AJLLSE GLOBAL RESEARCH NETWORK

AMERICAN Journal of Language, Literacy and Learning in STEM Education
Volume 3, Issue 7, 2025 ISSN (E): 2993-2769

Video Technology: A Much Needed Resource in Nigerian Education

Ibiye Omieibi-Davids
Department of Educational Technology, Faculty of Education,
Ignatius Ajuru University of Education, Port Harcourt, Nigeria
ibimieye@yahoo.co.uk

Abstract. *Video is technology that involves the recording and playback of moving pictures and sound. It is any electronic medium that is used to record, copy, playback, broadcast and display moving visuals. It has revolutionalised education in recent times. This is because education is no longer restricted to the four walls of a classroom as people can learn anywhere, anytime and in any situation. This work has focused on the proliferation of video technology and the reasons it is and should be embraced in the Nigerian educational system. Some of the reasons are the recuring global health issues like COVID, Ebola and bird flu which shouts down towns and nations; seasonal floods, insecurity; a favourable ICT in Education policy, and so on. It also discussed the challenges facing its use as a medium of instruction. Some of the challenges are non-implementation of government policies by state and local governments who have the responsibility; shortage of digital infrastructure and skills; ignorance, and technophobia; lack of motivation, and so on. Some solutions have been identified as to how a lot of the challenges can be overcome. Video technology is a huge industry. The country stands to gain massively if it is effectively used in the educational system.*

Key words: *Video Technology, ICT in education, Nigerian education, Use, Challenges.*

INTRODUCTION

Educational Technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and devices (Richey, 2008; Januszewski & Molenda, 2013). In doing this, appropriate processes and resources are used to solve existing problems or issues of learning and teaching. Just as the problems existing presently are different from the past, the processes and resources that are available or necessary for solving these problems are different. Technological processes are relative to the time and problem. What was a problem in 1990 might not be a problem in 2025; the resource applied to solve a problem in 1990 might also not be what is used to solve the same problem in 2025.

When James Pillans, the Scottish geography teacher and headmaster of Old Boys' High School, Scotland, had a problem of his learners not having simultaneous view of his visuals to teach Map Reading in 1801, he came up with the idea of having a large slate placed at the middle of the wall. This slate, which became eventually known as the Chalkboard, was a technological feat at the time. This is because that was the level of technological advancement at the time. It was a technological feat because it solved a major problem that challenged teachers and the school system at the time, and that was having a central place for the teachers to write and put up illustrations for the children to see simultaneously (Resilient Educator Editorial Team, 2012; Januszewski & Molenda, 2013). Presently, the use of the chalkboard is no longer seen as a technological feat. It is no longer seen as an appropriate technological resource even though it is still relevant to the educational system. While

there are different types of chalkboards that are still very relevant presently, the needs of learners and what constitutes simultaneous or technological resources are quite different.

The educational needs in the world have since gone beyond just trying to meet simultaneous visuals in the classroom situation where the learners sit at a place, looking at a board on the class wall. The educational needs have to do with using instructional resources that capture and engage learners' attention. It also has to do with providing learning situations in which they can learn even on the go, at work, in their offices, and so on. This need was made much clearer since February, 2020 when the world was hit by a global pandemic which caused restrictions in movements, including going to school. For a whole year, the COVID crisis prevented operation of schools in the way we have always known them – being physically present in classrooms. The only way students could learn was through video technology (Kang & Van Ouystel).

Just like the rest of the world, Nigeria was also hit with the closure of schools associated with the Coronavirus. Nigeria had also been hit with other health pandemics like Ebola, Bird Flu and Lassa fever that caused restrictions in movement and saw to the closure of schools. Apart from health issues, the country has had other situations that had led to long closures of schools. Some of these are seasonal floods; dam breakages and release of water from dams; political, tribal, ethnic and religious crisis. There is also the case of migrant folks like fishermen and farmers whose children move along with their parents and so cannot attend regular schools. All these situations require technological interventions that enable the children learn privately and still have the feeling of being part of regular classrooms. Video technology has the characteristics to meet these requirements.

VIDEO TECHNOLOGY

Video is technology that involves the recording and playback of moving pictures and sound. It is any electronic medium that is used to record, copy, playback, broadcast and display moving visuals (Cambridge Dictionary, 2025). The use of video goes beyond just sitting down to watch content on video. Video technology also involves interactive video which is designed with the view that learners interact with them to understand concepts related to learning outcomes (Better video content, 2023; Henrikson, 2024). Video Technology refers to the use of moving images in communication. Thus, video technology encompasses film, television and video in all its various forms. It also includes all computer files in video format such as MP4, MOV, M4V, AVI, DivX, FLV, DVD or Blu-ray disc (PCMag Encyclopedia, 2025).

Video technology has come a long way since it was first discovered. It been in existence since the 1890s when all viewers saw was a few minutes of multiple shorts. It became very popular in the 1930s when 65% of the people in the United States of America (USA) were said to be attending movies every week. From 1950 to the 1990s it was the turn of the television to hold the world captive. First it came as little cathode ray boxes showing black and white pictures; then it was colour pictures in the 1960s and then as flat screens in the 1990s. By the 2000s it was the turn of the computer. What has really revolutionalised video technology, allowing for on-the-go viewing and recording are the laptops, tablets and mobile phones (HandZaround, 2018). They revolutionalised video technology from that of just sitting watching films to learning anywhere, and what is viewed take the shape of instructional films, tutorials, synchronous and asynchronous lectures or presentations that had been previously recorded (Sharma, 2024).

TYPES OF VIDEO TECHNOLOGY

There are several types of video technology in use in communication. Some of these are the following: Video Conferencing is one of the types of Video technology. It is a real time communication process that uses audio and video transmission over the internet which allows participants in different locations to have virtual face-to-face interaction (Owl Labs Staff, 2023). It is a meeting on a digital platform that enables the participants to see and hear each other, collaborate by sharing documents, presentations and brainstorm to solve problems; and connect globally by breaking down geographical separation. In video conferencing, the participants are in different locations but they have a live face-to-face visual connection over the internet (Chai & Lazar, 2025; Kang & Ouystel; Suduc et al, 2023).

Lecture Capture is another type of video technology. This is the recording of a lecture or presentation delivered by the class teacher that is made available for the students. It is a system that allows teachers to record their teaching sessions on video and make these recordings available to their students. It is done with lecture capture solutions such as the Video Management System (VMD) hardware and software that enables the teacher capture live lessons with the click of a button and make it available to his students on their personal devices (City University of London, 2025). Lecture capture has many benefits. It enables the students revisit lectures that they have already had at their own pace and time. It allows students who might have missed the lectures opportunity to have access to the lesson. It is a reference point for the teacher to review his own lecture to determine how it can be improved. It also gives the teacher a record of lesson taught

Virtual Reality is quite a common type of video technology. This is a technology that uses computer-generated simulation to create immersive integrative experiences that allow users to explore and interact with artificial three-dimensional environments. It is the use of computer modelling and simulation to stimulate a three-dimensional image or environment that can be interacted with in a seemly real or physical way through the use of special electronic devices that send and receive information such as helmets, goggles, headsets, gloves and body suits (Lowood, 2025)

Animations is a types of video technology that is particularly popular with young learners. Animations are a film making technique in which still images are manipulated to create moving images. They are the creation of illusions of movement in a sequence in fast succession in a way that shows motion. It is the process of turning still images into moving images using technologies to create a specific effect (Maio, 2025; Lycke, 2023). They are great resources for educational videos. Ani maker is an online platform that empowers users to create animated videos with ease. A class teacher can create animations with the names of his kindergarten or primary level children to teach various concepts in the classroom using this facility

Multimedia Presentation is still another type of video technology. This is the presentation of content that combines text, images, audio and video in a dynamic engaging way that offers an interactive experience. Multimedia is the application of interactive digital formats to share information, stories or ideas that use a combination of media to create a more engaging informative experience than a standard text or a traditional single-medium presentation (Gartner, 2025; Hameed, 2025). It is content that uses electronically delivered combination of media that can be accessed interactively (Beal, 2018). Such content can be presented or used in the learning situation with or without the presence of a teacher. When it is physically presented by the teacher in a face-to-face classroom interaction, it is presented with the use of a computer, multimedia projector or some other telecommunication device like a smart phone. They can include text (written words), audio, still images like pictures, animations and video (moving images) (Vaughan, 1993; Pun, 2013; Beal, 2018). PowerPoint presentations on our computers is a good example of how this can be done by the classroom teacher

Documentaries are a good source of video technology. Also known as Documentary films, they are non-fictional video recordings intended to document reality, primarily for the purpose of instruction, education and historical record (Oxford English Dictionary, 2025). They are movies that tell the fact about actual people or events (Biesterfield, 2025).

