The Philosophy of Smart Learning Using the Approach Thomas Kuhn Paradigm Shift

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Abstract: The impact of technology must be addressed by the educational methods themselves and their perspectives in the new paradigm of citizenship in this intelligent environment. Learning environments have changed dramatically in the last 50 years, in large part due to information and communications technologies. The study uses a qualitative descriptive. Thomas S. Kuhn, fully Thomas Samuel Kuhn, (born 18 July 1922 in Cincinnati, Ohio, USA-17 June 1996 in Cambridge, Massachusetts), best known for The Structure of the Scientific. Kuhn explains that in every scientific discipline, there are some identified and natural phenomena that are then investigated experimentally and explained theoretically. Pre-paradigm as the basis of normal science, the formation of smart learning is started when primitive cave. Normal science for learning is a traditional teaching method, teaching takes place within the four walls of a classroom. Anomalies are surprising discoveries that cannot be defined through a paradigm, together with discoveries of troubles that cannot be solved through a paradigm. The lock down following the COVID-19 pandemic has made us extrude in a single day from mastering withinside the bodily international to mastering withinside the virtual one. Model crises are the third phase of the Kuhn cycle. Triggering the Model Crisis movement Blended learning can be the brand new normal – "Blended learning". The smart learning cognizance and traits has emerged as a brand-new fashion withinside the international academic field. different smart technologies, consisting of cloud computing, learning analytics, huge information, Internet of things (IoT) and wearable generation.

Index Terms: Smart learning, Smart education, Education 21, Philosophy, Kuhn.

1. Introduction

Science solves need requirement for real problems. It gives us technology. Things we can touch, see and use it. It gives us vaccines, genetically modified crops, and pain killers. Philosophy seems to have nothing concrete to offer students. Albert Einstein's philosophical thought experiment made Cassini possible. Aristotle's logic is the foundation of computer science that gave rise to laptops and smartphones. And the philosophers' research on mind-body issues paved the way for the emergence of neuropsychology, and with-it brain imaging techniques. Philosophy has always worked quietly in the background of science [1].

The impact of technology is having a tremendous impact on education. The impact of technology must be addressed by the educational methods themselves and their perspectives in the new paradigm of citizenship in this intelligent environment. This work describes of the next of citizenship and education, The exponential technology impact, based on relevant with classic philosophy issues and especially along the history and the Trivium didactic program [2].

The learning environment has fast changed over 50 years ago, largely due to information and communication technology. Since the advent of the Internet and personal computing, there has been a constant explosion of innovation to support learning and education. Many new approaches have been researched to learning and teaching paradigms, but relatively few large-scale implementations have had significant learning outcomes. What happens when new learning technologies are implemented on a privileged and small scale (e.g., motivated, and experienced teachers, field researchers, etc.) and the promising are result. It has been shown, is widely used, supersedes previous activities, or resources define the technology, often without proper training and support. Given new technologies and emerging technological powers and possibilities, it's time to think about how to make learning environments more effective, efficient, engaging and at scale at scale and sustainably [3].

2. Research Methodology

The study uses a qualitative descriptive technique through choosing a literature approach to accumulating records. By the usage of this approach, records within the shape of files consisting of journals, books and articles may be amassed as soon as possible. The use of qualitative descriptive strategies may be very beneficial to parse the controversy in greater detail, through providing applicable theories which might be similarly deduced at the signs to be studied, evolving hypotheses and operationalize concepts. This technique is also essential so that it will emphasize the location of studies in order that theories and ideas about the components studied may be defined and formulated

3. Result and Discussion

Thomas S. Kuhn, fully Thomas Samuel Kuhn, (born 18 July 1922 in Cincinnati, Ohio, USA-17 June 1996 in Cambridge, Massachusetts), best known for The Structure of the Scientific Revolution (1962) American historian of science), one of the most influential works in 20th century history and philosophy. Kuhn received a bachelor's degree (1943) and master's degree (1946) in Physics from Harvard University, but a PhD (Dr. (1949)) in the history of science. He taught history of science and philosophy at the University of California, Berkeley (1956-64), Princeton University (1964-79), and the Massachusetts Institute of Technology (1979-91) [4, 5].

