



# Challenges and Prospects Emanating from Catalyzing Change for Inclusion and Access to Higher Education Institutions in Kenya during Covid-19

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**Abstract:** Higher Education institutions are considered the epitome of Knowledge where solutions for the Country's problems are generated and where inventions, innovations and new ideas are gotten through research. With the coming of covid-19, it is evident that there is a surge of uncertainties pervading all areas of higher learning institutions. This touches on modes of learning, unpredictable financial conditions, student welfare and challenged enrollment. This literature review aimed to find out challenges catalyzing inclusion and access to education in Higher education institutions in Kenya. It further focused on suggested remedies in line with catalyzing change for inclusion and access to higher education during the Covid-19 era. After applying the concept map to the data from the selected studies, five challenges associated with influencing inclusion and access to higher education were identified: Technology, student/learner, Instructor, Financial and Curriculum design. The study revealed that higher institutions are shifting to remote access (virtual platforms), are more inclusive and more accessible to more student population despite being challenged with limitation of resources, uncertainty in enrollment, issues of advising and counseling students, inexperience of staff on the use of learning management systems and unpredictable financial conditions. The study offers suggestions on making education more inclusive and accessible in terms of recognition of interdependence of institutions in public space, awareness of complexity of teachers' work and community lead learning, digital connectivity and online platform, access to information, affordable internet, reliable connectivity and other ways of protecting the School social space as education is transformed.

**Keywords:** Problems, Virtual platforms, e-learning systems, Covid-19, Higher learning institutions, Inclusion, Access to education.

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## 1. Introduction

The COVID-19 pandemic has created the largest disruption of Education systems in history, affecting nearly 1.6 billion learners in more than 190 countries in all the continents. The crisis is exacerbating pre-existing education disparities by reducing the opportunities for

most vulnerable groups, those living in poor or rural areas, girls, refugees and persons with disabilities. This will erase decades of educational progress.

Over the years, many attempts have been made in higher learning institutions to provide learning online. During this times the challenges that have hampered learning online have been identified variously and seem not to be

catered for considerably. In these troubled times, education has to question its own role in promoting fair, equitable inclusive, accessible and sustainable society for all (Maria and Sandro, 2020). To achieve quality, equitable, accessible and affordable higher education. Higher education institutions need to identify and mitigate challenges linked with training of instructors, internet access, availability of reliable infrastructures, hardware and software, digital literacy, teaching and learning strategies for student and faculty are critical to manage this change. Achieving the goal of “Education for all” and sustainable development goal 4 (SDG4) is the target. This will require concerted policies for bridging the skill gaps, forging partnerships and adhering to equity-oriented policies for ensuring learning outcomes seem to be the way forward (Seema, (2020). A study by Alhendawa and Lassoued (2020) in Gaza Universities indicated that with the coming of COVID-19 a number of challenges have emerged on inclusion and access to Education. With the onset of COVID-19, governments closed institutions denying 89% of learners in 188 countries access to Education (UNESCO, 2020). This caused shock and tension among Faculty, students and parents due to lack of time, poor infrastructure, appropriate digital content, reliable and affordable internet, digital learning resources such as e-books, unreliable electricity and inexperienced instructors to teach online.

## 2. Literature Review

This literature review aimed to find out challenges catalyzing inclusion and access to education in Higher education institutions in Kenya. It further focused on suggested remedies in line with catalyzing change for inclusion and access to higher education during the Covid-19 era.

Michael et al. (2020), from Indonesia did a qualitative study involving University Lecturers using online questions. In that study three major techno complexity factors were noted to influence the online teaching. These are techno overload, techno insecurity and techno uncertainty. This study findings were in agreement with (Wangui and Igado2020);(Kevin and Godwin 2020);(Mutegi 2020) and (Eugene 2020). Other findings from (Manisha and Archana 2020) indicate that course design, communication and time management competencies are not sufficient among the instructors, hence learners and teachers/Lecturers need to redefine their roles. The panacea is to recruit and re-train the lecturers/Teachers, course designers, digital content developers to deal with these issues.