News Reports, which were originally in written forms only, are now good sources of video technology. New reports are factual accounts or stories about recent events geared towards informing readers and viewers of happenings in the world around them (Wet Tropics Management Authority, 2025). These are written or broadcast information about current events that typically involve politics, social, economic and cultural issues and events that happen locally and internationally. They are typically produced by journalists and are intended to inform the public about important persons, issues and events. They are important in the educational system because they address issues that can be used as references and examples of what is learnt in the classroom situation

Films are a form of video technology used in communication. A film is a series of still photographs, taken and projected in fast succession that is used to communicate ideas, stories, perceptions; to stimulate experiences and evoke emotions (Stephenson & Andrew, 2025). There are various types of

films, but some of the most popular types used in education and Biological and adaptation films. A biographical film, also known as historical film or biopic, is a film that dramatises the life of an actual person or group of people. It is a film that shows the life of a historical individual or the historically important parts of their lives (Bastin, 2009). Examples of this are Harriet Tubman, Ray, etc. An adaptation film is a firm that transfers fiction work or into a film. An example is the film 'Things Fall Apart' which is an adaptation of Chinua Achebe's 1958 fiction into a film. Films give us better understanding of people, events and situations, whether fiction or non-fiction.

Video Clips are another source of video technology**.** Video clips are short videos of a few seconds to a few minutes that are specially designed to convey a clear concise message. They are a small part of a larger video that is specifically designed for quick consumption for an advert or social media presentation. The features are that they are not longer than 15 minutes; they are not for entertainment as they provide useful practical content to viewers and can take a variety of forms (Digiforma, 2025).

Gamification is one of the trending types of video technology. This is the application of game design elements, principles and mechanics into non-gaming contexts to enhance motivation and engagement. It is the integration of game elements into conventional learning activities that allows them to them see learning as a playful process and experience that enables them choose to explore and practice content, earn badges, achieve levels and compete with others in a virtual learning setting. It uses digital technology to incorporate social elements of teamwork and communication (Department of Education, Australian Government, 2024; Kurt, 2023). It is the incorporation of game elements into educational environments (Dichev & Dicheva, 2017).

PROLIFERATION OF VIDEO TECHNOLOGY IN COMMUNICATION

Video technology has become the most powerful medium available in communication. Digital methods have superseded all other forms of communication that ever existed. The proliferation of video technology in communication is driven by its engaging nature and ability to enhance communication (Rogers, 2019; Chain Reactions Admin, 2023). Video content is said to be dominating the media presently. Some statistics available for the dominance of video in the world media usage are the following:

a. People watch 16 hours of video weekly on the average

b. People watch a billion hours of video daily on YouTube as at November, 2024 (Cook, 2024)

c. 1.59 billion people worldwide actively use TikTok, a social media platform that focuses on short videos as of January, 2025 (Kepios, 2025)

d. As of 2021, 80% of global internet traffic consist of video (Cowan, 2020).

e. Video is top content strategy, trumping infographics and blogs.

f. 60% of Millennials and Gen Z consumers watch streamed video content daily.

g. 14% of millennials watch 10-20 hours of online video each week (Sheperd, 2025; McCormick, 2024)).

h. 82% of people would rather watch live videos than read social media post.

i. Viewers retain 95% of a message when they watch it in a video compared to 10% when reading it in a text (McCormick, 2024).

j. More than 90% of all video views come from mobile devices

k. 500 hours of video content are uploaded to YouTube every minute (Fay, 2024).

l. Only 25.9% of people who view online content watch educational videos (Oberlo, 2024).

BENEFITS OF VIDEO TECHNOLOGY

The benefits of video technology in communication are the following:

1. The combination of visual and sound it provides help to gain the attention of viewers

2. Video allows people to have the fast and easy information that is desired in today's world

3. It creates a more personal interaction between people in various situations

4. It is much more efficient for people to click on a video link than it is for them to read a page of text (Luke Direct, 2013).

USE OF VIDEO TECHNOLOGY IN EDUCATION

Video Technology is the recording and use of moving images in communication. There are many uses of this form on communication in education. Some of these are the following:

i. It is used to introduce new topics and review content

ii. Visual stimulation grabs students' attention

iii. Video can be used to accommodate people with short attention span

iv. It is possible to access archived content*

v. It helps in curating and documenting learning artifacts

vi. It provides low-cost fieldtrips

vii. It emphasises and improves digital literacy

viii. It leverages game-based learning (Gamification and Engagement)

ix. It exponentially expands remote teaching opportunities

x. It addresses absences

xi. It serves visual learners (Teach Thought Staff, 2012; ViewSonic, 2012)

xii. Variety of learning materials

xiii. Allows for different rates of learning (slower learners can watch it as many times as required to enable understanding)

xiv. It can be used as for pre-lesson preparation (students are required to view materials at home before coming to class -flipped classroom)

xv. It provides expanded experiences

xvi. Good for learning remotely

xvii. Encourages responsive learning (triggers discussion)

xviii. For learning social skills (ViewSonic, 2023)

xix. Can be viewed by all the students (ubiquitous)

xx. Authenticates information

NEED FOR VIDEO TECHNOLOGY IN NIGERIAN EDUCATION

Video Technology was not popular in the Nigerian school system before the Coronavirus pandemic in 2020. Since then, there has been increasing acceptance and use of this technology in its various formats in the school system. This section looks as all the various factors that necessitate its use in the Nigerian school system.

Covid 19. In early 2020, the world woke up to stories of a virus spreading through China. This virus spread rapidly through every continent and most countries of the world and eventually led to a global lockdown. This virus which was named Coronavirus (COVID-19) was a virus which was spread from an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, sing or just breathe. When this happens, particles are carried about in the air and drops on surfaces around that person for some time. It affects anyone that breathes in the air or comes in contact with anything the particles attach themselves to. For this reason, COVID-19 was a very infectious disease with no

known vaccine or treatment. It killed millions of people at a very fast rate all over the world. To prevent this, people all over the world were made to stay indoors. This affected many aspects of life.

Educational institutions and public areas were partially or fully closed in many jurisdictions (Gita, 2020; World Health Organisation, 2025). Schools were closed for months and almost 2 years in places like China, Italy and United States of America. To prevent boredom and a waste of school year, school systems introduced various forms of online learning platforms and packages to engage and educate children. This made the use of Video Technology popular in instruction. Even with the end of the Coronavirus, a lot of school systems have continued with the trend started during the lockdown (Egielewa et al, 2021; Eli-Chukwu et al, 2023; Massner, 2021).

