

Chapter Ten

Towards a Pleasurable University Experience for UniJos Students.

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1. Introduction

Management Information Systems (MIS) are defined as computer systems in an organisation that provide information to support managers to make decisions in a functional area of an organization (Laudon and Laudon 2006; Stanelake search 2007; ITM Glossary 2007). Functional areas include marketing, production and service operations, human resource management, education and development (Capsim, 2007). The importance of managing information systems is reflected through its influence on organisational cost effectiveness, improved information flow from top down management levels and vice versa, and direct transfer of information to the operational level employees (Stamatovic and Kurij, 2003). Managing Information Systems, by all means contribute to creating knowledge of an organisation and consequently helping organisations to learn and adjust to a present market position (Turban et al, 2006).

Today, Managers of Nigerian Higher Institutions (HEIs) are faced with challenges of managing a huge amount of information, thereby making them increasingly relying on MIS for its access. With the help of MIS, HEIs are better able to access relevant, accurate, up-to-date information on their students, staff and research activities for decision making. Modern technology has further made the resort to MIS in management imperative because of the changing circumstances and environment.

With the advancements in the computer industry consequent on the development of the internet, the MIS applications have changed to take advantage of web technology. Nigerian Universities have developed Web portals, available on the Internet, for the collection and processing of data from students and staff. This has made it possible for University administrators to take informed, timely and accurate decisions at the tip of their fingers remotely. Beside the ease of administration, it has led to the consideration and involvement of most Nigerian Universities and Higher Educational Institutions in the World Webometric Ranking of Universities. University of Jos has been ranked among the top ten Universities in Nigeria in the last 3 years.

2. ICT Support From Freshman Registration to Graduate Transcript

2.1: Preamble: The evolution of Management Information System (MIS) in the Nigerian Educational System started in the late 1980's. This idea was conceptualized by the National University Commission (NUC) in partnership with the British Council. In 1992, the University of Jos joined the ranks of four other Universities to pilot the establishment of a Nigerian University Management Information System (NUMIS) managed by the NUC. About 10 years later, this NUMIS project was abandoned by the NUC due to bureaucracy, communication difficulties and other related challenges.

In spite of the abandonment of NUMIS by the NUC, UniJos continued to invest in an MIS initiative locally. We did so by recruiting and training programmers, purchasing equipment as well as partnering with industry and other Higher Education Institutions (HEIs) within and outside the country. The singular effort of the University was recognized by the NUC with an award in 1999 as the best rated in digitization efforts in the Nigerian University System

The University of Jos Management Information System (UJMIS) has adopted different development platforms, at different times. In 1992, dBase III was first used as the database engine. We have since transitioned, in several phases, through MS Access, MS SQL to MYSQL which is currently in use. The choice of MYSQL was made in 2005 in line with the policy of the ICT Committee led by Professor L. S. O. Liverpool. We did so to encourage the use of Free and Open Source Software (FOSS) as the University application development tool. This was in view of its stability and cost effectiveness for an educational institution with lean resources. Today MIS is an integral part of an ICT Directorate and in line with an enlarged agenda, goes by the name of Corporate Information Systems (CIS).m

The University of Jos leads other HEIs, as the first Nigerian University to develop an in-house Students Information System (SIS) portal using FOSS development tools. Several HEIs have learnt from our experience, through technical visits, short term residence of techies and exchange of documentation. Since 2005, the University has progressively used the portal for the enrolment of all categories of students. Provisions for undergraduate interaction with the system spans from Post University Matriculation Examination screening to bio-data record-capturing, clearances, payment of fees, allocation of hostel accommodation, course registration, result capturing to transcript processing. A separate digital transcript processing application funded by the Jos Carnegie Partnership has been developed and is in use for the retro-conversion of the legacy students' results. Results of over 44,000 graduates that completed their studies in the last ten years have been captured

and are at various stages of processing. The SIS application is also in use by diploma, remedial and postgraduate students who can interact with the system from sales of forms to course registration.

The huge successes recorded in the digitization of students' records at the University can be attributed to the continued commitment of successive university leaderships. Generous provisions of human and material resources continue to be made, to this pursuit since the 1990's, despite strong competition, from many quarters, for lean resources. These efforts of the University have been strengthened by the inputs of the Jos Carnegie Partnership grant. The bulk of the grant was sunk into ICT development for the 3 tranches spanning over a period of about ten years. The grant revolutionized the university digitization agenda leading to the launching of the first on line University SIS. The SIS is one example of how UniJos is using ICT to make the experience of our students in university, a pleasurable one. In the rest of this chapter we provide and discuss some procedures involved in using the University of Jos SIS.