Learner’s welfare, collaboration, lack of experience in technology use, technophobia, power cuts, internet speed and connectivity, learner absenteeism have their toll in access and inclusion in higher education.(Khalaf 2020), (Mutegi2020), (Sema Joshi 2020), (Maria Sandro 2020), and (Alhendwa and Lassoued 2020)

Since the first case of COVID-19 was reported in Kenya in March 2020, many learning institutions have faced a surge of uncertainties. Leaders have been challenged to go back to the drawing board to redesign new policies and structures to try and cope with adjustments to the new normal which has been prompted by the coming of this new disease. In March 2021, the Kenya Government issued a directive on the third week all higher learning institutions to be closed for the second time. Teaching was brought to an abrupt end, students were sent home for an unknown period due to the constraints of COVID-19. A report by Economic survey 2020 Published by the Kenya National Bureau of Statistics indicate that the earlier closure of Schools in March 2020 affected over 17 Million learners across the country. This situation was exacerbated by inequalities in inclusion and access to education in higher learning institutions and the glaring existing digital divide among higher learning institutions in Kenya have brought to the fore many issues that need to be mitigated. Prof Mpine observes that Open learning during COVID-19 should be about accessibility, flexibility, equitability and lifelong learning. (Daily Nation March 12<sup>th</sup> 2021) This encompasses seven Key areas: Infrastructure access, equity, quality of teaching and learning and assessment, opportunity for collaboration, staff and Faculty workload, Student and Faculty mobility and preparation for the future.

Delivery of education content has taken both Synchronous and asynchronous modes since the students and faculty in Kenyan Universities were instructed by the ministry of Education to teach and learn remotely. It was suggested that the Faculty could convert all courses to an online format. All Universities were essentially shut during the second wave of COVID-19 in the Month of March 2021. This is exactly a year since the first Covid case was noticed in Kenya. Multiple online formats were adopted using Zoom, LMS, and Google class, PPT slides with voice over (synchronous) and asynchronous online learning. Members of the faculty were expected to teach online, despite this requirement they were unfamiliar with the complexities of teaching entirely online (Klemm, P.R, et al, 2020). During this period, a number of challenges catalyzing change for inclusion and access to higher Education Institutions in Kenya were identified, this

include student challenges, Instructor/Lecturer's challenges, inexperience of staff in using of the Learning Management systems. School Infrastructure, cost of Internet, access to connectivity, cost and, modes of learning, unpredictable financial conditions and ways of protecting social space were the major challenges.

COVID-19 created great opportunity for content development to provide content in various platforms aligned to the curriculum.

Challenges included, inadequate content to be disseminated, access to gadgets, electricity, access to internet in some remote areas, some parents do not understand their role in supporting and providing appropriate gadgets, space and conducive learning environments, data and security mechanisms against cyber bullying (Daily Nation March 12, 2021).

Agnes Mercy (CEO KUCCPS) speaking to the press on Challenges of KUCCPS indicated that shift in revenue flows was forced on Organizations by the effects of COVID-19. The organizations had to innovate, explore new horizons and re-examine their operational and Business models and how they will be more inclusive and accessible in providing higher Education in the country. Mwenda Ntaragwi, CEO Commission of University Education in Kenya, pointed out that at the onset of COVID-19. Universities sent students home, after they noticed that the Covid -19 could not go away some send students notes on E-mail, WhatsApp because teaching face to face was untenable. (Daily Nation March 15, 2021). Each institution needed continuity in business plan; instructors were not ready to use the online teaching and learning infrastructure. The infrastructure itself was challenged due to overload and poor connectivity. In the rush to cope with the changing trends resulting from the impact of Covid-19, there are possibilities that the measures put in place to curb the situation could be a recipe for triggering challenges catalyzing change in inclusion and access to higher education in Kenya.

