

Transformation through Partnership: The Jos Carnegie Story

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through
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PWS

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All correspondences to **The Editor**, C/o JCPC Secretariat, Linkages Office UNIJOS or email <?@unijos.edu.ng>

Book Project Team: Patricia Lar; Kieran Ekpenyong; Sarah Lwahas; Amos Lungu,
and Mark Kparmark. **Editor:** Lennox Liverpool;

Preface

This book tells a story of partnership and innovation. Between 2003 and 2013, a \$6 million investment by Carnegie Corporation of New York in the University of Jos in Nigeria (UniJos) provided a base of financial support which, combined with the university's strong culture of innovation, has led to far-reaching and transformative impacts that can serve as inspiration for other higher education institutions in Africa and around the world.

In the short space of a decade, UniJos has transformed many aspects of campus life and culture, using innovation and resourcefulness to meet the challenges of limited infrastructure with creative solutions. Always a leader in ICT, for instance, UniJos created a comprehensive ICT infrastructure and then made this the basis for new technology-enhanced approaches to learning, as well as for a unique student internship program which imparts valuable skills to students, who then gain experience employing these skills to the benefit of university computer laboratories and other facilities.

The impacts of the Jos Carnegie Partnership (JCP) extend in many directions and can be felt in numerous ways: in smooth, streamlined and transparent administrative processes and financial management, and in new clean, safe and attractive gathering places across the campus which have been created by and for students through an innovative Partnership With Students (PWS) program. Such measures have improved the quality of academics and campus life. The benefits of JCP have flowed to other areas as well, as new policies have been adopted to support gender equity, for instance, and research management.

In short, the accomplishments outlined in the following chapters of this book serve to illustrate how UniJos has created an atmosphere of vibrant intellectual engagement, and a culture that values learning, innovation and hard work. In addition to all of the tangible improvements in female representation, eLearning, research management, and other areas, UniJos has also been transformed in spirit. This Jos Carnegie spirit has enabled a culture of innovation, collaboration and excellence to take root and flourish.

Chapter One: Carnegie Comes to Jos, Nigeria

Introduction: This is the first chapter of a story on a decade of partnership between the United States of America and the Continent of Africa. The Carnegie Corporation of New York partnered with the University of Jos, Nigeria, to strengthen the university in different ways. This chapter highlights the evolution of the partnership and the story of the key changes that followed. The following chapters look comprehensively at the numerous impacts of the partnership, which are covered by theme. They show how significantly the institution has changed for the better.

Jos City, The University and The Carnegie Corporation of New York: The city of Jos is situated at the northern edge of an upland known as the Jos Plateau. The plateau maintains an average height of 1200m above sea level, with an equable temperature averaging 22C. Jos has a population of about 1.5 million people. The University of Jos, established in 1975, by the Federal Government of Nigeria, runs a multi campus system with over 20,000 full time and 16,000 part time students. Jos is located 300km from Abuja, the Federal Capital and centre of Nigeria, with the University of Jos drawing students from across the country.

In 1997 the University of Jos broke ground as the first Nigerian University to chart a new direction in the affairs of Nigerian Higher Education Institutions (HEIs), by producing and embracing a strategic plan. The institution's first comprehensive strategic plan covered a five year period, 1998-2003. Aiming to nurture a university of the highest standard, rated as one of the best three in Nigeria, the strategic plan adopted eight goals and fifty-five strategies.

One of the eight goals identified in the plan was the increased participation of a diverse range of stakeholders. Seeking donor funding was one of seven strategies to achieve this goal and it was understood from the beginning that implementing this one strategy would affect all the others.

The university's first attempt to seek major international donor funding, from the MacArthur Foundation, was not successful. The foundation, however, was impressed with the Unijos plan, and assured the university that, "they had friends". One such friend was Carnegie Corporation of New York.

The century old Carnegie Corporation of New York was established in 1911 to promote the advancement and diffusion of knowledge and understanding, with an endowment of 125 million dollars. Andrew Carnegie, the founder of the Corporation, dedicated his foundation to eliminating one of the greatest causes of social backwardness: ignorance. A philanthropist who wanted to create ladders for the aspiring to climb, Carnegie targeted libraries, museums and universities to reach those, "who have the divine spark even so feebly developed, that it may be strengthened and grow." A self educated man, whose formal education ended at the age of twelve, Carnegie has supported a wide variety of good causes, from work on the discovery of human insulin to race relations; from the advancement of teaching to educational testing services. Carnegie Corporation of New York supports initiatives all over the world, within institutions and organizations that are the true agents of change in society, in order to facilitate work that is in harmony with the ideas of Andrew Carnegie.



Figure 1: Andrew Carnegie. The Founder of Carnegie Corporation of New York

In 2002, the Corporation expressed interest in partnering with Nigerian Universities, including, potentially, Unijos. The university strategic plan then became the key document under exploration and review. The Corporation's support was requested for consolidation in ICT, which is one area of university strength and innovation, as well as to address identified weaknesses in the areas of university fundraising, gender equity, and staff development. Essentially support was sought to facilitate the implementation of the university's strategic plan. The Vice Chancellor, Professor Monday Mangwat, then set up a Jos Carnegie Partnership Committee (JCPC) to coordinate and steer the activities of the partnership. Essentially, the partnership with UniJos began with the visit of Professor Narciso Matos, Chair of the Carnegie International Development Program, and Ms. Andrea Johnson, the Program Officer. The pair briefed the university community about Carnegie partnership traditions and procedures; in return, they got a firsthand exposure to the University of Jos environment and stakeholders. The Carnegie team met with members of the University Governing Council; held meetings with the Vice Chancellor and Principal Officers, Deans and Directors, University women, all the staff unions, as well as with representatives of the student union government and student professional organizations. They were shown around the university and toured the ICT and library facilities.



Figure 2: University Management with First Corporation Visiting Team

The Jos Carnegie partnership has to be appreciated from a very broad perspective. Support for strengthening Nigerian universities was provided by the Corporation and the MacArthur Foundation over the same time frame. Five Nigerian universities benefited directly from these two foundations and a continental Partnership for Higher Education in Africa emerged with seven different foundations participating.



Figure 3: Partner Universities in Map of Nigeria

To better appreciate the challenges and successes of the Nigerian higher education environment, the Carnegie team visited five out of seven universities which met the general criteria they had set for selecting partners: The University of Benin; the University of Port Harcourt; Ahmadu Bello University, Zaria; Obafemi Awolowo University, Ile Ife; and Bayero University Kano. These universities all had the capacity to make a positive impact on national development and intellectual vibrancy. They had sound leadership, a commitment to strategic planning and, most importantly, were implementing creative solutions. The University of Jos, Ahmadu Bello University, Zaria and Obafemi Awolowo University, Ile- Ife were selected as unequivocal partners. The University of Jos was awarded a planning grant of U\$50,000 which ran from July 2002 until February 2003. The planning grant was used to produce a concept paper and a project proposal. A Memorandum of Understanding between the University of Jos and the Carnegie Corporation of New York was signed and the partnership was born in 2003.

The Jos Carnegie Partnership in Perspective: By 2002, The Federal Government’s allocations to the University of Jos constituted over 90% of the Institution’s total income, while students’ charges and fees contributed less than 3%. Ten years later, Federal Government allocations have increased in value, but have declined in percentage terms to 80.8%. Students’ charges and fees now contribute 10.7% of the budget, while funding from other sources constitutes 8.5%. Only postgraduate students in Nigerian Federal HEIs pay fees.

Early on, the University of Jos identified its inability to raise funds from sources other than government as a challenge. A *University Development Office (UDO)* and the *Partnership with Students (PWS)* were two interventions proposed to address this shortcoming. The UDO intervention sought to move the federal government from the position of sole funding agent to that of a major one. The PWS intervention sought to empower students to invest in their own

welfare and the improvement of the institution. This decision demonstrates the University's leadership role in innovation by uniquely addressing a national problem facing all Nigerian HEIs.

Gender was another important area where the interests of UniJos and Carnegie Corporation of New York coincided. By 2003, the University of Jos did not have an explicit gender policy; it also had not made gender equity one of its explicit and documented priorities. Men dominated in all spheres of university life, in the sense that there were more men than women students (6496:4211), more men as lecturers (532:156) and more male administrative officers (1056:519). Administrative policies for admission of students, employment of staff, participation in activities and promotion were not gender sensitive. A satisfactory system did not exist for sensitizing staff and students to problems of sexual harassment, nor for dealing with such problems when they arose. The University did not have internal or external consultants on gender issues. It needed to address these lacks by taking positive steps to eliminate gender-based stereotypes and barriers to women's participation and advancement. These considerations led to the gender intervention of the Jos Carnegie Partnership.

The first Jos Carnegie partnership grant of US\$2,000,000 was made in 2003, during the tenure of Vice Chancellor, Professor Monday Mangvwat. Today with three grants and a total investment of over six million dollars in the decade (2003-2013), there has been a remarkable transformation in many areas; from ICT to PWS, Gender and Research Management. This book documents the successes of the partnership and its impact on the University and the Nigerian Higher Education Sector.



Figure 4: Vice Chancellor Professor Mangvwat

The administration of Vice Chancellor Mangywat produced the winning proposal for the first two tranches of the partnership after successfully delivering Tranche 1. He led by example and with modesty and commitment, as he made the university community realize its great potentials. He nurtured a culture of multi stakeholder participation and selfless service, in an open and transparent administration.

In 2006 the Vice President of Carnegie Corporation of New York, Professor Neil Grabois, visited the University of Jos and interacted with a wide cross section of the university community.



Figure 5: Chairperson of UniJos Council Interacts with Carnegie Delegation and University Stakeholders

His delegation met with members of the University Governing Council, project managers, staff and students. The partnership continued to grow from strength to strength.

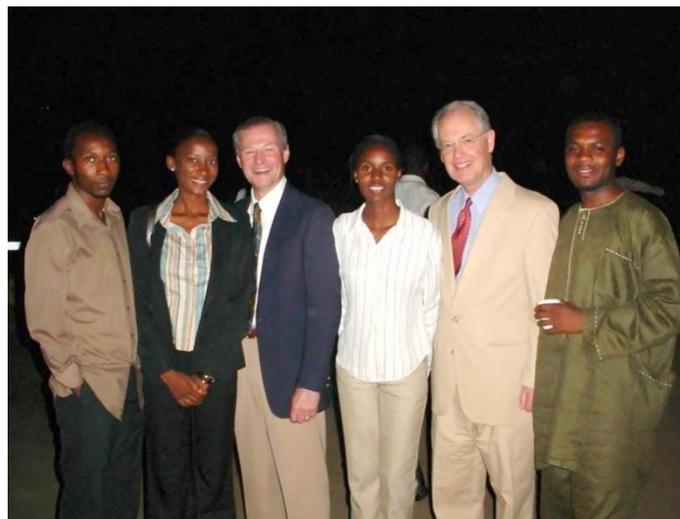


Figure 6: Carnegie Corporation Visitors with UniJos Students

During the tenure of Vice Chancellor, Sonni Tyoden, 2006-2011, a Research Management intervention was introduced as consolidation with the other interventions continued.



Figure 7: Vice Chancellor Professor Tyoden

The Tyoden administration successfully concluded the second tranche of the partnership and produced the winning proposal for tranche 3. Tyoden set up a new Faculty of Management Sciences, and increased student intake significantly. Gender, ICT and Research Management policies were put in place. By the end of his tenure, the university was ranked 2nd best in Nigeria for web presence.

The current Vice Chancellor, Prof. Hayward Mafuyai, played a leading role in the conception and delivery of the Research Management intervention. In the process, he was actively engaged in several Jos Carnegie Partnership activities. His first hand partnership experience means that he appreciates, even better than his predecessors, the great strides that have been made, as a result of the Corporation support.



Figure 8: Current Vice Chancellor Professor Mafuyai

Before the inception of the Jos Carnegie Partnership, however, the visionary leadership of the Vice Chancellor who preceded Professor Mangwat, Professor Nenfort Gomwalk, 1994-1999, laid the foundations for the transformative collaboration with the Corporation to emerge.



Figure 9: Vice Chancellor (1994-1999)-Professor Gomwalk

Apart from embracing strategic planning, Gomwalk had a strong commitment to the use of ICT in higher education, and put the basic ICT infrastructure at the University of Jos in place. He accorded ICT the highest priority and supported ICT human resource development in an era of very scarce resources. This tradition has outlived his tenure and been absorbed into the university's culture. The chart below that compares running costs of faculties at the university with those for ICT activities over a 22-year period.

Figure 10: Expenditure by Classification

ICT Interventions of the Jos Carnegie Partnership have enhanced the commitment and ability of the University to transform governance, teaching, learning and research through the integration of ICT in the delivery of all services. A university ICT policy is operational with an eLearning strategy set to bring research, teaching and learning in line with 21st century trends. The university now uses technology to make teaching more interactive and learning more pleasurable. Impact assessment and student performance studies are taking root. A culture of eLearning is being institutionalized, as programs such as an innovative eLearning fellowship for academic staff have been introduced. Some library services, and some administrative services, including financial processes, are now delivered digitally. An improved university network facilitates all these activities.

Carnegie support has also provided an impetus for growth. The total student population at UniJos grew from 25,161 to 36,542 in the last decade, undergoing a 69% increase. The number of female professors rose from 18 to 52 - a threefold increase. The percentage of female academics

has increased from 23% to 28% and keeps on rising. The university is providing services for more and more citizens while giving Nigerian women the consideration and focus that they deserve.

Figure 11: Student Enrolment Over Time

New departments and faculties have been created as the teaching hospital moves to new premises. The number of academic departments has increased from 40 to 58. The Faculties of Arts, Education and Social Sciences as well as Departments of Building and Geology and Mining have moved to the new Naraguta campus. The Naraguta campus is becoming the largest campus in a multi campus institution. The teaching hospital is now in a 362-hectares estate at Laminga having moved from a 30 hectares Bauchi Road location.



Figure 12: Old and New Teaching Hospital

The university is stronger in many different ways. The Jos Carnegie Partnership and its interventions provided a catalyst that drove the university to aggressively complement limited resources with support from a diverse range of stakeholders. As a result, the University of Jos is charting strong new directions in the second decade of the twenty first century. Greatest is the Jos Carnegie spirit that evolved out of a tradition of innovation, as we strengthened a culture of excellence. A spirit that, through team work, best practices, and new policies has stimulated networking for development and success. This Jos Carnegie spirit lives on.

Chapter Two: A Tradition of Innovation

Introduction: The University of Jos is well known for a strong tradition of innovation and for scoring many firsts in the Nigerian Higher Education sector. UniJos was the first Nigerian Higher Education Institution (HEI) to embrace Strategic Planning, Advancement and Research Management. The first university in the country to draw up an ICT policy put an eLearning strategy in place and host a Cisco academy. The Nigerian university that partners with its students to the envy of all others, to the extent that students “leave a legacy” as they graduate to the world of work.

This chapter on a tradition of innovation tells the stories of some significant firsts: it tells the story of a virtual office that facilitates best practice in project management. The story of a unique ICT internship program that gives students real work experience as the university benefits from their inputs of scarce ICT skills. An ICT mathematics intervention presents results of an experiment that shows how, with limited resources, ICT can be fruitfully used in Nigeria, for research, learning and teaching. It demonstrates how Nigerian universities are producing open local content for use by HEIs worldwide. They are contributing to the global marketplace of ideas.

The UniJos Student Information System (SIS) and the digital transcript project show how the university tries to make students’ experiences pleasurable. They are also examples of partnerships with the private sector as the university used internal resources and worked with an indigenous entrepreneur, Datasphir, Nigeria to set them up. A book that was produced on the history of development of ICT at UniJos was a first in the ICT in Higher Education documentation arena. Partnering with students, UniJos has been able to draw them into investing in their own welfare and in the improvement of the institution. By sensitizing our community, and making monetary contributions, students have facilitated a conducive working environment while providing water boreholes and solar powered lights to ease stress for all. University fundraising from students, alumni and donors is taking root through efforts of the advancement

office. Endowments and other large gifts have already been secured. The Nigerian Higher Education sector is enjoying the services of the UniJos Advancement office as it works with the Committee of Vice Chancellors of Nigerian Universities to sow the seeds for advancement in HEIs across the country. Community feedback confirms that all these efforts are very well received. Chronicling these firsts is a great opportunity to document how the university and the nation are benefiting from a tradition of innovation. It is an opportunity to reflect as we plan for long-term sustainability and growth.

Recognizing the Strategic Importance of African Universities: African universities made substantial contributions towards the mental liberation of the African peoples, their emancipation from colonial rule and the eventual establishment of nation states. Nigerian universities played key roles in the development of human capital to administer organizations, to do national planning and plan implementation. In areas ranging from economics and education to health and housing, the effects are evident in both the private and public sectors. Today Nigerian universities must focus on specific facets of national development: they must generate realistic targets, and pursue these with conviction, determination and single mindedness of purpose, in order to achieve them and remain relevant to national aspirations. Until a few years ago, a general policy position of African leaders and development partners was that investments in higher education in Africa yielded less social returns than investments in basic education. It was considered right to focus investments in basic at the expense of higher education. This position, together with economic decline in most African countries throughout the 1970s and 80s, led to inadequate support for the HE sector, which in turn detracted from the effectiveness and quality of higher education on the continent. A significant shift in position has taken place as the African political leadership has begun to acknowledge the indispensable role of a revitalized and refocused higher education system in any credible program for the development of the continent in the 21st century. Thus, the African Union identified the revitalization of the African Higher Education as a major agenda item in its Plan of Action, and included higher education as one of seven focal areas of the Second Decade of Education for Africa (2006-2015). The New Partnership for Africa's Development (NEPAD), the *Commission for Africa*, and the Gleneagles Summit have all taken similar positions. Concrete initiatives are now evolving as a result of the growing consensus on the positive contribution that higher education can make to the achievement of the Millennium Development Goals (MDGs). Thus we are once again optimistic and see a growing number of opportunities for our universities.

Celebrating a Decade of Strategic Planning: The concept of strategic planning emerged in the United States in the 1960's to facilitate long-term decision-making in the private sector. It evolved into the broader concept of strategic management in the following decade, addressing the need to integrate planning with implementation. By the end of the 1970's both concepts were transferred and applied to higher education management in Europe and the US, at a time when these countries had serious problems with student population, funding and increased competition between institutions. With the failure of African Universities in the 1990's to successfully address the problems of deteriorating quality, inadequate funding, staff and student unrest, African Ministers of Finance identified the revitalization of African Universities as a critical developmental need and requested World Bank support. The Bank, in turn, identified constraints limiting the ability of the universities to take remedial action, which included political sensitivities, financial limitations and ineffective management. The ministers then made

proposals to change the course of African Universities through the development of strategic plans, increased investments in higher education by the World Bank and other donors, cultivation of centres of excellence and the creation of modern information systems. World Bank [1977].

The Federal Government of Nigeria actively participated in the deliberations leading to the aforementioned decisions, and through collaboration with the National Universities Commission and the Association of African Universities sought to empower Nigerian Universities to successfully address the perennial problems and failures identified. This was the start of our commitment to strategic planning in the Nigerian Education Sector.

The National Policy Framework for the strategic plan of Nigerian educational institutions is the National Policy on Education. Other Federal Government reports and documentation form important guidelines. The planning process involves wide stakeholder participation, and focuses on the relationship between the institution and its environment. It internally analyzes the characteristics of the institution, and identifies resistance to change as well as the capacity to innovate. The strategic plan generates a set of definite, short and medium term goals with defined outcomes. It specifies the modality for periodic evaluation of progress towards meetings goals, as well as a timetable through which the institution marshals its strengths around identified opportunities and addresses its weaknesses to minimize threats to its development. The plans are used to dialogue and negotiate relationships with government, donor agencies, employers and community leaders. The university is thus empowered by the plans as it seizes the initiative and assumes more responsibility for its own destiny. The plans enable the institution to absorb pressures and reduce unpredictability while facilitating smooth leadership changes, harnessing the consensus building quality derived from the participation and commitment of all stakeholders.

The impact of strategic planning has been felt locally in specific universities and globally in the Nigerian University System (NUS). ABU, Zaria, Ibadan, OAU, Ile Ife, BUK, UniPort and University of Jos have enjoyed grants from Carnegie Corporation of New York and the John and Catherine Macarthur foundations. To win these grants they each had to produce a first class strategic plan to guide the preparation of their proposals to the foundations. At the global level the Partnership for Higher Education in Africa (PHEA), comprised of seven major U.S. foundations including Carnegie and Macarthur, provided subsidized bandwidth for the six partnership universities and facilitated the establishment of the Nigerian ICT forum of Partnership Institutions. The PHEA and the International Development Research Centre (IDRC) in 2008 selected the Nigeria ICT Forum to serve as the host-institution for the African Bandwidth Consortium (BWC) by member-representatives from Ghana, Nigeria, Kenya, Malawi, Rwanda, South Africa and Uganda. As a result, the Forum hosts the Bandwidth Consortium Project for African Research and Education Networks and Institutions. Through this partnership the ICT Forum brings subsidized bandwidth to Nigerian HEIs. The partnership provides one example of how investment in strategic planning has yielded great returns for the Nigerian HE sector as a whole.

The first successful efforts at strategic planning at UniJos took place in the Nenfort Gomwalk era. During his tenure as Vice Chancellor, 1993-2000, Gomwalk ensured that all previous efforts at strategic planning were reviewed and that the first University of Jos strategic plan was put in

place. Although the first attempt at raising funds from the MacArthur Foundation on the basis of the strategic plan did not succeed, the lessons learnt in this failed effort motivated a successful engagement with Carnegie Corporation of New York, and initially yielded a two million dollar grant towards strengthening the university. The next Vice Chancellor, Monday Mangyvat, took the formidable step to entrench strategic planning at UniJos when his administration evaluated the performance of the first plan and put the second plan in place. He consolidated the gains of the Gomwalk era and relentlessly pursued institutional commitment to ICT. More than any other Vice Chancellor he galvanized UniJos to take the best steps forward in these two directions. The third plan, currently in operation, was developed during the tenure of Vice Chancellor Sonni Tyoden.

Strategic planning at UniJos brought in over six million dollars from the Corporation, and more from other donors. UniJos uniquely complemented the Carnegie Corporation grants with matching funds. In addition, the partnership nurtured a tradition of open and accountable grants' administration. It created a new momentum for continued excellent team work between academics and administrators for a common good.

While most universities focus on alumni support, UniJos has been able to innovatively partner with students to deliver projects beneficial to them and to the university. A Partnership with Students intervention delivered computer labs for Internet access in faculties, and in students' residential hostels. It delivered boreholes in halls of residence to provide clean water and reduce student demonstrations for lack of water. It delivered street lights on campuses and protected students from harassment. This program confirms that the confidence we have in our students is not misplaced. Staff and students are very pleased with the PWS. The rest of the community has copied many leaves from the Partnership With Students. Another gain from investment in strategic planning.

A strategic plan, put in place well before UniJos and the Corporation had any relationship at all, now became the main catalyst for implementation of the Jos Carnegie Partnership projects. We know therefore that the strategic plan of the University is a community document undergoing community implementation. It is not the plan of one Vice Chancellor or another. We have seen that a plan developed during the tenure of one Vice Chancellor was implemented by the next one, with priority changes only. It is about building on the foundations of predecessors and moving the institution forward. The University of Jos now desires to be the best University in Nigeria. What better way to celebrate a decade of fruitful strategic planning?

A Virtual Office Fast Tracks Due Process: Managing donor funds requires precision and timeliness as well as the imperative of adherence to institutional financial procedures and practices. A Donor funds a proposal for a project, with clear goals, outputs, outcomes, timelines and a realistic budget. The project management challenge therefore is how to use Donor funds to meet targets as spelt out in the project proposal. This is in great contrast to the usual Nigerian university challenge of providing goods and services with an underfunded budget, while irregular tranches of funding trickle in. As a result, university functionaries including those from the bursary and audit units need sensitization and training to effectively and efficiently handle donor project funds. To address this challenge the University of Jos, with the support of Carnegie Corporation of New York and the KPMG Audit firm, set up a Virtual Office in 2006.

The virtual office is a collection of University staff members drawn from the key areas that support project delivery. The core virtual office staff members are drawn from the Bursary, Internal Audit, Advancement office and the Directorate of Physical Facilities. The virtual office is an external funds unit tasked with managing and disbursing university funds from non-governmental sources, in a timely manner, without sacrificing laid down institutional procedures and practices. It provides technical advice on budget development and with the support of the advancement office provides technical assistance on proposal writing.

To set up the virtual office, KPMG and key Jos Carnegie functionaries sensitized the university management and project leaders about the virtual office concept. This was followed by training for the staff members making up the office. These staff members work as a team from their various locations. So a real office for the team does not exist and that is what makes it virtual. Staff members of the virtual office know about project targets and the imperative to meet them; they understand the need to ensure university practices and procedures are followed; they understand the desires of project functionaries to deliver on time. Thus they ensure project documents and requests are treated with despatch. In order to create a critical mass of university staff members in the relevant units, with appropriate skills, to run the virtual office, KPMG training has been replicated through internal workshops; these trained staff members all now offer quality service in line with best practices. The implementation of this simple and elegant concept has been exceptional. An airline ticket request is completely processed and the passenger can travel in 24 hours. In 48 hours an advance request from a project facilitator results in a payment into a bank account. Financial reports for interventions and the partnership committee can be generated in a matter of hours. In one week a job request from an intervention results in a job order or Local Purchase Order (LPO) with a contractor. Due process is being fast tracked.

The virtual office was started by the Jos Carnegie Partnership, yet virtually all donor funded projects are now administered by the virtual office, at the request of their project leaders. All parties are happy and thrilled. The donors are confident that donor procedures and practices are followed with due consideration of university guidelines. The university is satisfied that university financial traditions are adhered to. The project leaders are fulfilled as they can enjoy timely disbursement of funds in order to meet project targets. The virtual office has come to stay, not only for the Jos Carnegie Partnership, but for all stakeholders that partner with the University of Jos.

Giving To UniJos Through Partnership: The innovative Partnership with Students' intervention (PWS) of the Jos Carnegie Partnership was hatched by students and staff. It reflects the confidence UniJos staff and students have in each other, and confirms that students can lead today, as they are trained to lead in the future. As the plans for the partnership with Carnegie Corporation of New York evolved, it was observed that all aspects of the Jos Carnegie partnership were configured to benefit the students. Strengthening the university meant making the institution stronger and more efficient, in order to improve the quality of the education it offered, in many ways large and small. Since most of the activities and interventions are done *for* the students—not *by* them, the idea of the Partnership with Students' intervention evolved to draw the students themselves into partnership with Carnegie and the University, and into investing in their own welfare and in the improvement of the institution. The PWS was

configured to stimulate students to develop and nurture a culture of investing their time and money in improving both their well being and their university. As the University found ways of drawing support from many more sources than it used to, students were persuaded that they present one very important viable source. This is particularly so as our undergraduate students pay no tuition fees and only minimal charges.

This partnership has exceeded expectations. As a result, the university has enjoyed additional government and private sector support, as public and private sector interventions replicate some of the PWS projects. The university now has a “leave a legacy” program for final year undergraduates, which is active at university, faculty and departmental levels. Partnering with students is becoming a tradition and we are all partnering even more. Recently the Academic Staff Union of UniJos donated two 500-seater lecture theatres to the university as a show of giving to the university. Unions are playing novel roles in the community. We now have not only a PWS -Partnering With Students but also a PWS- Partnering With Staff.

The Partnership With Students Intervention involves students in administrative roles, while enabling them to understand the culture of giving back to the university. Students use seed monies from the Jos Carnegie Partnership to implement projects, and then replicate those projects several times over with their own financial contributions or the inputs of their friends and associates. During a 7 year period, at one hundred and fifty Naira (N150) per student, per session, students contributed over nineteen million Naira (N19, 403,950.00) to the partnership.

Figure 13: Students' Naira Contribution to PWS Over Time.

The foundation has been laid for a sustainable partnership between students and the university, as students lead the way and the university makes periodic inputs. The intervention is run by staff and students, with the latter in the majority and in control. The president of the Students' Union Government (SUG), the welfare secretary, and a female student representative play critical roles in project administration. The intervention stimulates initiative, supports innovation and addresses the needs of students. It nurtures a culture of self-help by drawing students into constructive investments in their own welfare and in the improvement of the university. It makes effective use of limited resources.

The PWS is less about computer laboratories and boreholes; more about attitude and team work. We have been able as a community to reconfirm our confidence that when students work together, in harmony with the rest of the university community, there are no limits to what is achievable. The partnership with students is waxing stronger as conflict between students and the university administration takes a back seat. 'Things happen when students partner'. Students now champion the cause for effective student participation in all aspects of university development. A protective attitude towards university facilities as well as a sense of belonging

and pride has emerged. Students' associations are making donations, from clinical theatre gowns to departmental gardens. They are making inputs and impact in more diverse ways than anyone ever imagined.

Boreholes for constant water supply in students' residential hostels, computer laboratories in various locations, for students' use and good campus sanitation were students' identified needs. Sensitization for student leaders and the general student body on the concept of the PWS were the first small steps. The goal was to have "students oriented" and "students centred" projects, impacting directly on academics and the social welfare of all on campus. Sinking one borehole with the Corporation's seed money led to at least six more subsequently being provided in the students' hostels. The perennial water shortage in the hostels was relieved. The Plateau State Government, amazed by the students' commitment and achievement, sank two boreholes; the Education Tax Fund, impressed with students' foresight, sank another two, as V Mobile, a GSM provider sank one to gain publicity. The Plateau Agricultural Development Program, technical partners sinking the boreholes, could then not resist the temptation to support a good cause, and donated one more borehole to the students. Water, water, is now everywhere. The launching of the boreholes attracted community participation and provided additional publicity for the project. Friends of students, including government functionaries and university officials, made donations in cash and kind. The visiting Vice President of Carnegie Corporation of New York was impressed.



Figure 14: Vice President of Carnegie Launches a Bore Hole and Water Pump

The Faculty of Law blazed the trail to popularize ICT and provide services. With seed money, the PWS enhanced improvements to a student-run Faculty of Law Computer Laboratory, and brought ICT closer to the students. The Law Students Society complemented this effort by donating a scanner, a photocopier, and a printer to the lab. Using students' funds, the PWS consolidated this achievement by establishing three new student-run ICT laboratories in the Faculties of Arts, Social Sciences and the Centre for Continuing Education. These resources

stimulated the increased use of ICT in the University and consequently the research output of staff and students.

Expensive university bandwidth remains underutilized at night as state security concerns limit students' presence at departments and faculties on a multi campus institution. The PWS intervention therefore moved to get ICT facilities into students' residential hostels, for use overnight. Thin Client Computer Laboratories now enable students to access the Internet and use other ICT facilities in the secure environment and conducive atmosphere of their hostels. Solar Powered Street Lights now improve the security around the hostels as harassment at night, during electricity outages, is reduced. Feedback from the students shows that they appreciate the improved security situation facilitated by the solar powered lights the most.

Figure 15: Feedback of Students on PWS Projects

Students want to relax or work in the fresh air in between lectures and in the evenings. Reinforced concrete seats at different locations facilitate this, even at night, under the solar powered street lights. PWS "Clean Your Environment" campaigns have sensitized students and staff to change their attitudes. Awards to the cleanest hostels, and refuse bins to the community, promote the campaign. A large percentage of the students agree that these campaigns positively impact the sanitary conditions of their environment.



Figure 16: Vice Chancellor Mafuyai, PWS Managers and Students by PWS Bill Board

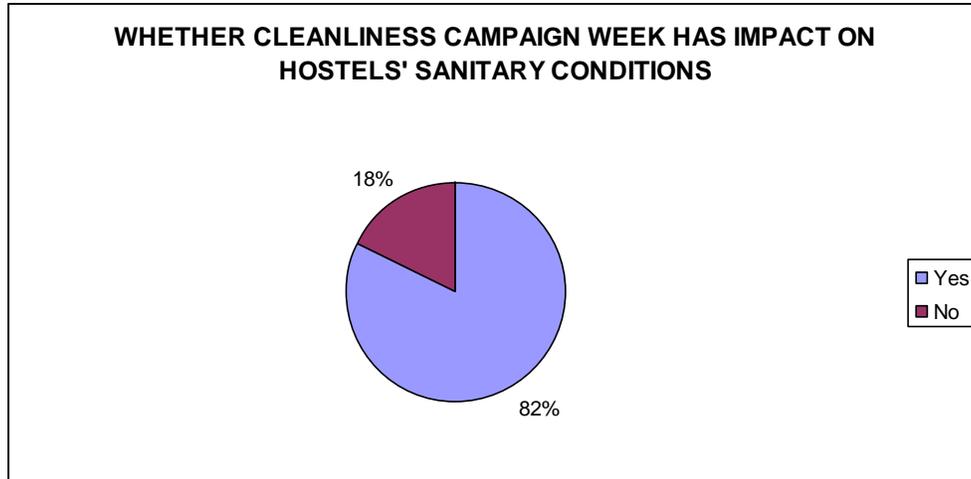


Figure 17: PWS Cleanliness Campaigns Have Positive Impact

See One-Do One- Teach One: The UniJos ICT internship is a shining example of building on a tradition of innovation. It could be rightly viewed as another successful partnership with students. Conceptualized and implemented from the late 1990s, the idea is to systematically train students from all faculties to provide a range of ICT services to the university. In ten years the number of interns grew 5-fold, from 15 to 83. Women are active interns and their participation ranged between 20% and 52%. By Y2010, over 129 students were participating in the program.

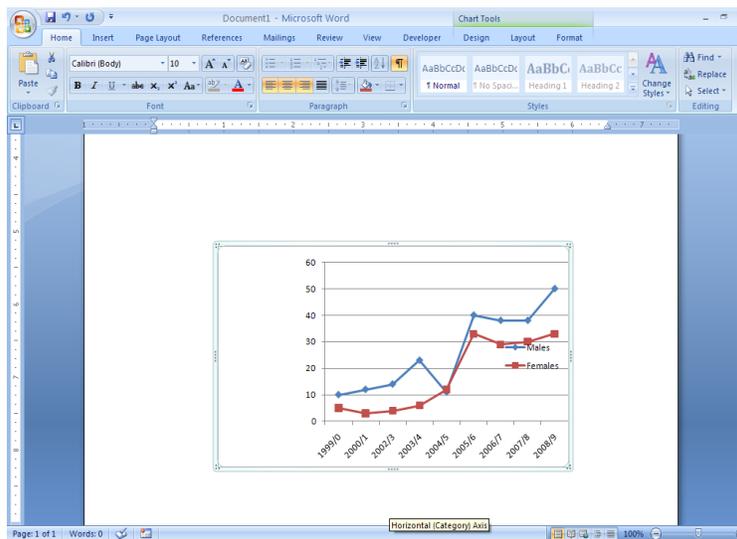


Figure 18: Number of Student Interns by Gender 1999 to 2009

Undergraduates from all disciplines receive training as interns and give service to the university in return. Interns partner with ICT staff to manage all aspects of network development, software training and systems design. They relish the opportunity to work with the hardware and software. They prove to be eager learners and highly productive workers. The program is unique to the University of Jos and demonstrates the significant contribution students can make to any university's ICT endeavours. The university receives the benefit of the interns' labour and the interns gain valuable hands on, real world experience. The internship is an innovative way to

address the shortage of staff and skills as a university grows its ICT infrastructure services and activities. [History of ICT-2006].

The innovative student internship program is now an entrenched tradition. Its philosophy, See One-Do One-Teach one, is a principle that UniJos uses to partner with students, train them and stimulate their creativity to impact on ICT development. The students in turn share and transfer their knowledge to their peers.

Technology for Teaching in Nigerian HEIs: Inspired by the innovation and gains of the Law Faculty, the department of mathematics introduced its own Technology for Teaching (TfT) initiative in 2003. By that time the faculty of law had established a model for participatory development of ICT. The Faculty of Law excels in building infrastructure training internal and external audiences, as well as advancing legal research. The faculty extended the university's commitment to invest local capital in support of ICT development to the faculty level, initiating a series of firsts. The Faculty of Law was the first to use faculty investments for procurement of computers; the first to develop a student managed faculty lab; the first to introduce commercial services to support sustainability and growth; the first to host a faculty internship programme; and the first to provide Internet access points in all academic and administrative offices. Starting with a \$45,000 grant from the Jos Carnegie Partnership (JCP), the ICT mathematics intervention produced digitized materials to give students in oversubscribed courses (1500 students and over) free learning resources. The grant supported postgraduate training of young mathematicians, acquisition of computers and software, a departmental computer lab, and initiatives to facilitate blended eLearning.

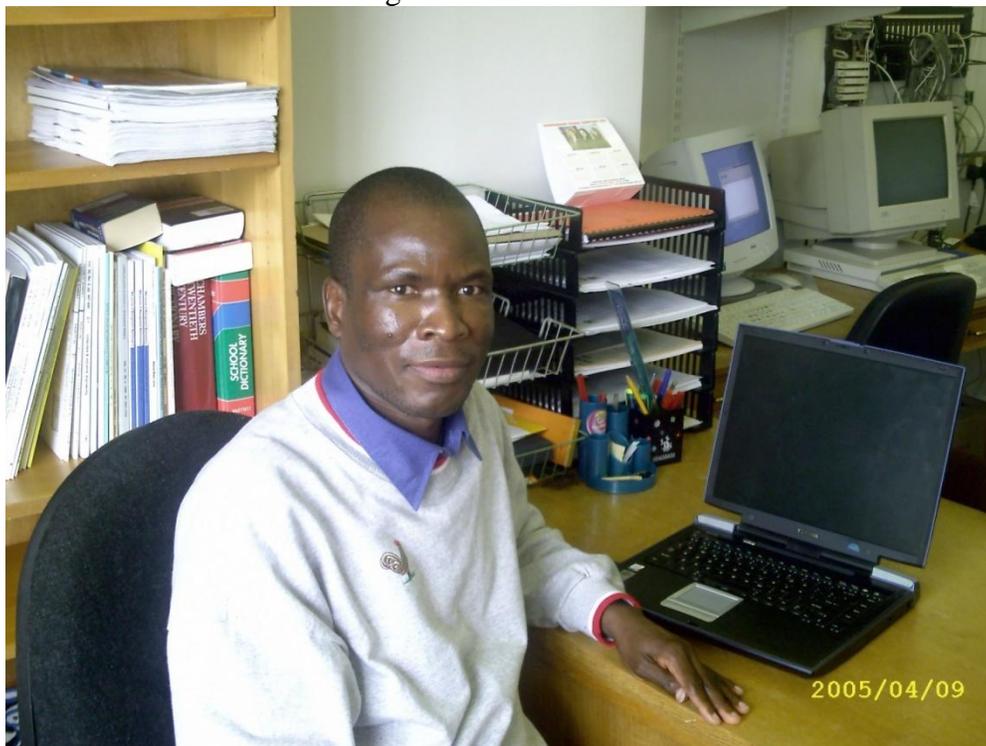


Figure 19: A UniJos Mathematics Lecturer on Overseas Training

This development, training and research activity of the mathematics department started by addressing the problem of "Poor performance of students in first-year mathematics". We wanted to investigate the use of technology and its impact on learning and teaching while generating open local content at the same time. From poor performance, the focus changed to improving performance. "Improving Students' Performance in Mathematics and the Sciences" explores the use of technology to improve mathematics instruction and student performance, enabling UniJos to more effectively prepare students in science-based disciplines. The project involves course redesign, materials acquisition and development, student-centered pedagogical training, integrating technologies, replication and impact assessment.

The second part of the project started off by addressing one introductory mathematics course, MTH103. Six sets of materials for teaching this course are now online. The first set was used to teach the course in one tablet PC mode before an interactive lab was put in place. In one table mode, only the instructor uses a tablet PC, while students view slides and annotations, projected on a screen. These materials have been reviewed annually and updated to produce MTH103-2012-13 for teaching in one and multi tablet mode. Teaching in multi tablet mode is done occasionally to give students the opportunity to follow classes, using tablets along with the instructor. This method allows for anonymous use of students' submissions in general class exchanges in an effort to increase class interaction. As a result, local content has been created under the creative commons license. Using Moodle, the university's preferred Learning Management System; the resources are on line, on the university website. These resources are also available directly on the tablet PCs in the lab, for use by students. Thus Internet down time on the university network does not restrict intranet access of students to course materials, tools and other resources. Discussion Forums stimulate staff and student exchanges, while self assessment tests from Carnegie Mellon University-Open Learning Initiatives (CMU-OLI) promote assessment for learning. Other open educational resources in use include videos from Massachusetts Institute of Technology Open Course Ware (MITOCW) and the Khan Academy. MTH101; MTH103; MTH202; CS307; MTH406; and MTH520, are among 16 on-line departmental courses on the Moodle site. The project team has grown from 5 to 12 and over 10,000 students have used project resources.

We have been able to attract additional funding from the World Wide HP Technology for Teaching project and the World Bank assisted Science and Technology Post Basic Education (STEP-B) Project of the Nigerian government. We have been able to introduce blended eLearning to students from traditional learning backgrounds, who are currently in a resource starved educational environment. Novel class activities include interactive teaching, video group activities, on-line tests, discussion forums and a student leadership caucus. The results of the project are considered as a proof of concept, presenting local solutions to local problems. The program shows that small gains can be made using technology to teach in the Nigerian environment. We already have interesting results from impact assessment of technology-enabled approaches that are expected to take root in Nigerian HEIs.

We can now detail perceptions and experiences from this experiment as we discuss realities for the Nigerian environment. What we now have is a ten-year, multi- sponsor funded intervention that seeks to create a platform for stimulating the use of technology to teach in HEIs. We are already working with the Plateau State University Bokkos, the Federal College of Education

Pankshin and the Plateau State Polytechnic to bring technology for teaching to Nigerian students and instructors. Akinola et al [2012].

Scoring Firsts With a Student Information System: The University of Jos, established in 1975, started academic work with 465 students. Today, the total student population is over 36,000. From Y2003, over 4,500 students have been admitted annually with new entrants rising to 5,294 in the 2011 exercise. The university is increasingly providing more services to the Nigerian people. The University of Jos is changing the face of research, teaching and administration, and pioneering the introduction of new technologies to various facets of the institution. The academic registry continues as the store house for student records, but the method of keeping and retrieving these records is changing with inputs from the ICT and PWS interventions. Financial Management has changed with the digitization of charges and fees administration. Student online registration is now done by the Corporate Information System (CIS) using a FOSS application built with internal resources in partnership with an indigenous entrepreneur, Datasphir, Nigeria. Academic records are now managed electronically and a digital transcript service has been launched. Processing of students' academic transcripts can now be completed at the touch of a button. The Jos- Carnegie Partnership funded the computers and software for a digital laboratory, and supported the training of CIS staff to accomplish this task.

Oasis of Power: The provision of alternative power supply is critical for fruitful deployment of ICT services in every Nigerian HEI. The Power Holdings Company of Nigeria (PHCN) and its predecessors have been unable to provide continuous power supply to citizens for over two decades. Generators alone have proved inefficient with exceptionally high running costs. Solar farms have been considered but were unaffordable. An oasis of power concept is the UniJos answer to this national challenge. A dedicated power line from PHCN complemented with battery-inverter hybrids and generators will provide uninterrupted electric power supply to the data centre, the network backbone and critical faculty and unit laboratories. At any point in time a limited number of computers at various access points will receive electric power as part of the oasis of power.

Revitalizing the Research Management Process: Writing good research proposals and managing research grants well are imperatives in university environments. Nigerian universities have in the past depended on research grants funded by government and available at university, faculty and departmental levels. With these resources dwindling, Nigerian academics have no alternative but to compete with their peers for research funds available internationally. If academic staff are to become internationally competitive in winning grants, the research management process at the University has to be revitalized. The university is committed to making research the centre stage of academic activities. Research provides resources for the enrichment of teaching and learning, and contributes to institutional development. Therefore, a research management policy has been put in place.

ICT for Lawyers, Judges and Legislators: Following the many successful ICT initiatives of the Faculty of Law, an ICT research Laboratory was established in 2003 with Jos Carnegie Partnership support. It sought to expand the use of online legal resources and improve the faculty website.