In the SSR, Kuhn made an epistemological paradigm shift. Or also called the scientific revolution. According to Kuhn, when scientists meet, there is a scientific revolution an anomaly that cannot be explained by the generally accepted paradigms in which scientific progress is made. According to Kuhn, a paradigm is not just a current theory, but the entire view of the world in which it exists, and all the implications associated with it. As mentioned earlier, according to Kuhn, normal science is a puzzle-solving enterprise. A paradigm ensures that the puzzle it defines has a solution, but that is not always the case. The puzzle may not be solvable within the framework given by the paradigm. Competing groups usually develop strategies to solve problems, but at this point hey become anomalous, solidifying into different conceptual schools much like the competing schools that characterized pre-paradigm science. There may be general agreement that the paradigm's basic assumptions have come to be widely questioned and alternatives need to be found. One of the competing approaches to solving the anomaly produces a solution that has gained many loyal adherents in the scientific community due to its generality and promise for future research. This solution is viewed by its proponents as a concrete and definitive scientific achievement that sets an example of how research in this area would later be conducted. And when enough scientists are convinced that the new paradigm works better than the old, they will accept it as the new standard. Eventually, new paradigms will form and gain their own new adherents, and an intellectual struggle will take place between adherents of the new paradigms and adherents of the old [6,7].
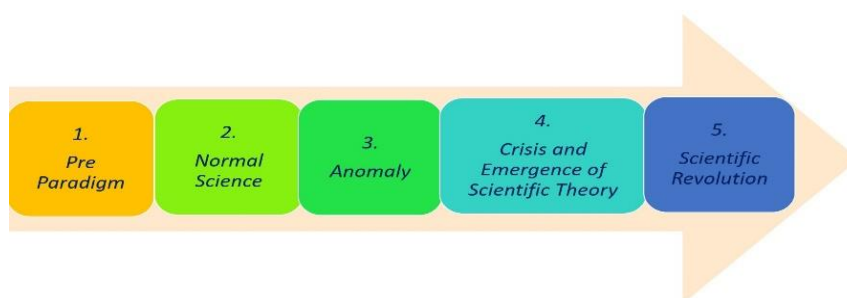

Fig. 1. Shif Paradigm.

A. Ontology

The period "ontology" comes from the sector of philosophy that is worried about the observe of being or existence. In philosophy, you can communicate approximately an ontology as a principle of the character of existence in laptop and statistics science, ontology is a technical period denoting an artifact that is designed for a purpose, that is to allow the modeling of know-how approximately a few domains, actual or imagined.

The period was followed with the aid of using early Artificial Intelligence (AI) researchers, who identified the applicability of the paintings from mathematical good judgment and argued that AI researchers should create new ontologies as computational fashions that allow positive varieties of computerized reasoning. In the 1980's the AI network got here to apply time ontology to consult each a principle of a modeled world (e.g., Naive Physics) and a factor of know-how systems. Some researchers, drawing ideas from philosophical ontologies, regard computational ontology as a sort of implemented philosophy [8].

B. Epistemology

The term "epistemology" comes from the Greek word's "episteme" and "logos". " Episteme "can be translated as " knowledge " or " understanding " or " acquaintance ", and " logos " can be translated as "knowledge" or "understanding" or " reason". Just as each of these various translations captures an aspect of the meaning of these Greek terms, each translation captures a different aspect of epistemology itself. No, but the field of epistemology is at least as old as the rest of philosophy [1]. Different aspects of epistemology have attracted attention in different parts of its broader history. Plato's epistemology was an attempt to understand what it means to know and how knowledge is good for those who know. Understanding how human understand works is Locke's epistemology, understanding the possible conditions of human understanding is Kant's epistemology, and Russell's epistemology is an attempt to understand the contemporary world. is learning to understand by relating it to sensory experience. an attempt to understand how science is justified [6].

At a higher-level epistemology is a branch of philosophy, providing a coherent understanding of many human activities, including the study and practice of technology and educational design. whereas naturalistic epistemology is a related philosophical Perspective that informs intelligent learning environments and other areas of learning and teaching. This view in education is often called social constructionism. It consists of two main principles which describe how people develop their knowledge and skills. The first principle has to do with creating mental models when faced with new, unusual, or inexplicable experiences. Simply put, it is the concept that people create internal representations to make sense of their experiences. This principle can be found in Wittgenstein's Treatise of Logic, Statement 2.1: "Imagine the facts." In the field of education, David Johansen et al use the term 'constructivism' to describe how people increase knowledge in the form of meaningful activities. In this view it places the individual at the center of the development of knowledge and skills and means that individuals can develop their knowledge and skills in different ways. Personal characteristics, especially previous experience and knowledge are a major factor in supporting and planning learning.

A second lesson from a philosophical point of view relates to the language role as an important mediator in learning and the knowledge development. The language concept games were introduced and widely discussed in Wittgenstein's philosophical investigations. In this work, describes a highly human activity that engages in discourse following relatively local rules and protocols called language games is the describe from Wittgenstein. Interaction with others, especially in the form of discourse, contributes to the development of knowledge is the idea of underlying. In fact, much of learning is through and language dependent. Putting these two principles together gives us how people learn and understand their world as a general description. This is done through the process of creating internal mental expressions and sharing the ideas generated by those expressions with others through appropriate language and media. That is, social constructivism rests firmly on the naturalistic epistemological perspective that is widely accepted not only by psychologists and educators, but also by philosophers. A coherent foundation for learning and teaching is the philosophy of social constructivism because it is a pillar of an intellectual learning environment [3].

Communication technologies and Innovative information have transformed higher education from traditional learning to intelligent learning. Smart learning takes advantage of technological and social developments to enable effective individualized learning using innovative technologies, especially smart devices and online technologies. Smart learning meets growing research interest in science [9].