### 3. Methodology

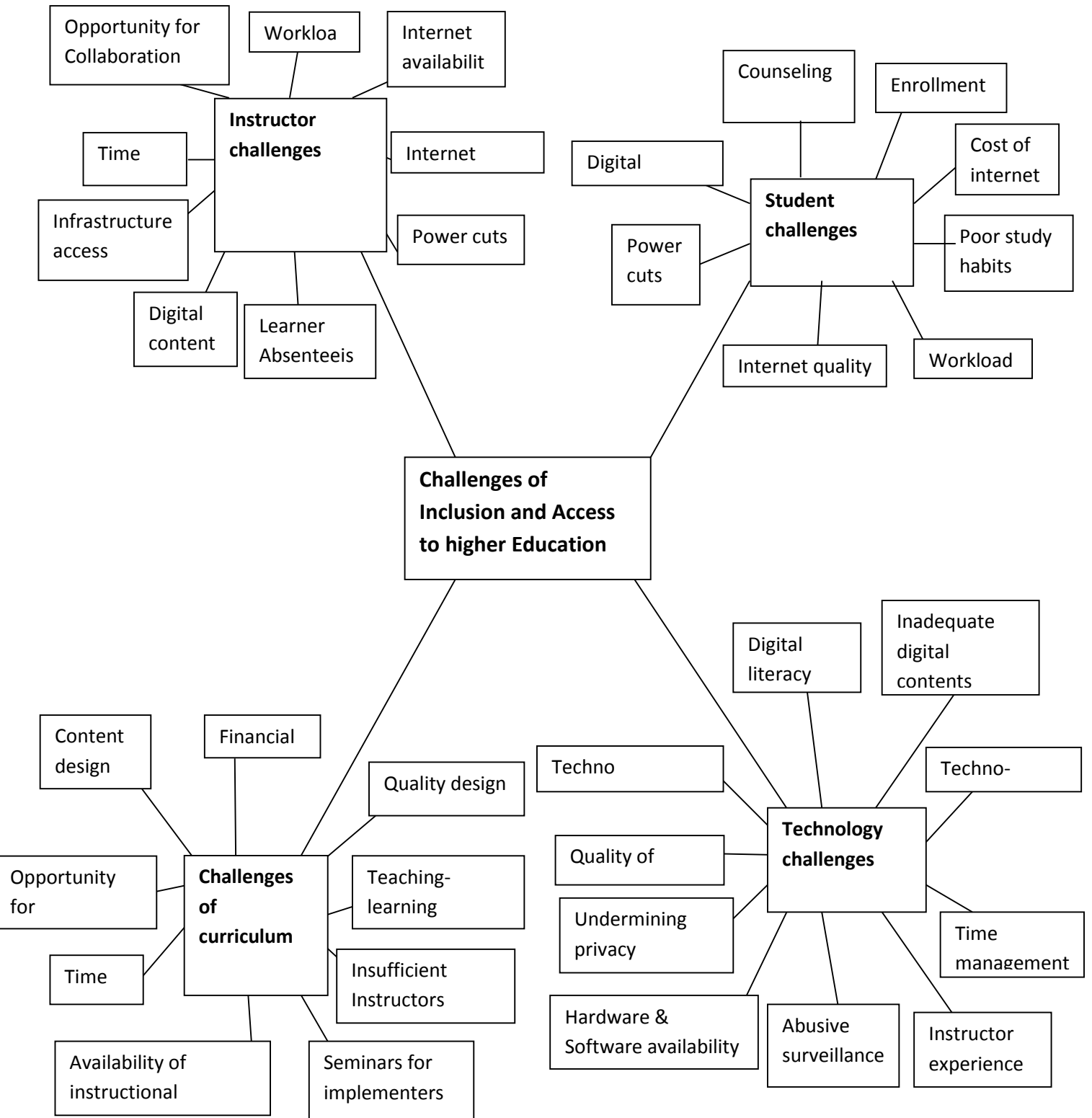
In the literature review, a number of studies related to inclusion and access to higher education during the COVID-19 to illustrate the challenges catalyzing inclusion and access to higher education during the COVID-19 period were considered. Key words such as COVID-19, Inclusion, access, Technology and Higher Education were searched in electronic databases such as Google scholar, and Elsevier and Springer link since these

are most common academic databases. For each article the abstract, introduction and conclusion were read. In total, the search generated 300 studies. After eliminating studies that dealt with similar issue 160 studies remained. The inclusion determinant for choosing studies for analysis was that: a) the subject was on challenges in inclusion and access to education, b) the research included higher education, (c) the research was done within the COVID-19 period, (c) it was published in a peer reviewed journal. After this further selection, 18 studies were chosen as shown in the Table 1 below.

### 4. Results and Discussion

The review considered studies in higher education institutions that focused on teaching remotely electronically and included three methodologies, qualitative, quantitative and mixed methods. The quantitative studies accounted for 57 %, qualitative 25% and mixed methods 18%.

After the literature review a concept map was developed to classify the factors the influence virtual teaching and learning in higher education institutions. From the study a total of four main areas were identified that included; Technology, learners wellbeing, instructors challenges, technology and curriculum. See the concept map figure below.