Figure 20: Law Students AT ICT Lab

The research lab offers a wide range of services to students and staff as well as the legal community both within and beyond Jos. Lawyers, judges, administrators, and legislators patronize the lab. Apart from offering access to on-line journals such as Westlaw and Hein-online, it provides services delivered by the JSTOR databases. Access to judicial decisions and statutes of national and international jurisdiction, as well as training on the use of on-line legal resources have become the priority of the faculty. Journals of the faculty have been digitized and are available on the improved faculty website. The faculty offers periodic training for students and legal professionals, including judges, to equip them with basic research skills. As a result, ICT-driven scholarship is promoted and the quality of research work has improved. In particular trainees learn how to use JSTOR and Hein online. More generally they are encouraged to explore open content, and to use the Internet as a research tool.

Advancement for UniJos and Nigerian HEIs: By 2002, The Federal Government's allocations constituted over 90% of the University's total income while student charges and fees constituted less than 3%. Today, federal government allocations are up in value but down in percentage terms. Student charges and fees now contribute almost 11%, while funding from other sources constitutes less than 9%. UniJos is raising funds from sources other than government as she moves the federal government from the position of sole funding agent to that of a major one. This demonstrates the University's innovative leadership as it addresses a major challenge for most Nigerian universities.



Figure 21: SRA Facilitators and UniJos Staff at Advancement Office

It all started with a strategic commitment to set up a University Development Office that resulted in a Directorate of Advancement. With professional support from Inyathelo, a South African Consulting Firm, the university management and project leaders were introduced to the concept of advancement.

The advancement office is set up to bring in money variously for endowments, and for special projects, to complement recurrent and capital provisions. The office also provides strategic fundraising support to the university community. So far the young office has played a significant role in securing grants from a variety of sources, including the Netherlands, the United Kingdom and the World Bank. It has been able to raise funds through a rapidly growing number of alumni, from many national chapters and overseas chapters in the UK and the USA. Even our students at Jos are giving. Graduating students have a “leave-a-legacy” project operated university wide. Students are also giving at faculty and departmental levels. Endowment funds are trickling in. In this short period of time the office has brought over Fifty Five million Naira to the university coffers.

The advancement office at UniJos has unlimited horizons. It is supporting other institutions to establish and ground advancement services. It is working with several universities and the Association of Vice Chancellors of Nigerian Universities as well as with other African HEIs to spread the advancement gospel. The Jos Carnegie partnership is bringing advancement to Jos, Nigeria and the African continent.

Through Advancement, the Law ICT intervention, The PWS and the many other unique interventions of the Jos Carnegie Partnership, the University of Jos has built upon a tradition of innovation as it has continued to score firsts in the Nigerian Higher Education sector. The university will continue to facilitate best practice in Educational ICTs, Research and Community Service.

Chapter Three: Strengthening a Culture of Excellence.

Introduction: The University of Jos consistently expresses commitment to excellence through its mission and vision statements. From “Establishing Excellence in Areas of Strength” to “Pursuing Excellence in Teaching, Research and Service”, these statements have been reinterpreted as new themes have emerged in the strategic plans, while always confirming that excellence remains key. In the search for excellence we have been proactive, and we are building on a tradition of innovation. We have been able to network for mutual development. This commitment to excellence has fostered many partnerships: Partnerships for research,

partnerships for teaching as well as partnerships for development and community service. The university is proud to retain academics who have distinguished themselves in their fields: Professor Ogezi of the Geology and Mining department, for example, holds the prestigious national Chair of the Petroleum Trust Development Fund. In the arena of Mass Communication, UniJos is working with the Nigerian Film Corporation, Jos, and the University of Lagos, in a World Bank assisted Centre of Excellence project. Our Faculty of Medical Sciences is pursuing groundbreaking research in partnership with several international agencies, including the Bill and Melinda Gates Foundation and the United States' National Institutes of Health. The mathematics department has pioneered interactive methods of eLearning to make learning pleasurable and improve students' performance. It is partnering with The Hewlett Packard Technology for Teaching Community and the World Bank Assisted Science and Technology Post Basic Education Project, to support excellence in teaching and research.



Figure 22: Professor Ogezi, Holder of Professorial Chair of PTFD

The impact of the Jos Carnegie Partnership on the institution as well as on the Nigerian Higher Education sector over the past decade has been tremendous. Men and women, academics and administrators, have received opportunities for institutional and self development alike, through a Human Resource Development (HRD) intervention. Beneficiaries of the HRD intervention that stand out include a geology lecturer who was earned promotion to Professor. Another young mathematician obtained a masters' degree from a British University and completed a split site PhD, under the joint supervision of Professors at the University of Jos and the University of Birmingham, UK. Over the last ten years, staff from all faculties and several administrative units, with the support of the Jos Carnegie Partnership (JCP), trained in diverse locations including Nigeria, South Africa, India, UK, and the USA. In this way we improved the ethics, skills, enthusiasm and commitment of the work force and thus facilitated the creation of a quality academic and conducive working environment.

In this chapter we shall also focus on excellence in library services as librarians commit to transform teaching, learning and research. Our librarians are working with instructors to create local content and a community of practice for educational ICTs. We shall also discuss how the university is entrenching awareness of gender issues, so that both men and women are

empowered to reach their full potential and contribute towards strengthening the culture of excellence.

An ever-changing library: Just like libraries all around the world, the University of Jos Library has constantly transformed itself in order to keep pace with new advances in information technology, and to improve its services to patrons (Akintunde 2012). From its inception in 1972, when it served an academic population of just under 600 staff and students, the library has continuously expanded its services to meet the needs of the students, instructors, and researchers of a growing university. The philosophy for service, installed by the library in 1980s – A Teaching Library, promotes a client-oriented service. Dating back to the 1980s, the library has always embraced innovation, particularly in Information and Communications Technology (ICT), to improve and expand its services. The first University Librarian – Bartholomew U. Nwafor, who served from 1976 until 1991, strived passionately to make library and information services accessible to patrons. Today, instead of the librarian being “a sage on the stage,” there is a paradigm shift that has transformed libraries and information centres into ‘clearing houses’, where the librarian serves as merely “a guide by the side”. In twenty first century Nigeria the library seeks to provide effective access to all, using a collection of digital technologies.



Figure 23: First University of Jos Librarian

The Institutional Repository: The University of Jos library leads the Nigerian Higher Education Sector in the provision of access to resources using ICT. As a result of this leadership role, it hosts a wide range of local and national activities including on-site training. UniJos also prides itself on having a gender sensitive library. Eleven of its twenty-one librarians are female, as are four of its seven systems specialists. Key to the library's recent transformations has been the digitization of its collections. In 2009, the library adapted Open Source, DSpace software to set up a repository. The first Institutional Repository in Nigeria, – <http://dspace.unijos.edu.ng> receives visitors from all over the world. The Repository is a one-stop access point for the research works, intellectual outputs and archival materials of the university. Access to the Institutional Repository is open but organised along faculty lines for ease of use by researchers. We are thereby more visible locally and internationally. The repository has enhanced the online presence, and global rankings, of the university and by 2011, UniJos had risen from relative obscurity to being the second-ranked university in Nigeria, and 42nd in Africa. The library is strengthening a culture of excellence at UniJos, as it provides quality services relevant to the needs of the institution and the international research community.

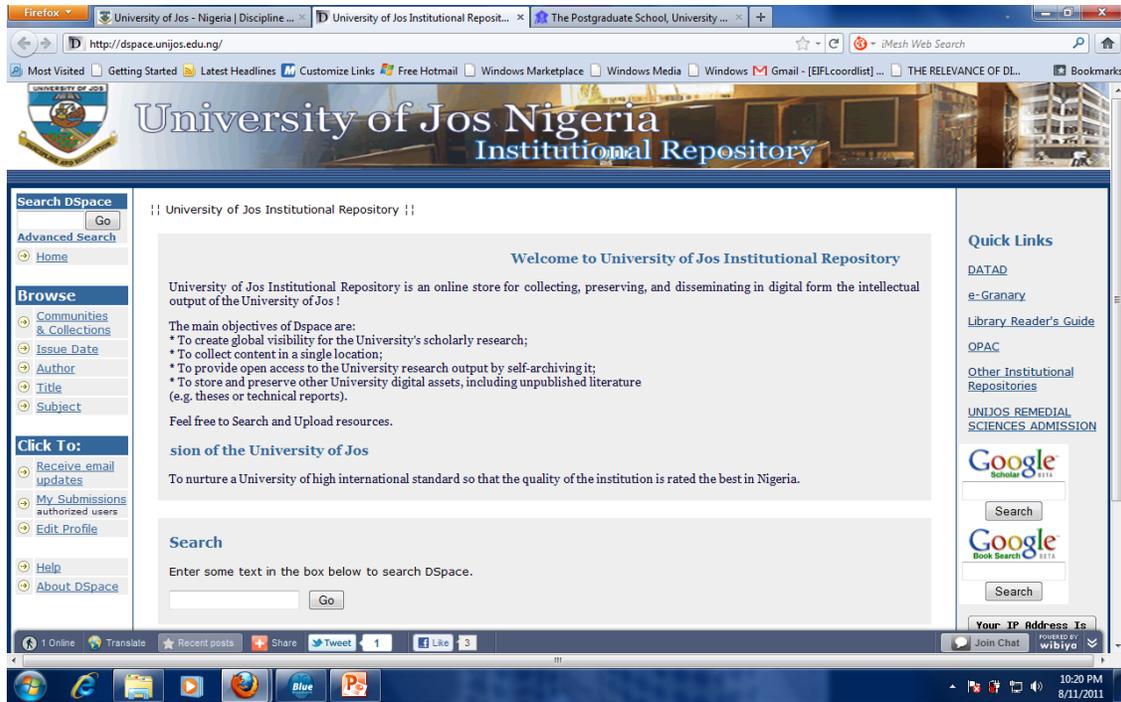


Figure 24: Screen Capture of Institutional Repository Home Page

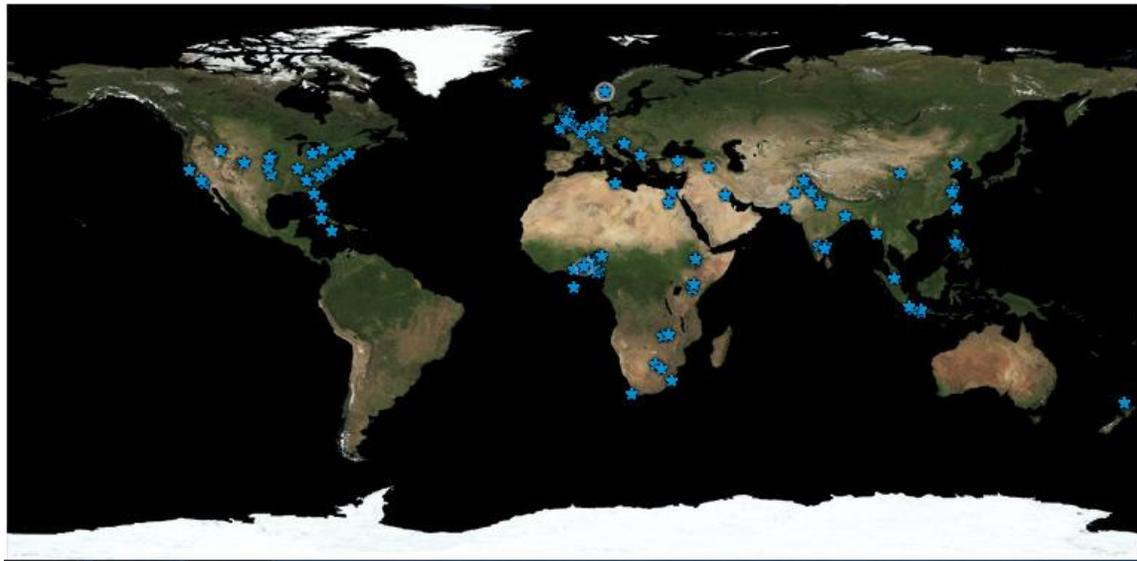


Figure 25: Screen Capture of Map Showing Location of Visitors to University Repository in February 2012

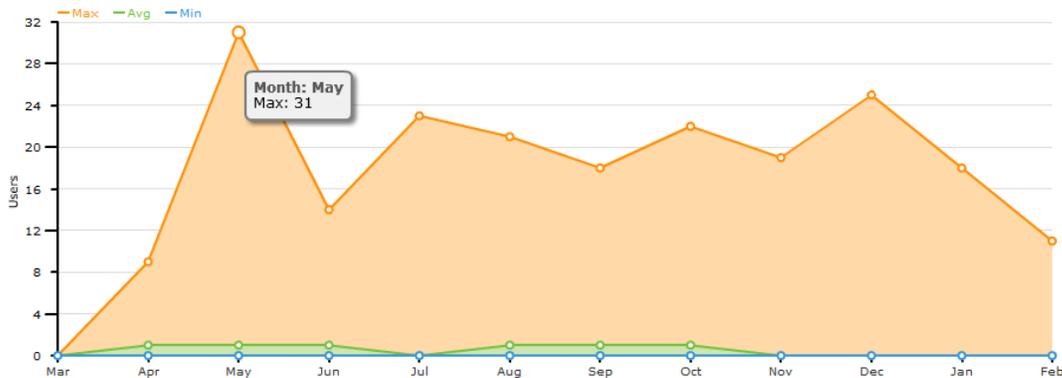


Figure 26: Screen Capture of History of On-line Users of University Repository

Items Viewed
[Top](#)
 (more than 20 times)

Item/Handle	Number of views
Soils and Soil Characteristics in a Volcanic Land - Catena on the Jos Plateau, Nigeria (Olowolafe, E. A. et al) (10485/505)	10,793
Contemporary Implications of the Rule in Smith v. Selwyn on the Audi Alteram Partem Principle in Nigeria (Shoyele, Olugbenga A.) (10485/248)	485
The Three Arms of Government in Nigeria: Towards a Harmonious Coexistence in Nigeria's Multi-Party Democracy (Asada, Dominic) (10485/375)	463
The Use of Instructional Materials in Social Studies Teaching (Medayese, F. J.) (10485/311)	287
Child Adoption: Nature and Procedure under Nigerian Law (Kigbu, Salome Konkat) (10485/384)	183
The Administration of Personal Income Tax in Nigeria: Some Problem Areas (Asada, Dominic) (10485/263)	160
Drug Abuse and Alcoholism in Nigeria Schools: Ameliorating through Guidance and Counselling Strategies (Bulus, Ibrahim et al) (10485/1072)	146
Fundamental Objectives and Directive Principles of State Policy within the Framework of a Liberal Economy (Akande, Iadesola O.) (10485/270)	129
NATURE, SCOPE AND CONTENT OF A OF HIRE - PURCHASE CONTRACT UNDER THE NIGERIAN LAW (Echono, Audu et al) (10485/246)	111
Separation of Powers in Nigeria: A Myth or Reality (Mohammed, Saleh) (10485/231)	109
The Organic Theory as a Basis of Corporate Liability (Dada, J. A.) (10485/228)	104
The Administration of Criminal Justice in Nigeria: A Case for Reform (Olong, Adefi Matthew) (10485/1412)	99
Combating the Negative Effects of Cultism in Nigerian Schools Through Counselling Therapy (Bulus, Ibrahim et al) (10485/1060)	92
Substantive Leadership and Management in Nigeria's Political Organizations: A Test of the DMU Model (Chini, Augustine) (10485/652)	86

Figure 27: Sample of Items Viewed from Repository

Capacity Building for Excellence in Service: The library, in the last ten years of the Jos Carnegie partnership, built ICT capacity of staff at all levels. This prepared the staff to use emerging ICT technologies to ensure adequate access and utilization of resources, a prerequisite for pursuing excellence in teaching and research. Thus, in the early tranches of the partnership project, the library initiative was essentially focused on capacity building. While initially many of the staff suffered from 'computer phobia syndrome,' through the programme they learned how to navigate the World Wide Web, harvest appropriate resources for their subject areas, and how to teach their patrons – researchers, instructors and students. The trainings paid off, as all library staff now have adequate and relevant ICT skills. Indeed, library staff members have since written at least 22 papers on library development and user trends. Ours is a library committed to excellence that shares its experiences with others to entrench excellence at national level. The library has also used ICT to expand access to its resources, particularly local content. In 2008 a Webmaster was engaged. The Webmaster populates and updates the library's website <http://www.unijos.edu.ng/library/> with relevant resources and news. She works with Subject Librarians to harvest free and open resources. She renews subscriptions to databases. She

troubleshoots and communicates with Internet service providers. From time to time, she takes the Subject Librarians through tours of new online resources. The University Library has also opened a number of computer laboratories in order to increase on- location- access to its resources.

Figure 28: Librarians at Work at University Library

The Online Public Access Catalogue (OPAC): Through digitizing the library catalogue, the doors of the physical library have been opened, allowing for unlimited access of ubiquitous library resources. A major achievement consequently is the library's Online Public Access Catalogue (OPAC). It is the first step of the ongoing process of providing a total on-line library solution. The OPAC <http://cactus.unijos.edu.ng> was launched in 2010. An initiative of the library under the JCP project, OPAC was designed to inform patrons of the resources that are available, and where to locate them. The system allows patrons to locate and reserve source materials online. The database is being populated through the retrospective conversion of catalogue cards. The first step was to enable online searches. The Circulation module for the active circulation of resources is next to be activated. Meanwhile, profiling – that is the definition of user access levels is being done, after which activation of the module will follow. This development in the University Library means that access to resources can be initiated either on-line or locally through the card catalogue, using the traditional method.

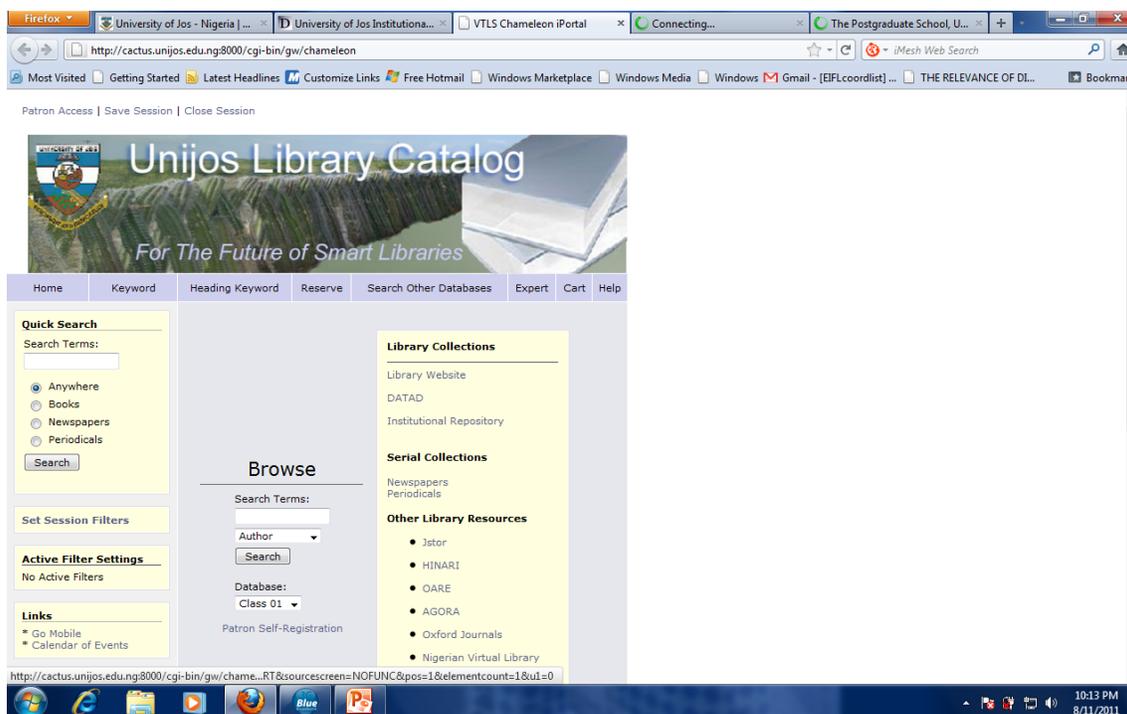


Figure 29: Screen Capture of Online Public Access Catalogue

Online Educational Resources to Support Excellence in Teaching and Research: The library's embrace of ICT has also enabled it to tap into important regional and international digital resources. The **African Digital Library** – <http://www.africandl.org.za>, for example, is a website which makes available thousands of open access books and journals, as well as on-line bookshops. Another online resource, **Access to Global Online Research in Agriculture (AGORA)** – <http://www.aginternetwork.org/en/> was set up by the Food and Agriculture Organization of the United Nations. They did so, in collaboration with major publishers, to enable developing countries to gain access to rich ‘digital library collections in the disciplines of food, agriculture, environmental science and related social science’. Yet another unique site is BioOne – <http://www.bioone.org>; ‘BioOne is a global, not-for-profit collaboration. It brings together scientific societies, publishers, and libraries to provide access to critical, peer-reviewed research in the biological, ecological, and environmental sciences’. In the year 2012, for example, there are 171 titles from 129 publishers that can be accessed freely. **Database of African Theses and Dissertations (DATAD)** – <http://www.aau.org/datad/database> was initially a project of Carnegie Corporation of New York. The University of Jos joined the initiative in 2006, as a grantee of the Corporation. Abstracts of theses and dissertations submitted to the university were sent to the project headquarters at the Association of African Universities, in Accra, Ghana. They were consequently added to the database. In the last two years, member institutions have been encouraged to send full-texts of theses and dissertations. **EBSCO – host** - <http://search.ebscohost.com> hosts several databases, each with thousands of full-text periodicals in the academic disciplines of business, education, law, medicine, the Arts, Environmental Sciences, and Social Sciences. **Health InterNetwork Access to Research Initiatives (HINARI)** – <http://www.who.int/hinari/en> provides more than 8,000 information resources for health workers and researchers. Mirroring the discipline-specific model of AGORA and OARE, HINARI is a project of the World Health Organisation in collaboration with publishers, to give researchers in developing countries easy access to medical literature. **Journal Storage (JSTOR)** – <http://www.jstor.org> The JSTOR database includes more than 1,000 academic journals, as well as ‘over 1 million images, letters, and other primary sources’. The University of Jos was the first Nigerian Higher Education Institution to gain access to the JSTOR database of complete backsets of journals. UniJos also serves as facilitator in enlisting other university libraries in Nigeria into the JSTOR partnership. One of the recent innovations in JSTOR is ‘Early journal content’, which provides free access to nearly 500,000 articles dating from as far back as a journal can be traced. The **National Academies Press Library** – <http://www.nap.edu> is a website that grants free on-line access to publications in all the major academic disciplines with options for purchase. The **Nigerian Virtual Library** – <http://www.nigerianvirtuallibrary.com> is a collection of resources on agriculture, arts, education, engineering, law, medical sciences, sciences, social sciences and technology, which is hosted by the National Universities Commission (NUC), and made available to universities across Nigeria. Resources are organized into ‘International Collections’ and ‘Nigerian Collections’. The virtual library displays Nigerian daily newspapers. The University of Jos was one of the pilot institutions for the project. **On-line Access to Research in the Environment (OARE)** – <http://www.oaresciences.org/en>. **Oxford Journals** – <http://www.oxfordjournals.org> is an initiative of Oxford University Press. It provides access to libraries in developing countries at discounted rates. Moreover, it now has open access to more than 90 journals drawn from every subject area. **Questia - The Online library of Books and Journals** – <http://www.questia.com> provides full-text access to ‘over 77,000 copyrighted books and 4 million articles’ in all academic disciplines. Access to all the electronic resources described

above is via the University of Jos Library site. The library takes seriously its responsibility to provide easy and cheap access to quality resources for all its patrons.