COVID-19 was a pandemic. A pandemic is a large-scale outbreak of infectious disease that can greatly increase morbidity and mortality over a wide geographical area and causes a significant economic, social and political disruption. It is a worldwide outbreak that has high prevalence which usually occurs over a course of months (Rogers, 2025; Madhar et al, 2018). COVID-19 is not the first pandemic known to man in recent times. There has been Ebola virus disease (EVD) which breakout in 1979, 1994 and 2014-2016, mostly in Central and West Africa, Spain, the United Kingdom and United States of America (UK Health Security Agency, 2025). Ebola, a virus that caused severe bleeding, organ failure and rapid death, was a highly communicable disease which was transmitted through contact with bodily fluid of an infected person or a contaminated object was enabled through blood, urine, faeces, saliva, sweat, vomit, breast milk, semen or vaginal fluid (World Health Organisation, 2023; Centre for Disease Control, 2024). Lassa fever, an acute illness caused by the Lassa virus which is transmitted by exposure to household items contaminated by the urine or faeces of the Mastomys rat, popularly known as long mouth rat, is another pandemic. Mostly occurring in Nigeria, Lassa fever is spread through person-to-person exposure to the blood, urine, sweat or exposure to other bodily secretions.

There is no end to the occurrence of pandemics in the world that are likely to cause restrictions of movements. This is possible to increase in future because of global travel, urbanisation, land use laws and greater exploitation of the natural environment (Madhar et al, 2018). This is because the causes of most of these pandemics have been traced to man's interaction with animals in the wild. Thus, as long as there are reasons for pandemics to occur, there is likely to be closures of schools, and then there will be continuous need for online instruction which will require the use of video technology.

Floods. Floods are another set of things that necessitate the need for video technology in the Nigerian school. This is because they cause displacement of people for weeks and months and so normal face to face class cannot hold. Floods are overflow of water that submerge land that is usually dry. They happen due to heavy and persistent rain; surge of ocean water at high waters; dam and levee breaks and fast melting snow. Floods can be only a few inches of water or may cover rooftops; they can also be for only a few days or last months (National Severe Storms Laboratory, 2025).

In Nigeria, floods are a seasonal thing in many riverine areas. It is a recurring problem in Nigeria and is one of the most prevalent natural disasters in the country. It is perennial and has been a concern for a long time (Echendu, 2021; Umar & Gray, 2022), but the floods of 2012 and 2022 were particularly devastating for the entire country. Apart from fast melting snow, the country has all the other problems mentioned by the National Severe Storm Laboratory (2025). Other problems that have caused floods in Nigeria are poor town planning which does not provide outlet for water to run off, even in riverine areas; inadequate or lack of drainages; poor waste management which leads to blocked water ways; higher rainfall due to climate change (Echendu, 2023; Echendu, 2021)

Floods have affected a lot of people and had devastating effect on the people. In 2012 and 2022, floods affected 30 and 33 states of the country's 36 states respectively. In 2022, 603 people were officially declared dead due to the flood. It injured 2,400; affected 200,000 hoes; 332,327 hectares of land and 110,000 agricultural lands. The effect of this was the displacement of 1.3 million people (Oguntola, 2022; National Bureau of Statistics, 2023; IkonAllah, 2023). In June 2024, floods occurred because the Alau Dam collapsed and 400,000 people were displaced in Maiduguri, Borno State (Kalu, 2024; Shibayan, 2024). In December 2024, 81 locations in Lagos were impacted by floods

(Onyegbuta, 2024; Olajide, 2024). This displacement of large of large numbers of people is continually occurring as a result of floods. In a country with a majority youth population, it will be a fact to conclude that a large number of children did not attend school during these long periods of flood. These children do not have to lose out on having their education because of a problem that is no fault of these. Video Technology will certainly alleviate this lose to some extent even if they moved house for the waters to recede.

Government Policy. The Nigerian government recognises the power of digital technology and deliberately put up policies to encourage its use in the educational system. This policy is clearly stated in several documents of the federal government. Some of these are the National Vision, National Policy on Education, National Information and Communication Technology Policy, National Information Technology Education Framework, and the Ministerial Strategy Plan for the Education Sector. It is these policies that enabled the use of Computer-Based Test for the conduct of the Unified Tertiary Matriculation Examination UTME) by the Joint Admissions and Matriculations Board (JAMB) and the post-UTME by many tertiary institutions (Federal Ministry of Education, 2019a). The ICT in Education policy in Nigeria is geared towards achieving the following:

a. increasing access through distance learning as ICT can provide new and innovative means to bring educational opportunities to greater numbers of people of all ages, especially those who over the years have been excluded, such as populations in rural areas, women facing social barriers and people with disabilities;

b. creating a knowledge network for learners given the fact that information has a crucial input in the productive processes within today's economy;

c. training teachers and trainers since large numbers of teachers/trainers will be needed to meet the national vision and SDGs for education as well as provide opportunities to complement on-the-job training and continuing education for teachers/trainers;

d. broadening the availability of quality education materials {arising from the fact that} network technologies have the potential to increase the availability of quality educational materials.

e. enhancing the efficiency and effectiveness of educational administration and policy as new technologies can help improve the quality of administration including human resource management, student registration and monitoring of enrolment and achievement (Federal Ministry of Education, 2019a).

Shortage of Physical Infrastructure. There is a dire shortage of physical facilities in the school system, especially public schools. These could be laboratories, workshops, studios and the necessary equipment and furniture to go with them (Federal Ministry of Education, 2019b). In some situations, there are the buildings and furniture but no chemicals to use in laboratories. This is particularly a problem when learners need to carry out practical activities. In such cases the alternative is to present learning situations that will show people demonstrating the desired skills. This can be provided by the various forms of video technology (Alden, 2023).

Kidnapping. Kidnapping is the abduction of an individual with the intent to demand ransom (money) or compel him/her to do something against his or her with. Gaining notoriety with political kidnapping which started in the petroleum industry in the Niger Delta in the early 2000s, it is seen as a lucrative business and shortest means to wealth by those involved in this crime. It has become a major problem in Nigeria and everyone is a target, because there is Boko Haram kidnappings, IPOB kidnappings and commercial kidnappings (Ogundipe, 2019). This frightens people in certain situations and locations and makes it impossible for them to be physically in school. This includes teachers and students at all levels of the educational system.

Cultism. Cultism is a ritual practice by a group of people whose membership, initiation, policies and activities are done in secret. It started in 1952 from the campus of Nigeria's premier university to protest British colonial rule and elitism; it is now practiced outside the educational system in various forms and has become a major social problem in the Nigeria society (Classhall, 2023). Cultism in its current form is dangerous to the society because it involves the use of hard drugs, stealing, killing

gun wars, violent behaviour, kidnapping; sexual harassment and indiscriminate rape of females, pulling dangerous weapons at non-members or members of other cults; torture, flogging, and so on. The twin disasters that kidnapping and cultism initiate in the society keep citizens of the society off the streets at some timers, or make them constantly fear in their lives. Such situation makes the use of video technology necessary in the Nigeria society.

Violence. This is the intentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation (Saferspaces, 2025). It is the use of force to harm or degrade another person. This force does not have to be physical, as many construe it to be. It could also be psychological which includes bullying, threats, intimidation, emotional, harassment, defamation; deprivation which includes the failure to provide basic needs such as food, shelter, healthcare; and sexual which includes any sexual act performed on an individual without their consent (Council for Europe Portal, 2025; Saferpaces, 2025; European Institute for Gender Equality, 2025). Violence causes humiliation, abuse, injury, distortion, destruction, damage, infringement of rights and shame to those it is perpetuated against and could prevent them attending school permanently or for some time.