**Fig. 1: The Emerging Factors Influencing Access and Inclusion in Higher Education Institutions**

**. Table 1: Selected studies on the challenges catalyzing Access and Inclusion in Higher Education Institutions during the COVID-19 era. From the literature which was available during this period**

Author	Subjects	Method	Data sources	Country
Bashir Amed Abshir (2020)	Undergraduate students	Quantitative data analysis	Interview of 200 students using Solvins formula	Somalia
Michael et al. (2020)	University lecturers	Quantitative study	Online Questionnaire	Indonesia
Alhendawa and Lassoued (2020)	Lecturers and students	Mixed methods	Questionnaires	Gaza Countries
Maria and Sandro (2020)	Literature sources	Mixed methods	Document analysis, articles and books	26 countries
Aristovnik et al.(2020)	Students	Quantitative	Interviews	62 countries
Loreto HangweSokhulu (2020)	Five postgraduate students	Qualitative case study	Semi-structured interviews focus group discussion and questionnaires.	South Africa
Elumalai et al.(2020)	Students	Cross-sectional Quantitative study	Questionnaires.	India & Saudi-Arabia
Wangui and Igado (2020)	University graduates	Quantitative	Questionnaires	Kenya
Seema Joshi (2020)	University faculty and students	Quantitative	Questionnaires	India
Bibi et al. (2020)	Educators	Qualitative	Open ended questions	Malaysia
Godwin and Kelvin	Students	Quantitative	Survey questions	Namibia
Mutegi (2020)	Students	Desk top review	Review of literature.	Kenya
Manisha and Archana (2020)	Lecturers	Quantitative	Questionnaire	India
Eugene (2020)	College students	Descriptive phenomenological design	Phone interviews	Ghana
Khalaf (2020)	College students	Quantitative	Questionnaires	India

**Table 2: Classification of studies according to the challenges for access and inclusion of education in higher learning institutions**

Author	Characteristics	Challenges for access and Inclusion in Higher education
Michael et al. (2020)	Three major techno complexity factor influence the online teaching performance of lecturers in the condition of COVID-19 pandemic, techno overload, techno insecurity and techno uncertainty.	Lecturer and technology challenges
Alhendawa and Lassoued (2020)	Inclusion and access 89% of learners from 188 countries were affected, caused shock and tension due to lack of time, poor infrastructure and inappropriate digital content.	Learner wellbeing, Instructors, Technical, pedagogical, infrastructural, organizational and financial.
Maria and Sandro (2020)	Strategies for student and staff are critical, education in troubled times, promoting fair, equitable, inclusive and sustainable for all	Learners, lecturers, organizational, Technology, digital literacy. Internet availability and access, infrastructure.
Aristovnik et al.(2020)	Education to prevent inequalities, with a stress on relevancy and improvement in living standards	Learner, instructor, financial, Lack of digital competencies, perceived high workload,
Loreto HangweSokhulu (2020)	Digital literacy, professionalism	Learners, lecturers, financial, Technical
Elumalai et al.(2020)	Quality of e-learning from student perspective. there is a relationship between e-learning and the seven factors	Administrative support, course design, instructor characteristics, learner characteristics, social support and technological support.
Wangui and Igado (2020)	Education in the twenty first century not useful sufficient, and relevant for modern life.	Learners, parents, education not relevant and not sufficient in the covid-19 era
Seema Joshi (2020)	Preparing future ready digital workforce by greater use of alternative modes of learning, achieving the goal of education for all, equity and all inclusive oriented	Learner and lecturer technophobia, Financial, digital literacy, digital content, lack of training, cultural and inequality limiting inclusion and access.
Bibi et al. (2020)	Findings indicated that institutions to provide more comprehensive e-learning platforms, good internet, train lecturers	Learners less focused, learning medium not satisfactory, poor and inaccessible internet for learners and faculty, leaner absentees from online classes, financial
Godwin and Kelvin	Findings indicated that mobile devices were the primary gadgets to access academic content; results yielded five themes system accessibility, platform layout, access to internet and network, isolation and home environment.	Access of internet difficulty due ti high traffic, platform layout makes navigation difficult, financial, social factors environments congested and noisy,
Mutegi (2020)	Determine equity and access to all learners. Results indicate inequality in access to ICT facilities. No access of internet to rural and poor families	Learners, Parents, Internet quality and access, Infrastructure, inequality in distribution of internet, infrastructure and resources for instruction.
Manisha and Archana (20200)	Teacher readiness for online teaching, indicate course design, findings indicate that course design, communication and time management competencies are not sufficient among teachers hence learners and teachers need to redefine their roles	Pedagogical, recruit and re-train teachers, course design, inadequate competencies to handle online courses
Eugene (2020)	Found that there has been rapid development of curriculum for online learning, adoption of software and platforms foe online learning.	Overall perceptions, household production, challenges with devices, connectivity problem, internet quality and access, nature of online learning
Khalaf (2020)	No proper communications between lecturers and students, parents lack experience in technology,	Learners well being, collaboration, Lack of experience in Technology, pedagogical, Technical, power cuts and internet connectivity.

