



Restoring & Reimagining Open, Distance and e-Learning at Muteesa I Royal University

A Strategic Proposal for the Vice Chancellor's Office

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Executive Summary

Muteesa I Royal University's Open, Distance and e-Learning (ODEL) server has been non-functional for over two years. This proposal presents a concrete, costed, and phased plan to restore ODeL capability using cloud-hosted Moodle infrastructure—at a total annual cost of **\$2,500**—fully covered by a modest student technology fee.

Open, Distance and e-Learning (ODEL) is no longer optional in Ugandan higher education. The National Council for Higher Education (NCHE) requires every university to maintain a functional ODeL system. Peer institutions—Makerere, Kyambogo, Gulu, and Kampala International University—have invested heavily in their platforms. Meanwhile, MRU's server has been offline for two years, placing the university at regulatory risk, causing student attrition, and damaging institutional reputation.

This proposal outlines a practical solution: deploy a professionally hosted Moodle-based Learning Management System (LMS) on a cloud Virtual Private Server (VPS), complemented by custom-built integrations tailored to MRU's specific workflows and NCHE reporting requirements.

Key Highlights

- **Total annual cost:** \$2,500 (VPS hosting \$1,000 + development & support \$1,000 + training \$500)
- **Self-sustaining revenue:** A UGX 5,000 technology fee per student per semester generates \$2,778/year at 1,000 students—exceeding all costs by \$278
- **Timeline:** First courses online within 90 days; full university rollout within 12 months
- **Architecture:** Cloud VPS with 12 CPU cores, 24 GB RAM, 2 TB SSD—99.9% uptime, automated backups, enterprise security
- **Adoption strategy:** Five institutional policies to ensure meaningful, university-wide usage from day one

This document provides the Vice Chancellor with all the information needed to approve and initiate the ODeL restoration project.

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Introduction

Purpose of This Document

This proposal has been prepared at the direction of the Vice Chancellor’s office to address the complete breakdown of Muteesa I Royal University’s Open, Distance and e-Learning (ODEL) infrastructure. It presents:

1. A clear assessment of the current crisis and its consequences
2. A detailed technical and operational solution
3. A realistic budget with a self-sustaining revenue model
4. A phased implementation roadmap with concrete timelines
5. Institutional adoption policies to ensure the system is actively used
6. A risk analysis with mitigation strategies

What is ODeL?

Open, Distance and e-Learning (ODEL) is a formally recognised mode of higher education delivery in Uganda. It enables students who cannot attend traditional face-to-face classes—due to distance, employment, family responsibilities, or other commitments—to earn accredited qualifications through digital platforms.

ODEL is not merely “putting lectures online.” It encompasses:

- **Open learning:** Flexible entry requirements and study pathways
- **Distance education:** Learners study remotely, with no requirement for physical presence
- **e-Learning:** Technology-mediated instruction, assessment, and interaction
- **Blended learning:** A hybrid approach combining online and occasional face-to-face sessions

Regulatory Context

The National Council for Higher Education (NCHE) is the statutory body responsible for regulating higher education in Uganda. Following the COVID-19 pandemic, NCHE issued Emergency Learning Guidelines and subsequently developed a comprehensive framework requiring all universities to:

- Maintain a functional ODeL system capable of delivering courses remotely
- Develop institutional ODeL policies aligned with NCHE standards
- Train faculty and students in digital pedagogy and platform usage
- Submit regular reports on ODeL programme delivery and outcomes

MRU currently has **no functional ODeL system**. Every semester that passes without addressing this increases the risk of NCHE sanctions, conditions on programme accreditation, or restrictions on new programme approvals.

ODeL Across Ugandan Universities

To appreciate the urgency of MRU’s situation, it is important to understand where peer institutions stand. The table below summarises the ODeL maturity of key Ugandan universities.