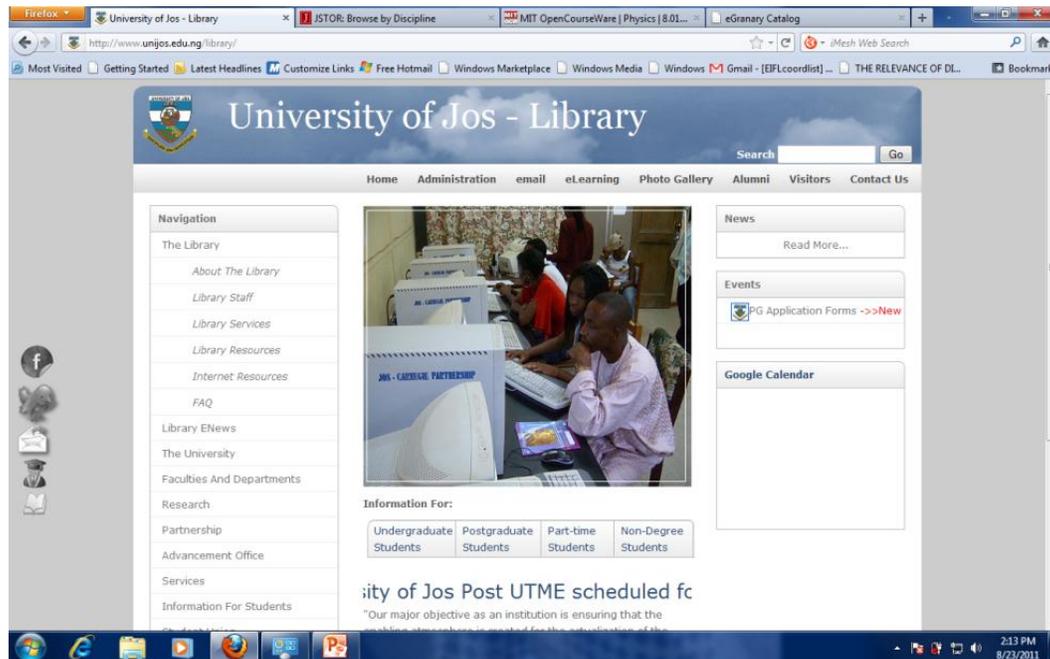


Figure 30: Screen Capture of UniJos Library Web Site

The eGranary Digital Library contains over 6 million full texts of books, journals, and websites with copyright permissions. The eGranary library concept was developed at Jos. Cliff Missen, a Fulbright scholar to Jos in the late 1990s, did so as he tried to proffer a solution to the challenges encountered by scholars at UniJos in accessing the resources of the World Wide Web (WWW). It is an excellent repository of literature, used by universities in many countries across the developing world. Resources are available in virtually all academic disciplines, with a link to real-time on-line resources. The Widernet organization – <http://www.widernet.org> based at the University of Iowa, USA developed the database. It is updated periodically and academics world-wide can now make contributions to its content.

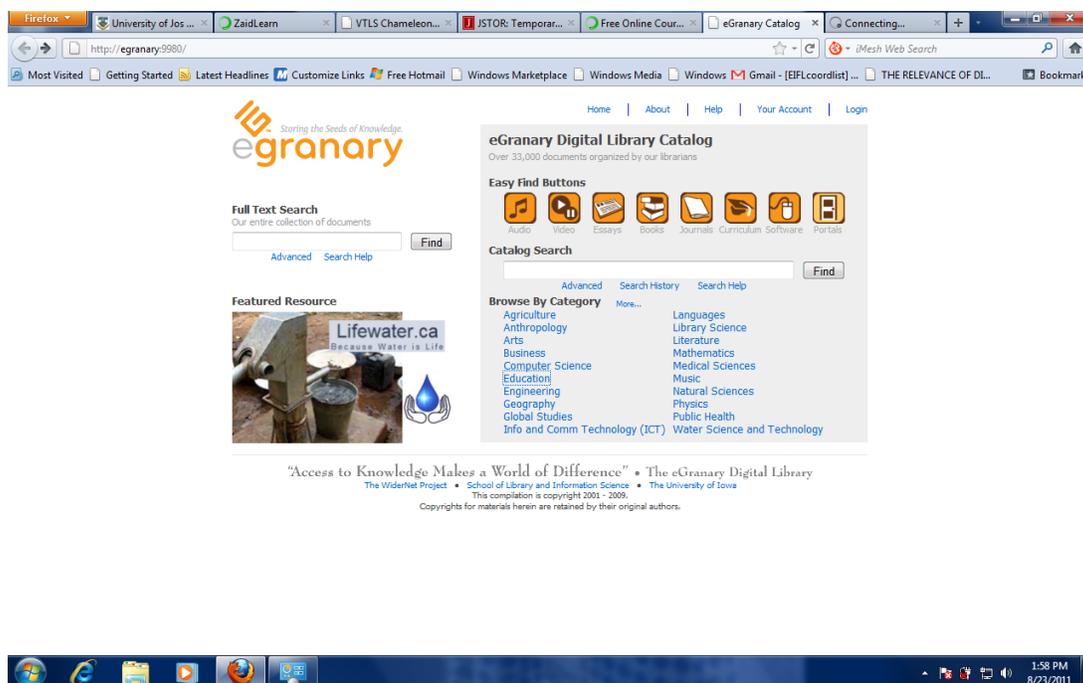


Figure 31: Screen Capture of eGranary Digital Library Home Page

The library's traditional "hard copy" collection at present stands at 169,404 volumes of books, 25,824 bound journals, as well as 20,263 Documents and special Collections. The materials are spread over four libraries located within the three campuses of the University: Arts, Education and Social Sciences – Naraguta Campus; Law – Bauchi Road Campus; Medical – Township Campus; and Sciences – Bauchi Road Campus. Access to online resources is also available in all these libraries. Even whilst digitizing its resources, the library has continued to add to its hard copy collection, ensuring easier access to both hard and soft copy formats. Newspapers, for instance, are updated online as events occur world-wide. Academic journals are available on a weekly, monthly, quarterly, and yearly basis. Audio and video tapes are available in both hard and soft copies, and are increasingly converted to digital format to maximize convenience to users. Digitization also improves preservation of these multimedia materials. In the past 10 years, the Systems Unit of the library has built capacity of Subject Librarians to browse the Web, and to identify and aggregate resources in their subject disciplines. There is no doubt that the use of these resources will impact on the quality of teaching and research at UniJos. One more way to strengthen excellence for students, instructors and researchers.

Figure 32: Computer Resources Support Library Efforts

The Library Supports eLearning for Excellence in Teaching. The library is not limited to providing resources, however. It also plays an active role in pursuing excellence in teaching. Librarians actually teach General Studies courses and actively participate in the Community of Practice for eLearning initiatives. The department of mathematics, for example, has been using ICT to teach since 2003, through a JCP initiative. The library contributed to the initiative, for

example by digitizing the course content, allowing for free distribution to students with limited access to textbooks. The course lecture notes, power point presentations and links to open educational resources (OERs) are now stored on the university's Moodle site: <http://moodle.unijos.edu.ng>. The interactive stages of the ICT math initiative introduced several technologies to the university. Classroom presenter is interactive software for use with tablet PCs by instructors and students. Camtasia is software that supports the introduction of audio into power point presentations. The course also makes use of MIT open courseware, as well as Open Learning Initiatives from Carnegie Mellon University, and Khan Academy, which provide multimedia resources of different kinds in mathematics courses. Working with librarians, mathematicians use teaching strategies including video, group activities, a leadership caucus, on-line tests and discussion forums. These resources help to overcome many of the challenges Nigerian universities face, such as limited educational resources, oversubscribed classes and limited opportunities for structured collaborative work. [Akinola et al 2012]. They make learning more interactive and pleasurable. Students are reporting positive experiences with 'blended eLearning'. These reports are substantiated by improved performance adjudged from impact assessment studies. Mathematicians and librarians are working together to create open local content. They are also working together to handle issues of Intellectual Property rights and Creative Commons licensing, as we use other open educational resources. In addition, they are working together to instill excellence in teaching; improve performance of students and the quality of UniJos graduates. In these initiatives the current university librarian, Professor Ochai and his Deputy librarian, systems, Dr. Akintunde have played critical roles.



Figure 33: Dr. Akintunde and Prof Ochai

Women and Men Partnering for Excellence in Service

Introducing Gender Awareness at UniJos: Prior to the advent of the Jos Carnegie Partnership in 2003, the University of Jos did not have an explicit gender policy; nor did it make gender equity one of its explicit and documented priorities. Men dominated in all spheres. The university had 1353 senior and 880 junior staff. In the non-academic cadre, women constituted 33% of the work force. Only 23% of academic staff members were women. UniJos had 10,707 full time students, and women constituted less than 40% of the enrolment. There were more male than female students (6496:4211); more male than female lecturers (532:156); and more male than female administrative officers (1056:519). Administrative policies for admission of students, employment of staff, participation in activities and promotion were not gender sensitive. A satisfactory system did not exist for sensitizing staff and students to problems of sexual harassment, or for dealing with them when they arose. The university did not have

internal or external consultants on gender issues. As a result, the Jos Carnegie Partnership identified the need for a gender intervention to address these lacks. The intervention took positive steps to eliminate gender-based stereotypes and barriers to participation and advancement. The intervention therefore addressed an identified area of weakness of the University.

Facts, Figures and Change: Today women are playing more active roles in all spheres of university life. In academia, female representation of the staff increased from 25.7% to a maximum of 29% over a period of seven academic sessions. This growth is reflected in a 64% increase in the actual number of women academics from 186 to 305 as shown in the table and chart below.

		Staff Data						
		2003	2004	2005	2006	2007	2008	2010
Males		539	574	621	600	629	659	753
Females		186	198	217	211	241	269	305
Total		725	772	838	811	870	928	1058
% Female		25.7	25.6	25.9	26.0	27.7	29.0	28.8

Figure 34: Change in Number of Female Academics Over Time

Similar changes took place in the administration. Over the period of seven sessions, the proportion of female administrators peaked at 33.6% rising from 30.9%. The rise in the number of female students was even more dramatic. Their numbers grew from 5229 to 8648 reflecting a 65% change. The percentage of female students grew 4% from 36% to 40% and it is anticipated that this growth will continue at an even faster rate.

	Student Data						
	2003	2004	2005	2006	2007	2008	2010
Males	9149	9819	10378	11122	11711	13101	13527
Females	5229	5944	7125	7074	7813	8290	8648

Total	14378	15763	17503	18196	19524	21391	22175
%							
Female							
s	36.4	37.7	40.7	38.9	40.0	38.8	39.0

Figure 35: Change in the Number of Female Students Over Time

Women are winning appointments and earning promotions to more challenging positions where they now influence university policy. These positions include: Professorial Chairs, Deans of Faculties, and Directors of Units. The number of female professors trebled since 2003, rising from 18 to 54. Women are gaining self-confidence; their voices are loudly heard in gatherings. They are partnering with men in the service of UniJos.



Figure 36: First Female Dean of Students

UniJos Women in Leadership Roles: Women are playing a more significant role in leadership both inside and outside of the university. Today, women from the University of Jos play important roles at many levels. They can be found in State and Federal assignments. The Honorable Minister of State for Foreign Affairs, Professor Viola Onwuluri, is a UniJos Professor of Biochemistry; while the Honourable Minister of Water Resources, Mrs. Sarah Ocheke is an alumnus of the university. These two ladies are among many UniJos women to take leadership roles outside the university. They operate at the highest level of the federal government and influence national policies with the gender sensitivity of the UniJos community.



Figure 37: Mrs. Ocheke and Professor Onwuluri

At the state government level, many UniJos women are serving as Commissioners as well as members of Boards and Parastatals in several states. For example, Professor Angela Miri served as Commissioner for Education. Dr. Comfort Piwuna, an Associate Professor, is currently Commissioner for Science and Technology while Mrs. Mang is the Executive Chairman of the Plateau State Universal Basic Education Board.

Women play an active leadership role within the Jos Carnegie Partnership project too. The current chair is Dr. Mrs. Patricia Lar of the Department of Microbiology. Her predecessor, Mrs. Elizabeth Opara, is now Bursar at Veritas University Abuja, The Catholic University of Nigeria.



Figure 38: Dr. Mrs. Lar and Mrs. Opara

At UniJos, several departments have introduced academic courses in the area of Gender and Women's Studies. For example, the Department of Theatre and Film Arts offers two courses in mainstream theatre, and another two in film. The English Department offers courses in women and literature, while the Department of Sociology has a course on women and society. All are heavily subscribed. Thus we can see that the mission to address gender gaps at the UniJos is being accomplished. Gender is now a university priority. The strategic objective to initiate and

nurture a culture of gender equity is being achieved. The utilization of human resources is being maximized as men and women work together to pursue excellence at UniJos.

The Process of Change: A number of activities on the campus including gender mainstreaming workshops and campaigns helped to bring this change about. The campaigns and workshops were first launched for key decision makers including heads of departments, deans, directors and principal officers. These activities provided the university leadership an introduction and exposure to gender concerns and best practices. The leaders were later provided deep training in gender equality and programming. We built the capacity of our decision makers to drive the gender agenda. Over 300 leaders within the university community were directly involved in these exercises. We followed this up with gender activities for the rest of the university community.

These were the first steps to get community buy-in for introducing a gender policy. Development of the policy was through grassroots participation. Leaders and followers, men and women, administrators, techies, lecturers and students, all worked together. They complemented their collaboration by consulting with gender specialists attached to organisations outside the university. A unique annual gender institute was an event that brought together gender scholars and activists from Nigeria and other parts of the continent to interact with members of the UniJos community. These specialists stimulated UniJos decision makers to deliver on the gender mandate and produce a quality gender policy. The result is a gender policy that we developed together and that we are all so proud of. UniJos has now set up a Centre for Gender and Women Studies (CGWS), dedicated to building a culture of gender sensitivity within the university. In addition to promoting gender equity at UniJos, by taking over all tasks and assets of the Gender Intervention Team (GIT), the role of the CGWS is to attract grants and pull interested researchers in gender studies together, in order to stimulate more interest in gender research in all departments and units of the university. Through the Centre, the university seeks to effectively address and contribute to gender equality and women's empowerment. The centre will run academic programs, to realize her goal to champion gender equality and to make UniJos a model gender responsive university in Africa.

So far three books on Gender development, Gender policy issues and Reproductive Health in Nigerian Universities have been published by the GIT. The publications are another tool for enhancing gender relations and awareness at University, State and Federal levels. The books dealt with issues of women's limited visibility in academia; best practices in implementing gender policies; bridging gender gaps in higher education; and in the power structures in universities. On gender and reproductive health, the prevalence of gender related violence on campus reveals, through students' self-assessment, that women rather than men have been the dominant victims of this social ill. These books have become landmark publications on gender in Nigerian HEIs. There is no doubt that there has been significant transformation in the gender environment at the University of Jos over the past decade. Gender has a rightful place in all UniJos considerations, as our community pushes for an aggressive gender agenda, in the state and the nation.

The University of Jos gender policy became operational in 2005. The policy was approved by the Senate of the University and ratified by the Governing Council. The policy has facilitated the

formulation and implementation of gender friendly activities. Positive outcomes from the policy include the embrace of gender as a major priority in the university strategic plan. The university also began collecting gender-specific data, and so is now able to understand the impact of a gender friendly environment on staff appointments, promotions, trainings and student enrolment. The university administration is constantly monitoring the maintenance of gender equity across the university. Male dominance, in many areas, has been replaced by gender parity. We are fostering widespread awareness of gender equity. Theatrical plays with gender sensitive language and themes, produced by the Department of Theatre and Film Arts, pull large crowds during the annual female week. Hundreds of students and more than a thousand patrons enjoy these plays as they learn about how critical gender is, in the university environment. Female students are breaking through barriers. They challenge their male counterparts by vying for positions that were hitherto exclusive positions for males. Many female students are now heads of Departmental Associations. They are self-confident and now contest more elective positions in the Student Union Government (SUG). The annual 'Female Day' program initiated by Gender Intervention Team, in 2006, continues to create and increase awareness. Female students are motivated to accelerate the process of increasing women's participation to meet the Gender Policy prescription of at least 33% female representation in the SUG.

The Gender intervention through a Female Support Initiative (FSI) stimulated women's participation in the Cisco academy programs. Thirty percent of Cisco academy enrolment is reserved for women and the FSI has provided 50% of the tuition fees for women participating in the program over nine years. In the first six years of the programs, 653 Cisco graduates were produced with the women graduates in "IT Essentials" at a peak of 39.5%. The Jos Cisco academy has also helped to expand Cisco programs across Nigeria, mentoring more than 30 Cisco academies across the country, and thus producing both male and female Cisco graduates for the Nigerian ICT sector. The FSI has also provided scholarships for undergraduate and postgraduate women. Already arrangements are in place for annual revenue generation activities to keep the FSI up and running after the end of the grant. An annual dinner in 2012, for example, raised over Two Million Naira as start up fund for this venture.

In addition, a Gender Mentoring Program has been in place at the University of Jos since 2010. It is the first gender mentoring program in a Nigerian University and the second such program in West Africa. There are currently 25 mentors and 125 mentees in the program. It is yet another way in which we build capacity of our women to meet the challenges of their time. The Outputs and Outcomes of the Library and Gender interventions of the Jos Carnegie Partnership have significantly strengthened the University of Jos, the Nigerian Higher Education Sector and the Nigerian Nation. The search for excellence at UniJos has been very fruitful and the culture of excellence is being strengthened.

Chapter Four: Networking for Mutual Development and Success

Introduction: Opportunities for networking have increased exponentially with the growth and development of Information and Communication Technology (ICT). The education sector is thus using a traditional strategy in a new way in the digital age. The chapter *networking for success- In the history of ICT at the University of Jos* [2006] traces how the University of Jos worked with other institutions to build its communication infrastructure, and use this infrastructure in the pursuance of excellence in research, teaching administration and community service. We have continued to cultivate relationships in a number of different areas.

At the University of Jos, ICT operatives were networking with people and institutions, long before we had a network infrastructure in place. Prior to the digital era, the university had partnerships with several universities worldwide. These included Durham University in the United Kingdom, and McMaster University in Canada. The Jos Durham partnership involved land utilisation, while the McMaster collaboration involved drought and rural water use. We also partnered with international organisations including the World Health Organisation (WHO) and the Japanese International Cooperation Agency (JICA), among others. While the JICA collaboration involved conducting multidisciplinary research studies on goitre and iodine deficiency, the WHO project focused on training for the prevention and treatment of tropical diseases. Strengthened through the partnership, UniJos was designated as a West African centre for training in entomology and parasitology.

UniJos collaborates with a variety of Nigerian organisations, such as government agencies and industry partners from the private sector firms, to find solutions for national problems, and networks with international bodies to contribute knowledge for the global village. In the ICT arena, the National Universities Commission (NUC) introduced NUMIS and NUNet to federally funded Nigerian universities. NUC thereby put the infrastructure in place for universities to enter the digital age. UniJos leveraged on these NUC initiatives to develop an ICT directorate that has three constituent units: the Corporate Information Services (CIS), the Network and Internet Services (NIS) and the Training and Development Unit (TDU). Through these units, the directorate then developed partnerships with Cisco and Microsoft to set up academies. We now have a robust Student Information System (SIS) set up as we collaborated with an indigenous industry partner.

Unijos took the lead in the use of Information and Communication Technology for teaching by introducing blended eLearning initiatives. Anatomy, English, Law and Mathematics are among several departments that use blended eLearning for teaching. Mathematics in particular received multiple grants from Carnegie Corporation of New York, Hewlett Packard, and the World Bank to support its ICT for teaching initiative.

Cliff Missen of the University of Iowa partnered with the University of Jos in the 1990's. He developed close ties between Nigerian HEIs and his WiderNet organisation. He played a critical role in bringing Internet access to UniJos. In the process, the WiderNet project got global status with the creation of the eGranary, to address related challenges. Eventually he took leading Nigerian ICT Champions to Decision Makers' Summits at the University of Iowa.



Figure 39: Cliff Missen and Nigerian ICT Champions at Iowa

Datashphir, a Nigerian, Lagos-based, company, partnered with UniJos to develop an in-house SIS. Subsequently Datashphir was propelled into Nigerian educational ICTs. The company now plays diverse ICT roles in Nigerian HEIs. From Abuja and Kano to Sokoto, as well as from Lagos and Benin to Maiduguri, Datasphir is actively involved with HEIs and the ICT Forum of Nigerian Partnership Institutions, as we all work towards a functional Nigerian Research and Education Network (NREN). In particular, the Forum has successfully put together several research and education clusters that will readily plug into the NREN. They complement the Forum's capacity building and social networking activities through an annual flagship Nigeria Network Operators Group (ngNOG) event that consists of training workshops, conferences and meetings. The formation of an even larger network, the West and Central African Research and Education Network (WACREN) is imminent.



Figure 40: Professor Adewumi

All our partnerships were essentially facilitated and mid-wifed by home grown staff nurtured and trained by the University of Jos. Mr. Emmanuel Eseyin, the pioneer Director of the University Computer Centre, Professor Sunday Adewumi, who was pioneer Head of Management Systems, Mr. Daniel Yakmut, pioneer Head of the UniJos Network and Mr. Silas Vem, currently Deputy Director all played critical roles.