C. Axiology

Educational Philosophy provides critical analysis and clarification of pedagogical and pedagogical views and guidelines. Pedagogical philosophy is "the philosophical study of education and its problems, the central object of which is education and the method of which is that of philosophy". Pedagogy must be explored through the thoughts and practices of educators and philosophers who have studied pedagogy more deeply. Learning has started. Teaching Philosophy-Influences what and how students are taught. Philosophy of education answers questions about the purpose of a school, the role of teachers, what should be taught and how, clarifying what teachers do, what they are going to do, and why they do it. Justify or explain what you do or what you do. Act logically and systematically. So, all teachers have a personal philosophy that colors the way they teach. Philosophy of Education explains our relationships with things and beings. It is the first step students make in their relationship [10].

Science changes like waves. The so-called paradigm shift or scientific revolution. This concept was prominently detailed over 50 years ago by his Thomas S. Kuhn in his one of the most cited philosophies of science books of all time. Kuhn explained how "ordinary science" undergoes anomalies that lead to crises and revolutions, resulting in new and immature scientific paradigms that eventually become the new normal [11].

D. Pre-Paradigm

Kuhn explains that in every scientific discipline, there are some identified and natural phenomena that are then investigated experimentally and explained theoretically. However, each researcher has his own foundation or purposes from each other; each researcher often represents a schoolworking from different foundations. Such schools often emphasize a particular part of a set of facts. Pre-paradigm schools compete for financial and social resources and professional recognition. These schools can be compared with various philosophical schools and sub-schools, such as the Epicurean, Aristotelian, and Platonic schools [12].

Table 1. History of Technology for Learning (Pre-paradigm).

Years	Phase	Description
-35.000 BCE	Early forerunners of Ed Tech Before 1900	Primitive cave paintings showed human communication needs and desires (oral traditions emphasized memory and training, and as cultures became more advanced), teaching techniques have become more complex).
-500 BCE	Sophist Introduce Connections with Education and Technology	sophists offer advancements in classroom strategy development and has a proven track record in the use of technology in education. Britannica His Sophist: Julie Tomsach His Sophist legacy is the word "techne" or technology: the thought was that scientists, not writers, lived in culture. They integrated his two concepts of culture into one of his conceptual techniques.
-450 BCE	Socratic Method Developed	Socrates (-470 B.C.-399 B.C.) developed a Socratic research method based on documented and lessons recorded by his students. Teachers used a set of guiding questions to guide students to conclusions without the need to collect additional data. This method of discussion and questioning is still used today in many forms.
-1592 - 1670	Inclusive Education Scaffolded into a K-Higher Ed Structure	Education should be for everyone and that it was important to order education according to developmental stages it is a believed by Amos Comenius. Suggested that it should be given as.
-1801	the Blackboard in a classroom.	the blackboard were first used in classrooms in the 19th century, and by the mid-19th century, nearly every classroom had a slate depicting their teaching style
-1839	Lancasterian Method in the United State	introducing educational media and effective groupings a lasting impact on education by the Joseph Lancaster. Structure of mass education for school have changed, giving education "order and system" but lacking theory. Julie Tomczak became popular for her system of low-cost, high-volume instruction. foreshadowing free public schools. It was educational but lacked and mechanical the learning theory for systematic psychology.
-1860	Introduction of the Oswego Method	Edward Austin Sheldon, principal of Oswego, New York, is credited with making the first large-scale attempt to psychologist instruction in the United States. He revised the curriculum and teaching methods of Oswego's school and introduced Pestalozzi's object education.
-1875	Introduction of the Quincy Method	Francis Weiland Parker, principal of Quincy, Massachusetts, introduced a new form of American Pestalocianism. Quincy's method of object education is similar to Oswego's but uses a wider variety of everyday items and scientific materials.
-1937	During Polio Epidemic the Chicago is Pioneers Remote Learning	during a polio outbreak in 1937, Chicago public schools used radio to provide distance learning to students. Lessons created by on air, and local radio stations donated airtime to continue to help student's studies at home.

Pre-paradigm as the basis of normal science, the formation of smart learning is started when primitive cave paintings showed human communication needs and desires (oral traditions emphasized memory and training, and as cultures became more advanced), teaching techniques have become more complex). sophists offer advancements in classroom strategy development and has a proven track record in the use of technology in education. Britannica His Sophist: Julie Tomsach His Sophist legacy is the word "techne" or technology: the thought was that scientists, not writers, lived in culture. They integrated his two concepts of culture into one of his conceptual techniques. Socrates (470 B.C.-399 B.C.) developed a Socratic research method based on lessons recorded and documented by his students. Teachers used a set of guiding questions to guide students to conclusions without the need to collect additional data. This method of questioning and discussion is still used today in many forms. Further explanation of the pre-paradigm can be found in this table [13].

E. Normal Science

All dominant scientific paradigms are a Normal Science. Normal science is research based on one or more previous scientific results, which has been accepted by a particular scientific community for a period as the basis for further practice [8]. