

**THE ROLE OF KENET IN ACHIEVING TEACHING AND  
LEARNING CONTINUITY DURING COVID 19 PANDEMIC  
IN KENYA**

**Presenters:**

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**KENET**

# Agenda

Brief Introduction of KENET

Closure of learning institutions-background information

KENET strategy for continuity

Mitigating factors introduced to curb disparities in learning opportunities

# Agenda

Accelerating change in teaching and learning through capacity building and training

Ripple effects experienced as a result of KENET solutions

Challenges experienced

What next? The future of online/blended learning

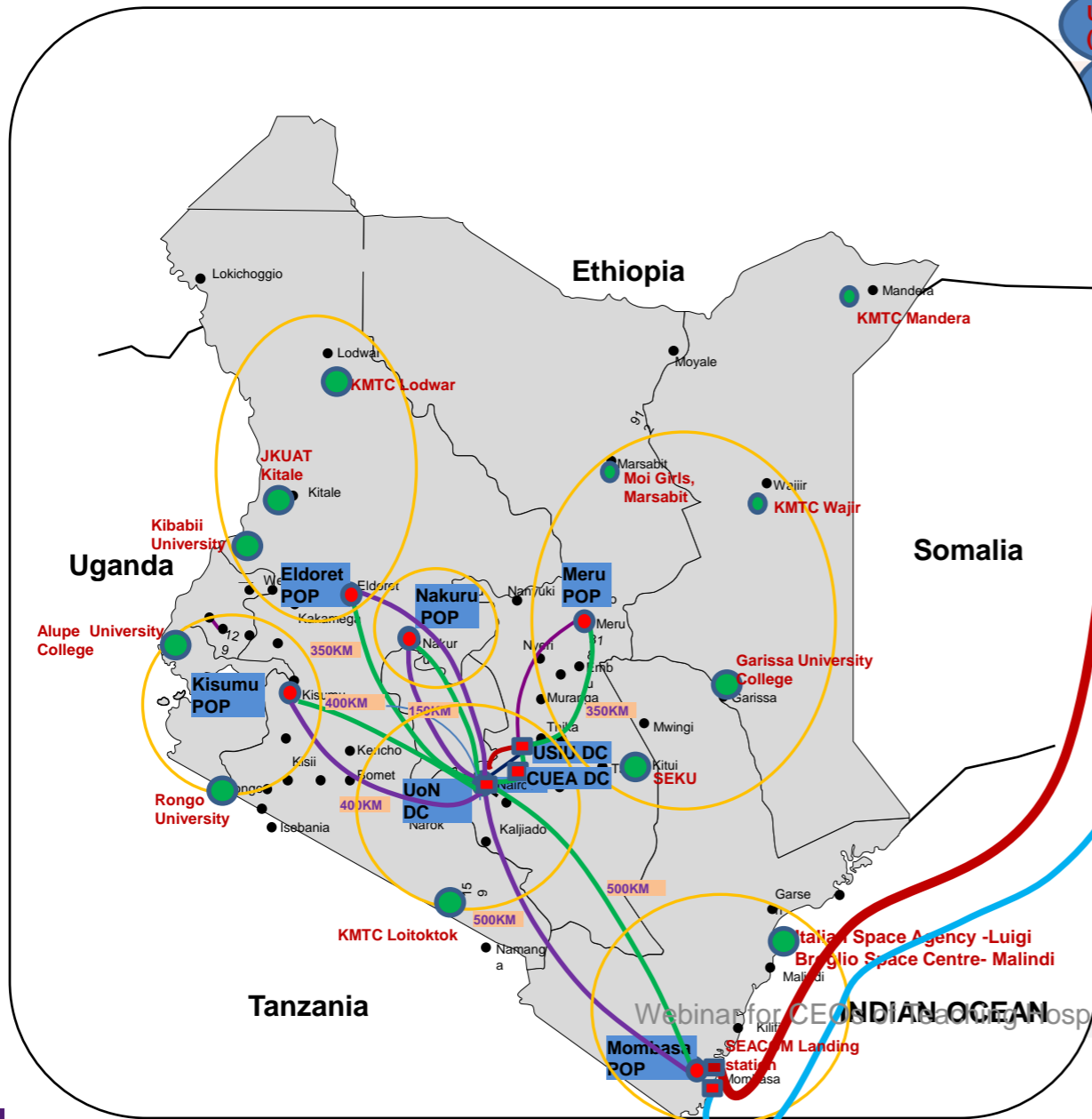
Conclusion

# KENET Brief Introduction



- Kenya Education Network (KENET) is a National Research and Education Network that promotes the use of ICT in Teaching, Learning and Research in Education and Research Institutions in Kenya.
- KENET aims to interconnect all Education and Research Institutions in Kenya by setting up a cost effective and sustainable private network with high-speed access to the global Internet.
- KENET facilitates education services in members institutions as a key strategic theme geared towards providing value addition to the education sector

# KENET National Broadband Network Coverage



POP	No. of Campuses Connected	No of Schools connected
Nairobi POP	259	28
Kisumu POP	40	0
Mombasa POP	17	1
Eldoret POP	27	0
Nakuru POP	19	0
Meru POP	25	0
<b>Total Campuses connected</b>	<b>387</b>	<b>29</b>

Metric	No
No. of Counties with connected members	46
Total no. of campuses on KENET fiber	124
Total no. of Campuses on Fiber Leased Lines	102
Total no. of KENET Owned Last Mile Radio	45
Total NOFBI Fiber lease distance	1898 KM
Total KENET dark fiber distance	2855KM

# Closure of learning institutions- background information

- Global learning disruption by COVID 19
- In Kenya the pandemic disrupted learning and lead to the closure of all learning institutions to face-to-face learning on March 15, 2020.
- Face-to-face learning was resumed on January 4, 2021.