Figure 41: Mr. Vem and Mr. Yakmut

Strengthening a Tradition of Networking: The Jos Carnegie Partnership strengthened this tradition of networking in numerous ways, by providing support for new capacities to be built in diverse aspects of institutional advancement, planning and management, which could then be shared with other institutions through networking, which has helped to develop the Nigerian higher education sector as a whole. In this chapter we discuss some of the experiences with networking for mutual development and success, and how these experiences have strengthened both our institution and partner organisations.

Fundamentals of Fundraising: The Jos Carnegie Partnership project provided technical assistance alongside the main grants. Under this arrangement, PAMOJA Inc visited the University in 2003, while the planning grant was still in use. During this visit Jonathan and Carol Otto facilitated a workshop on the Fundamentals of Fundraising (FUN–FUN). This workshop proved invaluable. The draft final Jos Carnegie proposal was reviewed and strategic modifications made. The workshop covered topics from proposal writing to project implementation; from budgeting to monitoring and evaluation. Thrilled with the acquisition of new skills in a new area, participants commended the work of PAMOJA. A Train the Trainers FUN - FUN workshop followed in 2004. The train the trainers’ activity was for UniJos and the Ahmadu Bello University. The trainers thereafter facilitated several FUN-FUN workshops for the university communities at the two institutions. A third visit provided the consultants and trainees an opportunity to review impact and update fundraising skills.

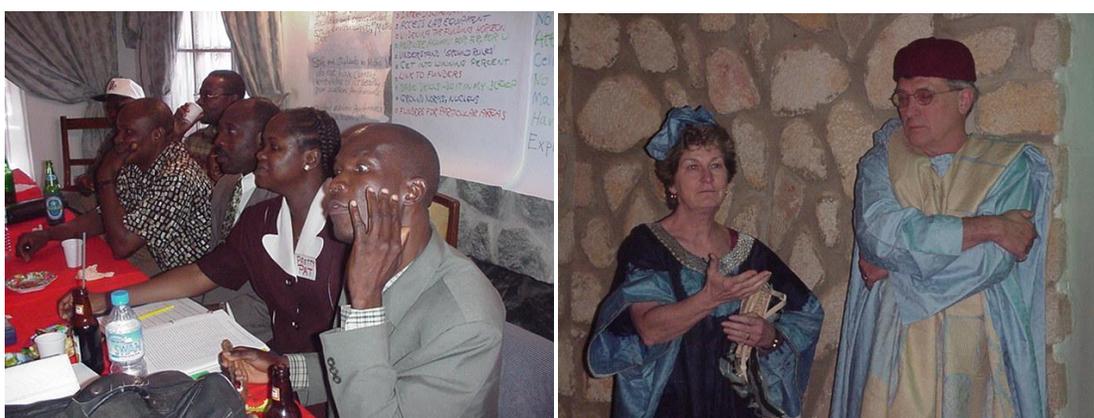


Figure 42: Participants at Fundamentals of Fund Raising Activities

From Fundamentals of Fundraising to Advancement: The first University of Jos strategic plan (1998-2003) listed as one of its eight goals the increased participation of a diverse range of stakeholders. The first of seven strategies under this goal was to create an office for revenue generation in the Vice Chancellor’s office. At that time the Federal Government of Nigeria provided over 90% of the university’s income. We wanted to move the federal government from the position of sole funding agent to that of a major one. Therefore, the first University of Jos proposal (2003 – 2006) to Carnegie Corporation of New York included an intervention to set up a University Development Office (UDO). In addition to government, university leaders wanted to develop corporate organisations, endowments, charities, and foundations as viable, alternative funding sources for institutional support. However to attract their funds, the university needed to invest in acquiring special resources, including fundraising staff within a dedicated a fundraising unit.

Advancement seeks to strengthen the university through developing relationships across different sectors that draw in resources and help the university to sustain its activities. Following the 2003 FUN-FUN workshop, the University of Jos and the Jos Carnegie Partnership leadership were introduced to the advancement concept. The UDO intervention subsequently identified the South African Institute of Advancement (Inyathelo), and engaged its services for capacity building in advancement. The UDO intervention was subsequently renamed the Advancement Office intervention, in line with current trends as espoused by Inyathelo and adopted by UniJos. A team

comprising members of the JCPC and top management of the university then paid a visit to Inyathelo and a diverse collection of South African university partners. They were exposed to advancement at work and were impressed with its impact on South African HEIs. Buy-in for the advancement concept was now assured. From then a team of university of Jos staff was identified for professional training in advancement, and consequently to comprise an advancement office. This is the story of the birth of the University of Jos Advancement Office (AO). Two years later, by 2005, The AO team trained as Cadets of Inyathelo. They had workshop sessions on the theory and practice of Institutional Advancement; learnt about the Fundraising Cycle and covered the concepts of cultivation, solicitation and stewardship. Exploring the Donor World; Alumni Relations; Prospect Research; Proposal Writing; Communications and Building Relationships; and Team Building gave them the complete works on advancement. The advancement office is headed by an Executive Director Advancement (EDA), who oversees the overall operations of the office. He has staff in key areas with specialized knowledge of a collection of advancement fields. The UJ Advancement Office is a success story brought about by networking with Pamoja and Inyathelo. The Executive Director Advancement at UniJos has acknowledged the immense contribution of the cadetship training, while Inyathelo has recorded the impressive performance of the University of Jos Office and its leadership in The South African Institute for Advancement, Annual Report [2005 – 2006]. Recently in March 2012, the Advancement Office launched the “UniJos Annual Fund”. The event, which was held at the Federal Capital, Abuja, provided an opportunity to UJ Alumni as well as friends and well-wishers of the University to donate to development initiatives of their choice. We are all networking for development and success. The Advancement Office is making significant breakthroughs in its fundraising mission. The AO – FUN FUN -Inyathelo partnership is yielding fruit at the University of Jos and in the Nigerian Higher Education Sector.



Figure 43: Professor Victor Dugga, Nigeria's First EDA

Networking with the Society of Research Administrators (SRA) International: As a part of technical assistance from Carnegie Corporation, the SRA International, in 2006 facilitated a one week workshop on research administration and management for the University of Jos community. Academics and administrators participated in the activity. An equal number of men and women drawn from the various interventions spent four days undergoing training. They were trained by Ms. Shambrook, SRA Board Member; Dr. Studman, Director, Pie-Squared Consulting, New Zealand; and Mr. Paul G. Waugaman, Coordinator of Global Affairs, SRA International. Workshop themes ranged from setting goals and measuring achievements, to research administration and management. Participants were exposed to strategies for promoting the culture of research; methods of identifying funding sources; and the responsible conduct of research. Other issues dealt with include: Pre- award administration and financial management; the role of research in the university's mission; intellectual property rights and research; and post-award research management. Group activities provided the participants with the opportunity to apply knowledge and skills gained from the workshop, and to present their outputs. The SRA facilitators interacted with the Vice Chancellor, the rest of management and other University of Jos staff, during the visit. In a comprehensive workshop report to UniJos and Carnegie Corporation of New York, SRA detailed the impact assessment results. SRA made strong recommendations for the establishment of a research administration and management unit at the University. Subsequently several UniJos staff participated in SRA activities worldwide and are now active in research management tasks. In subsequent tranches of the partnership, a Research Management Intervention was introduced and an Office of Research and Development is a welcome outcome.

Two Universities Partner with the Nigerian National Film Institute, Jos: The digital age is here as a result of tremendous advances in ICT. The long entrenched technologies of audio and video communication have made room for virtual communication technologies. We are witnessing great improvements in existing technologies, as well as the creation of new ones. Research provides the key to changing technologies. Research has enabled, for example, the multimedia communication industries to attain their present ubiquitous status. These industries operate within a framework that provides continuous capacity building to their workforce, while carrying out research simultaneously. Research results provide the basis for industry to produce new and improved technologies, while industry sends back to researchers, questions that they need to answer to move to the next level. This way, the continuous development of expertise that is needed to drive the industry forward is assured. In the Nigerian environment, we have not been able to nurture research and development in this symbiotic way.

The rapid growth of Nigeria's media sector, including the film industry, has fuelled demand for media professionals. This is particularly so for multimedia technologies. Nigerian media training programs have doubled over the last five years. Current estimates identify approximately 60 training institutes offering journalism and communication programs; these programs are affiliated with universities, polytechnics and other training institutes. Yet, mass communication education has failed to adequately prepare students for the current multimedia environment; graduates do not have the skills necessary to succeed in the workplace. This challenge is compounded as students have limited access to textbooks, equipment, and practicum. As a result, students learn theory with little opportunity for practical application. Many graduates are therefore not prepared to compete in the 21st Century workforce, where ICT skills are mandatory

to compete with technologically-savvy entrepreneurs. Nollywood has thrown Nigerian creative industries into the limelight globally. With the pride of access to a global market comes the challenge of creating content that ‘sells’ the country creditably (Dugga 2011). Several related shortcomings have been identified and there is a loud call for upgrade in the quality of Nigerian films. Film crews have been staffed by semi-skilled practitioners with basic equipment. Now there are demands for a crop of professional producers, skilled in various aspects of film production. The quest for higher standards in the production of films is strong. However, the institutions to train this new generation of film-makers lack the requisite technology, skills and resources to meet the challenge.

A Centre of Excellence in Multimedia Technology and Cinematography has been conceived to address these lacks. The World Bank-assisted Science and Technology for Post Basic Education (STEP-B) project of the Nigerian Federal Ministry of Education has awarded a grant to realise this centre. Three beneficiaries: the University of Lagos, the University of Jos and the National Film Institute, Jos, are collaborators on the project. The collaborators are promoting the philosophy of the Centre, which is to enable practitioners and lecturers, town and gown, to take advantage of the opportunities the Centre provides and to improve the quality of learning in their institutions and eventually film production in Nigeria. The Centre of Excellence (COE) offers a unique opportunity to bridge research, education and practice. This will be achieved through modelling and adapting successful practices employed by selected partner institutions in Europe and America. This COE will bring together the most prominent mass communication, cinematography and computer science scholars in Nigeria and support them to promote the role of digital technologies and media in society. The Centre will engage researchers and scholars-in-residence to implement projects in the core areas of: investing in innovation, modernizing curricula, supporting student media, and strengthening industry partnership. The goal will be to ensure adherence to international best practices in new media research and development with transparency, accountability, and efficient management. The Centre will sustain its activities through a diverse revenue stream, including professional services, postgraduate programs, research grants, donor funding, and alumni support.

ICT Math Partnering with Carnegie, HP and STEP-B – a Model and a National Plan: The ICT Math blended eLearning initiative, introduced in 2003, was inspired by the use of educational ICTs in Anatomy and Law. The initiative mainly targeted the most heavily subscribed courses in the first two years of undergraduate study. These courses display many of the challenges Nigerian universities face – limited educational resources, oversubscribed classes, and limited opportunities for structured collaborative work. With a grant from Carnegie Corporation of New York, the ICTMaths team digitised lecture notes to ease the problem of limited access to textbooks. The team also produced power point presentations to deliver lectures in tutorial mode. We learnt that eLearning was more about pedagogy and less about technology. The initiative then moved from the static to the interactive stage with the introduction and use of Moodle, an open source Learning Management System. With a 2007 Technology for Teaching grant, HP provided tablet PCs to the ICTMaths team. This enabled the team to introduce the interactive “free Classroom Presenter” software for teaching. ICT Maths simultaneously introduced other innovative strategies to enhance interaction. Learning is becoming more pleasurable as we seek to improve the performance of our students.



Figure 44: A First Year Math Student with a Tablet PC at the Math Lab

All these efforts have led to impact assessment exercises. We are creating local content and using Open Educational Resources (OERs) from American universities to complement this content. Our students are now learning in a blended eLearning environment, which includes interactive lessons, multimedia lectures, online assessment, and discussion forums. With STEP-B funds we have set up an interactive lab to design studies. We are comparing the experiences, perceptions, and results of students using a blended model of computer-based instruction with students learning in traditional classrooms. The results are encouragingly positive and we now have a model for eLearning in Nigerian HEIs. Already we are mentoring three HEIs in the state – The Plateau Polytechnic, The Federal College of Education, Pankshin and Plateau State University, Bokokos. Together we are exploring the use of blended eLearning in the Nigerian environment. Such collaborations could lead to improved learning environments that excite, engage and enrich the learning experience of Nigerian students. At the same time, Nigerian students and instructors are learning about the advantages of collaboration and innovation. They are jointly addressing the challenges of the ‘digital divide’.

The ICTMaths initiative has therefore provided opportunities for mutual development at several levels. ICTMaths provides an opportunity for Nigerian researchers, instructors, librarians, techies and administrators to work together, in a community of practice, to improve to the quality of education. The HP Technology for Teaching (TfT) community has become an invaluable resource for UniJos and other Nigerian mathematicians, as we learn from the experiences of others. ICTMaths has opened doors for instructors and students in Nigerian HEIs to enjoy the benefits of OERs. By partnering with HEIs in Plateau State, UniJos is stimulating activities of the Highland REN, a cluster of the Nigerian Educational Research Network. The long-term plan is even more ambitious as it aims at a national program to prepare Nigerians for better communication with the global academic community. We are truly networking for mutual development and success.

Figure 45: Networking from Sister Grantee Institutions to International Partners

A Tradition of Networking for Mutual Development: In its tradition of networking for mutual development, the University of Jos had several initiatives to network with sister grantee institutions. At commencement of the partnership with Carnegie Corporation of New York, a UniJos team visited the Obafemi Awolowo University (OAU), Ile Ife, to explore partnership opportunities. Several were identified and the computer centre of UniJos partnered with Information Technology Unit (INTECU) of OAU for local computer assembly.

In the early 2000s, the number of computers in the University of Jos was grossly inadequate for the number of users. In order to maximize limited resources, the computer centre decided to purchase components and assemble its computers locally. An assembly room was put in place at the Centre. The UniJos computer assembly team then visited OAU to familiarize themselves with the art of computer assembly at OAU, as this was a regular practice for their engineering students. Initially, assembly teams from OAU and UniJos assembled computers together, for UniJos at OAU. The operations later moved to Jos, with only UniJos staff participating as consignments of computers for interventions of the Jos Carnegie Partnership Project were assembled. The History of Information and Communication Technology at the University of Jos [2006]. Similarly once the “Partnership With Students” intervention proved successful and popular, the PWS team visited other Nigerian universities and shared with them the challenges and benefits of such a partnership. The PWS intervention team also hosted several visitors to Jos from other Nigerian HEIs who wanted to find out how PWS was able to persuade students to make voluntary contributions and use them for developing university resources. They all want to have their own Partnership with Students.

The Heart of the Networking Tradition: The ICT Directorate is the heart of the networking tradition at UJ. It has networked and partnered more than any other arm of the institution. This is in line with the university’s commitment to network and partner in its areas of strength. Indeed one can claim that the story of the national success of UniJos, with ICT, lies in our proven ability to work with others for mutual development.

The ICT community developed an early appreciation for the need to have continuous training and retraining in a rapidly changing technology industry. Thus the ICT Directorate has always pioneered human resource development at the university, and remains far ahead of other support services. At a point in time, investments in its development program compared favourably with that for academics. This tradition of generous support for ICT has continued over several university administrations.

Before 2008, the ICT Directorate operated as three separate Units: there was Management Information Systems (MIS); the University of Jos Network (UJNet); and the University of Jos Computer Centre (UCC), which all offered complementary functions to support teaching, learning, research and other administrative activities within the University. Today the ICT Directorate has a unitary structure with three constituent parts. Corporate information systems

(CIS) grew out of NUMIS while Network and Internet Services (NIS) grew out of NUNET and consequently UJNET. Both NUMIS AND NUNET were initiatives of the NUC. The UCC is now the Training and Development Unit. The development of the ICT Directorate was therefore nurtured by national initiatives, which prioritized capacity development in ICT.

ICT decision makers at UniJos quickly learnt about the gains of networking people and computers. Training was planned as UniJos worked with Microsoft and Cisco to establish academies. Through these training arrangements, we produced hundreds of techies for Nigeria and the West African sub region. We worked with Nigerian companies Resourcery and UTECH, to establish network infrastructure. We worked with Skannet of Ibadan and Brainwave of Jos, to provide internet services. Datashphir brought private sector expertise in a partnering arrangement. We worked with sister grantee institutions of the PHEA to get subsidised bandwidth through the bandwidth consortium. We partnered with the University of Western Cape on the AVOIR project. We trained our techies through afNOG and worked with the ICT Forum to domesticate afNOG and train others in the higher education sector locally. Our techies form the vanguard of trainers in national and African wide NOG Events. We partnered with banks, including Zenith Bank and Skye Bank, to extend our Student Information Systems. Partnering with players both inside and outside of Nigeria has become the norm for the ICT directorate. Fulbright fellows from the USA played groundbreaking roles in ICT. Cliff Missen, and Phil Ostien, from Iowa, Phil Horton, from Florida and Donna Oti from Washington DC are among many who worked at UniJos.



Figure 46: Fulbright Fellow Professor Donna Oti -A Great Trail Blazer

All these diverse and multi-level partnerships are testimony to a spirit of networking for mutual development that is alive and well at UniJos. From establishing the first maintenance workshop to creating our first websites; from our first student on line newspaper, to the eLearning fellowship, Donna and her compatriots stimulated innovation. We worked with great men, great

women and great institutions to blaze the trail. We networked with people and institutions for success. Their exceptional contributions remain indelible in our minds.

Chapter 5: Practices, Policies and Change

Introduction: The investment of human and material resources at the University of Jos, by the Jos Carnegie Partnership, resulted in significant and multidimensional impact. For an entire decade, change remained dominant in the UniJos environment. New practices emerged from ‘thinking outside the box’. As a consequence there was need for policy change. New policies were put in place, and now their implementation is bringing even more change. A decade of changing practices, policy changes and consolidation has led to a present of new hopes, new plans and new sustainable programs.

This chapter discusses practices, policies and resultant changes in the functions of units and departments of the university. Changes in the attitudes of men and women as benefits accrue to the university and the nation. These changes range from Research Management to improved ICT infrastructure and an eLearning strategy: and from the evolution of a Research Evaluation Team and a Research Policy. We are employing new strategies for Human Resource Development so that the next generation of academics is well trained and instilled with a commitment to service to the African continent. In all these developments, a framework for creating innovative and sustainable initiatives with impact assessment and a feedback mechanism has been put in place.

AResearch Policy is Born: The University of Jos now has a research policy in place. The policy is the outcome of several initiatives including a study carried out by the Research Management Office Intervention of the Jos Carnegie Partnership Project. The research management process at the University has therefore been restructured with clear guidelines.

Vision: - Research takes the centre stage of academic activities in providing resources for the enrichment of teaching, learning and overall institutional development.

Mission: -To remain current and relevant in: providing qualitative higher education; imparting knowledge to the community of learners; continuously generating and applying knowledge for institutional and national development.

The structural framework of the policy includes: - Research Funding Areas, Funding Sources and Research Office Administration. The Office of Research and Development (ORD) has a Director and a Research Office Board. The board, among other functions, is responsible for monitoring and evaluation of funded projects. The policy enables the ORD to advise grant awardees about Intellectual Property Rights. It advertises research opportunities and promotes mentoring for junior academics. The policy promotes intra and inter faculty research collaboration. It gives special focus to researches that address national concerns and priorities. It provides guidelines to help researchers handle confidential materials professionally. It facilitates the protection of

inventions through patenting and royalties. The policy facilitates fast tracking of research funds disbursement as it supports timely project reporting for interim and final reports. It compels researchers to observe ethical standards in the use of animal and human volunteers. It defines terms for the provision and appointments of research assistants, and spells out rules for acquisition and retention of donor provided equipment and facilities. The policy delineates the roles of the principal and other investigators, and provides guidelines for acknowledging donors in related publications. It provides for a process of formal acceptance of grants that binds the grantee to specified conditions.

Re-engineering the Research Management Process: From time immemorial, research has been a major function of Higher Education institutions (HEIs). All over the world, as it is in the Nigerian University System (NUS), the rate at which academics rise through their ranks is directly related to the quality and number of published research papers. In the top developed economies of the G20, government and the private sector invest substantially in the funding of academic research. The outputs of academic research, in turn, form a significant part of national planning for development. It is significant that in all these environments there is an outfit in place, for efficient and effective management of research.

In the NUS, there are federal and state government-owned institutions, as well as private ones. The budgets of these institutions provide a low level of funding for research. Due to inadequate research provisions, academics in Nigerian HEIs must seek funding from international agencies in order to meet their research responsibilities and dreams. Competing successfully for such funding means adopting international best practices in proposal writing and research management. Nigerian academics may also need to align their research themes to the interests of the funding agencies.

Training current and future generations of Nigerian researchers to maximally access external funds for research is the way forward for Nigerian HEIs. Both researchers and institutions stand to benefit. The University of Jos has taken time to reflect on its own research practices in light of current global research trends, in order to fashion out a research management office that will guide research across the university in the next decade. It is called the office of Research and Development (ORD) and implements the University's Research Policy. The proposal writing and research management processes at the University have been re-engineered. The university, committed to making research the centre stage of academic activities, will provide resources for the enrichment of teaching and learning as well as for overall institutional development. The ORD, one such resource, will encourage inter departmental and inter faculty collaborative research in line with international trends. It has introduced the concept of research clusters, and works with these clusters in proposal preparation, submission and tracking. It also provides support for monitoring and evaluation of project delivery for both internal and external grants. It will maximally exploit all internal resources by collaborating with researchers who have won donor funding, and twinning them with younger researchers in order to grow the number of externally funded researches.

The Statute that created the office and governs its operations empowers it to:

1. Promote and manage research in the university, including dissemination of research outputs.

2. Liaise with the Directorate of Intellectual Property on Technology Transfer, Inventions and Innovations on behalf of the university.
3. Solicit, obtain and manage funding for research and incidentals in line with the regulations of the university on such matters.
4. Organize seminars, workshops and courses of instruction that will strengthen scientific advancement, societal development and human security in its various ramifications.
5. Partner with industrial, commercial, financial and civil society organizations to facilitate and deepen the capacity to translate research into products, services, policies and programs that will advance societal, human, economic, political and socio-cultural development.

The ORD is raising university-wide awareness about research initiatives, and about the university's commitment to becoming a strong research institution. Young researchers are being trained to make them competitive in proposal writing and research management. The ORD is supporting existing research teams to respond to advertised calls while employing research clusters to address several global research interests. The goal is to get clusters at faculties to develop proposals based on national and community needs that are in line with international best practices trends. At the same time ORD encourages inter department and faculty collaborative research, of interest to funding agencies. The ORD is currently working with stakeholders to develop a university research agenda with a selected number of priority research areas.

A Research and Evaluation Team Supports Intervention Teams: Writing good proposals and good reports present challenges for Nigerian academics. From the project planning matrix, to the logic model and the work plan, the project manager today needs 21st century skills to use 21st century tools and techniques. Monitoring and evaluation procedures are employed in assessing project performance. Performance assessment determines whether project outputs and outcomes have been achieved or not. It enables the project manager and the donor to confirm that the objectives and goals set are met. It has become clear during the life of the Jos Carnegie partnership that special expertise is required for effective project performance audits and successful project delivery.

Between 2006 and 2009, Carnegie Corporation of New York engaged the Evaluation and Research Administration (ERA), consultants from South Africa, to hold capacity building workshops on project monitoring, evaluation and reporting, for partnership institutions in Nigeria. Intervention players at Jos observed that practitioners who did not regularly use the skills acquired through the activities of this technical support initiative soon lose these skills. A Research and Evaluation Team, (RET) was therefore set up, drawn from the most skilled academics trained by the ERA. They were colleagues from the Social Sciences and Education Faculties, who regularly employed rigorous, advanced methods in their own research activities. RET turned out to be a very useful organ providing support to intervention teams not only for evaluation, but also for general project management. In the process the skills of RET members were strengthened. In particular, the RET was able to replicate the workshops delivered by ERA, and deliver the content to program managers who could not directly benefit from ERA workshops. The programme had a multiplier effect, widening academics' exposure to best research practices. The RET duties include:

1. Assist interventions in the selection and preparation of appropriate instruments for the evaluation of activities as well as with data analysis and report preparation.
2. Assist interventions in the evaluation of workshops including the effectiveness of presenters, impressions and perceptions of participants at such workshops.
3. Quarterly and annual appraisal of performance of the various interventions to determine their rankings.

The original three person RET team has been enlarged to increase the delivery of their mandate. They now provide support to researchers across the university through inputs to the ORD.

Development to Advancement: The University of Jos is committed to move its proprietor, the Federal Government of Nigeria, from its position of sole funding agent to that of a major one, as called for in the first strategic plan of the 1990's. A University Development Office was the proposed answer. With the advent of the Jos Carnegie partnership, the university was exposed to the concept of Advancement and a University Advancement office was consequently set up. The office has made its mark over the years. It has installed a vibrant alumni association with active branches nationally and overseas. It has cultivated donors and attracted grants locally and internationally. It has recently launched an annual fund to stimulate a culture of giving to the university. The framework of the policy behind the advancement office is presented herewith.

With a mission to enhance the image of the university, build strong relationships and professionalize the approach to ensuring sustainable development of the institution, the Advancement Office (AO) is set up to achieve the following goals:

1. Managing a professional fundraising apparatus, including donor-prospect research, proposal development, donor cultivation, solicitation and stewardship.
2. Managing the communications and market needs, with special emphasis on building the image and profile of the university to service the work of development, fundraising, Alumni Relations and Public Affairs.
3. Managing the alignment of development priorities with the strategic goals of the university.
4. Giving to the university: -This goal would be considered achieved when the Federal Government becomes the major rather than the sole funding agency of the university.

Planned activities of the AO include fundraising to cover capital costs, reinvigoration of research, endowment of Professorial chairs, and provision of scholarships to various categories of students. This is one way for the university to be placed on the path to compete and excel internationally. Alumni, parents of students, and friends of the university are being encouraged to donate to the university in a variety of ways, including cash, bank drafts, and standing orders, as well as in providing other forms of assets, including time investment in advisory and volunteer services. In particular, supporters are being recruited to serve in advisory roles in the areas of alumni membership building, and fundraising. The AO promotes stewardship by recognizing the contributions of supporters in a variety of different ways. From special roles at convocation and degree awarding ceremonies to the delivery of distinguished alumni lectures, these stakeholders make their presence felt in the university community. Continuous capacity building of AO staff ensures project delivery in all areas and is considered as an important, integral component of the advancement program.

Recognizing the Contribution of UniJos Women: Women have always played critical roles at all levels in Nigerian life. From roles in the farm and the market, to roles as wives, mothers and professionals. More attention must be given to recognizing these roles and appreciating the contributions of women to national development. With gender sensitivity, a gender policy, gender institutes, and a Centre for Gender and Women Studies (CGWS), UniJos now documents and appreciates the contribution of men and women in all spheres of university life. In recent times we have seen Mrs. Josephine Otubu, the Director of Audit, elected as a member of the governing council of the university. The first woman to serve on the council was Mrs. Ojoade, who served as university librarian, and Principal Officer.



Figure 47: Mrs. Ojoade and Mrs. Otubu Served in Council

Today, UniJos women are playing significant roles in the Federal Government and in national politics. The presence of UniJos women in the State political leadership is even stronger. UniJos women are playing increasingly significant roles in the university, and they continue to move from UniJos to top leadership positions, as Principal Officers in other HEIs across Nigeria. Our Mrs. Cecilia Ohemu is currently the Registrar at Federal University of Agriculture, Makurdi while our Mrs. Olasumbo Akinyemi is the Registrar at the National Open University of Nigeria. We work with our women and prepare them for higher national service.



Figure 48: Mrs. Akinyemi and Mrs. Ohemu

Within the university, women are playing many leadership roles. Professor Theresa Nmadu now heads the Division of General Studies, having taken over from Dr. Mrs. Rahilla Gowan. Dr. Gowan is now Director of the Centre for Entrepreneurial Excellence while Professor Anibogu of the Faculty of Environmental Sciences is one of many women professors heading departments. Natasha Anibogu was nominated by Senate to the interview panel for Vice Chancellorship while Professor Irene Salami-Agunloye of the CGWS was appointed to the Search Team, for the position, by the University Congregation. For the first time in the history of the University of Jos, a woman applied for the post of Vice Chancellor in 2011.



Figure 49: Professor Anibogu

Women have been particularly active in the Faculty of Medical Sciences playing leadership roles over the years. Professor Mrs. Orji, Professor Aba Sagoe, Professor. Lucy Idoko and Professor Okolo were pioneers. Today many departments, from Anatomy to Paediatrics, from Medicine to Microbiology and Ophthalmology have women heads. At another level Professor Jane Ande, Head Department of Accounting, served as General Manager for Consultancy Services. Professor Ande served as Director General of the Association of Nigerian Accountants. Dr Solomon, one time Head Department of Biochemistry, is serving as Director of the Student Industrial Work Experience Scheme. Mrs. Veronica Gumut, now a council member, also serves as Director of the Centre for Nomadic Studies. Women are very active in the decision making process across the university.

Positive change is taking place not only for individuals and local units. We are experiencing significant global institutional change. The changing situation of women in the university is positive. Over seven academic sessions, between 2003 and 2010, the percentage of women students increased and peaked at 41%, rising from 36%. The actual female enrolment increased monotonically, rising from 5816 to 8687 during the same period giving us a 49% increase.

	2003
	2004
	2005
	2006
	2007
	2008
	2010
Males	10175
	9820
	10374
	11122
	11711
	13101
Females	13570
	5816
	5943
	7129
	7074
	7813
	8290
	8687
Total	15991
	15763
	17503
	18196
	19524
	21391
	22257
% Females	36.4
	37.7
	40.7
	38.9
	40.0
	38.8
	39.0

Figure 50: Change in Female Enrolment with Time

At the highest academic levels women are doing exceptionally well. We have recorded an 8.2% increase in female professors, over seven academic sessions.

Session	2003	2004	2005	2006	2008	2010
Males	122	132	139	160	159	195
Females	18	20	28	33	40	52
Total	140	152	167	193	199	247
% Female	12.9	13.2	16.8	17.1	20.1	21.1

Figure Change in Female Professors with Time

Figure 51: Change in Female Professors with Time

The percentage of female professors grew monotonically from 12.9% to 21.1% between 2003 and 2010. Change of this order comes as an outcome of gender sensitivity, mainstreaming and a university gender policy. As we appreciate the contribution of UniJos women, we also celebrate the successes of women outside the university. The University of Jos in this connection awarded an honorary doctorate degree to the President of Liberia, Her Excellency Ms. Sirleaf Johnson in 2007.



Figure 52: Vice Chancellor Tyoden and President of Liberia

The Gender Policy: The university gender policy was approved by the Governing Council of the university in 2006, with the following listed objectives:

1. To ensure that men and women in the university community study, live and work in an environment of mutual respect, free from discrimination, harassment, hostility,

- intimidation, retaliation and humiliation, thereby enhancing the dignity of both genders.
2. To ensure the involvement of the minority gender at any point in time in university-wide decision-making processes as a way of carrying everybody along and ensuring that decisions are collectively owned and defended.
 3. To ensure that all research, training and development activities in the university are gender sensitive and aimed at bringing out the best in both men and women.
 4. To ensure that the work place is gender friendly and supportive of men and women and their specific needs and roles.
 5. To ensure that gender mainstreaming and equity are both taken into consideration in long term university plans.
 6. To ensure that entry requirements into the university and related admission and recruitment processes for both students and staff reflect gender equity and are transparent and non discriminatory.
 7. To evolve a teaching and research culture that is gender sensitive and promotes non-discriminatory best practices and procedures in all aspects of the university including admissions, employment and service delivery.
 8. To co-create a university community (and a larger society) where both men and women are respected, valued and treated fairly, justly and equally.
 9. To enrich and strengthen diversity and encourage academic freedom.
 10. To institutionalize the gender disaggregation of all university data at the various points of generation, and the periodic analysis of such data.

The institution of the gender policy represents a milestone in the process of sustainable gender mainstreaming at the University. In addition a policy framework to protect members of the community from sexual harassment has been put in place. The focus of the Sexual Harassment Policy is on specific measures for the prevention and management of sexual harassment. The draft Sexual Harassment policy is ready. Sensitization of the university management about the document and its importance is in progress. Interdisciplinary university scrutiny will follow before it is presented to the University Senate for final review and to Council for approval. The Gender Policy covers over fifteen areas, ranging from admissions to recruitment, training to unionism and desegregation of data. For each area, a policy objective is identified and strategies to meet the objective are clearly spelt out. There are in addition sections on interpretation, review and affirmative action. We shall now look at some of the significant outputs and outcomes of gender activities and the policy on the university community. From the very start of the Jos Carnegie Partnership, gender was made a priority. Partnership objectives were pursued with the authority and the expectation of the university leadership to mainstream gender into the university system. As a result, all interventions were set up with gender sensitivity in mind. In fact the gender subcommittee and gender consultant reviewed the proposals for each intervention to ensure that the gender perspective was duly reflected. Consequently many of the other interventions complemented the gender intervention in significant ways.

Gender Sensitization and Mainstreaming: Gender mainstreaming was a systematic approach towards building a culture of gender equality on the campus, through deep engagement with the diverse impacts of university structures, practices and policies on gender concerns. The effort to

initiate and nurture a culture of gender mainstreaming and equity at UniJos happened in phases. It started with a series of sensitization and advocacy campaigns directed at the university leadership. These campaigns spread to target the entire staff and student body of the university. They were accomplished through seminars, workshops, drama productions and rallies. With the support of consultants, training sessions were delivered. As a result gender sensitization has been provided for a large number of staff and students.

Initially gender mainstreaming efforts encountered some hostility from the university community, which hindered productive discussions of gender equality for some time. Once members of the community understood the key issues involved, however, attitudes shifted. The chances of success of the gender project improved. Gender sensitization workshops for academic and administrative staff were held, and eventually the entire university community was exposed to sensitization activities. On several occasions, the principal officers of the university participated in the gender sensitization workshops. Their participation helped to build credibility, as they testified to having a better understanding of gender mainstreaming. Consequently, language and policies on advertisements and appointments began to change, as principal officers became more gender conscious and sensitive. Gender mainstreaming workshops were restricted to key operators of the system, such as heads of departments, deans, directors and principal officers. The workshops built the capacity of the decision makers who then introduced gender equality in programs and curricula. Mainstreaming was done for over 300 decision makers. Students were also targeted. Through their student clubs and associations, there were mobilized for gender sensitization workshops, using similar strategies as those used for staff. Today, the impact of the process can be seen on the academic front as well in the campus culture, as several gender related courses are heavily subscribed and gender activities are well patronised.

A uniquely innovative use of drama complemented the use of souvenirs, workshops for gender sensitization and advocacy. This model of entertainment education was used as an effective strategy to facilitate the desired behaviour change. Members of the audience were later interviewed in order to assess the potential of the productions to influence behaviour change. Drama is one literary way in which gender information is disseminated. Another is through books and other publications. Three books produced during the partnership: “Reproductive Health in Nigerian Universities”, “Emerging Gender Issues” and “Gender Development and Higher Education” are now widely circulated in the Nigerian Higher Education System.

An increasing number of members of the university community are now aware of the gender policy, based on feedback from surveys. There is now widespread awareness of the need for gender equity as female members of the university community are appointed to more challenging positions and influence policy. Positions previously the preserve of men are now contested by women who have gained self-confidence and are not intimidated at putting themselves up for election or promotion. The University management spearheaded gender in key sectors of the institution. In particular, Vice Chancellors, through various sensitization efforts, made a radical turn around in the attitude to gender issues. Professor Monday Mangvwat did so, before he handed over to Professor Sonni Tyoden. Empathizing with women, they insisted that the University Council become more gender sensitive. At the highest levels, search and interview committees were constituted to reflect gender considerations. The use of chairperson replaced that of chairman. The immediate past Registrar, Mr. Zingfa Galam, relied heavily on several

women deputies. He showcased the strong contribution of women in his administration. His gender training abroad with the Gender Intervention Team (GIT) expanded his appreciation of issues of gender and development. Vice Chancellor, Professor Sonni Tyoden promoted women to positions hitherto regarded as male preserves, such as the Dean of Students Affairs, Director of Physical Facilities and Director of Audit. He lobbied for a quota for women in the university council and set up the University Gender Standing Committee. He initiated a new Centre for Gender and Women's Studies. He set it up in collaboration with his successor, Professor Hayward Mafuyai. Professor Mafuyai's tenure with the leadership of the Jos Carnegie Partnership has become a major gain. He best appreciates gender and other partnership intervention issues. He is therefore making giant strides in mainstreaming gender and promoting the sustainability of progressive interventions of the partnership.

Despite the significant gains taking place, we are not resting on our oars. The capacity of women is continuously being enhanced. Training and retraining remains a key priority. Through conferences, workshops and postgraduate study, our women are empowered for service and leadership. Over ten women were supported to the HERS-SA annual workshop and they have become useful resource persons in the mainstreaming of gender. Many women have won grants and fellowships. Mrs. Elizabeth Opara, Dr. Patricia Lar, and Prof Irene Salami-Agunloye won the International Women's Foundation, Women's Leadership Forum award. In the academic arena, Mrs. Asabe Toye, Dr Benny Daudu, and Dr Taiye Eseyin were Junior Fulbright Research Fellows as their female colleagues enjoyed many other training opportunities. As women train and improve their circumstances, they are contesting and winning more elective positions. For example, Professor Jamilla Nasir served as Dean of Law while Professor C. Andzayi served as Dean in the Faculty of Education.



Figure 53: Professors Andzayi and Nasir

Staff and Students Partner on a Female Day for Community Focus on Gender: The Gender Intervention Team collaborates annually with the Student Union Government (SUG) to host the female day. The activities of the day provide an opportunity for female students and their male colleagues to focus and work toward a greater voice for women in student union politics. Activities are led by senior female members of the SUG to showcase the place of female students in union leadership and to encourage more female students to seek for elective positions. The aim is to accelerate the process of increasing women's participation in the SUG in accordance with the provisions of the Gender Policy. The policy aims to achieve at least 33% female representation in the student government. Rallies, lectures, experience sharing, success stories,

symposia and other forms of publicity led by the students themselves are the hallmark of the day's activities. Women and Men who have contributed to the promotion of gender equity are recognized at an annual dinner, attended by over 500 students, which highlights the accomplishments of the year. Apart from this event, the GIT assists departmental associations, to lobby for gender equity in leadership, outside student government. Dividends are accruing. Female students are breaking through barriers. Many of them are now chairpersons of departmental associations, complementing many others active in the SUG. Female students now radiate confidence as they articulate their positions convincingly at different fora including congress.

Supporting Women to Bridge the Gender Divide: The Female Support Initiative (FSI) is a major activity of the gender initiative. It targeted support for the retention of indigent and other female students at the university. It is a financial assistance program specially designed for women. The FSI seeks to address gender inequality by increasing the overall participation of female students in all fields, and particularly in areas where women have been historically underrepresented.



Figure 54: Students at FSI Ceremony

The expressed goals of the program are to increase female enrolment and participation in sciences, improve the performance of female students in academic activities, and create a gender-friendly academic environment for all students. Students are required to demonstrate lack of adequate financial support, and an ability to complete their academic program. At commencement, there were plans for three levels of undergraduate financial support catering for a total of 250 awards at the undergraduate level. Ten students were designated full support of ₦100, 000 each for books, school charges, and upkeep. Partial support of ₦50, 000 each was provided for another 20 students, while another 220 students received ₦20, 000 each. Every female in the Cisco Academy program was supported all through the life of the FSI. As the

awards program became popular with women, it was extended to postgraduates. Male students were disappointed that the scholarship scheme was for female students only. In subsequent years the quantum of some of the awards was decreased to cater for a larger number of students. The table and chart below show the distribution of applications and awardees over a ten year period.

Year	Number of Applicants	Number of Awardees
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2003	1402	105
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2004	1286	223
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2005	1536	486
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2006	1200	500
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2007	1650	360
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2008	1196	500
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2009	1200	500
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2010	1227	500
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2011	2000	501
------	------	-----

2012		
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748
260

Figure 55: FSI Applicants and Awardees

Some of the FSI awardees are now academic staff in the science faculties. Many serve as peer educators and facilitators in gender programs. The FSI has been empowering as we have seen very timid girls grow into very confident and assertive young women.



Figure 56: FSI Award Ceremony

Mentoring Women for More Active Roles in Leadership: The Gender Mentoring Program was established in 2010. It took off with 25 mentors and 125 mentees. The program was established to achieve three broad goals:

1. Provide a structure within which women can leverage their position in the university.
2. Create a pool of eligible women for higher academic and leadership positions.
3. Create a pool of future mentors.

It was observed that the program:

1. Helped participants to improve their performance in teaching, research, development, and service.
2. Provided a platform, knowledge, skills, and dispositions for participants to articulate their professional and career objectives more clearly as they worked towards achieving them.
3. Provided opportunities for participants to be exposed to the practices and benefits of collective coaching, problem-solving, professional growth and self-development.

The mentees were very highly impressed with the program and the development it brought into their lives and career paths. Out of the 88 mentees, over 70 reported that they were able to attend career enrichment conferences for the first time with the assistance of the mentors. Several mentees defended their PhD theses with the intervention and support of their mentors. Some of those who did not defend commended their mentors for helping to accelerate the work on their theses.

UniJos Commits to Gender - A Centre for Gender and Women Studies Set Up: In order to enhance maximal development and growth, the university strategic plan (2009–2014) identified gender mainstreaming as one of the institutional cross cutting themes. As the impact of the gender intervention increased, it was agreed that the gender mainstreaming process needed a home with a conducive environment to grow. Despite the gains identified, there was still

significant work to be done to achieve the overarching goal of entrenching gender equity in the university. One key challenge is how to effectively carry out the mandate of engendering all the functions of the university in a systematic, effective and sustainable manner. This made the institutionalization of gender imperative. A Centre for Gender and Women Studies (CGWS) was therefore created to provide appropriate gender sensitive human resources to implement and sustain the gender policy. The CGWS is also set up to attract grants and pull interested researchers in gender studies together, in order to stimulate interest in gender research. The centre will seek to address gender inequalities and ensure that the institution excels in mainstreaming gender in all its functions, The CGWS will seek to contribute to gender equality and women's empowerment in Jos, across Nigeria, and throughout Africa. It will run academic programs to make UniJos into a champion and role model of a gender responsive higher education institution in Africa. Its first director is Professor Irene Salami-Agunloye. She was also the foundation chairperson of the Gender Intervention Team of the Jos Carnegie Partnership.



Figure 57: Prof. Irene Salami-Agunloye Foundation Chair of GIT and First Director CGWS

Already the University of Jos has hosted several gender institutes. These institutes brought together scholars, Civil Society Organizations, and government functionaries to brainstorm on issues including the challenges of institutional gender mainstreaming and the Millennium Development Goals. They also explored ethical issues, gender-related curricula, and gender research. Proceedings of the institutes were published and widely circulated. Additional research reports on several gender related issues have been published to highlight areas of gender concerns of the community. The establishment of the CGWS reflects the University's commitment to gender issues, as a result of its exposure through the Jos Carnegie Partnership. It gives the gender institutes a permanent home as it makes gender a permanent concern and commitment of the university.

Supporting Good Teaching with Technology through Blended eLearning: Goal 6 of the current University Strategic Plan focuses on the University's planned evolution as an eLearning

Centre of Excellence (COE). In order to attain the COE status, the university aims to enhance the range of pedagogic uses of eLearning by staff and students. The university seeks to support the delivery of blended and flexible learning while maintaining academic rigor in undergraduate and postgraduate programs. The plan identifies a number of key elements considered important for attainment of the goal. These include: provision of adequate resources to support the effective use of an appropriate eLearning Management System; empowerment of academic staff to take the lead in developing and delivering eLearning; and continuous research into eLearning. [Ishaya 2012].

Developments in ICT have provided significant opportunities to explore and develop new ways of delivering educational services. Furthermore, the widespread proliferation of Internet technologies and applications has paved the way for new learning environments. The use of ICT to support learning and teaching has matured considerably, especially in Higher Educational Institutions (HEIs) in the developed nations. Learning and teaching are changing as we explore the possibilities presented by these new technologies, for example in communicating with students, and in the creation and use of digital resources. There is a growing need to explore the potential for new efficiencies in terms of program delivery, and the opportunities for flexible delivery provided by ICTs [Ishaya and Wood, 2005; Oliver and Short, 1997]; the capacity of technology to support for the needs of individual learners [Wood and Ishaya, 2005; Kennedy and McNaught, 1997]; and the growing use of the Internet and WWW as tools for information access and communication. New approaches to learning and teaching are emerging, enabled by new technologies, and in response to new and diverse student and employer demands. These new approaches to the provision of learning and teaching practices may be blended with each other, with traditional or campus-based learning, and in the longer run with mobile learning. A major focus is innovation in approaches to learning and teaching, and enhancement of the quality of the learning experience [Reilly and Spratt, 2007]. The new approaches emphasize the importance of aligning technological, organization, pedagogical, staff development and cultural developments for the full potential of eLearning to be realized.