Peer Comparison

Institution	Status	Key Details
Makerere University	Mature	Institute of Open Distance and eLearning (IODeL). MUELE platform fully operational. University-wide ODeL policy framework. Staff trained.
Kyambogo University	Established	ODeL Centre established 2007. African Virtual University partnership. Blended learning for B.Ed programmes. Technology fee charged to students.
Gulu University	Launching	Department of ODELL launched July 2025. Pilot: B.Ed (Primary) for 2025/2026. Target: increase enrolment from 6,000 to 11,000+.
Kampala International University	Operational	College of Education, Open and Distance e-Learning (CEODL) established 2011. Offers diplomas, bachelors, and masters via distance learning.
Muteesa I Royal University	Offline	Server down for 2+ years. No functional ODeL system. No distance learning capability. Non-compliant with NCHE requirements.

Table 1: ODeL maturity comparison across Ugandan universities

Lessons from the Sector

On 10th February 2026, over 51 universities convened for a national ODeL stakeholder meeting. Key themes that emerged, which directly inform this proposal, include:

1. **Internet connectivity** remains the single biggest barrier. Even institutions with RENU bandwidth struggle during peak usage.
2. **Training gaps** exist at all levels. Institutions invest in platform setup but underinvest in training lecturers and students.
3. **Policy alignment** is needed. Existing university policies were not designed with ODeL in mind.
4. **Cloud hosting** was recommended by multiple participants for reliability and reduced maintenance burden.
5. **System reliability** is critical. LMS platforms that freeze during assessments cause serious academic disruption.

Insight

MRU's proposed cloud-based approach directly addresses the infrastructure reliability and maintenance concerns raised by universities that rely on local servers. By hosting on a professional VPS, we avoid the power cuts, hardware failures, and on-site maintenance burdens that have plagued peer institutions.

The Current Crisis at MRU

Situation Assessment

MRU's ODeL server has been completely non-functional for over two years. During this period, the university has had:

- **Zero online course delivery** — no courses have been available for distance or blended learning
- **No digital assessment capability** — all examinations and assignments are paper-based only
- **No learning management system** — no centralised platform for course content, communication, or student tracking
- **No NCHE-compliant ODeL reporting** — the university cannot demonstrate ODeL capacity to regulators

Impact Analysis

The consequences of this prolonged outage extend far beyond a technical inconvenience:

1. **Regulatory non-compliance:** NCHE requires every university to maintain a functional ODeL system. MRU's current state puts programme accreditation and new programme approvals at direct risk.
2. **Student attrition:** Learners who need flexible, distance-based study—working professionals, students in remote areas, those with family obligations—are enrolling at competing institutions that offer online programmes.
3. **Revenue loss:** Every student who chooses a competitor due to lack of ODeL is lost tuition revenue. Distance learning programmes also generate additional revenue with lower marginal delivery costs.
4. **Reputational damage:** While Makerere, Kyambogo, and even newer entrants like Gulu are digitising rapidly, MRU's inability to offer any form of online learning undermines our standing among prospective students, parents, and institutional partners.
5. **Staff frustration:** Faculty have no digital platform for course delivery. Administrative staff lack tools for student management and reporting. This contributes to low morale and limits the university's ability to attract and retain talent.
6. **Missed partnerships and funding:** Donors, international academic partners, and research collaborators increasingly require institutions to demonstrate digital capability as a prerequisite for engagement.

The Cost of Inaction

A Semester-by-Semester Loss

Every semester that MRU operates without ODeL is not merely a missed opportunity—it is an active loss. Students enrol elsewhere. NCHE scrutiny intensifies. Competitors strengthen. The gap between MRU and its peers widens. The longer we wait, the more expensive and difficult the recovery becomes.

The Proposed Solution

Overview

This proposal recommends deploying a **cloud-hosted Moodle-based Learning Management System (LMS)**, complemented by custom-built integrations developed specifically for MRU’s workflows, administrative processes, and NCHE reporting requirements.