2.2 Registration procedure: The prospective student commences interaction with the system from the release of the admissions list, to course registration and fee payment. All categories of students use the application across all levels. Below we highlight the basic functions of the SIS application in the life of a student from freshman registration to graduation.

- (i) Candidates for admission check their admission status online. Successful candidates then proceed to make acceptance payments online using the online card payment application.

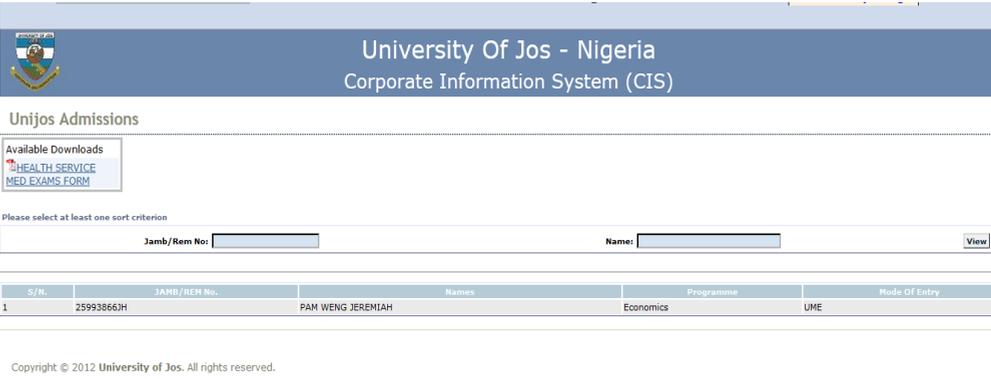


Figure 39: Sreen Capture of Admission Web Page

- (ii) Upon successful payment of acceptance fees, the students proceed to do bio-data registration online. This is the main registration where all necessary information about the students, as required by the University, is collected. Their passports and signatures are collected as well for other purposes including ID card issuance.

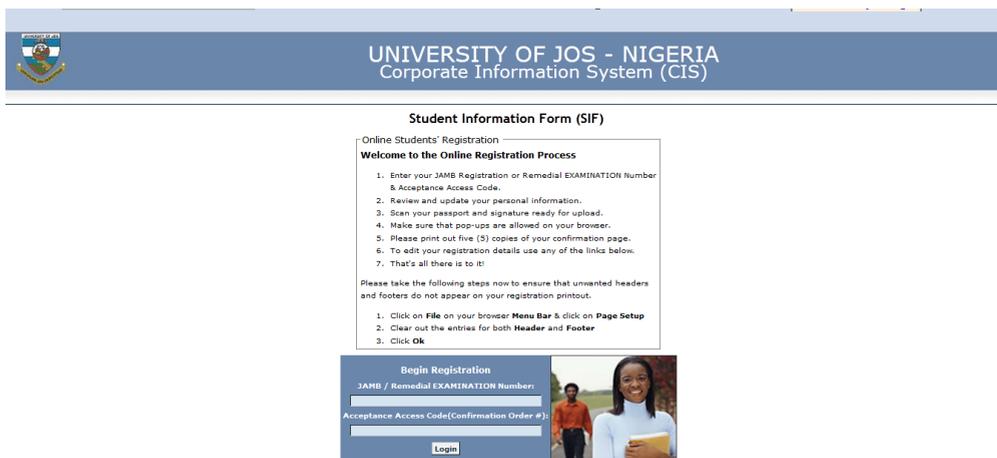


Figure 40: Screen Capture of SIF

- (iii) Upon completion of the Bio-Data registration, the students proceed to Academic office and Faculty clearance. Here the Clearance officers sight

the originals of the candidates' credentials and effect the clearances online. Those who do not meet admission requirements are effectively screened out at this stage. The system does not allow them to proceed further except if change of course is approved.

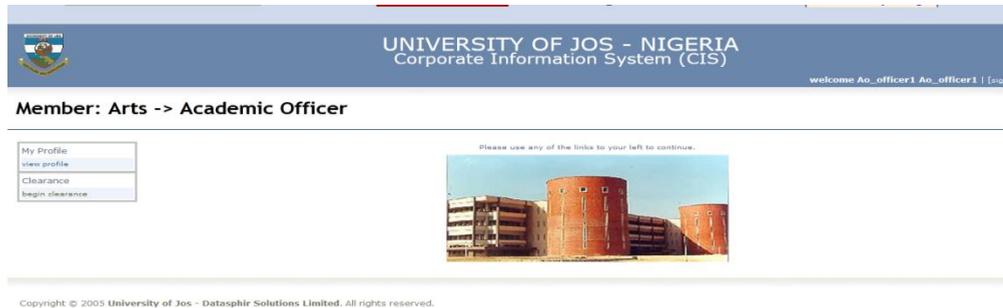


Figure 41: Screen Capture of Academic Officer Page

- (iv) Successful Students then proceed to pay Approved School Charges using our online card payment application. It is a licensed Interswitch application where payments are made using credit/debit and/or ATM cards from banks on the Interswitch platform.

