Chapter 4.
Connectedness, Collaboration, and Co-creation

ⓘD Ayine NIGO ✉

School of Applied Management, Westminster Business School
University of Westminster, United Kingdom

ⓘD Vincent GIBOGWE ✉

School of Organizations, Economy and Society, Westminster Business School
University of Westminster, United Kingdom

Abstract

As the world we live in changes to embrace tech futures, how and what we teach in our education system will also be reshaped to keep up to date with the growing demands of the 21st century, hence the need for straightforward approaches to future Learning in the context of business and management. Our contributions to the call for book chapters in 'Digital Future in Education: Paradoxes, Hopes and Realities' will be based on the following three-sub-chapters*, i.e.*, 1) Networking and team working, 2) Anywhere, anytime, learning, and 3) Customization for a learner-first approach.

Our findings show that educators need to facilitate these experiences in context, and our classrooms need to reflect this model of learning. We also find out that the current and future environment for learning and teaching using the said methodology is too volatile to sustain this educational structure. Students will need to learn what they need and when they need it. Conversely, teachers will become facilitators of Learning and teaching, and students will have more control of their learning journey.

Keywords: connectedness; collaboration; co-creation; information recall; transmissive; digital future; learning and teaching.

JEL Classification: A19; A29; A39; B19; B29.

There are numerous approaches to the context of future learning in business and management. Some approaches, such as producing information modules that test information recall, are no longer recommended. In some cases, aware of the limited outcomes using this approach, attempts have been made to encourage reflection or analysis, but then the limitation of the approach leaves the learner with little or no formative feedback and reductive forms of assessment. The other approach includes online sourcing, clicks and scrolling modules, as they teach all the wrong things, even if the subject matter content is spot on. They are purely transmissive, leaving the learner to consume information passively. They substitute multimedia bells and whistles for substance. Their only actual usefulness, in the past, was to introduce people in the sector to "e-learning" as a digital version of transmissive pieces of training in which the slide deck is the pedagogy.

The remaining approaches, fortunately, are grounded in more constructive pedagogies. They have been shown to scaffold, support and promote realistic outcomes that matter for developing competencies around analysis, teamwork, and leadership. Once we realize how we teach is at least as important as what we teach, these two distinct approaches open new possibilities for Learning, especially after the Covid-19 lockdown disruptions. They are the topic of many of our proposed chapters, which review the evidence, case studies, and practical aspects of each built on the following three sub-chapters. The remaining sections will be as follows; the literature review is discussed in sub-chapter one, the methods and theory in next sub-chapter, and next sub-chapter provides a detailed discussion of the results; last sub- chapter concludes.

4.1. Today's Learning and Education

The classrooms for today's learning and education have been designed and built to enable digital and remote learning for education and training. Teachers can conduct interactive, face-to-face classes that actively engage remote students. Teachers are not simply connecting face-to-face to lecture passive students. The platform provides tools that allow teachers to introduce innovation in education. This article will delve into innovation in education, provide some examples, and explain its importance. We shall cover innovative teaching strategies in addition to innovation in education. This emphasis on innovation in education is due to skill gaps. Our objective as educators is to provide knowledge to students. By receiving an education, students can pursue higher levels of

learning and obtain the necessary qualifications to excel in a fulfilling career while contributing to their community (Brookfield and Holst, 2011; Freire, 1972; Hooks, 1994).

Employers face a significant challenge: their employees struggle to keep up with the constantly changing skill requirements. According to a Gartner skills gap analysis, 64% of managers believe their employees cannot keep pace with the evolving skills required. In comparison, 70% of employees feel they have not mastered the skills necessary for their job. This skills gap is closely linked to innovation in Education, but it is essential to understand what innovation entails before exploring that connection.

4.2. Education and Innovation

Innovation is often used without much thought. To innovate means to make changes or approach things differently without necessarily inventing something new. Innovation requires creativity and adaptability. In education, innovation is about looking at problems from a fresh perspective and finding new ways to address them. There is no fixed definition for Innovation in education. Still, it involves being open to new approaches, such as using innovative teaching strategies alongside knowledge transfer methods, as we recognize that there is always room for improvement. We do not have all the answers.

