

ICT Readiness for the Digital Transformation (Dx) Journey Brief for Connected Member Tertiary Colleges – July 2023

KENET’s mission in the new Strategic Plan 2022-2027 is to support the digital transformation (Dx) journey of individual member institutions, including tertiary colleges. This will be achieved through capacity building workshops for senior leadership and ICT managers; annual core data surveys; provision of affordable meaningful or “good” Internet connectivity services; and community cloud-based digital enterprise and academic services.

The main purpose of digital transformation is to enhance the learning outcomes and prepare graduates for employment in the 21st Century. KENET has adopted the EDUCAUSE Dx framework that identifies five steps as shown in Figure 1. Steps 1 and 2 constitute **digitization**, Steps 3 and 4 involve **digitalization** while Step 5 is **Digital Transformation**. Member institutions need to assess where they are in the Dx journey through a self-assessment framework.

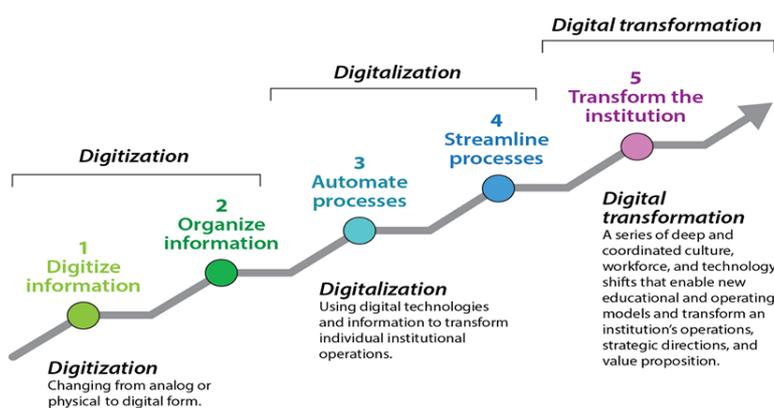


Figure 1. Digital transformation in context

Figure 1: The Digital Transformation Journey

KENET uses the annual core data collected from member institutions to assess their state of readiness for the digital transformation journey or to determine the stages in the Dx journey. For example, Table 1 is an extract from the 2022 annual core data for tertiary colleges (excluding medical colleges) with a focus on only four foundational indicators of readiness, namely, Internet bandwidth per 1,000 students, institutional e-mails for all students, trainers, operational Learning Management System (LMS), and operational ERP.

KENET considers meaningful or good Internet to be at least 100 Mb/s per 1,000 students. Table 1 shows the average Internet bandwidth ratio for tertiary colleges was 33 Mb/s per 1,000 students as of April 2023. *This is a 3x improvement from the 10 Mb/s in October 2021 as presented in the [2021 Annual Core Data Report](#).*

The results show that only 26 of the 69 tertiary colleges were providing FREE institutional e-mail for students and faculty (*FREE Google for Education institutional e-mail hosting service is available for all educational institutional institutions with a .ac.ke domain*). Moreover, only 27 of the 69 had an operational LMS and 30 colleges had an operational ERP/FMS

Table 1: Key foundational indicators of readiness for Dx journey (April – June 2023)

TVET category	Number connected per category	Total subscription per category	Total enrolment per category	Aggregate Internet bandwidth per 1,000 students	#with Institutional e-mail	#with LMS	#with ERP or FMS
National Polytechnics	8	1,431	58,189	25	4	7	4
TTIs	35	3,611	94,655	38	17	13	15
TVCs	14	221	7,749	29	4	2	4
TTCs	12	140	3,633	39	1	5	7
Overall	69	5,403	164,226	33	26	27	30

The results presented in Table 1 therefore shows that less than 50% of connected tertiary colleges were in the early stages of digitization or Stage 1 of the Dx journey. This means that over 50% of connected tertiary colleges were not yet on the Dx journey.

The Dx journey is hard because it is an organizational change management effort that must be led by the CEO or principal of a tertiary college. Tertiary colleges will need an institutional digital transformation strategy in order to move from Stage 0 to Stage 1 and finally Stage 3 as shown in Figure 1. This journey could be achieved in about three years.

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PS/ The 2022 Annual Core Data report shall be released in September 2023