

DIGITALIZATION OF SOCIAL STUDIES EDUCATION: PROSPECTS AND CHALLENGES

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Abstract

The study focused on digitalization of social studies education with emphasis on the prospects and challenges. The purpose of this study is for social studies educators, school administrators, teacher educators and curriculum developers to understand more about the potentials and limitations of integrating technology such as a digital text. Digital literacy skill not only provides accurate access to information, but also enables students to study on a legal level, in compliance with ethical rules. Digital literacy makes it easier to use information accessed in daily life, to rearrange information, to generate new information, and to critically evaluate information. Against this backdrop, the 'brick-and-mortar' education approach survives on life support, with digital technologies promoting ubiquitous teaching and learning. Social studies is a course which plays a key role in providing students with digital literacy skills. On the other hand, technology allows a social studies teacher to reach beyond what lies within a classroom. It was, however, recommended that government should try to promote the experience of social studies educators in the use of technology and its integration into student learning. Social studies educators should also endeavour to adapt the civic and socialization role of social studies to blended and online places.

Introduction

Education has undergone serious changes across the globe in the 20th and 21st Centuries, especially as a result of digitalization. There have been efforts through reforms not only to bring education to the door step of people in various nations but also to bring the needed transformation and development. The impact of digitalization is tremendous in the field of education. Dennis (2015:637) opines that it is the force behind the changes taking place in higher education globally. The impact of the internet with its extraordinary store of knowledge is a breakthrough in this era. Social Studies is a subject that is designed to equip students/learners with relevant knowledge, attitudes, values and skills that will enable them function well in the society i.e. solve their problems and that of the society.

The digitalization of social studies education refers to the integration of digital technologies and tools into the teaching and learning of the social studies subject. This transformation has several key aspects:

- **Digital Resources:** Educators use digital resources such as e-textbooks, websites, multimedia presentations, and online databases to provide students with a wide range of information and learning materials.
- **Interactive Learning:** Digital tools enable interactive learning experiences, including simulations, virtual field trips, and educational games that engage students and make complex social concepts more accessible.
- **Global Connectivity:** Digital platforms facilitate global connectivity, allowing students to collaborate with peers from different regions and gain a broader perspective on social issues.
- **Personalization:** Adaptive learning systems can customize educational content to cater individual students' learning styles and pace.

- **Real-Time Updates:** Online resources can be updated in real-time, ensuring that students have access to the most current information and events in social studies.
- **Assessment and Feedback:** Digital tools enable more efficient assessment of students' progress and provide timely feedback, allowing teachers to tailor their instruction.
- **Teacher Professional Development:** Teachers may undergo training to effectively integrate digital tools into their pedagogy, ensuring that they can harness the full potential of technology in education.

The essence of digitalization of social studies education is to make prospective teachers effective in their subject in this 21st Century. Witten and David (2003) defines digitalization as the process of taking traditional learning materials that are in book form and papers and converting them to the electronic form where they can be stored and manipulated by a computer. Digitalization implies the creation of digital surrogates for an original copy or physical object. Digitization encourages open access to resources such as electronic theses.

From the environmental impact of using less paper for handouts and books to the time savings and convenience of research, digital learning is a wonderful way to cut costs, better utilise resources, promote sustainability and expand both reach and impact for students and teachers. Technology is pervasive and intertwined in many aspects of modern life and society. The digital revolution that is sweeping the world has begun to infiltrate the realm of education. It is rapidly transforming the way students learn, and as a result, technology is expected to improve the face of education by making it more inexpensive and accessible.

However, it is not entirely easy to achieve, as digitalization of education in general and social studies in particular is plagued with a lot of challenges especially in Nigeria. These challenges have hampered the introduction process. Thus, this paper will discuss the prospects and challenges of digitalization of social studies education.

Meaning of Social Studies

The term Social Studies was used in 1905, when a committee of Thomas Jessa first used it to include economics, sociology, anthropology, political science and geography. In 1956, history was included. Igbogbor (2000), views Social Studies as an integrative subject that contained social sciences that are of societal base. He added that Social Studies is targeted at producing better individuals for better society. Social Studies is about man's overall aspects of life; that which include social, economic and political activities. Social Studies therefore address man holistically. It is concerned with making the individual an integrative being in the society.