It has been recognized that a flipped classroom approach, where students watch lectures at home and complete assignments in class, is more beneficial for their Education. Additionally, incorporating more technology in the classroom creates a blended learning environment that mirrors real-world experiences. This approach enables better communication between school districts and parents through powerful video tools. Innovation in education comes from identifying problems, watching, learning from others, developing new methods to address them, and iterating on them when these experiments do not yield the desired results.

The importance of innovation in education can be justified by considering that it is not necessarily the most robust or most intelligent species that survive but the one that can adapt to change. In today's rapidly changing workplace, predicting or keeping up with the pace of change is difficult. Therefore, it is more critical for individuals to possess the ability to adapt and evolve rather than just knowledge alone. Innovation catalyses change in most industries and is an integral part of educating students on how to adapt. Its importance cannot be overstated, as the ability to innovate allows businesses and organizations to stay ahead of the curve and remain competitive. By fostering a culture of innovation, students are equipped with the necessary skills and knowledge to navigate an ever-

changing landscape and contribute to the growth and success of their respective industries. It helps them develop skills such as creativity, adaptability, and resilience, preparing them for a dynamic workplace with room for improvement.

As educators, we can use innovative methods in Education to enhance students' academic performance and cultivate the necessary soft skills for their success. Additionally, we can introduce various forms of technology that students must adapt to as they progress. It is important to note that innovation in Education can take different forms, not just by introducing new technology. It can also refer to implementing new teaching methods for specific projects or topics. Examples of such innovations include:

- One effective teaching method is project-based learning (PBL), which involves guiding students in identifying a real-world problem and developing a solution for it. PBL units can be incorporated into lessons encouraging critical thinking, creative problem-solving, and collaboration with other students.

- Blended learning is a mix of online and classroom learning. It requires students to be proficient in using online tools and the internet to enhance their learning experience. This approach helps students learn to use tools crucial to their future careers.

- Educational technology, also known as end-tech, refers to any software, application or service designed to improve the quality of education. While we should be cautious not to overdo it, incorporating technology in the classroom is crucial. Many of the technological advancements in classrooms reflect those in other industries. Therefore, the more students interact with technology in the classroom, the more prepared they will be to utilize it in their future careers.

As previously stated, innovation in education can be achieved without necessarily incorporating technology into the classroom. Nevertheless, educational technology has a significant role in promoting innovation in education. In some instances, technology enables innovation by making the previously impossible possible. Consider the way schools were able to adapt and continue Education during the pandemic. Through innovation, teachers came up with new methods of knowledge transfer that would have been unfeasible without technology.

The Future of Education Innovation

We may sometimes feel content with maintaining the status quo, especially when doing well in school. However, it is essential to recognize that innovation in education is becoming increasingly important and necessary. School districts acknowledge this and strive to catch up and exceed their innovation deficits. As we move into 2023, we can expect to see further acceleration of the innovation trends that have emerged in 2020 and 2021.

In the coming years, we anticipate increased investments in personalized Learning, wider acceptance of blended and hybrid Learning, and the development of more asynchronous learning modules that encourage independent study. Furthermore, we expect more courageous innovators to adopt artificial intelligence and augmented and virtual reality in the classroom. By embracing these innovations in education, students will be encouraged to think critically, explore new ideas, and be open to adapting to new situations. This will equip them with the necessary skills to face the challenges of their future workplaces and give them the confidence to continue adapting to new situations.

4.2.1. Networking and Teamwork

Connectivity and joint creation are fundamental concepts in any business or academic setting. These concepts ensure that teams work efficiently and effectively to achieve shared goals. By promoting collaboration, individuals can share their skills, knowledge, and experience, leading to better decision-making and innovative solutions. On the other hand, connectivity ensures that team members remain connected and informed, even when working remotely or from different locations. Joint creation, finally, is the process of working together to create something new or innovative, whether it be a product, service, or idea. Understanding and implementing these concepts are crucial to success in today's fast-paced and competitive business world.