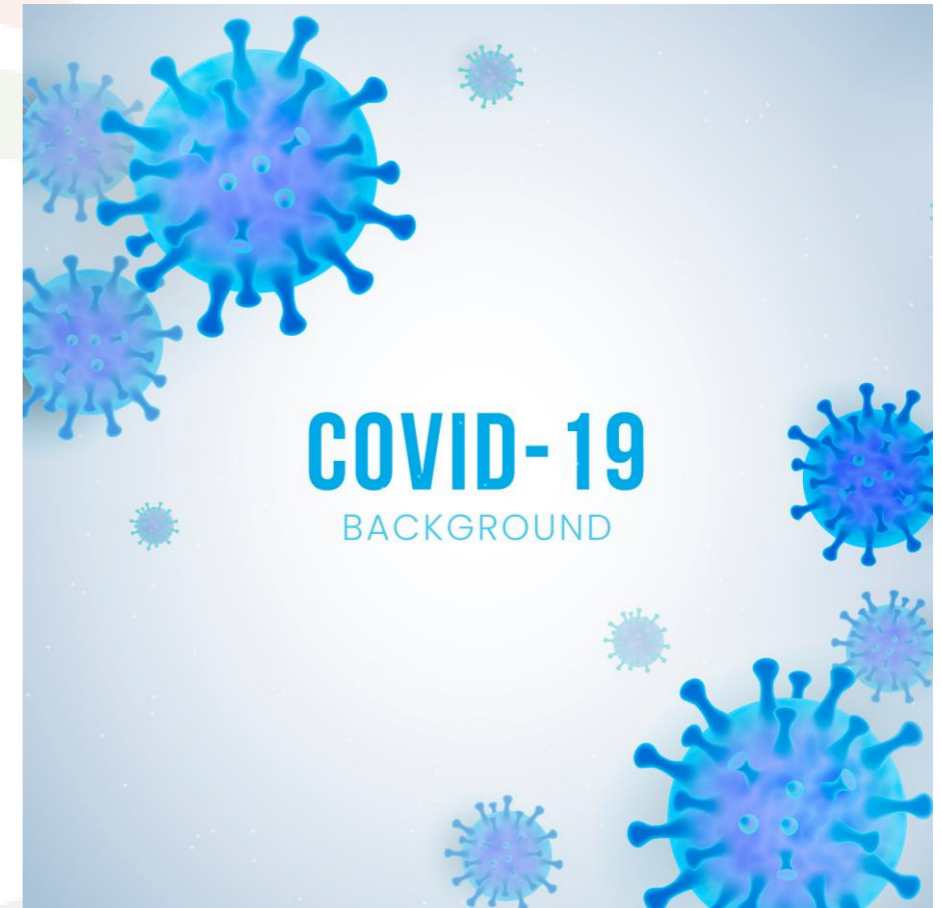


Photo: Designed by Freepik

# KENET strategy for Learning continuity

- The extraordinary disruption caused by the pandemic in member educational institutions called for KENET to swiftly offer support and guidance on adopting innovative ways in ensuring continuity of learning
- Some learning institutions opted to switch to online learning with some taking a wait and see approach.