The solution has three layers:

Layer	Components	Description
Users	Students, Lecturers, Administrators	Access via browser or mobile device, from anywhere with internet connection.
Application	Moodle LMS + Custom MRU Modules	Courses, assessments, grading, analytics, notifications, NCHE reporting.
Infrastructure	Cloud VPS (12 CPU cores, 24 GB RAM, 2 TB SSD)	Automated backups, SSL encryption, 99.9% uptime guarantee, scalable on demand.

Table 2: Three-layer system architecture

Platform Branding

The ODeL platform requires a name that is institutional, professional, and immediately recognisable. Three options are proposed for the Vice Chancellor’s consideration:

Option	Proposed Name	Rationale
Option A	MRU Learn	Simple, clean, and institutional. Follows the naming convention used by global universities (e.g., Harvard’s “Canvas,” Makerere’s “MUELE”). Instantly recognisable as MRU’s official learning platform.
Option B	RoyalEdge	Plays on “Royal” from Muteesa I Royal University. Conveys a modern, competitive advantage. Memorable and distinctive in Uganda’s higher education space.
Option C	MuteesaLMS	Ties directly to the university’s identity and heritage. Clear functional purpose: Muteesa’s Learning Management System. Straightforward and unambiguous.

Table 3: Proposed platform branding options

Why Moodle?

Moodle is the world’s most widely used open-source Learning Management System, deployed by over 300 million users across 240 countries. It is the platform of choice for most Ugandan universities, including Makerere, Kyambogo, and Mountains of the Moon University. Key advantages:

- **Free and open-source:** No licensing fees, ever. The software itself costs nothing.
- **Proven in Uganda:** Already deployed and tested by peer institutions under similar conditions.
- **Highly customisable:** Can be tailored to MRU’s specific academic structure, policies, and branding.
- **Extensive plugin ecosystem:** Thousands of plugins for plagiarism detection, video conferencing, analytics, and more.
- **Mobile-friendly:** Built-in responsive design and a dedicated mobile app for students on smartphones.
- **Active community:** Regular security updates, feature releases, and a global support community.

Why Cloud VPS — Not a Local Server

MRU’s previous ODeL system ran on a local, on-premise server. That server has been down for two years. This proposal specifically recommends **not** repeating that approach. The table below explains why.

Factor	Local Server (Previous)	Cloud VPS (Proposed)
Uptime	Subject to power cuts, UPS failures, and hardware degradation. Currently at 0% uptime.	99.9% uptime guarantee. Professional data centre with redundant power and cooling.
Maintenance	Requires on-site IT staff, spare parts inventory, cooling systems, and physical security.	Fully managed by the VPS provider. MRU focuses on content and teaching, not hardware.
Security	Vulnerable to physical damage, theft, fire, and network attacks. No automated patching.	Enterprise-grade firewalls, SSL/TLS encryption, automated security patches, DDoS protection.
Scalability	Fixed capacity. Upgrading requires purchasing new hardware—weeks or months of lead time.	Scale CPU, RAM, and storage up or down instantly based on student demand.
Disaster Recovery	No automated backups. If the server fails, data may be permanently lost.	Daily automated backups with geographic redundancy. Restore to any point in time.
3-Year Total Cost	High: hardware purchase + power costs + cooling + dedicated IT staff + repairs + eventual replacement.	Lower total cost of ownership. Predictable monthly pricing. No capital expenditure required.

Table 4: Cloud VPS vs. local server comparison

A cloud VPS eliminates the exact failure mode that caused MRU’s current crisis. We will never again lose our ODeL system because of a hardware failure, a power cut, or a lack of spare parts.

Platform Capabilities

The proposed system combines Moodle’s proven core functionality with custom-built integrations developed specifically for MRU.

Core Moodle Features

- **Course content management:** Upload and organise lecture notes, readings, videos, and supplementary materials by course, topic, and week.
- **Assignment submission & grading:** Students submit work digitally; lecturers grade, annotate, and return feedback—all within the platform. Full audit trail.
- **Discussion forums & messaging:** Asynchronous discussion boards for each course, plus direct messaging between students and lecturers.
- **Video lecture hosting:** Upload recorded lectures or integrate with BigBlueButton for live virtual classes.
- **Online quizzes & examinations:** Timed assessments with randomised question banks, auto-grading for objective questions, and anti-cheating measures.
- **Attendance & progress tracking:** Monitor student engagement, completion rates, and

activity logs.