According to Huitt (2001), a central assumption of humanism is that people act with intentionality and values. This contrasts with the behaviourist notion of operant conditioning (which argues that all behaviour results from the application of consequences) and the cognitive psychologist belief that discovering knowledge or constructing meaning is central to learning. Humanists also believe studying the person is necessary, especially as an individual grows and develops over the lifespan. The study of self, motivation, and goals are areas of particular interest.

Lave and Wenger (1991), on the situated learning and communities of practice, suggested that situated learning occurs within a specific social and cultural environment. Situated learning was initially based on the Learning of the apprentice weavers' model within workshops (Lave and Wenger, 1991). Situated learning is most associated with learning within a community of practice within an authentic context. Novice learners begin as "legitimate peripheral participation" and progress to full membership of and participation in the community.

The learning pedagogies*, i.e.*, "a situated, multifaceted, and complex process, involving multiple relationships and, crucially, driven by specific and often conflicting purposes, power relations and interests. (Wenger, 1998) suggests that it allows us to ask, 'What should they/we become?' and 'What should they know?' and 'How can we make sure they know it?'

According to Brookfield and Holst (2011), as learning is always imbued with a political purpose, it strives to enact forms of knowledge production and distribution which are cooperative, collective, and fully democratic. What makes teaching radical is the deliberate attempt to help people critique capitalist ideology, envision a genuinely democratic future, and learn democratic socialist practices.

The fascinating thing about theories of Learning is that many of them exist. This enables us to select from those that seem plausible to the needs of our students. Learning is an inherently complex process experienced by a wide range of individuals; we should not expect one idea or theory to account for all we understand by the term learning (Brookfield and Holst, 2011).

Therefore, while not an entirely new approach, student learning spaces will supersede the typical classroom that we know today. The student learning spaces will see students become partners or co-creators of their Learning. Collaborative, communicative, and team-oriented experiences for all students often transpire beyond the bounds of the classroom. We must facilitate these experiences in context, and our classrooms must reflect this. Students bring their own experiences, identities, and values to Learning, so it is necessary to consider the whole person.

4.2.2. Anywhere, Anytime, Learning

When considering educational technology, people often consider learning management systems (LMSs) as the primary focus. LMSs are typically a significant part of a school's technology, but unless you are responsible for implementing a new LMS, you likely will not be introducing one in your classroom. Instead, let us explore creative educational technology options you could bring into the classroom:

- Effective feedback is crucial for both students and teachers. It enables teachers to assess students' understanding in real-time and obtain a quick class overview. Feedback assessment tools such as polling, surveys, forms, and knowledge checks are easy to incorporate into the classroom. Even the traditional method of raising hands and counting responses is a form of feedback assessment. These tools make learning more engaging for students by allowing them to leverage technology. Additionally, they save teachers time by gathering data and storing responses for later review.

- Virtual classrooms and video conferencing have become increasingly popular in recent years. While many teachers and students have had to adapt to this new way of learning, virtual academies and schools have been utilizing virtual classroom platforms for years. These platforms are designed specifically for learning, with tools allowing virtual collaboration and class instruction. Students and teachers must become comfortable with video communication to fully utilize these platforms.

- Our students are skilled in creating videos as they are digital natives and frequently use platforms such as TikTok, YouTube, Instagram, or Snap. To make the most of their talent, you can assign projects that involve creating a video around a specific topic. This will allow them to exercise their creativity and improve their communication skills as they collaborate with other students.

- The virtual classroom is an example of educational innovation; with the platform's tools, teachers can conduct interactive and engaging face-to-face classes, even with remote students. This goes beyond traditional lecturing and allows for innovation in education.

- Teachers can use a live polling tool to get real-time feedback from students. They can ask students to raise their hands or use a hand raise button on the video, but using a polling tool is even better. This tool has pre-set options; teachers can

launch a poll with just one click. Students can then select their responses, and teachers can see real-time aggregate results and individual responses from each student.