- KENET identified the need to use education technologies for online/blended learning

# Mitigating factors introduced to curb disparities in learning opportunities

## 1. APN services

- KENET distributed about 5,000 TKL APN SIM cards that were loaded with 30 GB data bundles per month .
- The service allows KENET members to access KENET bandwidth at NO cost to them or the institutions.

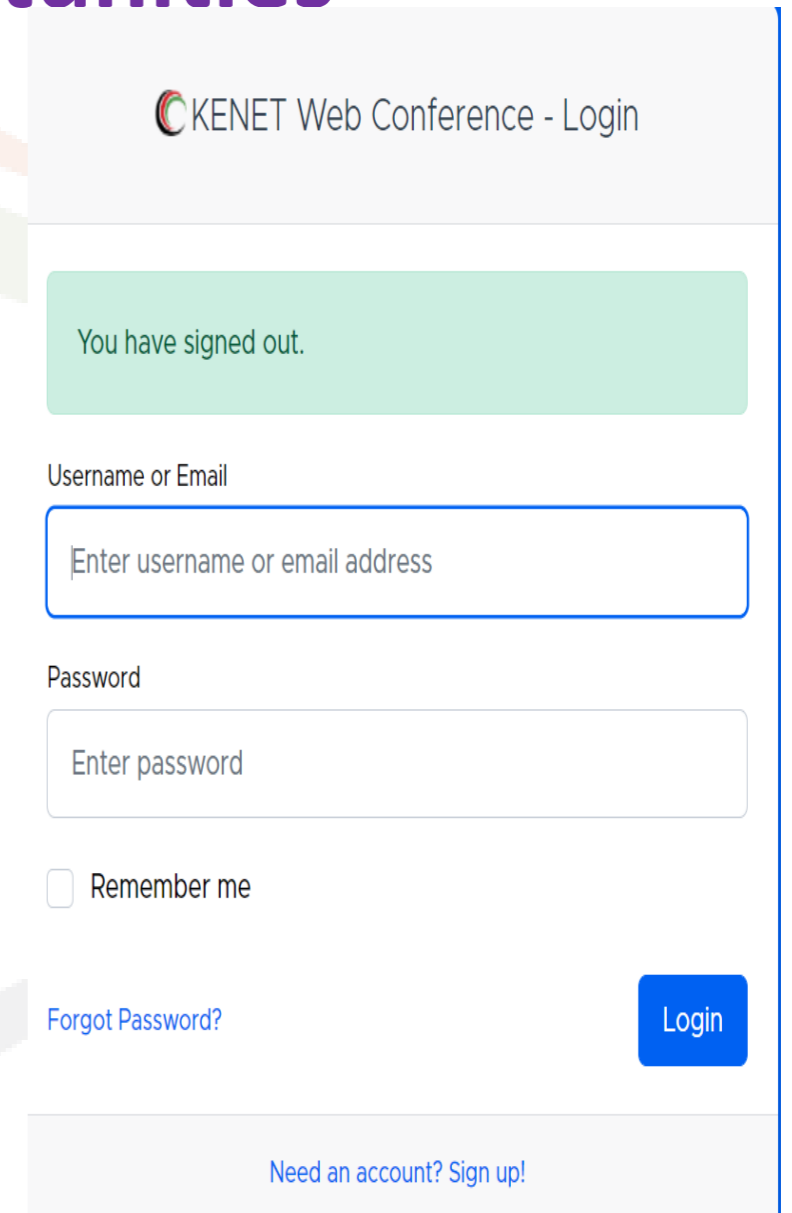
# Mitigating factors introduced to curb disparities in learning opportunities