- **Gradebook:** Centralised grade management with weighted categories, custom scales, and export functionality.

Custom MRU Integrations

Beyond Moodle’s standard features, the following custom modules will be developed to address MRU’s specific requirements:

- **Mobile-optimised access:** Ensuring full functionality on smartphones and tablets, with a low-bandwidth mode for students with limited data.
- **Plagiarism detection integration:** Automated similarity checking for all submitted assignments.
- **SMS and WhatsApp notifications:** Critical alerts (deadlines, grades, announcements) delivered via SMS and WhatsApp, not just email—reflecting how Ugandan students actually communicate.
- **Administrative dashboards:** Real-time enrolment analytics, course completion rates, and departmental performance summaries for university management.
- **NCHE-aligned reporting:** Automated generation of reports in the format required by NCHE for ODeL compliance submissions.
- **Student performance analytics:** Trend analysis, early warning systems for at-risk students, and comparative performance data.

Ensuring Adoption — Institutional Policies

Technology succeeds only when people use it. The most common failure mode for ODeL systems in Ugandan universities is not technical—it is *adoption*. Platforms are deployed, but lecturers continue using paper, students never log in, and the system sits idle.

This was explicitly highlighted at the national ODeL stakeholder meeting, where Prof. Robert from Clarke International University noted that many institutions focus on platform setup but neglect to ensure that lecturers and students actually use the tools.

To prevent this at MRU, we propose the following five institutional policies, to be implemented in phases alongside the technical rollout:

Policy 1: Compulsory Assignment Submission via the Platform

All coursework assignments must be submitted through the ODeL platform. This ensures that every student and every lecturer interacts with the system regularly, and creates a verifiable digital record of all academic work. Paper submissions will no longer be accepted for coursework (examinations may remain paper-based initially).

Policy 2: Mandatory Upload of Course Materials

Lecturers must upload course outlines, reading lists, lecture notes, and supplementary materials to the platform at the start of each semester. This makes the ODeL system the single source of truth for all course content and ensures students always have access to

up-to-date materials.

Policy 3: Online Grade Publication

All continuous assessment marks and final examination grades must be published through the platform. Students will check their results online, reducing administrative bottlenecks, eliminating lost result slips, and providing a permanent, auditable academic record.

Policy 4: Course Registration via the Platform

Course registration and semester enrolment should be processed through the ODeL system. This ensures that every student has an active account and is familiar with the platform from the very first day of each semester.

Policy 5: Digital Attendance & Engagement Tracking

For programmes using blended delivery, attendance for online sessions must be tracked via the platform's built-in tools. For fully in-person programmes, the platform will track engagement through assignment submissions, forum participation, and content access—providing data-driven insights into student participation.

Implementation Approach

These policies will not be imposed overnight. They will be introduced gradually, aligned with each phase of the technical rollout: Policy 1 during the pilot phase, Policies 2–3 during the expansion phase, and Policies 4–5 during full rollout. Faculty will receive training and support before each policy takes effect.

Implementation Roadmap

The implementation follows a three-phase approach over 12 months, designed to minimise risk and allow for iterative improvement based on real user feedback.

Phase 1: Foundation & Pilot (Months 1–3)

Activity	Details
VPS Procurement	Procure and configure cloud VPS (12 CPU, 24 GB RAM, 2 TB SSD). Set up domain, SSL, and security.
Moodle Installation	Install, configure, and customise Moodle with MRU branding, academic structure, and user roles.
Custom Development	Build priority custom modules: SMS/WhatsApp notifications, mobile optimisation, admin dashboards.
Pilot Courses	Select 3–5 courses across different faculties for pilot testing with willing lecturers and their students.
Feedback Collection	Gather structured feedback from pilot participants. Identify issues. Iterate and improve.
Policy Activation	Implement Policy 1 (compulsory assignment submission) for pilot courses only.