- Sometimes, polling is not sufficient to measure students' understanding. We require a more comprehensive evaluation in real-time that can aid us in instructing the remainder of the lesson. To achieve this, quizzes with various question types can be created for students to complete during class. Teachers can administer the quiz and obtain immediate results. Moreover, the results can be reviewed after class. With this information, teachers can be more confident that pupils comprehend the material. They can also reinforce weak areas during class instead of later.

- We aim to promote active student engagement in their Learning by providing interactive whiteboards and file annotations. Interactive whiteboards encourage students to collaborate, share ideas, and brainstorm effectively.

- Using videos in the classroom can help explain complex topics in a more easily understandable manner. With the help of a virtual classroom, teachers can use their collection of videos and platforms like YouTube to enhance their lesson plans. To keep students engaged and interested, it is essential to use multimedia resources such as presentations, images, whiteboards, and videos. We must strive to create dynamic and exciting learning experiences for our students.

- In remote and distance education, peer engagement is often overlooked, but as educators, we understand its importance for student success. Virtual classroom breakout rooms are a great way for teachers to facilitate safe peer engagement. With just one click of a button, teachers can provide content for students to discuss and collaborate in small groups. Breakout rooms can be used for branching scenarios, role-playing, and group projects (Glăveanu, 2014, Hager and Beckett, 2019).

As we ride the wave of the digital era, connecting with a global reach is becoming more accessible. A world of information is at your fingertips with the click of a button or a simple voice command, and as technology continues to advance, students need to grow their Learning with it. Technology is no longer a motivating factor for learning – it is a must. It needs to be incorporated into the future of Education to ensure students are equipped with the skills to cope in a world dependent on technology. Traditionally, we have followed

a linear formulation of society. Students go through K-12 Education, some get an undergraduate degree, and some go on to further studies. However, the current and future environment is too volatile to sustain this educational structure. Students must learn what they need when they need it (Hodges et al. 2020, Hager and Beckett, 2019).

4.3. Customization for a Learner-First Approach

Imagine a classroom that does not use a "one size fits all" approach to teaching. Instead of the teacher leading all students through the same lessons, they guide each student on an individualized journey tailored to their strengths, skills, needs, and interests. Students may learn at different paces, but their learning plans keep them on track to meet the standards for a high school diploma. Customized learning is the end goal of this approach, and it is already being used successfully in some schools and expanding in several states. Here is what you need to know about it. Every child has a unique learning style and pace. Customized Learning is a teaching approach that recognizes this fact. It entails creating individualized learning plans for each student based on their skills, interests, and learning style. This approach differs from most schools' traditional "one size fits all" method. Through collaboration with their teachers, students set short-term and long-term goals, which helps them take responsibility for their learning.

Teachers ensure that the learning plans and project-based Learning align with academic standards and monitor students' progress to ensure they demonstrate the expected skills. Customized Learning is not a substitute for general Education but can be implemented with Individualized Education Plans (IEPs), responses to intervention, or other intervention programs. However, accommodations, support, and accessible learning strategies must be incorporated into customized Learning. When executed effectively, all students will be more engaged in Learning, and struggling students will receive assistance promptly. Poorly executed customized Learning could result in further setbacks for students with disabilities.

Customized learning in schools can take on various forms, resulting in unique approaches for each school. However, four standard models are widely adopted, all holding students to high standards and aligning their Learning to rigorous criteria.

- Some schools utilize learner profiles to keep an accurate and current record of each student. These profiles provide detailed information about a student's strengths, weaknesses, motivation, progress, and goals, updated more frequently than traditional report cards. Teachers use this information to make informed

decisions and positively impact student learning. Learner profiles also benefit students by allowing them to monitor their progress and providing teachers and parents with insight into necessary learning methods or goals changes before struggle or failure occurs.