The development of the eLearning strategy at the University of Jos can be traced to initiatives undertaken by the Department of Mathematics - through the Jos Carnegie Partnership's ICT Maths intervention. The Moodle Learning Management system was initially deployed for ICT Maths in 2006 and saw the digitization of materials for MTH 103. While this may have met the desired aim, ICT Maths was an isolated initiative. The broader university community had yet to be sold on the eLearning concept. Although the ICT Maths intervention had good expected outcomes, there were clearly difficulties in getting the University to embrace what ICT Maths was doing. The University had the required infrastructure (to some extent), and the products to enable eLearning, however, there was little adoption by other departments, and the efforts made by ICT Maths were probably seen as unsustainable and non-contributory. It immediately became obvious that an endorsed strategy was needed if the University of Jos was to deploy sustainable eLearning activities.

The ICT Development Policy and the eLearning Strategy: It is clear that effective and efficient operation of core University business (including teaching, learning, research, administration and community service) depend heavily on ICT. It is based on the potential role of ICT in education that the University management has committed and invested so much on it. In

order to ensure that the University's ICT facilities are well utilized, managed and protected, Management constituted a committee to develop an ICT Policy (a wide range of regulations and guidelines with respect to the use, maintenance, and security of the University's ICT facilities). The policy applies to all components of the University of Jos' ICT facilities, which include but are not limited to the following:

- Network infrastructure, including the physical infrastructure whether cable or wireless, together with network servers, firewall, connections, switches and routers.
- Network and Internet services, including Internet access, web services, email, file transfer, discussion forum, wireless, messaging, and telephony and fax services.
- Computing hardware, both fixed and portable, including personal computers, workstations, laptops, personal digital assistants (PDAs), servers, printers, scanners, disc drives, monitors, keyboards, and tablets and pointing devices.
- Software and databases, including applications and information systems, content management systems, learning management systems, websites, email systems, etc.
- Development training programs to provide staff and students with basic ICT skills.

The policy is subdivided into:

General – University Responsibility; Procurement and Maintenance of ICT Infrastructure and Systems; Acceptable and Unacceptable Use; Security, Privacy and monitoring; the document forms the basis for the development of ICT in the University.

The strategic rationale for the development of eLearning provisions in the University was to:

1. Help meet the aims of the University Strategy.
2. Contribute to the Learning and Teaching Strategy of the University generally through the provision of flexible, student-centred learning opportunities.
3. Contribute to the University's research strategy.
4. Support the University's International strategy through collaboration with overseas partners.
5. Provide a basis for accessing external resources and funds ring fenced for eLearning developments
6. Protect and enhance the University's corporate position in the context of a rapidly changing environment in which eLearning will become an important mode of participation.

The strategy is to encourage faculties and departments to vigorously explore the use of technology in their teaching and learning processes. The implementation of the University's eLearning strategy is to be supported by the University's eLearning Committee in conjunction with academic faculties, departments and the ICT directorate.

The Policy addresses issues such as facilities, acquisition, use, maintenance and security of ICT infrastructure. It spells out shared responsibilities on the part of the University (as provider) and the staff and students (as users) of the ICT facilities. Thus, while provision of a conducive work environment, procurement and maintenance of ICT Infrastructure and Systems, capacity building through training on the use of the facilities, security, privacy and monitoring are clearly the functions of the University, staff and students have the responsibility of ensuring that their use of the facilities conforms strictly to areas that are allowed as spelt out in the policy.

Policy Goals.

Goal 1: Provide a high quality and robust Institutional Learning Management System (LMS) with appropriate eLearning tools and resources.

Goal 2: Enhance the integration and co-ordination of the diverse university agencies that currently support teaching and learning.

Goal 3: Provide appropriate and sustainable infrastructure and support.

Goal 4: Encourage academic staff to take the lead in embedding eLearning in teaching, learning and assessment.

Goal 5: Encourage continuous evaluation and assessment of eLearning processes.

Goal 6: Support the development of research into eLearning.

Open Source, Open Educational Resources and Local Content: The creation of Open Educational Resources (OERs) at the University of Jos is an initiative, started over fifteen years ago. Anatomy, Law, and Mathematics were the leaders. Today many others have joined the ranks and the OER initiative is partially supported by donor funds. Funders include Carnegie Corporation of New York; Hewlett Packard; the Partnership for Higher Education Educational Technology Initiative (PHEA ETI); and the World Bank assisted Science and Technology Post Basic Education (STEP-B) Nigerian initiative. The use of Moodle, an open source learning management system is however revolutionizing the handling of examinations for large and heavily subscribed courses such as general studies. Also large groups such as those that take the post UME examinations are employing Moodle tools or other computer based tests. So far, however, the utilization and adoption of OERs, both existing and new, for teaching and learning, has been limited.

As part of the PHEA ETI project at the University of Jos, the Faculty of Arts embarked on a project to design and build a multidisciplinary online course on Academic Research Writing. The aim of the course was to address the challenges of academic writing among final year undergraduate students in the humanities as well as postgraduate students and younger academic staff. The online course was expected to help learners master the art and techniques of academic writing, and to provide them with an invaluable resource for preparing academic projects, theses and dissertations. It would also equip academic staff with the skills to write publishable academic essays. Seven scholars from the Faculty of Arts contributed various modules to the course. (Dooga 2012)

By 2007, far-reaching changes were in the works. Efforts were underway to unify all the ICT units of the University into a Directorate with a unitary, cohesive, mutually supportive structure. Concurrent with this, the University installed Moodle as the preferred Learning Management System, replacing the South African based Knowledge Enhanced Web based Learning (KEWL). One effect of the new Directorate structure was the improved provision of support to academic and administrative units. The content of the ENG 102 available on KEWL was made available on Moodle. Two more courses were created: including a 300 level course, Discourse Analysis (ENG 306). In Moodle, it was possible to create quizzes, practice exercises, chat sessions and discussion forums. Students could also send mails to each other and to the instructor within the system.

The ICT Directorate played a very active and useful role in supporting those who had the courage to use Moodle. Instructors worked with the Directorate to arrange orientation for

students enrolled in courses that were taught using the blended learning format. This eased the anxiety of students, who often had very little previous knowledge of computers. That support has continued to improve. By 2011, three undergraduate courses and two postgraduate courses from the Department of English were fully available on Moodle, and registered students were actively engaging with the resources, their peers, and the instructor via the platform. The English department is not alone in creating local content. The department of Anatomy also produced local content on the web and on CD. The Mathematics Department has local open content on Moodle and already over 10,000 students have used digital materials from 16 online mathematics courses. Mathematics resources are licensed under the Non Commercial Share Alike (NCSA) creative commons license.

Building Capacity through eLearning Fellowships -A Pan African Model: The university offers an eLearning Fellowship, as a strategy to exploit and leverage on the experience and capabilities of a small trained core of academics. This elite group contributes to the practical realization of the eLearning strategy at the institutional level. It is facilitating the rapid establishment of eLearning competence among instructors. The eLearning Fellowship is thus one of many initiatives directed at institutionalizing eLearning at the University of Jos. The eLearning Fellowship curriculum is informed by the recognition that several factors play a part in the successful implementation of eLearning. As a result, the curriculum covers a wide range of issues, including “learning theories and their application to online learning, alignment of technological tools with learning objectives and outcomes, online learning design and management, use of digital images in education, and face-to-face and online facilitation” [(Adewumi, et al, (2012)].

The University of Jos eLearning Fellowship program started in 2008 as an initiative of the Jos Carnegie Partnership. Among the first set of fellows to graduate in 2009 were seven academics from the faculties of Arts, Medical Sciences, Natural Sciences, Pharmaceutical Sciences and the Library. The Jos Carnegie Partnership and the PHEA ETI have collaborated to select and train subsequent sets of Fellows. Twelve fellows were selected for the second set from a pool of 54 applicants. Four of these were sponsored by the Jos Carnegie Partnership, while the remaining 8 were on the platform of PHEA. These covered nearly all faculties in the University. By 2011, when the third set was being enrolled, the number of applicants had soared to 68. Even after a careful screening process, the number of qualified candidates was more than twice the available 12 slots. This trend has continued at Jos while the partnership institutions of PHEA have adopted the eLearning fellowships as a model to train instructors from their universities. In the course of the implementation of the program, many deliverables were recorded. From a capacity building point of view, all participants who completed the program reported that they had gained valuable knowledge, especially in the use of technological tools, and crucially in theoretical aspects of pedagogy and theories of learning. Most instructors had no prior training or exposure to pedagogical issues. The program also provided vital advocacy on the value and merits of eLearning.

The activities of eLearning Fellows impacted on the eLearning drive of the University of Jos in other more salient ways. These instructors began to use the ICT infrastructure for teaching, and thus provided insights into technological gaps that needed to be closed. Through use, they identified existing capacity needs, both in human resources and infrastructure. They unwittingly

acted as guinea pigs to test user learner attitudes to new media, and other factors influencing the uptake of technology in the institution. These were very useful outcomes because among other things, they forced eLearning implementers and managers to look at the broader needs and constraints of the ICT system as a whole. They constrained the university to do a comprehensive evaluation of the e-readiness of the institution.

Investments in Human Resources and the Next Generation of University Leadership: The Jos Carnegie Partnership's interventions over a decade provided heavy investment in the improvement of network access to both staff and students. Access has been improved in the university offices, students' residential hostels and staff residential estates. There have been equally heavy investments in back-up power and servers at the Data Centre. Parallel huge investments in human capital development have ensured the University's effective use of the outputs of its investments in all these other sectors. That is how the University of Jos has maintained leadership in ICT in the Nigerian Higher Education sector.

All faculties connected to the University network through the fibre optic backbone now have access to network resources. The network is becoming more reliable with a secondary data centre coming alive to create redundancy, and improve uptime and response time in a more secured network. A dedicated power line, battery backup and generator support provides power 24/7 for essential ICT services. eLearning is becoming an accepted tool in teaching and learning among staff and students. Impact assessment is confirming improved quality of graduates; more ICT staff (techies) are acquiring additional skills in networking and open source programming, leading to better service delivery. We are searching for increased sources of funding for ICT development. Staff and students have embraced the University eCulture and the next generation of the university leadership is building on the technological and learning infrastructures that have been put in place, with the introduction of new Human Resource Development strategies.

Human Resource Development Strategies in Academia and Administration: Strategies for capacity development included on-site and off-site activities as well as South- South and North-South partnerships. The Human Resource Development intervention supported visits of foreign academics to the university. Visiting academics included professors from the University of Western Cape, South Africa; the Oldham Business Management School in the UK as well as the College of Business at University of Colorado and the Arizona State University, in the USA.



Figure 58: South African Professor Bytheway and Workshop Participants

Some of the professors worked with techies from the ICT units and mathematicians as they participated in curriculum review. One outstanding activity during these visits was a two-day seminar on Computational Mathematics, which drew 53 participants from UniJos and sister institutions. Professor Peter Onumanyi, former Deputy Vice Chancellor at UniJos, and other mathematicians from the National Mathematical Centre and some other universities, presented papers on various aspects of computational mathematics. Papers were also presented about new trends and developments in teaching and learning of mathematics.

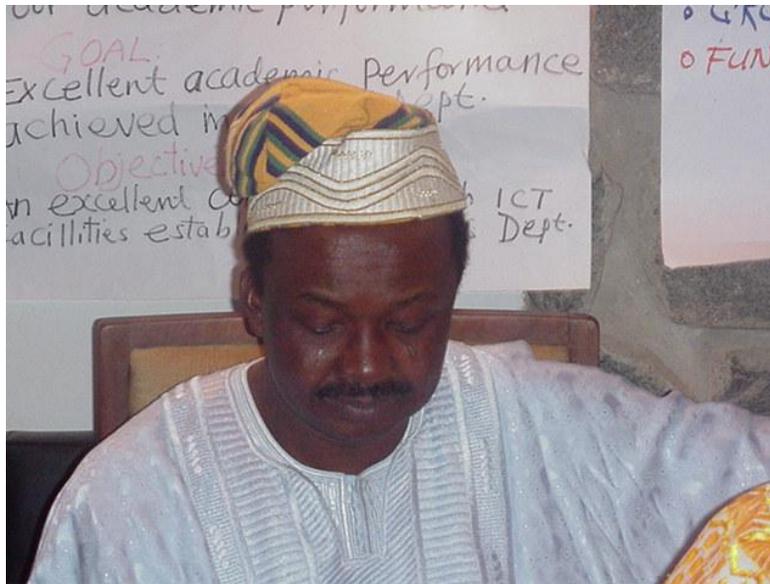


Figure 59: Past DVC and Past Chair HRD-Professor Onumanyi

Young mathematicians supported by the partnership won additional prestigious awards for further studies. They had long and short-term training abroad and excelled in many ways. One young mathematician completed a postgraduate diploma at the African Institute of Mathematical Sciences (AIMS) in South Africa. He then proceeded with a Master's degree at Stellenbosch University and won a Commonwealth Scholarship that earned him a doctorate from the University of Bath in the UK.



Figure 60: Young Mathematician Trained Internationally

Another colleague completed an M.Phil degree at the University of Birmingham in the U. K. and then a split-site UniJos-Birmingham doctoral program. Young ladies who went from Jos to AIMS proceeded to the UK, Canada, Netherlands and Germany for further studies. Erasmus Mundus awards are giving young female mathematicians from UniJos, exposure to the European mathematical community. They have used them to successfully pursue postgraduate studies at European universities. Our other young women have won various awards including the Presidential Scholarship for Innovation and Development. They are proceeding to the best American and Asian universities for higher degrees. These opportunities to train young Nigerian women multiplied during the tenure of a woman, Professor, Dr. Sirisena, who served as Head of Department, 2005 to 2011. The nation needs female role models in mathematics, and Jos has made a modest contribution in beginning to produce them. Our investment is strategic, as Nigerian women in mathematics belong to a significant minority. Our young ladies will provide leadership in the Nigerian mathematics community as men and women work together to strengthen it now and in the future. Through all these initiatives the department has broadened its horizons by producing mathematicians with international exposure and experience. Mathematics is only one of several departments yielding good results from investments in capacity building.



Figure 61: Women in Mathematics are our Pride

Human Resource Development activities were not restricted to academics. Administrators from all levels also benefitted from local and international training. A number of workshops for a general audience were held on the UniJos campus, on themes that ranged from “Effective Stress Management” to “Attitudinal and Behavioural Development”. An industrial relations workshop was also held for the leadership of university unions, providing them the opportunity to work together for mutual development and the glory of the university system. All UniJos unions participated alongside union representatives from Ahmadu Bello and Bayero Universities. Since then Unions are giving to the university. The Academic Staff Union has donated two 500-seater lecture theatres to UniJos. Unions are taking bold steps to get their members to meet their responsibilities so that excellence in service becomes an institutional tradition. The gains from capacity building are diverse and plentiful.

It is clear that the last decade of investment in human and material resources at the University of Jos has had a transformative impact on the university, the Plateau State and the Nigerian nation. The changes are ongoing in the UniJos environment, with the introduction of new practices and policies. Over the next decade, we will consolidate our accomplishments, while introducing

sustainable and innovative new programs, with men and women throughout the university making maximal contributions in many areas. We have established that impact assessment and a feedback mechanism will always yield large dividends.

Chapter Six: The Jos Carnegie Spirit Lives On.

Introduction: The University of Jos and Carnegie Corporation of New York have enjoyed a decade of a formal partnership as one small step in a growing relationship between two great institutions. Through support to Universities in Ghana, Nigeria, Tanzania and South Africa, Carnegie Corporation of New York has contributed to strengthening Higher Education on the African continent. UniJos, with a strong commitment to strategic planning, used the inputs of the Corporation to implement significant parts of several strategic plans. In the next decade Y2013 to Y2023, UniJos will use its strategic plans and the support of a diverse range of stakeholders to guide its growth and development.

In this chapter we take a look at partnership outcomes and how they are impacting on our short and medium term directions. We also survey how they will influence our long term plans. We end the chapter with quotes of stakeholders from the UniJos community about their experiences during the decade of the Jos Carnegie Partnership. They demonstrate by their testimonies that significant gains were made during the last ten years, because of partnership inputs. They confirm by their tributes that the Jos Carnegie spirit is one of the greatest gains. A spirit that changed the university so much that UniJos will never be the same again. A spirit that lives on.

Interventions and Outcomes: The decade of the Jos Carnegie Partnership, 2003 to 2013, saw the deployment of the largest grant from a single donor to the university. The work of the partnership was carried out by strong, cohesive teams of men and women, who showed commitment, discipline and dedication. Operators from the Carnegie Corporation as well as project managers of the university were challenged with a great opportunity to serve. Jos kept in constant touch with the Carnegie Program Office and benefited from its advice and support in many ways. Personal contact through on-site visits from the program officers facilitated cohesion between the leadership of the university and other partnership stakeholders. The visits stimulated the interest of the larger university community in partnership activities, outputs and outcomes.

As a result of partnership support, a Higher Education Institution that lacked gender sensitivity is now mainstreaming gender. We now have a Centre for Gender and Women Studies that pilots a strong university gender agenda. A leading ICT university in the Nigerian Higher Education sector is now using educational ICTs to change the process of delivering its mandates. A new Office of Research and Development now drives good proposal writing, grantsmanship and impact assessment. An Advancement office works with a vibrant alumni association that is giving back to the university. Students are partnering with the institution to make the environment more conducive for learning, and to make their experience at university more pleasurable. Attitudes have changed significantly. The Jos Carnegie Partnership has helped to instil a new spirit within the UniJos community. A spirit to give as we receive. A spirit to innovate and seek excellence, as we consolidate on our strengths. A spirit to make the University of Jos the best university in Nigeria. A spirit that lives on.

Several new programs and academic units at the University of Jos, demonstrate growth and development in academia. New departments in computer science, library information services and mass communications are pushing the frontiers of ICT in Nigerian Higher Education. New programs ranging from archaeology to early child education, marketing, insurance and entrepreneurial studies confirm the university's commitment to meet changing local and national needs. Emerging faculties of Agriculture, Engineering and Veterinary Medicine will broaden the horizons of the institution and facilitate increased interdisciplinary research. These programs and units have come as we consolidated and marched forward. They will provide the human resources needed to move the State and the Nation forward as Nigeria endeavours to meet the Millennium Development Goals. Consolidation and growth are critical for UniJos in its new mode. We do it all in the spirit of giving more to the nation and the world.

The University of Jos gratefully appreciates the Corporation's generous support. During the decade of the partnership, the leadership of the University through three Vice Chancellors stimulated the rest of the university community to strive for maximal returns on the time and money they invested in making the partnership a success. Even as the mantle of leadership changed hands from one Vice Chancellor to the next, the support for the partnership remained steadfast. The steady flow of matching grants by the university, despite competing priorities; the continuous support from the intervention committees remain a clear affirmation of the university's commitment to the partnership. Critical support of the leadership, and collaboration between the management, students, academics, administrators, unions, men and women, enabled a partnership spirit to take hold and drive continuous community development. A spirit that drives us to plan, guides us as we execute and moves us to celebrate as we deliver our mandate. A spirit that will take us through the next decade and more.

The partnership decade was a decade of experiments, challenges, changes, and successes. The successes of the University Development Office intervention resulted in the emergence of an Advancement Office, which is now the torch bearer for Advancement in Nigeria. The uniquely configured and successfully delivered Partnership with Students initiative entrenched a culture of pre alumni giving. Our students are voluntarily supporting their university in a way others admire and wish to emulate. We have documented the development of ICT at Nigeria's leading ICT University, as processes of strengthening ICT infrastructure, services and human resources

developed and continued. We are using educational ICTs, to stimulate eLearning activities nationwide as we midwife a strong cluster of the Nigerian Research and Educational Network. We have entrenched the Gender Policy and the Female Support Initiative with a Centre for Gender and Women Studies to ensure sustainability of both into the future. The University of Jos is on the move again.

The successes of the partnership are equally demonstrated by practices that have been adopted which will drive the Jos Carnegie spirit to grow. The award of competitive study and conference funds to scholars stimulated momentum among young academics and senior researchers. They will continue with the support of the Tertiary Education Trust Fund, Presidential and other national scholarships. The ORD is now planning a permanent structure and process to sustain training and retraining with a focus on widening the exposure of staff to international travel and global participation. Our next generation of academics must have the best education with global exposure and experience. Our commitment to human capacity development remains paramount.

A lunchtime seminar will continue in Research Oriented and Community Development modes. These seminars will focus on the dissemination of research and other relevant results to the community. Community spirit will be strengthened through better communication between stakeholders. Strengthening community spirit will be key at the University of Jos of the next decade. Community spirit that the Jos Carnegie Partnership helped to foster.

The library has successfully made its first bold steps to computerise and install automated services. The university repository and allied resources are giving the university better visibility on the World Wide Web. The library continues to host other Nigerian librarians as visitors interested in the lessons learned at UniJos. In this and many other ways, the UniJos library supports other Nigerian Higher Education Institutions as we all increasingly automate our services. We continue to give as we receive in the spirit of partnering for mutual development and success.

Technical Assistance and Consultants: The inputs of technical assistance providers and consultants significantly improved project delivery and will continue to impact the Nigerian HE sector. UniJos is now an active member of The Council for the Support and Advancement of Education (CASE). Our Advancement office works closely with CASE to support the Advancement agenda in Nigerian HEIs. The Advancement office also works closely with the South African Institute for Advancement (Inyathelo), to support the agenda at the continental level. Inyathelo ensured UniJos got it right with Advancement when the concept was new to Nigeria. PAMOJA gave our community its first professional insights into Fundamentals of Fundraising while South Africa's Education Research Agency (ERA) provided guidance on Monitoring and Evaluation. Lessons learnt from PAMOJA and the ERA are put to use from day to day by budding young proposal writers and their mentors. ERA inputs led to the evolution of an in-house multi faculty Research and Evaluation Team (RET) that supports the ORD and the university in general on a permanent basis. Intergender, a well established Jos based NGO continues to support the CWGS as it puts itself on the map. The Mortenson Centre of the University of Illinois closely guided the library automation efforts. Mortenson Centre staff members now play active roles in the activities of the ICT Forum of Nigerian Partnership Institutions. Their active participation and inputs in the Forum's on-line discussion is a legacy of

technical cooperation and support for the Nigerian HE ICT community. They complement in equal measure the support Mortenson gave over the years to librarians so that they could attend Forum conferences and events. Librarians are now an integral part of the Strategy, Planning and Management track of the annual Forum's ngNOG event. There is no doubt that we have maximized the gains from our consultants, but that is not what excites us most. We are thrilled with satisfaction that we have put the processes in place to move these gains forward and that we have trained the men and women to deliver our mandate.