Table 5: Phase 1 activities (Months 1–3)

Phase 2: Training & Expansion (Months 4–6)

Activity	Details
Faculty Training	Conduct hands-on training workshops for all lecturers: course setup, grading, content upload, forums.
Student Onboarding	Orientation sessions at enrolment. Step-by-step video tutorials. SMS/WhatsApp support channel.
Course Expansion	Expand from pilot to 15–20 courses across all faculties.
IT Helpdesk	Establish a dedicated ODeL support desk for faculty, students, and administrative staff.
Policy Activation	Implement Policies 2–3 (materials upload, online grades) for all expanded courses.
Custom Integrations	Complete NCHE reporting module, plagiarism detection integration, and performance analytics.

Table 6: Phase 2 activities (Months 4–6)

Phase 3: Full University Rollout (Months 7–12)

Activity	Details
Full Deployment	All programmes and courses available on the ODeL platform. Every lecturer and student has an active account.
Distance Programmes	Launch first fully online distance learning programme(s), opening new student markets.
NCHE Reporting	Generate and submit NCHE compliance documentation demonstrating full ODeL functionality.
Performance Monitoring	Continuous monitoring of system performance, student engagement metrics, and course quality.
Policy Activation	Implement Policies 4–5 (course registration, attendance tracking) university-wide.
Knowledge Transfer	Full documentation, training of IT staff, maintenance procedures, and sustainability plan.

Table 7: Phase 3 activities (Months 7–12)

Training & Capacity Building

The national ODeL stakeholder meeting made one thing clear: *training is not optional*. Every institution that deployed an LMS without adequate training saw low adoption, frustrated users, and underutilised platforms.

MRU will invest in training for three distinct user groups:

Faculty & Lecturers

- Hands-on Moodle workshops (course creation, grading, forums, content upload)
- Online pedagogy best practices—how to teach effectively in a digital environment
- Ongoing helpdesk access and comprehensive written/video documentation
- Peer champion programme: early-adopting lecturers mentor their colleagues

Students

- Orientation sessions integrated into the enrolment process
- Step-by-step video tutorials accessible on the platform and via YouTube
- SMS and WhatsApp support channel for quick questions and troubleshooting
- Printed quick-start guides for students with limited digital experience

IT & Administrative Staff

- System administration training: server management, updates, backups, user provisioning
- Monitoring and incident response procedures

- NCHE reporting workflows and data extraction
- Documentation of all custom integrations for long-term maintainability

Scheduling

Training workshops will be scheduled during existing faculty development periods and inter-semester breaks to minimise disruption to teaching. All training materials will also be available online for self-paced review and reference.

Budget & Revenue Model

Annual Budget Breakdown

All costs are presented in United States Dollars (USD). The exchange rate used for UGX conversions is **1 USD = 3,600 UGX**.

Budget Item	Annual Cost (USD)	Notes
Cloud VPS Hosting	\$1,000	12 CPU cores, 24 GB RAM, 2 TB SSD. Includes SSL, backups, 99.9% uptime.
System Development, De- ployment & Support	\$1,000	Moodle setup, custom modules, ongoing technical support.
Training & Capacity Building	\$500	Faculty, student, and admin training workshops + materials.
Total Annual Cost	\$2,500	

Table 8: Annual budget breakdown

Revenue Model: Student Technology Fee

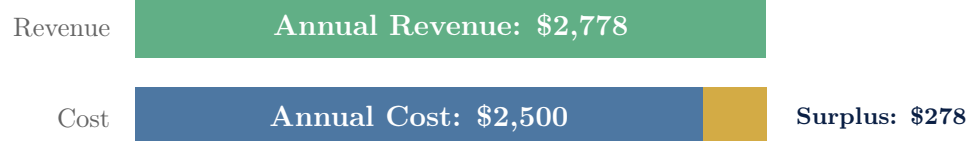
To ensure the project is **self-sustaining** and does not place a recurring burden on university finances, we propose a modest student technology fee—a model already in use at Kyambogo University and other Ugandan institutions.