- Customized learning path schools help students personalize their education by creating a unique learning path that adapts to their progress, motivations, and goals. Each student's schedule is tailored based on weekly academic updates and interests, utilizing various learning methods, including project-based Learning, independent work, and one-on-one tutoring with a teacher. This approach allows students to learn at their own pace while ensuring they receive the necessary support and guidance from their teachers. The school closely monitors each student's progress to prevent them from falling behind in any area.

- Competency-based progression schools continually assess students to monitor their progress towards specific goals. This approach allows students to understand what they need to master regarding specific skills, knowledge, and mindsets like resilience. Students can choose how and when they demonstrate their mastery, such as by integrating math skills into an internship at a retail store. They can work on several competencies simultaneously, moving on to the next once they have mastered one. Each student receives the necessary support and services to help them acquire the skills they need. Rather than focusing on passing or failing a test, the emphasis is on continuous Learning and having multiple opportunities to demonstrate knowledge.

- Flexible learning environments have become increasingly popular in schools. These schools adjust the learning environment to suit the student's needs best. This includes the classroom setup, daily schedule, and teacher allocation. To achieve this, schools may allocate more time for small-group instruction. Although redesigning the classroom space, time, and resources can be challenging, meeting each student's needs, and creating an effective learning environment is necessary.

Although customized learning is not yet widely implemented in schools, it has significant potential to reduce the stigma of special education and better cater to the needs of children with learning and thinking differences. Unlike IEPs, which often focus on deficits, customized learning paths can balance this by highlighting students' strengths and interests. When combined, IEPs and customized learning can provide children with a personalized approach that helps them work on their weaknesses while engaging their interests and empowering them to take ownership of their Learning. Customized Learning allows students to develop self-advocacy skills by expressing their interests and becoming equal partners in their learning experience. However, there are some risks associated with this approach.

The Dearing report (1997) suggests that "Higher Education is a great national asset. Its contribution to the nation's economic and social well-being is vital. In a fast-changing and increasingly competitive world, the role of higher education in equipping the labour force with appropriate and relevant skills, stimulating innovation, supporting productivity, and enriching the quality of life is central. The benefits of an excellent higher education system are far-reaching; the risk of decline is one that we cannot accept." (Para.1-1.3). Digital technologies are crucial in achieving our goals to customize Education and learning experiences. In addition, these technologies can quickly identify environmental courses and prevent further environmental damage. Others also aim to decrease pollution and waste while enhancing productivity and efficiency. Moreover, digital technologies have significantly impacted Education (Camilleri and Camilleri, 2017, Beardsley et al., 2021).

Customized Learning entails adapting the teaching approach to suit each student's strengths rather than using a one-size-fits-all method for the entire class. This approach allows teachers to help their students achieve success. The personalized learning process is similar to how online tools customize our experiences with tailored algorithms that cater to our interests. When you browse a website, the content you see is customized based on your search history and preferences, just as the content I see is customized based on mine. Personalized Learning is designed to provide a customized educational experience optimized for each student. While every learner has a unique journey, the goal is to achieve mastery of the subject and meet the grade-level standards. There may be different paths to the same destination, but the result is always the same.

The Covid-19 pandemic has accelerated the use of digital technologies in education, resulting in a significant paradigm shift in the education system. Besides

providing knowledge, these technologies act as co-creators of information, mentors, and assessors. Students find it easier to use software and tools to personalize their Learning through presentations and projects. Moreover, an iPad is lighter than a stack of notebooks, and surfing an E-book is more comfortable than reading a heavy book. These technological improvements have increased students' interest in research. The classroom and how teaching is delivered must change. Customized Learning allows students to develop self-advocacy skills by expressing their interests and becoming equal partners in their learning experience. However, there are some risks associated with this approach. Teachers will become facilitators of learning, and students will have more control of their learning journey[1].