- 2. Discounted E-learning data bundles:** <https://registration.kenet.or.ke/>
- The discounted E-learning bundles were restricted to only resources provided by the educational institution to be included in the bundle.
  - Accessing Internet resources outside those included in the bundle will not be charged/deducted from the E-learning Bundle.
  - Students/Faculty had to preregister to purchase the data bundles upon approval by the provider
  - The educational institution could also purchase the discounted data bundles on behalf of the students/faculty
  - Since onset of the COVID-19 pandemic more than 150,542 mobile numbers were whitelisted through KENET(February, 2021)

# Mitigating factors introduced to curb disparities in learning opportunities

## 2. KENET web conference platform running on BigBlueButton

- Was initially setup in 2015 for KENET members.
- The service picked up during the COVID19 pandemic with currently over 13,857 faculty representing 185 institutions registered on the platform.
- KENET invested in infrastructure to expand the number of concurrent users to 8000 and engaged its application developers to customize the BBB setup to offer additional features.



KENET Web Conference - Login

You have signed out.

Username or Email

Password

Remember me

[Forgot Password?](#)

[Need an account? Sign up!](#)

# Mitigating factors introduced to curb disparities in learning opportunities

## 3. LMS Setup and Hosting

KENET currently operates 3 fully fledged Data centres and operates a private cloud for its members

To promote online/blended learning KENET offered:

- Discounted server lease resources for Learning Management Systems
- Technical expertise to Install, customize Moodle and upgrade to the latest stable Moodle version
- Moodle administration for Institutions that did not technical expertise to setup Moodle
- Moodle hosting for regional Moodle hosting for TVETS that shared a LMS.

# Mitigating factors introduced to curb disparities in learning opportunities

## 4. Capacity Building

KENET conducted Capacity building initiatives on the following:

- KENET BBB Web conferencing for teaching and learning for faculty

*Teach faculty on effective use of the platform for teaching and learning*

- Moodle system administration

*51 number of system administrators trained*

- Introduction to Moodle for Faculty

*890 number of faculty trained so far*

- Cyber Security awareness for students and faculty

1,068 number of KENET members trained so far

- KMTC faculty on how to deliver online and blended learning

# Ripple effects experienced as a result of KENET solutions

- More online sessions on KENET Web conference platform to an average of 3,181 sessions per week
- Increase in mobile numbers for whitelisting to more than- 150, 542 whitelisted so far.
- Instructors' willingness to seek support



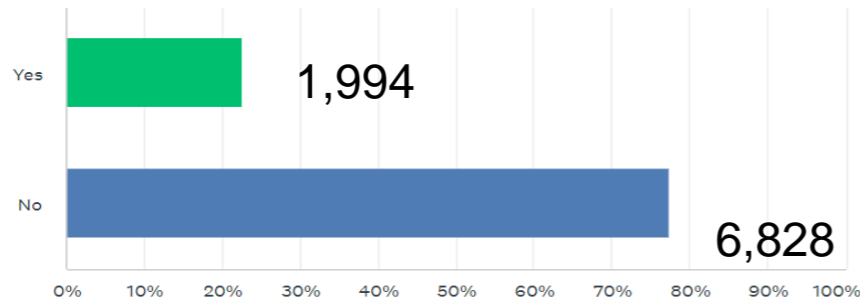
# Challenges experienced

- Laptop Device ownership challenges

Q6

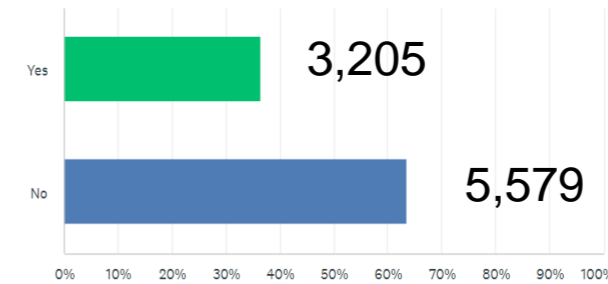
Student Device Use and Ownership Do you own a laptop?