In addition, Social Studies simply put, is concerned with the development of appropriate attitudes. A subject of this quality should be taught with all emphasis in our schools and even be made compulsory. McCarthy (2001) asserts that Social Studies is an interdisciplinary subject in nature and content. Its focus is on man, their problems, survival, how they influence their environment and how environment in turn influence man. Social Studies examine human problems from holistic perspective. It combines the contributions of various subjects indicated above to solve human problems. As cited above, the contents of Social Studies are drawn from the social science subjects. It is the integration of the objective, purpose and aims of the various social science subjects. In short, Social Studies is in response to goal oriented edification that is geared towards sensitizing young people to solving personal and community-related problems. The scope of Social Studies is not fixed but dynamic in nature. It is ever-changing to accommodate man's many problems of life.

Concept of Digitalization

Borisenkov, Gukalenko & Pustovoitov (2021:12077) stated that digitalization refers to the conversion of materials created in another format into an electronic form. This definition excludes materials that were initially created digitally, such as email communication. Similarly,

Falasteen (2018:1750) defined digitalization as all the steps involved in the process of making collections of historical and other materials available online. Legg-Jack (2021:162) described digitalization as the course of converting analog information to a digital format.

Modern teaching materials are very crucial and most preferred in the digitalized world. A modern education system uses technology to impart knowledge. Digitization of education system is an opportunity to develop a cognitive resource-based mechanism in learners and improve skills, lifelong learning and continuous education. Digitization produces information that can be conveyed in many different methods. It brings about democracy of knowledge where education becomes a collaborative and self-driven enterprise. Nowadays, there are tools available to transform learning from an academic exercise to an engaging experience gratification and technological gains.

Digitalisation promotes effective teaching by allowing them to function more effectively and proactively in terms of proper student monitoring and regular assessment of their classroom activities. The transfer of data from analog to digital is viewed as a crucial driver of innovation in teaching and learning (Gillpatrick, 2020). Machekhina (2017) defines digitalisation as "the translation of all information kinds, such as text, audio, pictures, video, and other data from multiple sources into digital language". Meanwhile, in education, digitalisation refers to the conversion of text, pictures, video, and music into digital format utilizing technologies such as a laptop computer, the internet, mobile devices, a scanner, a digital camera, a projector, and a printer, among others, that may be played by a computer (Abdullahi & Tijani, 2019:31 & Bejinaru, 2019). Furthermore, digitalization in education refers to a variety of approaches for transitioning conventional modes of teaching and learning into the virtual world, such as online courses, online assessments, and web-seminars/conferences or workshops, among other things, using electronic platforms (Borisenkov, Gukalenko & Pustovoitov, 2021). According to Daniel (2020), these electronic platforms include, but are not limited to Zoom, WhatsApp, Google Meets, Google Hangouts, Skype, Microsoft Teams, or FaceTime, where learning may be done synchronously or asynchronously online.

Furthermore, digitization of education is the transformation of conventional teaching techniques, such as paper documents, into a digital format that students can understand in order to fulfill educational aims and objectives (Falasteen, 2018). Digitizing is the primary method for producing digital representations of geographic characteristics, powerful pictures, electronic charts, and graphs from traditional paper documents.

Digitization is the trending term, describing the 21st century in the most precise manner as possible. We are in the era where unprecedented ideas are unfolding in our education sector and creating the advancement that cannot be matched by lagging behind in terms of technology.

Instructional digitalization is a subset of educational technology. It essentially deals with the process of using technology as a tool for instruction and as well describes the technologies that facilitate access to information of various kinds. It is concerned with the acquisition, processing, storage and dissemination of information in all of its various forms. A more comprehensive approval to the meaning of instructional technology is seeing it as the theory and practice of design, development, utilization, management and evaluation of processes and resources (Mohammed, 2020). This approach does not see technology as an end itself but rather as a delivery tool and a means to an end. This same approach also emphasizes that the use of technology only in the Social Science classroom cannot compensate for instruction that is poorly designed, developed and executed.

Instructional Digitalization for the 21st Century Classroom

Instructional Digitalization for the 21st century includes:

- a. Interactive white board: The SMART board is a real example and is finding its way into the classrooms today. The Social Science teacher can draw and write on it digitally as it has sensors that make these activities possible. It also has an array of templates and applications that make drawing, tabling and other manipulative functions possible. Its access to the websites makes it an ideal technology for the class and can also serve for power point presentations amongst other functions.
- b. Websites or Blogs: These are personal websites that allow updating by the author. Teachers can create domain name for themselves to enable them access any blog on a host site. This is bound to enhance interaction and communication. Social Science content can be easily created and shared by making the blog accessible to others
- c. Classroom personal computers (pcs): When a teacher and students have their Pcs, teaching and learning is enhanced. Projected instructions enable students to use their Pcs alongside the teacher and what is taught is easily comprehended.
- d. Projectors: Especially when used with a computer, presentations become very fascinating and appealing to students. In technology learning, the use of power point presentation is today a common phenomenon.
- e. Software and Computer: Educational software in an individual's personal computers can facilitate learning without a student carrying hardcopies of learning materials.
- f. Sound Amplifiers: The place of sound amplifiers or public address system is indispensable especially for a large class size. They come in different kinds and categories.
- g. Hand held Data Collector: A graphing calculator used as a laboratory instrument to collect and manage data.
- h. Television: It can be used to show Instructional DVDs or other relevant events that would aid a lesson in Social Science classroom.