Revenue Component	Amount
Technology fee per student per semester	UGX 5,000
Estimated active students	1,000
Revenue per semester (1,000 × UGX 5,000)	UGX 5,000,000
Revenue per year (2 semesters)	UGX 10,000,000
Annual revenue (at 1 USD = 3,600 UGX)	\$2,778

Table 9: Revenue projection from student technology fee

Annual revenue (\$2,778) exceeds total annual cost (\$2,500) by \$278. The project is fully self-funding from the first year. As student enrolment grows—particularly with the introduction of distance learning programmes—revenue will increase while per-student costs decrease, creating an increasingly favourable financial position.

Financial Summary



Risk Analysis & Mitigation

Every project carries risk. The table below identifies the most significant risks and the specific measures we will take to address each one.

Risk	Description	Mitigation
Limited Internet Access	Some students have poor or expensive internet connectivity, particularly in rural areas.	Mobile-optimised platform with low-bandwidth mode. Offline content downloads. SMS notifications for critical updates. Advocate for RENU membership.
Adoption Resistance	Faculty or students may resist transitioning to digital tools, preferring familiar paper-based methods.	Hands-on training with ongoing support. Peer champions programme. Phased rollout starting with willing early adopters. Institutional policies (Section 6) that create natural usage incentives.
Budget Constraints	University may face challenges allocating resources, even at the modest levels proposed.	Self-funding model via technology fee eliminates recurring financial burden. Use of open-source tools avoids licensing costs. Clear ROI projections demonstrate value.
Long-Term Sustainability	Concern that the system may deteriorate after initial setup if not properly maintained.	Full knowledge transfer to IT staff. Comprehensive documentation. Automated monitoring and alerting. Maintenance schedule with clear responsibilities. Cloud VPS reduces hardware maintenance to zero.
Staff Turnover	Key technical staff may leave, creating a knowledge gap.	All systems fully documented. Standard, widely-known technologies (Moodle, Linux). Multiple staff members trained. No proprietary or obscure tools.
Data Privacy	Student data must be handled securely and in compliance with regulations.	SSL/TLS encryption for all data in transit. Encrypted backups. Role-based access controls. Data retention policies aligned with university and NCHE requirements.

Table 10: Risk register and mitigation strategies

Conclusion & Immediate Next Steps

Conclusion

MRU's ODeL system has been offline for over two years. During this time, peer universities have advanced, NCHE requirements have intensified, and MRU has lost students, revenue, and institutional standing. The situation is urgent, but it is also **entirely fixable**.

The solution proposed in this document is:

- **Technically sound:** Built on Moodle, the most widely used LMS in Ugandan universities, hosted on reliable cloud infrastructure.
- **Financially sustainable:** A total annual cost of \$2,500, fully covered by a UGX 5,000 student technology fee with no net cost to the university.
- **Operationally realistic:** A phased 12-month rollout with pilot testing, structured training,

and iterative improvement.

- **Strategically valuable:** Positions MRU alongside Makerere, Kyambogo, and Gulu as a digitally capable institution, opens new student markets, and ensures NCHE compliance.

Immediate Next Steps

We respectfully request the Vice Chancellor's approval to proceed with the following actions:

1. **Formal approval** to proceed with the ODeL restoration project as outlined in this proposal.
2. **Establish an ODeL Task Force** with representation from IT, faculty, and administration to oversee implementation.
3. **Approve the UGX 5,000 technology fee** to provide a self-sustaining funding mechanism for the project.
4. **Procure cloud VPS hosting** and a professional domain name for the platform.
5. **Begin Phase 1 pilot implementation**—first courses online within 90 days of approval.
6. **Schedule monthly progress reviews** with the Vice Chancellor's office to ensure accountability and transparency.

*"This is not just about fixing a server.
It is about positioning Muteesa I Royal University
for the future of higher education in Uganda."*

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