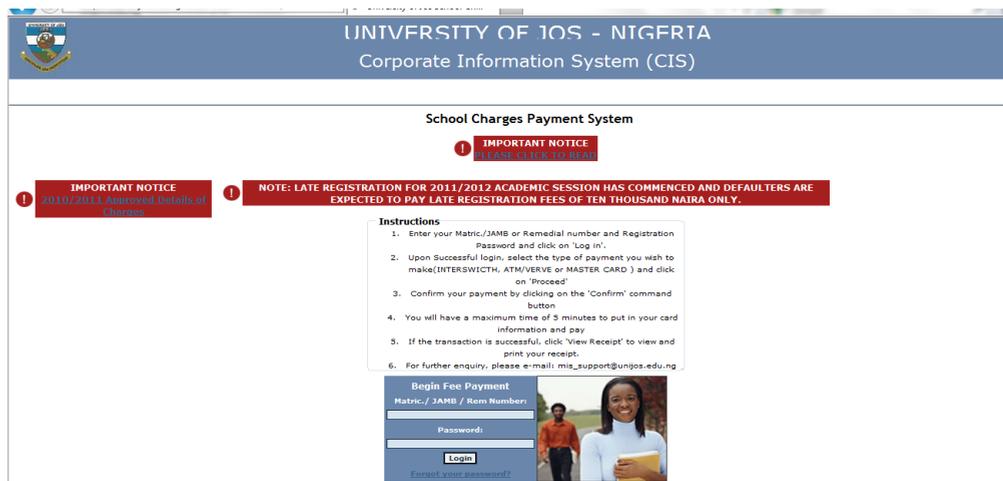


Figure 42: School Charges Payment Scheme

- (v) Upon successful payment and printing of receipts, the students proceed to departmental course registration. Here the list of courses available for their

level as recommended by the department is available for use to register. After completion of the registration online, copies are printed for departmental administrative purposes, as necessary.

UNIVERSITY OF JOS - NIGERIA
Corporate Information System (CIS)
welcome Chinemwenya | [Sign out](#)

Student Area Session: 2011/2012 Department: Language and Linguistics Matric. Number: UJ/2011/AR/0597
Faculty: Arts Course: French Level: 100

Registration
Begin Course Registration
Results
My Results

Select Courses As Follows:

s/n	Course Code	Course Title	Semester	Credit Load
CORE COURSES				
1	<input checked="" type="checkbox"/> GST 101	Use of English	1	4
2	<input checked="" type="checkbox"/> GST 103	Nigerian Peoples and Culture	1	2
3	<input checked="" type="checkbox"/> GST 104	History and Philosophy of Science	1	2
4	<input checked="" type="checkbox"/> LLF 100	Laboratory Work I	1	2
5	<input checked="" type="checkbox"/> LLF 111	Corrective Grammar I	1	2
6	<input checked="" type="checkbox"/> LLF 112	Extensive Reading of Prescribed Texts I	1	2
7	<input checked="" type="checkbox"/> LLF 113	Introduction to Composition Writing in French	1	2
8	<input checked="" type="checkbox"/> LLF 114	French Conversation I	1	2
9	<input checked="" type="checkbox"/> LLL 113	Elements of Grammar I	1	2
10	<input checked="" type="checkbox"/> GST 102	Philosophy and Logic	2	2
11	<input checked="" type="checkbox"/> LLF 120	Laboratory Work II	2	2
12	<input checked="" type="checkbox"/> LLF 121	French Phonetics	2	2
13	<input checked="" type="checkbox"/> LLF 122	Corrective Grammar II	2	2
14	<input checked="" type="checkbox"/> LLF 123	Extensive Reading of Prescribed Texts II	2	2
15	<input checked="" type="checkbox"/> LLF 124	Advanced Composition Writing in French	2	2
16	<input checked="" type="checkbox"/> LLF 125	French Conversation II	2	2

Max. Credit Load: 48
Min. Credit Load: 30
Selected Credit: 38

Figure 43: Screen Capture of Student Page

- (vi) A robust Hostel Allocation application was developed for the Directorate of Students Affairs to assist them in allocation of the Hostel Spaces. This is available only for students who have completed registration and paid the stipulated school charges.
- (vii) Using the information captured during the bio-data registration and submissions in the duly completed medical forms, a student identity card is printed for the students. The collection of the identity card marks the completion of the Registration procedure for newly admitted students.