In Nigeria there are strong incidences of violence. There is political violence, religious violence, ethnic violence, communal and intercommunal violence. There has been violence from Boko Haram and Islamic State in the North; Cattle rearers and farmers in different parts of the country; the Niger Delta militancy in the South; the IPOB and ESN crisis in the South East, and so on. And then there is the master of all the violence, which is politically motivated violence, particularly during election periods. These activities constantly create situations where it is not safe to have normal school activities. Video technology helps students to learn at homes, with software programs, complete assignments and also interact with their instructors through internet communication. Most importantly, it enables learners to critical acquire skills at homes without having any run-ins with the cultists because they can concentrate with their own hardware and software at their various stations. Since, this menace has come to stay in Nigeria, video technology platforms can address such gaps and find a balance between such dangerously mixed-up environment to learning experience and secured environment.

Shortage of Qualified Teachers. Teaching is involving an individual in activities that brings about desired changes in their behaviour. Thus, the teacher is an individual that involves other people in activities that bring about desired changes in their behaviour. In traditional education every member of the society was the teacher but in modern times this is not so. A teacher is an individual who is professionally qualified to engage learners in activities in a particular subject area to bring about necessary changes. To be professionally qualified in the Nigerian school system, an individual must have attained a minimum of a Nigeria Certificate in Education (NCE) from a college of education. This ensures that every teacher in the Nigerian school system has qualification in the principles and practice of teaching, in addition to qualification to teach a particular subject.

However, this has not been the situation in the country's education system. People who do not have such qualifications have been found to be massively employed in schools. Some do not just have a qualification in education, they do not have more than post-basic education certificate. In a study carried out by this writer in 2023 (Omieibi-Davids, 2023), it was discovered that only 14% of the teachers were professionally qualified to teach in primary school in Rivers State. A recent report placed the shortage of primary school teachers in the country's public schools at 195,000. The report says the existing shortage is made worse by qualified teachers leaving due to bad working conditions such as non-payment of salaries, long delays in payment of salaries, long periods without promotions (Punch Editorial Board, 2025).

Another instant of shortage of teachers is the shortage of teachers in certain subject areas. For more than 10 years History was removed as a subject from the Nigerian school curriculum because of a general shortage of qualified History teachers (Abba, 2023). Even though it has been reintroduced a few years ago, the shortage still exists. There are shortages in Mathematics, the Sciences, English Language, Religious Studies, fine Arts, and so on. In another study carried out by this writer it was

discovered that as a result of the shortage, some teachers taught as much as 5 to 8 subjects; and some teachers taught subjects that were a long way out of their league. An example is Physics teachers teaching history, Fine Arts teachers teaching Home Economics and graduates of Regional and Urban Planning teaching Religious Studies. These shortages can be checked to some extent by using video technology through video conferencing or lecture capture from schools with qualified teachers (Omieibi-Davids, 2025).

Young Learners. Nigeria is tagged a 'youthful nation' by the international community (Development Research and Project Centre, 2024). This is because majority of Nigerians are withing the age group that are tagged as youths. Seventy percent (70%) of Nigerians are under the age of 30 years and 40% of this number is 15 years. The average age of Nigerians is 17.2 years. This age group is the smartphone loving generation (Bouchrika, 2025; Ojo, 2024). This youthful love for smartphones and all its various features is paired with the availability of cheap phones and internet access to bring about an exponential increase in the access and usage of the internet in Nigeria (Balogun & Olatunde, 2020). While it is good to have phones for communication and have access to the internet, it is a well-known fact that an uncontrolled use of connected phones in the hands of young people can be an utter disaster. Akeusola (2023) recommended that there should be a tailored intervention to ensure digital well-being and literacy education. This can be done by creating educational content that captures and engages their time online. This will ensure that the hours they spend online every day are spent meaningfully.

High Cost of Transportation. Nigeria as a crude oil producing country has always had a low price of petroleum products even when the country's refineries have not been functional for more than 30 years. The government had provided subsidy on petroleum products to shield the people and the economy from the high cost of goods that would occur if the people had to pay international rates for these products. That shield was, however, removed on 29th May, 2023 when President Bola Ahmed Tinubu announced at his inauguration that subsidies were going to be removed from all petroleum products being consumed in the country. Immediately, prices of petrol which is used to fuels most cars, especially commercial vehicles went up from N189 and kept going up until it got to N1450 in December, 2024. Even though it has since come down to N898, the cost of transportation has gone up and stayed up ever since. The increase in the cost of transportation has resulted in a situation where teachers and students do not go to school every day. Several teachers' associations and states instructed their members to reduce the number of days they went to school. Notable among them is the College of Education Academic Staff Union (COEASU) which instructed its members to go to work only twice a week (Agbakwuru & Erunke, 2023); and the Government of Lagos State which directed civil servants to only be in the office 3 days a week to cushion the economic hardship in the country (Oluwafemi, 2024; Symfuni, 2024). Thus, the economic hardship caused by the high cost of transportation have caused people to formally and formally reduce the number of days they go to school. Instead of staying at home to waste their time, the teachers are required to engage their learners with assignments and activities that make them use various video technology facilities online.

Access to Smart Phone. A smartphone is a cellular telephone with an integrated computer and other features not originally associated with telephone, such as an operating system (OS), web browsing and the ability to run software applications. They are handheld devices that combine the features of traditional mobile phones with more advanced computing power and connectivity (Adeyi, 2023). They provide access to many mobile applications and computing functions, and have become integral to everyday life (Paul et al, 2023). There is a proliferation of smartphones in the Nigerian society. 66% of Nigeria's 250 million population is said to have 222.5 million smartphones with them. In fact, smartphones are said to have become the computer for many Nigerians, and they fuel massive consumption of digital services, social media and streaming content (Jaiyeola, 2025). They are used for chats, games, calls, playing music. They are the go-to place for information for most Nigerians (Diala et al, 2024).

With a majority youth population, it is inevitable that smartphones will be found in the hands of young people and in the school system. This has brought about availability of innovative software applications and connectivity; access to quality education through e-learning platforms and online

course; access to quality resources from globally renowned institutions; improved access to learning materials; reduced cost of education by giving students access to free content and books online (Nwachukwu & Onyenankeya, 2017; Gwani, 2024). The smartphone has a lot of applications and benefits for the Nigerian school system, and it is in the hands of the students. In spite of this, its use in academic activities is seen as only 24%. There is the need for policies and efforts by the schools and teachers that the students are pre-occupied by academic activities when they get on their phones instead of loss of attention, distraction and deviant behaviour (Diala et al, 2024; Nwachukwu & Onyenankeya, 2017)

Internet Connectivity. Internet connectivity has been made available with the presence of smartphones, and Nigerians are massively on-board. There are 169.04 million smartphones users in Nigeria, holding 222.5 million phones. These people have 215 million actively connected phones in 2025 (Jaiyeola, 2025; Adeyi, 2023). These phones are used to make and receive video calls, online videos and music. It is necessary for the school system to tap into this massive usage of internet connectivity to provide quality education for the country's students, especially because students in institutions of higher learning say they spend up to 5 hours on their phones everyday (Nwachukwu & Onyenankeya, 2017).

Unemployment. Unemployment is one of the factors that makes it necessary to have video technology as a means of education in the Nigerian educational system. This is applicable to the tertiary education level. Unemployment is a situation in which an individual who is of working age and is willing and able to work cannot find a job or paid employment (Hayes, 2025; Heifer & Woods, 2023; Reserve Bank of Australia, 2025). It is the proportion of people above a specified recommended age that are not in paid employment or self-employment but are currently available for work during a reference period (OECD Statistics, 2025).

Unemployment to the common man in Nigeria is very high. Stories of unemployment abound (Oluwole & Adamu, 2024; Kanayo, 2024; Churchill, 2025). This is because Nigerians see any person that does not have a corporate job or employed by government as unemployed (Churchill, 2025). In Nigeria, the unemployment rate measures the number of people of working age who are actively looking for a job and this is put at 4.8% (Trading Economics, 2025; Statista, 2025). Out of the number of employed people, however, only 15% meets the description of employment of the average Nigerian, which is employment in the formal sector. The informal sector, made up mostly of low-income vulnerable jobs without social protection and self-employed people made up 93% of employments in Nigeria (Onyeiwu, 2025; Galal, 2024).

Self-employment is working for oneself rather than for someone else. This means that the individual does not get paid by someone else at the end of the month. His source of livelihood and survival comes from whatever he generates from what he does. The self-employed person performs task for clients or customers who pay him for his services, so he devotes his time to these activities. He does not receive anything if he does not devote his time to the duties he performs to get paid.

In Nigeria a lot of the people who fall into this unemployment, employment in the informal sector with no social protection for their work and self-employment are usually young people of between 15 and 24 years who also make up the workforce (Oluwole & Adamu, 2024). Because of their fear of losing their jobs and falling into the unemployment market, those that gain admission into schools sometime forfeit their admissions or do not attend their classes regularly. For the majority in the informal employment sector and those who are self-employed, it is difficult losing customers who need their services to attend classes. Thesegroups of people are desperately in need of video technology to help them make up for the times they could not afford to be in school because they had to put food on their and their families' tables.

Redundancy of Video Technology. Redundancy is the duplication of signals of a media format. Video technology has redundancy because information that has been put on a video format will continue to be duplicated or repeated the way it is irrespective of long that video stays, who uses it, when it is used or how many times it is used. For this reason, it gives all viewers equal educational experience because the all are exposed to the same information. This is unlike the situation with

traditional fac-to-face classes where the teacher is unlikely to repeat what he does or says in one class in another class.

Proliferation of video technology. There is a proliferation of video technology in the world in recent times. This creates a situation where there are a lot of places to encounter such media. It could be any of the video conferencing with zoom, Microsoft team; WhatsApp; You Tube; Animations; Multimedia presentation; Virtual reality, and so on. People are daily confronted with such technology in daily life and have become aware of the opportunities they present. It is essential for the school system to key into these opportunities for the betterment of teaching and learning.

Personalisation of Instruction. Video Technology personalises instruction. In using Virtual Reality which a part of video technology, one is likely to get certain information because he or she clicked on a particular hyperlink. This information will not be seen by another person viewing the same document who does not click that link. While the information is available for everyone to view, the scope or amount of information that one gets is according to the tenacity or digital literacy of each individual.

Exposure to Advanced Educational Systems. Nigerians are known to love education. The highest success a Nigerian parent wants their child to attain, before anything is academic excellence. The Nigerian educational system has not received the seriousness the people have expected from it. There has been chronic underfunding, frequent teachers' strikes, shortage of teachers, poor infrastructure, in addition to insecurity which has kept children out of schools in many parts of the country (Adeosun, 2025). To ensure that their children get the education they want from them, lots of parents have resorted to sending their children out of the country to give them the best education they can afford, particularly at the tertiary level. In 2021 alone, 84,797 Nigerian students were enrolled in tertiary institution globally (World Education News Review, 2024). A lot of these students have found themselves, not in developing countries, but in United Kingdom, United States, Canada, Germany and China where they are exposed to the most advanced educational systems and resources. These interactions they have outside the country gradually infiltrate into the country through their families, friends and their returning to work in the country after their studies.

Acceptance of Online learning. Online learning has become generally acceptable in the Nigerian society, not just the educational system. In fact, it has become fashionable for parents to acquire online educational facilities for their children, even of primary school age (Egielewa et al, 2021; Eli-Chukwu et al, 2023; National Universities Commission, 2025). There are lots of private and organisational productions of online learning packages and sites. An example is *uLesson* which has become very popular for primary and secondary children in Nigeria; Organic Chemistry by Osioma; Exploring Education with Dr Ibiye Omieibi-Davids, and so on.

Proliferation of Private schools. The proliferation of private schools has created a situation where the proprietors can decide technologies that can use in facilitating learning in their schools. They do not have to wait for the government to give such directives or provide such resources. They make the decisions and implement what they decide in their schools and the parents are automatically required to follow suit.

Desire for good academic results. The desire for good academic results in the educational system propels students towards the use of video technology. This is particularly so amidst reports on interviews of students who excel academically that using these online resources were beneficial to them.

Low cost. There is a low cost in the use of video technology in learning as against real time class activities. A monthly subscription of between N1500 and N3000 are required to enrol in a lot of educational content on Facebook. When such content is gotten from You Tube, in most cases the subscription is free. The low cost is because the creators of the content want a large viewership which would enable them monetisation. Outside monetisation, the creators get more if they are able to reach a large population who pay a little than a few who pay a huge sum. This is favourable such the creators and the students who access the content. Using such content is cheaper than having traditional lesson teachers who charge as much as N30,000 per child.

Huge Target population. In spite of the revelation by international organisations that there are more than 10 million out-of-school children in the country, there is still a huge education hungry Nigerians who devour educational content everywhere and anyhow it is presented. This constitutes formal, informal and non-formal.

Increase in Enlightened parents. There is an increase in educated and enlightened parents from previous generation. These parents who themselves are digital migrants or natives are aware of the benefits of video technology and encourage and provide these resources for their children; and assist them in using them in learning. This improves the probability of using digital media for education (Ofoha & Ogidan, 2020; Okunola & Simatele, 2023).

Wide reach. Video technology has a wide reach and this endears it to people (Samhub, 2024). This is because such resources can be used in most parts of the country because of the wide spread of communication network in the country. And because the devices to use them are portable, it is easy to carry about. The total number of people that can be reached with a single video is far higher than can be used with a book or printed material.

Captures attention easily. Video technology captures the attention of viewers more easily that other formats of communication. The tendency that a video content is viewed is much higher than that of an audio or textual information. This is because people are usually attracted to things that integrate elements like animations, motion graphics and dynamic transitions that incorporate 360-degree views, clickable buttons, links, and so on (Continual Engine Team, 2024).

Income from online streaming. There is income to be made and being made every day from video streaming on various social media platforms that have video content. In the present harsh economic situation in the country Nigerians who are known to be among the most educated people in the world need to get in this fad to earn much needed foreign currencies for themselves and the country (Bozkurt, 2025; Varyan, 2025). This is particularly so because millions of Nigerians are among the people that spend this money online through their data.

CHALLENGES TO THE USE OF VIDEO TECHNOLOGY IN NIGERIAN EDUCATION

In spite of the various factors that have provided an enabling environment and made it absolutely necessary to use video technology to enhance education in Nigeria, its use is still not encouraging. The following factors have been identified as the challenges:

Non-implementation of government policy on ICT is a major challenge of the use of video technology in the Nigerian educational system. The federal government of Nigeria is charged with the formation of policies like the ICT policy in Education, monitoring the implementation, setting and maintaining standards in the education sector. The duty of implementing these policies rest on the States and Local governments ((Federal Ministry of Education, 2019a; Federal Ministry of Education, 2014), which have, unfortunately, failed in most of their duties regarding education towards their citizens. Most of these states have not made any effort to access the Counterpart funding provided by the federal government to enable them provide much needed facilities and resources for their states and local government. The local governments do not have the necessary funding for such resources because the state governments have usurped most of their funds.