The virtual external funds unit that fast tracks due process for fund disbursement was set up with KPMG support. Delays in the processing of documents necessary to enable the free flow of donor funds have been eliminated. Our Virtual External Funds Office now provides support for several externally funded projects. The Society of Research Administrators (SRA) provided considerable support for the Research Management Office intervention. As a result a University Research and Development Office now handles Research Management University wide, guided by an established policy. The lessons learned from PAMOJA's Fun Fun, the Research Evaluation Team (RET) and other locally created support groups have been put to use at the new Office. The office has adopted the project planning matrix, the logic model and the instrumentation table as standard documentation for project development. We are benefitting from cross-fertilization of ideas and practices.

Individual Consultants also made significant impact and continue to support the university. Donna Oti, a one-time Fulbright Fellow, provided services in the areas of ICT and Gender. Echo on line, our student online publication, is a unique output of her collaboration. So is her tremendous contribution to documentation of ICT development and the eLearning Fellowships. Dr. Tanko Isahya of the University of Hull in the UK reorganized the ICT Directorate and stimulated the evolution of an eLearning strategy.



Figure 62: The first CEO of the ICT Directorate

Dr. Tanko Isahya eventually became the first Chief Executive of the UniJos ICT Directorate. On-site technical support, training and retraining of ICT technical staff was done by Clement Onime of the International Centre for Theoretical Physics in Trieste (ICTP), Italy. We welcomed their participation and appreciate their contribution and that of many others.



Figure 63: Clement Onime of the ICTP and Nigeria

Publicity: The project operators, showed commitment to openness, transparency and accountability in the delivery of their mandate. Publicity for partnership activities, outputs and outcomes ranged from press conferences to an interactive web site. Popular partnership media initiatives included a partnership newsletter, periodic face to face stakeholder’s forums and lunch time seminars. We stimulated interaction between the other Nigerian partner universities as we tried to strengthen each other. Lunch time seminars, in new modes will be supported by a partnership between the Vice Chancellor’s office, the ORD and Committee of Deans and Directors as we entrench another tradition.

The PWS exceeded its targets and stimulated partnerships with several other arms of the student community, as it received praise in the local and international media. The Jos University Medical Students Association excelled as they offered free medical services and installed facilities to make the university experience of their members more pleasurable. Students’ confidence and commitment to PWS grew with time. Now financial sustainability for PWS is assured with students’ continued commitment to an annual subscription. Students plan to ask for seed money for new projects from alumni, the private sector and local foundations. Cultural sustainability is guaranteed by the annual “new students” orientation program. At orientation, students tell the new generation about the philosophy of the intervention and advertise the outputs and outcomes. The sustainable future of the PWS project is bright. PWS projects snowballed following the success of the intervention. The State Government, the Education Tax Fund and the Private Sector complemented the efforts of PWS by investing in similar projects to those undertaken by students. This partnership with students is waxing stronger day by day.

Services: The ICT intervention opened up opportunities for innovation in teaching, learning, research, administration and community service. Local content creation through open educational resources is taking root as eLearning activities increase across different faculties. Moodle is now used for examinations in heavily subscribed programs including Post UME and General Studies. A functional multi media lab is making a contribution as we partner with the University of Lagos and the Nigerian Film Institute in a multimillion-dollar, World Bank supported, mass communication project. The University of Jos Cisco Regional Academy continues to play its leading national role. The only all female Cisco Academy at St. Louis College, Jos just won an international award with UniJos support. A robust home built Student Information System eases student frustrations at annual registration exercises and facilitates speedy release of transcripts on graduation. Confidence of Female students in the FSI continues to grow as the university institutionalizes the initiative through internally generated funds.

Conclusion: One of the greatest outcomes of the Jos Carnegie partnership project has been the exponential growth of the spirit of cooperation, innovation and collaboration. This will become the greatest legacy of the partnership. After a decade of partnership between the University of Jos and the Carnegie Corporation of New York, the UniJos community, including the university leadership, knows that the strong relationship built up will continue to grow. More so the spirit of the partnership will grow even stronger as the university leverages on the gains of the partnership to the benefit of the institution, the state and the nation. UniJos will maintain links established through this partnership, with Universities in East, West and South Africa. This will be done through cooperation with regional organisations to which we mutually belong. We shall use the gains from our interactions with others and the funding from donors and other stakeholders to aggressively implement our strategic plans in the next decade. Essentially UniJos will continue on its current path, with the drive and support of the Carnegie Corporation of New York. God Bless Carnegie Corporation of New York and God Bless the University of Jos.

What People Say About the Jos Carnegie Partnership: Quotable quotes from the University of Jos Community.

A Top Management Staff: “The Jos Carnegie Partnership has impacted on the University positively. It has transformed the way that things are done here. We now have functional policies for Gender, ICT and Research Management. The Virtual External Funds Office and the Centre for Gender and Women Studies are two examples that demonstrate changing practices. The partnership impacted hugely, internally. Externally it improved our global visibility and ranking”.

A Lecturer: “Let us examine the awareness the training has generated in the minds and souls of our colleagues in the faculty on ICT legal training. Majority of our colleagues not only went through some informal computer training but purchased laptops of their own and are more dedicated to Internet legal research in their offices and have access to greater materials for their research. The law folks are fully mobilized and the result of this will soon be evident to the whole world by the time we are able to actualize our ICT dream.”

A Visiting American Scholar: “The Jos Carnegie partnership has been a tremendous blessing to us. UNIJOS people are doing amazing things. I cannot express how happy I am to be a part of the family. (Notice that I am not speaking in the past tense. You can't get rid of me that easily!). Please send me mail and digital pix often. I am already homesick for Jos.”

A Student: “Don't mind the advertisements - There is already a list of award winners before adverts went out” – said some friends. “I was discouraged by such comments but decided to just take a chance and apply. I was pleasantly surprised when I won an award without doing anything more. A friend saw my name on the list of award winners on the notice board and passed on the good news. I love books, I am a book worm but I could simply not afford them. Now I have a small book collection that I can carry in a Ghana Must Go! My GMG is one with a difference – it carries books! The ideas of Andrew Carnegie are so noble. I want to conceive a similar idea to affect generations of Nigerians to come.”

A Top Management Staff: “The Jos Carnegie partnership is the best thing that has happened to the University of Jos, considering the changes it has brought to the University. Many minds have been intellectually developed far beyond what anyone expected. The Partnership brought about a new dimension and new methods of doing things. Management and students realized that they had to work harder to improve their institution and themselves. The partnership orientation has transformed UniJos - the campuses are cleaner and tidier; the environment is friendlier to all. We are better educated on gender issues and gender mainstreaming. We are now all working together to promote good governance.”

A Project Leader: “I have learnt how to better interact with a wide range of colleagues. Working in JCPC as a team has been a great experience. I now realize more than before that we are one integrated body - the University of Jos. PWS sets Jos apart from all other partner universities. Jos has proved that Nigerian students are innovative and can deliver – PWS has been tops with project delivery. I get great joy to see how the financial problems of our students have been alleviated through FSI support. I believe that we have not failed.”

A Student Leader “The PWS project is showcasing how students can voluntarily work with the university to improve existing facilities. It has provided specific outcomes. More importantly it has increased the confidence of students to partner with the university administration. The university appreciates that students can make significant inputs to its development now and in the future.”

A Project Team Member: “JCPC was able to reach out to administrative, non-academic and academic units of the University. It has raised awareness to the need and the importance of external funds to support university plans. Capacity was built in fund raising and in proposal writing. Engaging students productively on the campus has become a remarkable trademark of UniJos. We have the pre-alumni engagement - Leave a Legacy Project by graduating students, instilling in them the importance of alumni giving back to the University. We now have capacity to manage large donor funds. We are better able to incorporate monitoring and evaluation. As a leader, I have become a project personnel manager and administrator I have learnt to work with different people in different sections in the University. I have found joy relating with people; even where there are differences, I have learnt to adjust my own position in order to accommodate others as well as to give and take. My experience JCPC has helped me to be useful at all levels”

A Lecturer: “The Jos Carnegie partnership remains one of the greatest intellectual activities ever to be witnessed by any university in Nigeria. It is not only an eye opener for the University administrators but all men and women involved in this project. One of the good things about the partnership is the deliberate plan by the JCPC to involve the principal officers in various activities. One should not forget in a hurry the training on Fund raising organized on behalf of Carnegie Corporation of New York by Pamoja Inc in February 2003. The fund raising fundamentals no doubt imbibed in some of us the needed wherewithal to sustain the gains of the partnership but also attract funding for the University in the nearest future and make our University a citadel of research and learning. The brainstorming processes involved in writing concept papers, interventions, proposals and reports as well as the format adopted by the

partnership has made a lot of people to be intellectually alert. The University should find a way of consolidating all the gains from this partnership.”

A Librarian: “I have learnt so much about our women students, their problems and their strengths. As a mother I have shared with them as I share with my own children. The fact that they now have text books more current than the library can provide, gives joy to even the librarians. The booksellers have benefited and librarians have benefited too. For us librarians, it is like reviving the book searching trips of yesteryears. These trips are no more as the decline in funding hits the university library.”

A Student: “I have benefited from FSI awards twice. My family problems were overcome with partnership support. My twin sister and a junior sister shared the cash award with me. The books have indeed been shared by many others as my books get loaned by family and friends. FSI support to female students is a form of economic empowerment. It has stabilized the life of female students and empowered them to reach out to others. Women students have got to know each other much better as a result.”

Male Student: “We do not expect Carnegie to do for the male students exactly what it has done for the indigent female students, but we do believe that some form of provision should have been made for the male students” - The university administration and the Jos Carnegie Partnership Committee notes that apart from the gender intervention all others benefit both men and women.

A Lecturer: “The impact of the law project is something that has transcended the University community. We are just beginning and we do not want to make too much noise but we intend to be judged, perhaps by others, when we have been able to complete some of our lofty projects. So far the greatest achievement of the Carnegie partnership especially in the area of intellectual development is in the Law Faculty. Through this partnership, we have upgraded our research into an online legal research. The same Westlaw and Hein online being enjoyed by Law colleges in Cambridge, Harvard, Cornell, UIowa and other top universities in the world are currently being explored by our staff and students. This will no doubt impact the level of research that will come out of that faculty. I think we may not appreciate this until some few years to come. The faculty of law, through this partnership, has the potential of taking legal education by storm, not only in Nigeria but in the whole of West Africa.”

A Young Lecturer: “JCPC is a collection of dedicated men and women. You support needy students without sentiments and demonstrate sincerity and precision. You have affected the lives of many staff and students. Do not rest on your oars. Keep the motto of integrity. Sannu Ku Da Aiki!”

A Project Leader: “The first partnership bore hole was commissioned by the Deputy President of the Senate of the Federal Republic of Nigeria. The State Government, impressed with the concept and implementation of the “partnership with students” have since provided additional boreholes for the students. Private sector followed the lead as Coca Cola and Zain were among many companies that donated boreholes. The perennial problem of water for students has been taken care of.”

A Visiting NUC e-Learning consultant: “Unijos leads the nation’s institutions of higher learning in e-learning readiness and could serve as a model for other universities as they struggle to build their ICT infrastructure”. “Your infrastructure, vision, and strategic plan for e-learning implementation far surpass those that I have seen in other Nigerian Universities”. “We want to see how other universities can learn from you.”

A Lecturer “For 12 years I was unable to attend a conference outside Nigeria as the Naira continued to be devalued. The award exposed me to the World Geochemical Survey Project and activities in Medical Geology. With another colleague supported by JCPC to a workshop in Kenya we have built links with geologists from the Netherlands, France, Kenya and Tanzania. There is now great departmental interest in Medical Geology at Unijos. A seminar series has commenced in conjunction with NMDC and an interdisciplinary postgraduate program is in the making. The Jos Carnegie partnership has brought Medical Geology to Jos.”

A Project Leader: Active in the Strategic planning process I was invited to participate in the proposal writing team. Carnegie has to be commended for working with the university to implement its strategic plan with relative ease.

A Lecturer: “This is a multidimensional experience with many contrasts! In Jos we have a functional JCPC that keeps the university administration well briefed. Devolution has been a blessing! The partnership does not revolve among the Vice Chancellor and his Principal Officers. Ownership is broad based.”

A Staff of Audit Department: “With attendance at Jos Carnegie Partnership Committee workshops I have learnt to listen more and shout less”.

A Lecturer: “My testimony is on the goodness of the partnership. It has brought rejuvenation of life to teaching and research. It has brought me back closer to the job I love most at a time when I was becoming disenchanted. The lack of opportunity for international travel was frustrating me. My participation at the IGC in Italy was a refresher course for me. The benefit was awesome. A paper I had submitted for publication has been withdrawn to reflect more modern techniques identified there. A book in its final stages of production had to be reviewed. It has sharpened my research focus and my teaching techniques are changing. My wife calls it the breaking of the yoke. Thanks to the Partnership.”

A University Administrator “We commend the success driven attitude of JCPC. We laud the committee pattern of operation which engenders collective effort that shows that no one knows it all. We also commend the attitude of members of all the committees toward the success of the various interventions. Their dedication to duty and sacrifices have in most cases given birth to the good results we are reaping today and those that we will continue to reap for years to come.”

A Professor: “As we interact with beneficiaries of the partnership we are doing impact assessment. We are asking for your testimonies. You can tell us how the partnership has benefited you and the university. You can give us innovative ideas to administer the program better. This is in the tradition of JCPC and the Jos Carnegie Partnership family.”

A Project Team Member: “The University administration has become very gender sensitive making new appointments from a gender perspective. As a result the Vice Chancellor was given an award as the most gender sensitive Vice Chancellor in Nigeria. The innovative ‘Partnership with Students Project’ has opened a new avenue for involving students in the development process. This participation has set the stage for students taking responsibility as leaders.”

A Top Management Staff: “At the end of the first decade of partnership, I believe that the university has been strengthened to manage large grants. Before now our experience was limited to small grants in departments. Managing this large grant was a complex process. We learnt to do good logic models, instrumentation tables, work plans, and reports. The partnership enriched the experience of academics within the grant making and implementation processes. Colleagues without individual grants now had the partnership grant to work as through the committee system, they were involved in the various interventions. Benefits from individual interventions include institutionalized partnering with students from the PWS and increased computer access from ICT which reduced the phobia for computers considerably. “The Gender policy has produced a consciousness of equality. The Advancement Office brought in a culture of interfacing with the external world. In all these interventions, the partnership was instrumental in giving grants for take-off, as well as for skills upgrading and expertise acquisition. Carnegie has put UniJos ahead of Universities of our age.”

A Staff of the ICT Directorate: “Improvements in ICT infrastructure, including upgrading of the data centre and the extension of the network has been considerable. Access to computers has increased significantly with the acquisition of desktops and laptops. The new multi-media laboratory promotes content development for teaching with technology. The ICT directorate has arguably the best trained staff among Nigerian HEIs. UniJos developed, in-house, a Students Portal on which over thirty thousand students, register annually. The National Institute for Policy and Strategic Studies, Plateau State University, Plateau State Polytechnic, and Nasarawa State Polytechnic are amongst many HEIs that receive training support from UniJos. Our Directorate staffs play critical roles in training nationally through the ICT Forum, Cisco and Microsoft Academies. They do so internationally through AfNOG. In a nutshell, ICT development in the University went through revolutionary changes putting UniJos ahead in the use of Educational ICTs. This is responsible for the improved rating of the University which, once rated second, has never been rated below the first ten in the country since ranking started”

A Librarian: “The Partnership impacted on the human resource capacity building for librarians. All librarians, now know how to source for and harvest e-resources on-line. They are training patrons to do so too. We have developed skills in the area of automation, specifically, the digitization of resources. The library has embarked on the provision of the on-line public access catalogue, and was the first partnership university to launch it. We launched first because our staff got to understand that they could do it and enjoyed JCPC support. We have developed the first Nigerian university, institutional repository and populated the site. We have embarked on advocacy so that resources are visible and accessible and people are actually accessing them. Overall, the Library has benefited tremendously and the University has improved its visibility. The web metric ranking of world Universities for instance, is based essentially on the visibility and the size of on-line resources. Our institutional repository and the retrospective compaction of catalogue have helped to improve the university ranking.

A Top Management Staff: “Even from the point of view of a change in outlook alone, the Partnership has done something great. In exposing many University staffers to international

training programs Worldwide. Under PWS our students proposed projects and delivered them with seed money from the grant in a unique way. That way the students prioritize what they get, and when they get it. Members of the University community are more computer literate and the infrastructure is improved. The partnership stimulated UniJos counterpart funds for ICT and other interventions, as we would not have believed. With an industry that changes very quickly, it would have been much more difficult to keep pace with change, without Carnegie support. Our challenge is to be as innovative as we were before the grant and keep funding for ICT at a respectable level. I thank God; the Jos Carnegie Partnership has truly blessed every person associated with it.”

A Project Team Leader: That today I can serve as a facilitator, mentor to others in grants proposal writing is the outcome of the skills acquired from capacity building workshops and conferences of the Jos Carnegie Partnership. Students have access to faculty computer labs and even more labs in their hostels. This allows students to use expensive bandwidth at night when it is otherwise not in much use. A number of departments have adopted the model of the Mathematics Department by making the most heavily subscribed courses, at the 100 and 200 levels, available online. Things are changing at UJ.

A Project Leader: The partnership accelerated the implementation of three university strategic plans as can be seen in the post plan reviews. In the process, a good collection of committed staff and students were identified and given key roles in project planning and implementation. The gains of one Vice Chancellor building on the foundation of his predecessor were appreciated and made very visible. Academics and instructors worked closely to deliver Jos Carnegie project tasks. Students now partner with the university in many different ways. The Academic Staff Union is leading staff constituencies to give to the university too. Alumni are building a new culture of giving to their Alma mater. The library is progressing with digitization and the institutional repository is giving the university a new image internationally. The use of technology for research, learning and teaching is on the increase and impact assessment is taking root. Twenty first century Nigerians at the University of Jos can now better enjoy twenty first century educational resources. Generally the university has been able to direct its limited funds to additional areas of development as Jos Carnegie project funds were used to consolidate on our strengths and address our weaknesses. The university, now more gender sensitive, is harnessing more of its resources with the increasing leadership roles of women. We have learnt a lot about planning and team work. We now know that these are the two critical prerequisites for development. Simply providing funds is not always the answer to our many challenges. Policies in the areas of Gender, ICT and Research Management, established in the decade of partnership with Carnegie, now guide university processes in an environment building on a tradition of excellence.

An eLearning Fellow: JCPC has become a household name at UniJos Staff and students have been better positioned to use technology to teach, learn, and research. ICT Infrastructure has been upgraded to support the activities in academia and administration...I have personally benefited because the first laptop I owned was through the e-fellowship award. I have received trainings, attended national and international seminars and workshops on e-Learning. I have been empowered to use the LMS to develop and upload content and to engage students on online teaching and learning. The application of ICT in teaching, research and administration has greatly improved the university's web visibility and international recognition. The university has

been better strengthened to manage external donor funds. I have personally gained and better positioned to write research proposals and manuscripts for publication through the activities of the Research Management Office. The entire University has been well sensitized and made more gender-sensitive. This has made it possible for more women to be appointed into management positions, committees and unions on campus as well as Students Union Government (SUG). Female student enrolment and staff employments are all being mainstreamed towards equality. Overall, a more level playing ground has been created for both genders. The university can now boast of a gender policy which if implemented, will give women greater opportunities and close up the gaps that still exist in some sectors. Many indigent students have been supported financially in their studies through the Female Support Initiative, which has impacted positively on the lives of the students and parents.”

A Student Leader: One of the problems faced by students on campus was the lack of steady supply of power. It also affected the availability of water in the hostels because power supply was needed to pump water to the hostels. Today the situation has changed for good. PWS solved the water problem in the hostels by sinking boreholes at various locations around the students’ halls of residence. JCPC has remained very involved in the delivery of project outcomes, initiated several activities and accomplished them with the support of colleagues within and outside sub-committees. That itself is clear indication that the uniqueness of the partnership rests with the broad ownership of the projects as well as the openness and transparency with which it is being delivered.

A Top Administrator: The Jos Carnegie Partnership has done more for the University of Jos than any other partnership. Its benefits cut across the entire spectrum of the university structure. In the area of institutional development, the partnership strengthened the growth and development of the system – records were digitized; as e-teaching and e-learning were fostered; In the area of human resource development, the partnership sponsored management staff, academic, administrative and technical staff, as well as students to attend conferences, seminars and workshops. This accorded stakeholders opportunities to gain access to innovative ideas and new techniques; it created opportunities for formal and informal interactions with a diverse range of colleagues and experts. It supported institutional linkages as exchange programs engendered the development of quality education and healthy relationships between universities globally. The partnership was most rewarding.”

A Top Management Staff: “We enjoyed direct funding alongside capacity building. Infrastructure and skills were improved, and the essence of partnership input, is evident in the global rating of the University. Attendance at conferences, seminars, and workshops helped principal officers and other staff to manage the University better. The Virtual Office set up during the partnership now assists the University to manage not only donor funds but also local funds. The benefits to students are also numerous. Our university became the reference point for partnership with students, to the extent that the University of Kenya invited our students to tell them about their story. The partnership put in place facilities that have made learning more interactive and pleasurable. So you can see that Carnegie has been all round and there is no way you can write the history of the University of Jos without giving a central place to the Jos Carnegie Partnership. Carnegie has not only given us fish but they have also taught us how to fish. We believe they have given us enough expertise; they have laid a strong foundation to

enable us move forward and that is exactly what partnering is all about - to help you stand on your feet. I think the Carnegie Foundation has been able to do that.”

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