Teaching and Learning of Social Studies

Ogbnuogwo et al, (2019) perceives teaching as a systematic, rational and an organized process of transmitting knowledge, skills etc in accordance with professional principles. The implication is that Social Studies teachers who do not perform the act in accordance with the principles of teaching are therefore not teachers. Naturally, the outcome of teaching is learning. Learning is an overt function of teaching which is the major function of the teacher. Where there is relatively positive permanent change in the behavior of an individual, then learning has occurred.

Effective 21st century teaching brings about effective 21st century learning. Effective teaching and learning refers to the degree to which goals are achieved through teaching. Effective teaching of Social Studies will definitely give rise to effective learning of Social Studies that is, attainment of goals of Social Studies as stated above. Ability to apply suitable pedagogical approaches is one sure way of achieving effective teaching and learning of Social Studies.

The Importance of Teaching and Learning of Social Studies

There are many reasons, importance or benefits derivable from the study of Social Studies as an integrated and multi –disciplinary discipline.

Amongst them are:

1. Its teaching will help create the awareness in the learners that discipline is an essential ingredient for an orderly and sustainable society.

2. Its knowledge will enable learners to live with mutual understanding in their families, communities, society and the world at large.
3. Also with it, we are taught the value of co-operation, effective citizenship, national unity and inter-dependence.
4. It will help acquire relevant or appropriate knowledge, attitudes and skills for a functional living in a contemporary society like ours.
5. It will help inculcate in the learners a problem solving attitude in life

The Usage of Digital Tools (ICT) in the Teaching and Learning of Social Studies

Educational systems around the world are under increasing pressure to use the new information and communication technologies (ICTs) to teach students the knowledge and skills in the 21st century. Sustainable development includes social well-being, which depends on education. Information technology has emerged to spread shared knowledge and is a primary driving force behind education reforms. The introduction of new technology-assisted learning tools such as mobile devices, smartboards, MOOCs, tablets, laptops, simulations, dynamic visualisations, and virtual laboratories have altered education in schools and institutions. The Internet of Things (IoT) is proven to be one of the most cost-effective methods of educating young brains. It is also a robust mechanism for integrating a world-class learning experience for everybody. Educational technology businesses are continually attempting to create novel solutions to expand access to education for individuals who cannot obtain adequate educational facilities (Ololube, Ubogu & Egbezor, 2007:186). Social media as a learning tool has come a long way. Large numbers of teachers and students use social media as an essential element of the overall e-learning experience. It is a critical venue for exchanging information about crucial topics these days. Aside from the ability to communicate information anywhere, at any time, social media sites are also a fantastic source of producing networking possibilities to establish social activities and possibly new jobs.

Information and communication technologies (ICTs) are a major factor in shaping the new global economy and producing rapid changes in the society. Ijimi (2004) pointed out that within the past decade, the new ICT tools have fundamentally changed the ways people communicate and do social studies business. They have produced significant transformation in Social Studies industry, medicine, business, engineering and other fields. They also have the potential to transform the nature of education- where and how learning takes place and the roles of students and teachers in the learning process.

Bruner in Nwana (2012), stated that an intentional attempt to use technology in teaching can improve the curriculum and make a difference in the quality of instruction. Technological tools are used in a specific methodology. Social Studies subjects needs to facilitate the students' technological skills and their methodology for teaching. When prospective teachers do not have technology integrated into the professional courses, they cannot apply technology to teaching and learning well in their fields of study.