There is a shortage of video technology infrastructure and facilities**.** There is a shortage of ICT infrastructure to enable the use of video technology in the country's schools (Federal Ministry of Education, 2019b; Oluwatade, 2024;). These facilities which include hardware and software are totally absent or in very short supply in a lot of the country's schools, especially public schools where the majority of the nation's children are (Walson & Okanu-Igwela, 2019, Omieibi-Davids, 2021). These could be computers, multimedia projectors, interactive boards or screens on which to project materials with. In a 2021 study on availability of digital devices in primary schools showed that only 47% of school had any form of computers in the school. For 67% of the teachers in the schools were there were computers in the schools, they did not have any form of access to these computers (Imhanyehor, 2021)

Ignorance of the importance of video technology in the instructional process is a challenge to the use of video technology**.** There is ignorance as to the importance of video technology in education in general, and instruction in particular. This is so even among teachers. A lot of teachers still see the use of phones by students as a distraction to learning. This writer had an encounter with a colleague who saw students using their phones in the class as an insult. What she did not know was that Multimedia presentations of the lesson had earlier been sent to the students to view some visuals in anticipation of the power failure which had regularly prevented the use of the multimedia projector in the class. This is not very surprising as ICT skills among teachers is still quite low (Federal Ministry of Education, 2019b). Even in developed countries that have these facilities in wider scale than Nigeria, some people still think video technology platforms like virtual reality are students playing video games (Lowood, 2025).

Digital illiteracy, particularly amongst teachers and school administrators is a challenge to the use of video technology in Nigerian education. The federal government of Nigeria (FME 2019b) admits this as one of the major problems impeding the implementation of its ICT in Education policy (FME, 2019a). It says there is a severe shortage of ICT skills and personnel. In a study carried at by the Universal Basic Education Board in 2021, it was reported that 60% of public school teachers in Nigeria were digital illiterates (Okafor, 2023). This is not surprising as the Wiley DSGI ranking, which is a global digital skills gap index ranked Nigeria 103rd in the world and 11th in Africa with o low score of 3.6 out of 10 (Okafor, 2023).

Internet connectivity, which is one of the reasons that Nigerians have access to mobile/smart phones is also a challenge to its effective utilisation. The massive influx into Nigeria's internet space since 2024 has not been met with an increase in Internet service providers. Instead, 9mobile which was one of the service providers has crashed out of the market, causing overcrowding of the other 3 network providers in the country's communication space. Also, the fluctuating high rate of the Naira against the dollar since June 2023 has made internet usage more expensive and thereby not readily available to a lot of people.

High cost of procurement of video technology hardware and software is a challenge to users of the products. The cost of digital devices like computers and smartphones are gradually getting out of the reach of a lot of people. This is so with all software used with these devices. Microsoft Windows which used to be procured and installed with the purchase of computers are now products that users are required to pay yearly for to use. Microsoft Office, which is now Microsoft 365 cost $69.99 per year for the Personal Suite and $139.99 for the Business Suite (Stevens, 2022). When this amount is converted to Naira, it cost over a hundred thousand naira. A school that has up to 10 systems would pay over a million naira to have access to all the services that are accruable from this software.

A lot of Nigerians, particularly older teachers, have Technophobia. This is an extreme fear, dislike or discomfort of the use of advanced technology or complex devices. These people have an aversion for computers, smart phones, robots and artificial intelligence. These people do not only resist learning new technology, they go to great lengths to avoid incorporating it in all aspects of their lives. (Cleveland Clinic, 2022; Merriam-Webster.com Dictionary, 2025). These teachers, due to one experience or the other with electronics and electrical appliances, would not use any such equipment. Among this group are people who have been electrocuted while using such appliances; teachers who have been disappointed by a non-functioning appliance or power failure in course of an important lesson and teachers who have been made to pay for damage to equipment and materials in the course of using them for their lesson. There are also teachers in the school system who are digital migrants, who have never really migrated into the digital space. Such teachers, who are in their 50s would never trust the use of any form of technology in their classrooms (Omieibi-Davids, 2021).

Electricity is a huge challenge in using video technology. In order to use video technology of any form in the learning process, whether at school, at home or in transit, there needs to be access to electricity. Even when we use mobile devices like laptops, tablets and smartphones, because they make use of video, there is the tendency to run out of battery power very easily. Unfortunately, Nigeria has a power issue (Walson & Okanu-Igwela, 2019; Edem & Ekon, 2021). Electricity is not regular or constant in the Nigerian environment. There are very frequent failures and fluctuations

which makes the use of digital devices, like those used for video technology difficult to use regularly. It is difficult, for instance, for a teacher to prepare his lesson to use a PowerPoint presentation for a lesson, only for him to get to class and there is no electricity to power his devices.

Lack of initiative, creativity and resourcefulness amongst teachers, school administrators and ministry officials in charge of running and making decisions for the school system. A lot of these people lack the ability to assess the learning situation, plan it and do something to solve existing problems without anyone telling them what to do. Most of them work only when they have been given directive to act. A lot of times, most of them just complain and do nothing about the situation, so they lack initiative. An individual that has initiative would try to new ways of solving an existing problem instead of doing the same thing that had been unfruitful in the past (Encyclopaedia Britannica, 2025; Cambridge English Dictionary, 2025). Creativity is the ability to think of new or different ways of doing things (Britannica Dictionary, 2025). Being creative means that the people in charge of managing education 'think outside the box'. They will be resourceful; they will use every situation, condition, techniques and technologies to solve pressing needs (Omieibi-Davids, 2019). Unfortunately, the civil service which employs teachers and the managers of the school system requires strict adherence to governing rules handed down by the people in authority (Obi & Nwokwu, 2022).

The perception and motivation of the teacher towards his work will determine if he or she decides if they will go the extra mile to research, learn and use facilities that are not necessarily emphatically in the curriculum. Are teachers paid, commended or given any special awards for making the extra effort to be resourceful? The ICT implementation guideline (Federal Ministry of Education (2019b) recommends establishing a reward system for teachers, administrators and institutions that utilise ICT to improve the quality of teaching and learning. To the knowledge of this writer who has been a teacher for over 30 years and integrated ICT in education for a long time, this reward system exists only as a policy.

Appropriation is a challenge of the use of video technology in the Nigerian educational system. Appropriation is the use of existing content or material with little or no changes applied to it. It is the adoption, borrowing, recycling and sampling of all or aspects of the material (Chilvers & Glaves, 2009). This is a very common part of educational video materials in Nigeria. Materials are taken from various commercial or online platforms and used exactly the way they are. There is no effort to adapt them to suit the local curriculum or environment. There is difficulty in getting content that is oriented or exactly relevant to the local Nigerian content, language or environment (Walson & Okanu-Igwela, 2019).

Some other challenges that have mitigated against the use of video technology in the Nigerian educational system are insecurity, which has resulted from theft and vandalism; lack of technical support, to assist in setting up hardware and software; maintenance and repair technicians when the resources go bad as they are bound to do from time to time (Walson & Okanu-Igwela, 2019; Oluwatade, 2024; Edem & Ekon, 2021)

TEACHERS' FEAR OF USING VIDEO TECHNOLOGY IN INSTRUCTION

The numerous reasons available to use video technology in the Nigerian school system has still not convinced a lot of teachers to use it as part of their instructional process. Some of the reasons for this are the following:

a. **Digital Illiteracy**. A lot of the teachers in the Nigerian school system are digital migrants not natives. A lot of them have not migrated because they do not have the necessary skills to upload or download information on the internet.

b. **Makes students passive leaners**. Some teachers, erroneously, believe that using video technology for instruction makes the students passive learners. Since the content is on video and can be replayed, when necessary, the children do not see any reason to copy a not on it or draw things that are already visually available for them to see. Teachers see this as passive learning.

c. **Time consuming to prepare for class**. Creating video for instruction is time consuming. This is because it goes beyond just writing a lesson plan and going to class as most teachers are used to doing. In this situation the teacher has to go on to record these sessions. In other situations, the teacher has to source of already available work related to his lesson, edit it and incorporate it into a presentation for the students.

d. **It is an intellectual property minefield**. Video technology in its various forms is seen as an intellectual minefield and anyone can take such knowledge for use without crediting the creators. This discourages some teachers from putting their content online for students.

e. **It will replace teachers** (ViewSonic, 2022). Teachers have the fear that encouraging their students to use video technology in instruction is replacing them as repertoires of knowledge that teachers are traditional known for, and soon there will be no need to have teachers in schools.

