

Integration of Emerging Technologies for Enhanced Virtual Learning

By Edwin Wanjuru

Whereas the COVID-19 pandemic created challenges and disruptions across the higher education sector globally, it was a blessing in disguise as it presented St. Paul's University an opportunity to revamp and enhance its online learning and teaching capacity. At the peak of the pandemic, the St. Paul's community leveraged technology to seamlessly carry on with lectures, administer assessments, and host student-staff interactions virtually; and gradually transitioned to blended learning as normalcy resumed. Blended learning, a combination of both face-to-face teaching and asynchronous learning has been well taken up by faculty and students. In the 2021/2022 Academic Year, at least 40% of the course content for most programmes was covered with the aid of eLearning technologies as envisioned in the university's eLearning policy.

The transition from traditional face-to-face and online learning to blended learning has been made possible through investment in appropriate technologies, training of students and staff, and a dedicated team of staff to offer support services round-the-clock. The University Learning Management System has been upgraded to a revised version, which has facilitated integration of more technologies into the system, enhancing the learning experience for students. For instance, incorporation of virtual programming labs has made it possible for the University to offer computer programming courses online without losing the practical aspect.

In line with this year's Graduation Ceremony's theme, "**Upholding Academic Excellence with Integrity**", the Learning Management System upgrade has improved confidentiality, integrity, and availability of the information system through improved security features that protect the underlying system infrastructure, content generated by lecturers, students' scholarly work and users' personal information. With the revised version, real-time notifications are sent to system administrators in case virus-infected files are uploaded into the system. Further, the system can automatically quarantine such files to prevent the viruses from spreading to other files before the security team takes action. Single sign-on is yet another security measure that has been implemented which has drastically reduced the attack surfaces that can be exploited by attackers.

To safeguard integrity of the work submitted through the portal, the virtual campus has integrated a new antiplagiarism plugin: Ouriginal. This is a shift from Turnitin. Besides generating accurate reports promptly, Ouriginal conducts content match analysis with premium quality content from top databases. The plugin also conducts intelligent writing style analysis through the use of pre-determined quantitative parameters to analyze various writing styles, and identify writing patterns that are used to verify authorship of all documents uploaded to the virtual campus portal. Authorship verification is an important feature as it prevents ghost-writing and contracts cheating which are major threats to academic integrity.

In his famous quote on education technology, David Warlick opines, "We need technology in every classroom and every student and teacher's hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world." To this end, the St. Paul's University virtual campus has invested and established an ultra-modern Virtual Campus hosted on the third floor of the Postgraduate Center, at the main campus. The campus hosts two centers: Remote Teaching Center and Multi-media Center. The Remote Teaching Center is well-equipped to facilitate hybrid learning such that students can

learn physically in the classroom while others log on online, follow live proceedings and participate in classroom activities. A second remote teaching facility has been established at the Nakuru campus.

The Multi-media Center has two fully equipped studios and a post-production center. The studios enable faculty to convert teaching material from common PowerPoint presentations, Microsoft Word and Portable Document Format (PDF) documents, to an audio-visual format which has been proved to enhance information retention among learners and at the same time improve learners' experiences. The post-production center is equipped with requisite hardware and production software for editing the material produced in the studios and deployment of the same on the university's eLearning platforms. The post-production center is also equipped with assistive technology and software to take care of the learners with diverse learning needs in line with the virtual campus vision of inclusive education.

Additionally, the virtual campus has established a modern e-compliant boardroom that will enable the university to host virtual and hybrid conferences and meetings, in line with the university's goal of establishing international partnerships and collaborations. With more postgraduate courses being rolled out on the distance learning mode of study, the facility will come in handy by playing host to colloquiums, research seminars and defenses.

Queen Pama of Jordan said, "In education, technology can be a life changer, a game changer, for learners who are both in school and out of school". As the University continues to invest in the relevant technology to support online learning, we welcome you to experience learning simplified at the St. Paul's University Virtual Campus.