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Implementing Digital Education Strategy Report (Deliverable D4.1)

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Project consortium

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- Center of Excellence in Educational Innovation, Tallinn University (TLU), Estonia.

- Information and Communication Technology Education, University of Education, Winneba (UEW) Ghana.

- Mathematics and ICT Education, University of Cape Coast (UCC), Cape Coast, Ghana.

Notices

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- Tampere University (TAU)-coordinator
- Tallinn University (TLU)-partner
- University of Education, Winneba (UEW) -partner
- University of Cape Coast (UCC) - partner

The GOT project aims at shifting lesson delivery towards data-driven and evidence-based methods in digital education at the University of Cape Coast and the University of Education, Winneba and changing the thinking of researchers, educators and digital solutions providers. Consequently, the University of Education, Winneba (UEW) and the University of Cape Coast (UCC) have been implementing comprehensive digital education strategies aimed at enhancing teaching and learning experiences. This report examines the current state of digital education at UEW and UCC, focusing on the audit of existing practices, tools utilized, information infrastructure, and challenges faced in translating digital education strategies into practice.

Digital Education practices at both UCC and UEW reveal a mixed landscape of digital adoption. While there are efforts to integrate technology into teaching and learning, there are still gaps in implementation across various Colleges, Faculties and Departments. Some key findings from the audit include:

- Varied levels of digital literacy among faculty members and students.
- Inconsistencies in the use of digital tools across courses and programmes.
- Limited access to technology resources such as computers and reliable internet connectivity.
- Uneven distribution of Digital Education initiatives and resources across Campuses, Colleges, Faculties and Departments.

Both UEW and UCC have adopted a range of digital tools which are being employed to support Digital Education initiatives. For example, Learning Management Systems (LMS) such as Moodle for course delivery, content management, and student engagement are used by both UCC and UEW. Video conferencing platforms like Zoom, Microsoft Teams, and Google Meet for virtual classes and meetings are also used to supplement the LMS. Again, online assessment tools such as Google Classroom are used for conducting quizzes, tests, and assignments remotely.

Despite some inherent challenges, faculty members at UEW and UCC are utilizing these tools in various ways such as uploading course materials, lecture notes, and assignments on LMS platforms, and conducting virtual lectures and tutorials using video conferencing tools, integrating multimedia content (videos, simulations, interactive quizzes) into lessons, engaging students through online discussions, forums, and collaborative projects, and assessing student progress and performance through online assessments.

The information infrastructure supporting digital education at UEW and UCC includes:

- Campus-wide network infrastructure to ensure connectivity and access to digital resources.

- Computer laboratories and digital learning centres equipped with necessary hardware and software.
- Cloud-based storage solutions for data management and content distribution.
- IT support services for troubleshooting and technical assistance.
- Policies and guidelines for data security, privacy, and ethical use of technology.

Despite the progress made in implementing Digital Education strategies, several discrepancies and challenges persist, for instance, there is limited access to devices and internet connectivity, particularly in rural areas. Again, most faculty members are resistant to change, and there exist varying levels of Digital Readiness among stakeholders. There is also inadequate training and professional development for faculty members to effectively integrate digital tools into teaching. There are also sustainability issues in digital education initiatives in terms of funding and institutional support. To address the gaps identified and enhance digital education at UEW and UCC, the following recommendations are proposed:

- Both institutions are to develop comprehensive digital education policies and frameworks aligned with institutional goals.
- They are to invest in infrastructure upgrades to improve internet connectivity and access to digital devices.
- They are to provide continuous professional development and training for faculty members on digital pedagogy.
- There is a need to foster a culture of innovation and collaboration among stakeholders to support digital transformation.
- Both institutions are to implement measures to ensure equity and inclusivity in digital education, addressing disparities in access and skills.