Answered: 8,822 Skipped: 68



Do you have access to a Laptop at home or off-campus residence?

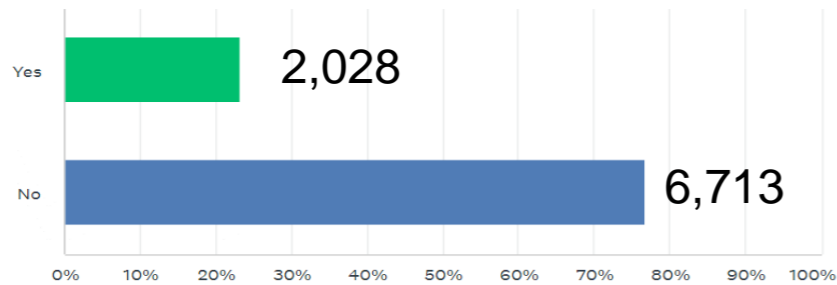
Answered: 8,784 Skipped: 106



Q18

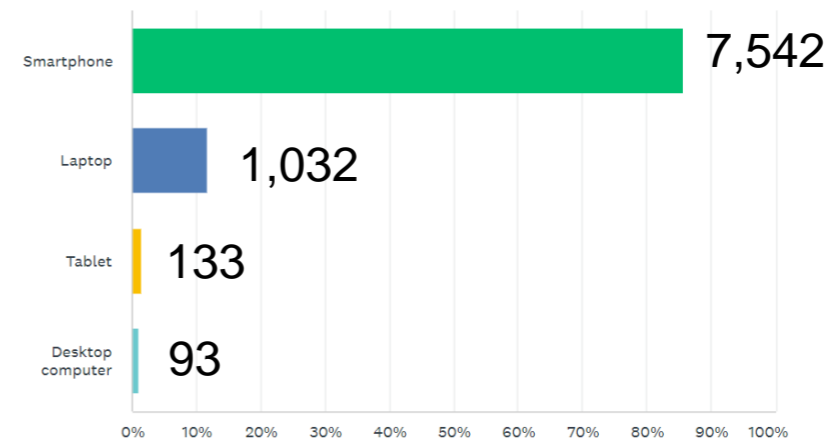
Do you have access to a Desktop at home or off-campus residence?

Answered: 8,741 Skipped: 149



What is the primary device you use to join online / remote classes (select only one)?

Answered: 8,800 Skipped: 90



# Challenges experienced

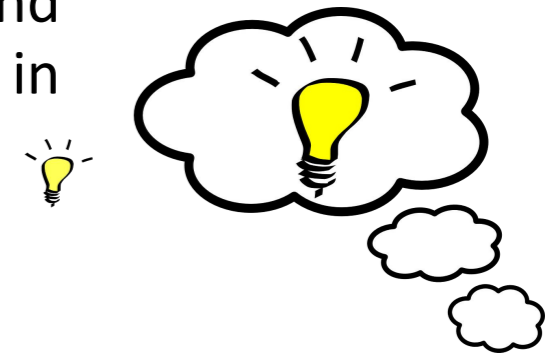
- Low 3g/4g coverage
  - Coverage is mostly in major cities and towns and poor in remote areas
- Lack of online teaching skills for Faculty
  - Faculty needed training on how to conduct online classes
- ICT Staff technical skills lacking in:
  - Technical skills were lacking in Moodle LMS administration
  - Setup of web conferencing tools
- Online exams challenges