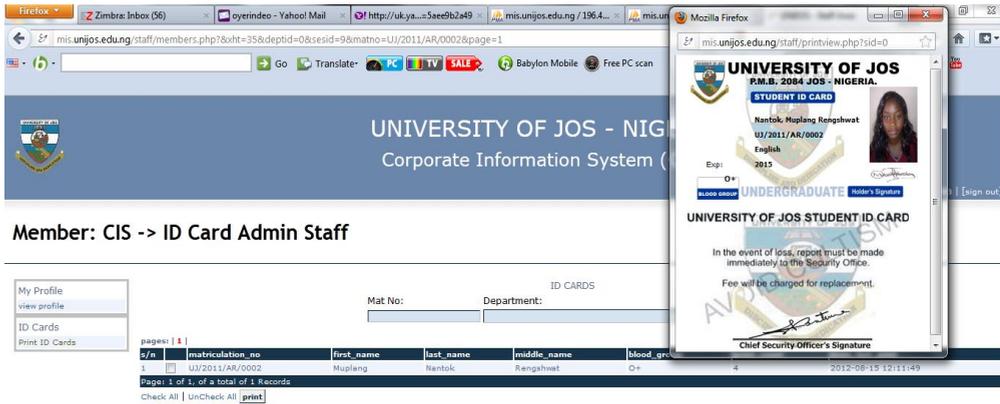


Figure 44: Screen Capture of ID Card

- (viii) In furtherance of the University's eLearning initiative, a Computer Based Testing (CBT) application has been developed for Continuous Assessment testing and Final Examinations. The General Studies Department successfully used the application for all assessments and examinations for the 2011/2012 academic session. Other departments such as physics, and special education, are working towards the use the application for semester assessments and examinations.

- (ix) Senate Approved Results are uploaded and put on the application for students to view. It is the desire of the ICT directorate and management, that this will form the data for sessional transcripts and ultimately final transcripts as well as generation of graduands lists for convocation purposes.

UNIVERSITY OF JOS - NIGERIA		Corporate Information System (CIS)	
		welcome Chinenyenwa Sign out	
Student Area		Session: 2011/2012 Department: Language and Linguistics Matric. Number: UJ/2011/AR/0597	
		Faculty: Arts	Course: French
		Level: 100	
Registration	Course Code	Total Score	Grade
Begin Course Registration	GST 101	-	N/A
	GST 103	40	E
Results	GST 104	44	E
My Results	LLF 100	-	N/A
	LLF 111	-	N/A
	LLF 112	-	N/A
	LLF 113	-	N/A
	LLF 114	-	N/A
	LLL 113	-	N/A
	GST 102	-	N/A
	LLF 120	-	N/A
	LLF 121	-	N/A
	LLF 122	-	N/A
	LLF 123	-	N/A
	LLF 124	-	N/A
	LLF 125	-	N/A
	LLL 123	-	N/A
	LLG 119	-	N/A

Figure 45: Screen Capture of Student Area

3. Benefits and challenges

The University has derived several benefits from the digitisation of the Students Information System. We also have several challenges that we continue to address. The main benefits and critical challenges are listed for completeness.

- Increase in the efficiency of storage and retrieval of students' information with corresponding increase in productivity of staff.
- Massive reduction in paper work and overhead costs, thereby making large savings for the University.
- A quicker, easier and more pleasurable registration process, for students and staff.
- Improved transparency and accountability enshrined in the university system.
- Introduction of new students to the use of Information Technology to support the progressive building of an ICT culture for global competitiveness.

The successes recorded by UniJos in the last ten years were not without its challenges, some of which include:

- Inadequate provision of the basic underlining infrastructure such as power, equipment; the slow growth of the university network, that has to sustain the anticipated development.
- Slow understanding and correct implementation of the users' requirements in an in-house application development. UNCLEAR.
- Difficulty in sustaining the rate of development and provision of support in view of

the dynamism in ICT.

Slow buy-in by users and policy-makers of the new system complemented by slow pace of technical staff to keep abreast of development and maintenance of the application.

- d) Inadequate provision of the required IT Management skills and competence to harness the potentials available for sustainable development.
- e) Insufficient computer access for students and staff coupled with inadequate knowledge and awareness by students for smooth operation of the system.

Despite the success and challenges, the ICT Directorate of the university remains fully committed to support all other arms of the university to use ICT for the benefit of the institution. We are confident that in this effort we shall move from strength to strength.

4. References and Bibliography

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