities. If we continue to work together, we will succeed i raising the quality of our higher education.

Conclusion

We have stressed at this workshop that we live in a global information-based society in which possession of higher knowledge is playing an increasingly important and pivotal role. But the gap between the industrial countries, and the least developed nations is large and widening, as is the gap between the "haves" and the "have-nots" in our countries.

While we recognise that the developing countries can benefit from the developed countries, particularly in the field of information technology, we must be prepared to face a number of challenges. For example, the new information technology, like fish when out of water, is very perishable. It lasts for a short time and becomes obsolete. So, what about the maintenance and sustainability of the equipment? Knowledge stored and conveyed in the virtual mode is very convenient, and like light, it has no weight and can be spread all over the world at much lower cost, than knowledge in the physical form. But how can we avoid the dangers of this knowledge flowing only in one direction, and the concomitant possibility of cultural neo-colonialism. The information available on the internet, growing at the rate of 1.5 million pages a day, is overwhelmingly from the Northern Countries of USA, Europe and Asia, with Africa generating an infinitesimal contribution of only 0.4 per cent of global content, and when South Africa is excluded the rest of Africa accounts for only 0.02 per cent of global content. [Adam, 1998 p.8]. This poses the challenge to higher education in developing countries to generate local knowledge, which can also enter the global network, without neglecting the possibility of

developing appropriate technologies suitable for our poor countries.

Universities and other institutions of higher learning, as the generators and surveyors of knowledge must be in the forefront of the efforts of reducing poverty and bridging the gap between the developed and developing countries. But how prepared are we for this task?

We have mentioned in this paper the moral challenges of our time: violence in new forms, genocide and senseless wars, corruption and turning money into the horizon of society and the raison d'etre of human existence. What role can our institutions of higher learning play in abating these problems, particularly in nurturing democratic values and creating a culture of peace, which is very badly needed in the world today, especially in Africa.

If we are to nurture democratic values and build a culture of peace, higher education must embody norms of social interaction, reasoned debate and difference toleration. Higher education can contribute to the building of a tolerant and democratic pluralistic society through research and debates, and by precept and example in order to produce graduates who can think critically and act morally. Higher education must avoid being captured and engulfed by short-term partisan policies of those who happen to be in power for the time being. It must be concerned with reasoned debate and analysis of issues to help society make informed decisions.

Information and communication technologies are a necessary condition in the Twenty-first Century, and we must invest as much as we can afford in them. But, Science, Information Technology and global markets unabated by moral and ethical behaviour, which only education can provide, will not be able to determine the future well-being of individuals and nations.

Internet access and gadgetry alone will not as Maibach 1999 p.11, claims: "enhance the creation and growth of wealth in every society - no matter what its past performance has been in different

countries", we must guard against such complaisance or optimism. If the vicious circle of poverty, ignorance and disease ' to be broken into, we the people of developing countries and universities in particular, must begin to ask seriously what we are doing that does not work, and why we have not stopped or changed it. Are we, for example, in our universities and nation using the limited resources both financial and human to the optimum?

The Developing Countries and the world as a whole cannot advance while the rural poor who constitute the majority are excluded from the process. This is one of the moral challenges of our time. If we are to ameliorate, or even make a small dent on the problems articulated in this paper, our universities must have clear goals, and missions, which are evaluated from time to time. Universities must leave the ivory towers and come down to the communities and the lower levels of education system with the aim of contributing to the enhancement of general education and the quality of life.

In conclusion, let me end with a message from Zechariah 4:10 "Despise not the day of small beginnings". This workshop was supported by UNSECO, Dakar, and Nkumba University to bring together participants from all Universities in Uganda to reflect on the need and to discuss techniques for improved teaching and learning in higher education. It has been a small beginning, but judged in terms of the level of the papers read and the discussions on them, it has been a resounding success. If we apply the ideas developed here, and continue to work together we are bound to attain our goal of improving teaching and learning in our universities and enhanced service to the community, for as President Gordon Conway of the Rockefeller Foundation says in his 1999 Report: "active collaboration involving shared goals and complementary resources, skills and competencies can produce collective results that transcend those which the individual players could achieve on

their own."

This is the course we should chart for higher education in the twenty-first century.

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