# What next? The future of online/blended learning

## Proposed Solution

### 1. Student Laptop Purchase Program-SSLP

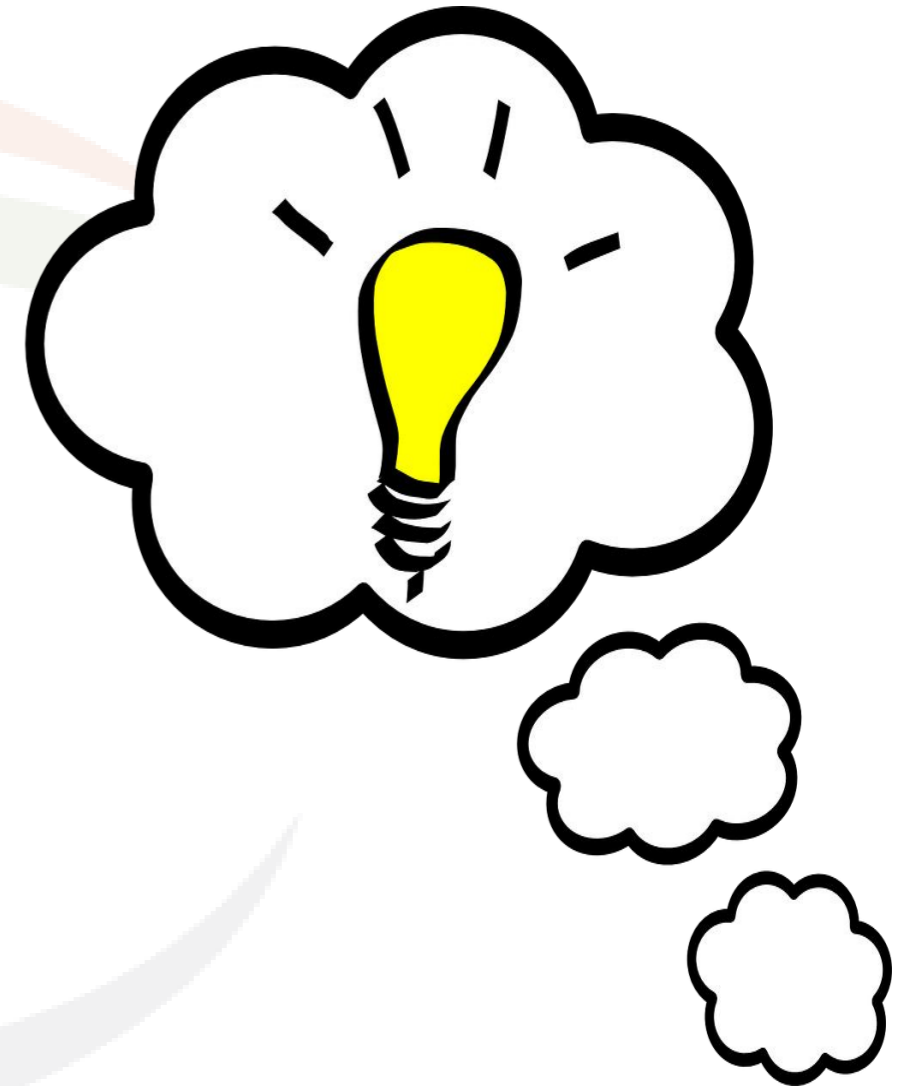
- Developed specifications of laptops for different 5 categories of students
- Received advance quotations from 7 OEM vendors (three are university-based)
- The following are the purchasing options available under the SLPP:
  - Outright Purchase** – students and faculty will pay the total cost of the device upfront in a one-off payment.
  - Lease-to-own** – after payment of an initial 15% deposit, students and faculty will be able to pay the balance of the device cost in instalments over a 24-month period
- Estimated demand in 24 months  
*250,000 new laptops (assumes 50% of university students will purchase a laptop)*



# What next? The future of online/blended learning

## Proposed Solution

- Off campus Internet access with expansion of eduroam across Kenya
- Training of faculty on effective online/blended learning





# QUESTIONS And Answers

*Transforming education  
through ICT*

**THANK YOU**

**[www.kenet.or.ke](http://www.kenet.or.ke)**

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