4.3.1. Research Methodology

We have based our analytical method on recent studies in educational sciences and practice theory, such as those by (Bagga-Gupta, 2019; Bonderup et al., 2020, Cerratto-Pargman and Jahnke, 2019a; Hager and Beckett, 2019). Our approach focuses on the contemporary conceptualizations of 'practice(s)' in different school subjects, practice theory, and emerging practices that utilize digital tools and resources. In this framework, 'practices' are viewed as a means of:

- situating and transferring knowledge and skills in (digital) contexts (Bonderup et al., 2020).
- engaging in formal and informal Learning across analogue-digital sites (Bagga-Gupta, 2019).
- comprehending how humans continuously become through their actions in socio-material contexts (Cerratto-Pargman and Jahnke, 2019, Kemmis, 2019).

According to Hager and Becekett's (2019) explanation, one's understanding of specific practices in a particular context is not solely based on individual performance. Other people, objects, and neighbouring practices also shape it. This concept is inspired by Kemmis (2019) theoretical framework of practice architecture, which holds together various practices and sub-practices in the construction of sayings, doings, and relating. This framework considers the intertwined dynamics of cultural-discursive, material-economic, and social-political dimensions. We use this framework to analyse the relationships between emerging practices within an institutional structure, specifically the

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[1] https://www.understood.org/en/articles/personalized-learning-what-you-need-to-know

school we studied at. Our study collected detailed narratives from teachers about the weeks before and after their school's shutdown due to the pandemic. These narratives shed light on the practical aspects of digital contexts in Education and reveal how an upper-secondary school dealt with the immediate crisis. Using a narrative methodology, we understood the experiential dimension of practice and how social practices are crucial for learning and growth (Lindberg et. al., 2020).

Using digital technology has brought about new practices in a specific school context. The narrative method helps us understand the experiences and cultures of those involved. Through the narratives teachers provide, we learn about their focus and actions during the transitional phase. Their language use reflects their perceptions of what was happening, while their actions show what they considered important in changing their practices. The teachers' relationships also affected how they viewed the connections between different groups and practices in their institution and beyond. Our analysis primarily focused on the teachers' actions, specifically their narratives about how they adapted to remote teaching during a limited time and the factors that helped or hindered the transition.

The teachers' experiences revealed how practices were organized, self-regulated, or left unmanaged, creating a context in which certainty and uncertainty intertwined. According to (Wenger-Trayner and Wenger-Treyner, 2020), "uncertainty" is a vital element of Learning, even though it is sometimes associated with incompetence. They argue that engaging with uncertainty means that everyone is on the edge of knowledge, and no one can claim to understand or own the destination fully. Uncertainty is distributed, but not necessarily equally or fairly. (Wenger-Trayner and Wenger-Treyner, 2020, 22). During the pandemic, new practices emerged that allowed teachers to adapt to uncertain situations. However, they could not reflect on how these changes aligned with their teaching values due to limited time. To address this, a retrospective view allowed teachers to process their steps in transitioning to new practices. This helped them construct a new working order for different situations.

During a pivotal transition, the teachers could engage in reflective Learning by sharing their experiences of how they handled things and what actions they took. This allowed us to recognize the teachers as competent individuals capable of reflecting on their life experiences and interpreting them individually and collectively (Polkinghorne, 1995). Additionally, they could consider the meaning-making process for themselves and their colleagues.

To understand the Paradoxes, Hopes and Realities of the "Digital Future in Education," our approach focuses on South Sudan and Uganda with three study sites each, capturing many issues, contexts, and dimensions in line with the call. We use mixed methods applying qualitative and quantitative techniques. The study's success is partly premised on understanding the sociocultural, policy-economic, and environmental dimensions in the target areas that underpin health, livelihood, resilience, and adoption of a digital future in education. Societies in these countries have complex and interdependent components that have evolved over many years in response to educational challenges and economic and sociocultural factors, conflicts, and civil wars. Our qualitative engagements of various community segments based on gender and expertise in the study sites combined with surveys widely focused on regional and national school officials, local community leaders, and local/regional health educators envisaged providing a base to redesign systems for digital future in education.

4.3.2. Study Design

Three priority sites were selected in each country to address a spectrum of digital futures in education. The sites in Uganda are:

- Kiryandongo District represents three attractive tenets for digital learning and the future of education study (a) it has a refugee settlement camp with a vulnerable population. The district has about 57,000 refugees (10,500 households) and approximately 300,000 host community members. Most refugees in the district are from South Sudan, although the camp hosts other refugees from the Democratic Republic of Congo (DRC), Rwanda, Sudan, Burundi, and Kenya, and some internally displaced Ugandans moved from landslide-affected areas.
- Kasese District is in Southwestern Uganda, bordering DRC, densely populated, and one of the most prone districts to disasters and an influx of refugees from the ongoing war in the DRC. It has a population of about 45,000. It perpetually

experiences multiple floods and landslides, which induce various Learning and educational issues.

- Bududa District is in Eastern Uganda on Mt. Elgon at relatively higher altitudes. It has one of the highest population densities and annually suffers disastrous landslides. The 2010 landslide killed 360 people and displaced many who resettled in the Kiryandongo district.

The sites in South Sudan will include Juba, Wau, and Malakal counties based on some of the vulnerabilities explained. These counties have some pre-existing Education and health systems where the healthcare delivery sectors are somewhat noticeable, but they present different spaces to explore the study objectives. All three counties double as regional capitals that cater not only for their urban residents but also for rural residents of remote villages that have access to them. Juba is the capital city of South Sudan, located in the South-Central part of the country by the western bank of the Nile. Wau County is in the northern, western part of the country, while Malakal County is in the northeaster part. Juba, Wau, and Malakal have an estimated population of more than 700,000 inhabitants combined. Besides the political and tribal conflicts that are ongoing in many parts of the country, these cities are calm but have the most IDPs in the region. Currently, South Sudan has more than 1.5 million IDPs who are vulnerable women and children, all of whom benefit from remote and distance learning protocols.

As mentioned above, to address the study objectives, we employed mixed methods, including quantitative and qualitative approaches better, to conceptualize the current situation of the digital future in education and the transition to sustainable Learning among the displaced and refugee communities.

- The study conducted surveys and some diagnostic testing as part of the quantitative approach. A detailed survey instrument was developed, and household interviews were undertaken in the target communities. Bi-gender teams were deployed to interview male and female households randomly selected based on stratifications. The sample size for the household interviews based on the household as the unit of analysis was empirically determined using standard procedures. The quantitative approach helped the team understand the research questions outlined above. The diagnostic testing and follow-up explored the sudden increase in school attendance.

- Two designs, including Focused Group Discussions (FGDs) and individual in-depth interviews, were conducted as part of the qualitative approach, with two FGDs conducted at each site. We employ qualitative methods that involve engaging stakeholders, beneficiaries, women and youth groups in Learning and Education and conducting key informal interviews with traditional and opinion leaders. The objective is to study the existing Education Systems, their delivery, and Implementation Plan. The participants in these two qualitative approaches include men and women recognized as community opinion leaders. Both the quantitative and qualitative approaches try to assess the current education systems to identify the existing barriers undercutting the sustainability of the existing and future learning platforms by identifying issues affecting men, women, girls, boys, and people living with disabilities.

- The third approach includes desktop reviews, which include understanding the role of the digital future in education. The regional policies, strategies and reports were also explored to understand the country-based approaches to digital futures in education and learning in general concerning the country's regional and local educational practices to identify best practices. The two above approaches reviews helped us better conceptualize the intersectionality of national and international responses to address changing patterns in the digital future of education.

4.4. Digital Future of Education. Some Discussions and Conclusions

Thanks to digital technologies, students can virtually explore the world and visit distant places from the comfort of their computers. Adding a guest speaker to a lesson plan can also be a great way to make it more interesting. Video conferencing systems make it easy to bring experts into our classroom, no matter their location. We can even organize a video conference with students from another school. Digital tools like online polls engage all students, including those who may be too shy to speak up in class. Plus, online engagement tools allow us to check in with students regularly and get their feedback on course materials and assignments.

One way to identify areas where students might need more help is by paying attention to their insights. Using student response systems, students can participate in class and receive rewards for their contributions, fostering digital citizenship. Schools play a significant role in our communities, and their closure can hurt the mental health of families and children. However, digital technologies can help fill this gap. Online learning allows students to learn independently, revisit content as needed, and explore course material independently.

Active learning can be enhanced with the help of educational technology through strategies such as quizzes. Using technology like social media and interactive whiteboards, students can collaborate and share ideas seamlessly in class or remotely. Technology also allows for spontaneous discussions and quick access to answers to any questions or challenges related to a subject. Traditional collaboration's physical and social limitations are removed, enabling students to work together anytime and anywhere.

Due to self-paced learning and individual differences, students will inevitably finish their work at different times. Educational films, course-based games, or interactive learning tools can be provided to keep students engaged. This allows faster-paced students to progress without waiting for their peers, while slower-paced students can work at their own pace without feeling pressured. This Education 4.0 initiative will be implemented in upcoming schools to enhance education and equip the next generation.

How and what we teach in our education system needs reshaping to keep up to date with the growing demands of the 21st century, hence the need for precise approaches to future Learning, especially in business and management. The role of the teacher must adapt and grow. Educators' responsibility is to empower students to take risks, be innovative, and seize any opportunity thrown their way. Future teachers will be data collectors, analysts, planners, collaborators, curriculum experts, synthesizers, problem-solvers, and researchers.

The proposed chapter examined the relevance of digital transformation in the future-oriented methods for remote education, answering many questions such as production of information, transmissivity – online scrolling/clicks, constructive pedagogies, scenario simulation: educators of the future approach, knowledge community: Customization for a learner – first approach, Connectedness, collaboration, and co-creation.

Connectedness, collaboration, and co-creation: while not an entirely new approach, student learning spaces will supersede the typical classroom that we know today. The student learning spaces will see students become partners or co-creators of their learning. Collaborative, communicative, and team-oriented experiences for students frequently arise beyond the confines of the classroom. We must facilitate these experiences in context, and our classrooms must reflect this.

Anywhere, anytime, learning: As we ride the wave of the digital era, connecting with a global reach is becoming more accessible. A world of information is at your fingertips with the click of a button or a simple voice command, and as technology continues to advance, students need to grow their Learning with it. Technology is no longer a motivating factor for learning – it is a must. It needs to be incorporated into the future of education to ensure students are equipped with the skills to cope in a world dependent on technology. Traditionally, we have followed a linear formulation of society.

Customization for a learner-first approach: The classroom and delivery of teaching must change. For example, the old 'one model of teaching and learning fits all' is outdated and has no place on the agenda for future education. Teachers will become facilitators of learning, and students will have more control of their learning journey.

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The corresponding author, Dr Ayine Nigo, conceived the idea and contributed to writing the original draft. Mr Vincent Gibogwe has contributed to the chapter's content, in addition to supervision, review and editing, taking joint credit and ownership of the entire work.

Conflict of Interest Statement

The authors declare that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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About Authors

Dr Ayine Nigo is a lecturer at the School of Applied Management at Westminster Business School. He previously served as an assistant professor at the School of Social and Economic Studies and the Dean School of Business and Management at the University of Juba in South Sudan. In addition to his academic work, Dr Nigo advises the Board of SPEDP and serves as the Economic Advisor to the Government of South Sudan National Transport Authority and lead economist South Sudan Health Financing Technical Committee. During the Covid-19 pandemic, he played a vital role in financing the healthcare sector in South Sudan and significantly contributed to the committee's success. Dr Nigo is a fellow of the Higher Education Academy.

Mr. Vincent Gibogwe is a Lecturer in Development Economics in the School of Organizations, Economy and Society at Westminster Business School, University of Westminster, UK. He is a prolific writer currently writing on the impact of foreign direct investment in sub-Saharan Africa and the Statistic called Gross Domestic Product

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Chapter's history