## 4.1 Learner challenges

From the literature reviewed, a number of learner challenges that influence inclusion and accessibility to higher Education can be identified. Godwin and Kelvin (2020) from their study in Namibia on the learner's experiences with e-learning indicated that system accessibility, platform layout, access to internet and network, isolation and home environment were the major determinants of access and inclusion to education. From their results majority of students used mobile devices such as smart-phone, laptop and tablet to access internet, 66% of the learners used data packages, 31% used home wifi while 11% had no access to internet. The e-learning system was unresponsive most of the time due to high user traffic. The platform layout was complicated and this made navigation by the learners difficult. The cost of internet was high despite the fact that it was loading very slowly. A number of students were staying in areas that were noisy and congested making it impossible to learn. These results indicate high inequality levels of access to ICT facilities (Mutegi, 2020). Similar findings were obtained by Eugene AduHenaku (2020); Manisha Paliwal (2020); Khalaf (2020); Alhendawa (2020) where five themes emerged on online learning experiences with college students namely Nature of online learning, Connectivity problem, internet bundle, challenges with the device, environment and overall perception. These studies explain the themes and how each one of them contributed to access and inclusion of learners to higher Education.

This study found that students faced a lot of challenges, internet connectivity as a result of high cost of bundles, challenge with devices, and disruption of electric power. The near ideal description is given by Bates (2003) who coined an acronym that summarizes the learner challenges. This acronym updated for SECTION: students, ease of use and reliability, costs, teaching and learning, interactivity, organizational issues, novelty and speed). If these challenges are not addressed, this will lead to higher education being inaccessible and exclusive.

There is an apparent renewed interest to teach and learn remotely since the onset of COVID-19, the migration from Face to face to online learning was done hurriedly. For more lasting results it needed reflection, proper planning and scouting for adequate resources. In many settings ICT is influenced by local, cultural, political and economic conditions. Political conditions seem to play a major role since they influence greatly how the finances and other resources are distributed and who is assigned to oversee the implementation.

To maximize access and inclusion, some countries have implemented specific actions with the aim to improve online learning. They have improved infrastructure to enhance connectivity and access to the learners. Some have introduced self-paced platforms which allow learners

a great flexibility and freedom of advancing at their own pace (UNESCO, 2016). In these countries the focus is specifically on groups such as learners, teachers, parents, caregivers and any other members that are at risk. Issues to do with inadequate content dissemination which arise from access to gadgets, unreliable electricity, access to internet in some remote areas, weak parental supervision, unavailability of space and conducive learning environment, data security and cyber bullying, uncertainty in student enrollment, advising and counseling learners remotely need to be comprehensively addressed.

## 4.2 Teacher/Instructor challenges

Teacher's competencies are crucial in higher education institutions. With the onset of the COVID-19 teachers in higher learning institutions were faced with new challenges. A study by Manisha Paliwal (2020) evaluating teacher's preparedness to handle online teaching based on competency model indicated that course design, communication, time management competencies are not sufficient in higher education institutions in India. Due to a number of implications recruitment, training and certification of faculty with the required competencies may be necessary because the success of teaching remotely depends on how teachers migrate from the traditional face to face to the more complex online teaching (Comas Quinn (2011).

In this category of instructor challenges (Bibi et al. 2020) points a number of teacher challenges ranging from Lack of experience of lecturers to teach online, learner absenteeism, poor internet connectivity, lack of time, unreliability of power, workload and inadequate time.