POSSIBLE SOLUTIONS TO THE CHALLENGES OF USING VIDEO TECHNOLOGY IN EDUCATION.

The following solution can be used to mitigate the challenges of video technology in Nigerian education:

1. The disconnect in the duties of the various levels of Nigerian government on their individual and collective responsibilities to education needs to be overcome.

2. The Federal Ministry of Education should carry out its role of monitoring the implementation of education polices, including the ICT in education policy, seriously.

3. The government needs to ensure that the infrastructure to carry out its lofty policies are adequately provided

4. There is the need to partner with individuals and industries in related industries to provide video technology resources and skills. This is stipulated in the National Policy on Education (FRN, 2014) and the National Implementation Guideline for ICT in Education (FME, 2019b).

5. There is a need to continuous educate and train the nation's teachers on ICT in Education through various professional development forums.

6. Digital literacy should be made a precondition for the employment of future teachers and school administrators. This is particular necessary as the country's ICT in Education guidelines have been out since 2019.

7. There is the need to look into the country's internet connectivity issues, especially around institutions of higher learning. The heads of these institutions should have a discussion with the internet service providers to locate communication mast in their schools. A situation were an institution with more than 20,000 young learners does not have a single communication mast to boost connectivity does not encourage research.

8. Wi-Fi boosters should also be provided by school authorities around classrooms, not only around administrative blocks.

9. Alternate power sources like solar and inverters should be introduced in schools to provide stable and regular electricity.

10. Teachers should be given a degree of freedom to choose methods that best facilitate and improve the performance of their students. They should not be made to follow stringent civil service bureaucratic process that impede creativity.

11. The motivation incentives stipulated in the ICT in Education implementation guideline should be effective to encourage teachers who step *out-of-the-box* to initiate and implement ways to improve learners' performance. This motivation will serve as an incentive for teachers to use their personal digital resources in the school. A lot of teachers have computers and other digital resources at home which could be beneficial in schools. Imhanyehor (2021) reported that 90% of primary school teachers in Benin had personal computers at home while only 47% of schools had computers.

12. There is a need to create and curate local Nigerian content that meets the instructional needs of Nigerian students.

CONCLUSION

Video technology in its current for of providing mobile technology has revolutionalised education. This is because education is no longer restricted to the four walls of a classroom as people can learn anywhere, anytime and in any situation. This work has looked at many reasons why it is popular in Nigeria and should be embraced for the educational system. It also discussed the challenges facing its use as a medium of instruction. Some solutions have been identified as to how a lot of the challenges can be overcome. Video technology is a huge industry. The country stands to gain massively if it is effectively used in the educational system.

REFERENCES

1. Adeosun, A. (2025). The Sate of Education in Nigeria. https://medium.com
2. Alagbe, J. (2022). Nigerians are spending vast amounts on studies abroad. University World News. https://www.unicersityworldnews,com
3. BBC (2023). What is a biopic? Seven questions about biographical films answered. https://bbc.co.uk
4. Bastin, G. (2009). Filming the ineffable: Biopics of the British Royal Family: Auto/Biography Studies. 24(1), 34-52. https://dpi.10.1353/abs.2009.0008
5. Beal, V. (2018). Multimedia. Webopedia. http://www.webopedia.com/TERM/M/multimedia.html.
6. Better Video Content (2023). Interactive Video. https://bettervideocontent.com
7. Biesterfield, P. (2025). The Sic primary types of documentaries. https://www.videomaker.com
8. Bozkurt, C. (2025). Twentify Power Insights in the Competitive 'Home Entertainment' Market. https://twentify,com
9. Cambridge Dictionary (2025). Video Technology. https://dictionary.cambridge.org
10. Chai, W. & Lazar, I. (2025). Video Conferencing. *TechTarget*. https://techtarget.com
11. Chain Reactions Admin (2023). The Role of Video in Modern Communications: Best Practices and Case Studies in Nigeria. https://chainreactionsafrica.com
12. City St George's University of London (2025). Lecture Capture Student Guide. https://city.uk.ett.libguides.com
13. Continual Engine Team (2024). 7 Best Tips on How to Make Engaging Videos. https://continualengine.com
14. Cook, S. (2024). A comprehensive analysis of YouTube statistics. https://comparitech.com
15. Department of Education, Australian Government (2024). Gamification. https://www.education.gov.au/australian.curriculum
16. Dichev, C. & Dicheva, D. (2017). Gamifying education: What is Known, what is believed and what remains uncertain: a critical review. *International Journal of Educational Technology in Higher Education*. 14(9). https://doi.org/10.1186/s41239-017-0042-5
17. Digiforma (2025). Video clip. https://digiforma.com
18. Edem, N.B. & Ekon, E.E. (2021). The extent of use of video clip for teaching and learning in Nigerian Universities: A case study of Faculty of Education, University of Calabar. Educational Research and Reviews. 16(7), 289-295.
19. Echendu, A.J. (2021). Nigeria has a flooding challenge: here's how and what can be done. Queen's Gazette. https://queensu.ca

20. Echendu, A.J. (2021). Relationship between urban planning and flooding in Port Harcourt city, Nigeria; insights from planning professionals. Journals of Flood Risk Management. 14(2). https://queensu.ca
21. Echendu, A.J. (2021). Nigeria and Ghana are prone to devastating floods – they could achieve a lot working together. Queen's Gazette. https://queensu.ca.
22. Egielewa, P.; Idogho, P.O. & Cirella, G.T. (2021). COVID-19 and digitised education: Analysis of online learning in Nigerian higher education. *E-learning and Digital Media*. 19(1), 19-35. https://doi.org/10.1777/20427530211022808
23. Eli-Chukwu, N.C.; Igbokwe, I.C.; Ifebude, D.N.; Iguodala, W.; Uma, U.; Onyeneke, R.U. & Akudo, F.U. (2023). Challenging confronting e-learning in higher education institutions in Nigeria amid Covid-19. *Journal of Applied Research in Higher Education*. 15(1).
24. Fay, C. (2024). 24 Noteworthy Video Consumption Statistics for 2024. https://twicsy.com
25. Federal Ministry of Education (2019a). National Policy on Information and Communication in Education. Federal Ministry of Education.
26. Federal Ministry of Education (2019b). National Implementation Guidelines for ICT in Education. Federal Ministry of Education.
27. Federal Republic of Nigeria (2014). National Policy on Education. NERDC.
28. Gartner, (2025). Multimedia. https://gartner.com
29. Hameed, S. (2025). Unlocking the power of multimedia presentation: A complete guide. https://prezent.ai.
30. HandZaround (2018). A Brief History of Video Technology. https://www.handzaround.com
31. Henrikson, E. (2024). Everything you need to know about interactive video. https://synthesia.io
32. IkonAllah, A.K.I. (2023). NEMA, NBS, UNDP Unveil 2022 Flood Impact, Recovery and Mitigation Assessment Report. National Emergency Management Agency (NEMA).
33. *Imhanyehor, G.O.J. (2021).* Digital Literacy and primary education system in Nigeria. *Journal of Public Administration Finance and Law. 10(20).* https://doi.10.47743/jopafl-2021-20-13.
34. *Jaiyeola, T. (2025). Monthly Internet Usage Surges 93% on Smartphones growth. Business Day. https://businessday.ng*
35. Januszewski, A.J. & Molenda, N. (2013) (eds). *Educational Technology*. Routledge.
36. Joshi, A. (2012). Multimedia: A technique in Teaching Process in the Classroom. *Curr. World Environ*. 7(1), 33-36. https://dx.doi.org/10.12944/CWE.7.1.05
37. Kalu, C. (2024). Catastrophic Flood Hits Maiduguri After Alau Dam Collapse. https://www.arise.tv.
38. Kang, J. & Van Ouytsel, J. (2024). Video Communication in the Post-Pandemic Era: Understanding the Challenges and Opportunities for the Future of Workplace Communication. In: Ndlela, M.N. (eds) Organizational Communication in the Digital Era. New Perspectives in Organizational Communication. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-58307-0_15
39. Kepios, (2025). TikTok Users, Stats, Data & Trends for 2025. https://www.datareportal.com
40. Kurt, S. (2023). Gamification, What It Is, How It Works, Example. https://educationaltechnology.net
41. Lowood, H. (2025). Virtual Reality. Encyclopaedia Britannica. https://www.britannica.com
42. Lycke, K. (2023). Animation Definition, Types & History. https://study.com

43. Maio, A. (2025). What is Animation – Definition, History and Types of Animation. https://studiobinder.com

44. Massner, C.K. (2021). The Use of Videoconferencing in Higher Education. https://doi.10.5772/intechopen.99308

45. McCormick, K. (2024). 75 Staggering Video Marketing Statistics. https://www.wordstream.com

46. National Bureau of Statistics (2023). Nigeria Flood Impacts, Recovery and Mitigation Assessment 2022-2023. https://www.nigerianstat.gov.ng

47. National Severe Storm Laboratory 2025). Flood Basics. https://nssl.nosa.gov.

48. National Universities Commission. (2025) Guidelines for Open and Distance Learning in Nigerian Universities. National Universities Commission. https://nuc.edu.ng

49. Nwachukwu, C. & Onyenankeya, K. (2017). Use of Smartphones among College Students in Nigeria: Revelation and Revelations. *Journal of Communication* 8(2): 171-182. https://doi.10.1080/0976691X.2017.1396007.

50. Oberlo (2024). Online Video Consumption Statistics (2024). https://oberlo.com

51. OECD Statistics (2025). Unemployment. https://stas.oecd.org

52. Ofoha, D. & Ogidan, R. (2020). Punitive Violence against children: A Psychoeducational Parenting Program to Reduce Harsh Disciplining Practices and child Beating in the Home. Int. J Psycho Res (Medellin). 13(2), 89-98. https://doi.10.21500/20112084.4604

53. Oguntola, T. (2022). 2022 Flood: 603 Dead, 1.3m Displaced Across Nigeria – Federal Govt. Leadership. https://leadership.ng.

54. Okafor, P. (2023). Bridging the Digital Literacy Gap in Nigerian Schools: Challenges and Solutions. https://medium.com

55. Okunola, O.H. & Simatele, M.D. (2023). Climate change in urban Nigeria – 4 factors that affect how residents adapt. https://preventionweb.net

56. Olajide, M. (2024). Flood sacks Lagos Schools, Homes. https://punchng.com

57. Oluwatade, P. (2024). The Impact of Technology on Education in Nigeria: Benefits and Challenges. https://eduska.com

58. Omieibi-Davids, I. (2019). *Skills in Effective Teaching* (3rd ed). Noni.

59. Omieibi-Davids, I. (2021). *Educational Technology for Trainee Teachers* (4th ed). Noni.

60. Omieibi-Davids, I. (2023). Teaching Qualification and Academic Performance of Primary School Children in Rivers State, Nigeria. *Central Asian Journal of Science and History*. 4(4), 298-311 https://doi.org/10.17605/OSF.10/53B28

61. Omieibi-Davids, I. (2023) Ergonomics and the Classroom Teacher in Secondary Schools of Rivers State, Nigeria. *American Journal of Social Sciences and Humanitarian Research*. 4(8), 43-62

62. Omieibi-Davids, I. (2025). Examination of Ergonomics Appropriateness in Primary Schools of Rivers State. *American Journal of Language, Literacy and Learning in STEM Education (AJLLLSE).* 3(2), 447-464.

63. Onyegbuta, E. (2024). Photos: 151 Houses, 7 Communities Submerged in Lagos flood. https://www.vanguard.com

64. Owl Lab Staff (2023). Video Conferencing. https://owllabstaff.com

65. Oxford English Dictionary (2025). Definition of Documentary. Oxford University Press.

66. PCMag Encyclopedia (2025). Video. https"//pcmag.com

67. Pun, M. (2013). The Use of Multimedia Technology in English Language Teaching: A Global Perspective. *Crossing the Border: International Journal of Interdisciplinary Studies* 1.
68. Resilient Educator Editorial Team (2012). The History of the Classroom Blackboard. https://resilieneducator.com
69. Robles, S. (2023). New Video Technology Trends: Stay ahead in 2024. https://www.riverside.fm
70. Rogers, S. (2019). The Role of Technology in the Evolution of Communication. https://forbes.com
71. Rogers, K. (2025) Pandemic. Encyclopaedia Britannica.
72. Saferspaces (2023). What is Violence? https://saferspaces.za
73. Sharma, N. (2024). Video-Based Learning: What Are the Benefits of Learning Anywhere? https://hurix.com
74. Sheperd, J. (2025). 30 Vital Video Marketing Statistics You Need to Know in 2025. https://thesocialsheperd.com
75. Shibayan, D. (2024). Dam collapse in Nigeria sweeps deadly reptiles into flooded communities. https://apnews.com
76. SkyQuest Technology (2022). Global Online Video Platform Market Drives over 80% of Total Internet Traffic. https://globalnewswire.com
77. Stephenson, R. & Andrew, D. (2023). Film. https://britannica.com
78. Stevens, C. (2022). How to Manage Your Inventory in Excel. https://www.business.org
79. Subuc, A.N.; Bizoi, M. & Filip, F.G. (2023). Status, challenge and Trends in Videoconferencing Platforms. International Journal of Computer, Communication and Control (JCCC). 18(3). https://doi.10.15837/ijccc.2023.3.5465
80. Umayam, C. (2023). The importance of video for teaching and learning. https://www.givingcompass.org
81. Varyan, A. (2025). The Rise of Streaming Income. https://editmentor.com
82. Vaughan, T. (1993*). Multimedia: Making it work*. Berkeley, California: Osborne/McGraw-Hill.
83. ViewSonic, (2021). 12 ways to use videos on learning in the classroom. https://www.viewsonic.com
84. ViewSonic (2021b). 5 myths about video-assisted learning. https://www.viewsonic.com
85. Walson, O.B.A. & Okanu-Igela, J.N.B. (2019). Issues, Challenges and Prospects in the Use of Educational Technology for Instructional Technology in the Management of 21st Century University Education in Nigeria. ADEC 2019 Proceedings. https://open.library.ohstate.edu
86. Wet Tropics Management Authority (2025). What is a News Report? https://www.wettropics.gov.au.
87. World Education News Review (2024). International Student Mobility in Sub-Saharan Africa, Part 2: Trends in Nigeria. https://wenr.wes.org
88. World Health Organisation (2023). Ebola virus disease. https://who.int