Okebukola (2006) states that with the application of ICT in education, there will be improvement in the service delivery and access to knowledge. It will also make it easier to implement the curriculum and at the same time encourage critical thinking and offer unlimited means of achieving educational goals. Traditional classroom instructions fall short of providing an immediate learning environment, faster evaluations, and more engagement. In contrast, digital learning tools and technology fill this void. Some of the efficiencies such technologies provide are simply unrivalled by traditional learning methodologies. With smartphones and other wireless technology devices becoming popular among the general public, it only makes sense that schools and educational institutions make efficient use of them by putting technology in the classroom (Ogbnuogwo et al, 2019). Indeed, today's technology's adaptability and non-

intrusive character make learning more appealing to the next generation. However, it may be a formidable technique to manage initially since traditional instructors are hesitant to include contemporary technology and gadgets in schools, viewing them as a distraction rather than an intelligent learning aid. An online classroom calendar, where we may display class schedules, assignment schedules, field excursions, speaker events, examinations schedules, or semester breaks, will help students plan accordingly. Student response systems, such as smartphones and clicker devices, provide a quick and easy technique for teachers to determine students' learning of the presented content quickly and whether more explanation is required.

Challenges

While digitalization offers numerous benefits, it also presents challenges. Successful digitalization of social studies education involves careful planning, the thoughtful selection of digital tools, and ongoing professional development for educators to maximize its benefits for students' learning. Digitalization of education is a laudable project that encompasses the application of a wide spectrum of practices, including blended and virtual learning. Nevertheless, some hurdles impede its smooth operations especially in Nigeria. According to Asogwa (2011), some of the challenges include;

Inadequate funding: Funding for the purchase and maintenance of modern and state-of-the-art digital equipment by the government remains a major constraint.

Erratic power supply: It is very unrealizable for computerization and digitization to take effect in an environment of epileptic power supply. The issue of power has become a national calamity. Thus, it has to be given priority by any library aspiring to attain global visibility. Hence, all the institutions in Nigeria only depend on generators for power supply, and most often there is no light due to lack of diesel or generator breakdown which often hinders the digitization process.

Lack of Modern Infrastructure: Infrastructural facilities in most Nigerian academic institutions are in a state of disrepair. Machekhina (2017) observed that ICT department in these institutions lack modern computer systems; even the few available systems are being infected with virus which makes them unfit for the digitization project.

Lack of skilled staff: Many academic staff lacks basic computer training, not to mention specialized training required for digitization (Legg-Jack, 2021). There is a need for continuous training to build academic staff capacity in equipment maintenance and software management. Also, digitalization is a complex process which requires specialized skills. However, a good number of staff who may be involved in the digitalization process in Nigerian academic institutions may not be skilled as they do not possess adequate knowledge or competence in the handling of digitization equipment.

Employees are overwhelmed: Teachers frequently struggle to adjust to new digital solutions. Learning new digital platforms, where to find papers, and who to seek for assistance all contribute to lower student involvement and can even cause confusion. All of this can lead to an overworked employee and a poor learning experience.

Instructors who use non-supported apps: Not all technology is created equal, and teachers may want to employ unapproved solutions in some circumstances. This is a serious concern since it may fracture the user base and encourage employees to utilize illegitimate apps, causing IT teams headaches and a tangled technical ecosystem.

Devices fail too frequently: To save money, schools may make the error of retaining a fleet of devices that vary in age, manufacture, and model. However, as these devices get older, device failure becomes more common. Because remote and digital learning rely on gadgets, equipment failure might be a major source of frustration for teachers.

Conclusion

Digital technology in the classroom refers to various software and gadgets meant to help students with particular accessibility needs. The most effective way to reduce the number of repetitive, time-consuming duties a teacher undertake is to use technology in the classroom. Digitalization has no doubt changed our education system, but we cannot say that it has diminished the value of our old time classroom learning. Neither do we want something so priceless to turn into dust. The best part about the digitalization of education in the 21st century is that it is combined with the aspects of both; classroom learning and online learning methods. Walking hand in hand both acts as a support system to each other, this gives a stronghold to our modern students. Digitalization in education has also proved to be the right method for saving resources. To use digital resources and processes effectively one must be digitally literate. Digitalization of education helps to promote higher-order thinking skills in terms of knowledge acquisition, knowledge deepening and knowledge creation among students and teachers – a transition from lower-order thinking to higher-order thinking.

Recommendations

Following the discussions so far, the following recommendations have been made:

- Social Studies teachers should be educated on the use of ICT devices for effective delivery of instruction
- Schools should implement blended and remote learning to allow students learn both online and offline on their own.
- Government should invest more funds in education and increase access to ICT infrastructure by providing the necessary facilities for complete digitalisation of the teaching and learning process.
- Government should collaborate with internet, digital, and telecommunications service providers to ensure that ICT infrastructure, such as internet broadbands and network devices, is available and in good working order to support the digitalisation of teaching and learning at all levels.
- Teachers, parents and school Guidance and counselors should be more vigilant in monitoring the students when they have access to computers or internet to avoid going to pornographic sites or other sites that may be harmful to their learning.

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