Unstable internet access, unsatisfactory learning platform medium, limited capacity, complexity, insecurity, overload, lack of adequate digital content and uncertainty influenced the online teaching performance of lecturers. In continuous time it interferes with performance. It is stressful in running teaching methods that shift to online media thoroughly and quickly causing techno stress (Daniel 2020; Michael et al. 2020). Li et al (2020) observes that it is undeniable that many benefits come along with remote learning, enhances productivity, convenience, trying innovative ideas thus accomplishing more work.

Due to lack of adequate time, inappropriate digital content, reliable and sufficient infrastructure caused shock and tension among faculty students and parents. The question that should be on focus is does the hurry to teach remotely trigger and nature inequalities in higher education institutions. The political divide is bringing gaps in inclusivity as a matter of urgency, there is need for short term and long-term strategies that can create a truly inclusive campus which can nurture systematic equity, inclusivity and democratic engagement. Deliberate efforts should be exerted to work on programmes and resources on inclusivity. Other emerging global issues like vaccine

compliance, white supremacy, racism, ethnicity, sexual orientation, gender identity, legal and ethical boundaries on self expression and academic freedom have their toll on access and inclusive higher education in this era of COVID-19.

### 4.3 Technology challenges

Technology issues such as modes of learning, Internet access, connectivity and cost are part of what is catalyzing change for inclusion and access to higher education institutions during the COVID-19. The major obstacles in this category include availability of hardware and software, time management, techno-complexity, inadequate digital resources and teacher learner attitudes.

One of the key issues that play a major factor as pointed out by Michael et al (2020), is the Techno-complexity. The techno factor influences online teaching performance of the lecturers and learners during the COVID-19 period. This influences the teaching –learning method, the sudden change from face to face automatically by the lecturers and learners using online media support affect both learners and lecturers. So far, continuous use can interfere with performance. This interference begins with discomfort and can develop to stress. Stress in teaching online using technology (Techno stress) is caused by the use of information communication Technology. Further, it is observed that techno stress can cause tension, shock and anxiety among students and faculty. Due to lack of time, poor infrastructure and inappropriate digital content, unreliable and insufficient hardware and software it can be compounded further.

### 4.4 Challenges of curriculum

One key issue that has influenced curriculum and will always continue to do so is the politics of the day. As pointed out by Eugene (2020) there has been rapid development of curriculum for on-line learning, adoption of software and platforms for online learning. Further he observed that overall perceptions, household production, content design, internet quality, experience in pedagogy and nature of online learning influence are the major challenges. Munish and Archana (2020) from their findings indicate that teacher readiness for online learning, course design, adoption of software and platforms for learning are part of the challenges of curriculum.

## 5. Conclusion and Recommendations

### 5.1 Conclusion

Findings from a number of studies indicate that there is a serious desire for each institution of higher learning to position itself to keep pace with the challenges for access and inclusion in Higher education. Overall perceptions indicate that a number of challenges need to be mitigated to narrow the gap between the haves and the have-nots in terms of, inadequate competencies, inequality in workload, learning environments, internet access speed and connectivity, collaboration, economic imbalance and attitude change in all the players in the higher education academic arena. These inequalities can easily widen or narrow the access and inclusion therefore they must be mitigated.

### 5.2 Recommendations

- a. To achieve equity, access and inclusion in the COVID-19 era, the educators must first provide a clear picture of existing inequalities in terms of access to online learning facilities and what steps we need to take for catalyzing inclusion and access to higher Education.
- b. UNESCO (2020) indicates that governments cannot condone the levels of inequality that have emerged in many countries in the planet earth. It is only 11% learners in Sub-Saharan Africa have a computer, only 18% of households who have internet compared to the developed world where 50% of households have computers and 57% have access to internet (UNESCO, 2020).
- c. Education policies need to be guided by shared principles and visions of desirable collective futures, common good for all, universal public education and global solidarity.
- d. Public Education should not be depended on digital platforms provide by private companies such as Safaricom, Airtel etc.
- e. Efforts should focus on open licensing and open access policies that facilitate no cost use, re-use, repurposing and adaptation prioritizing open Educational resources.
- f. Sensitize parents, guardians and caregivers to know how to manage the learners while at home.
- g. Provide guidance and counseling services remotely
- h. Review ICT integration policy to ensure proper investments are made to narrow the digital divide, including debt cancellation, restructuring and ways of financing to minimize the digital divide.



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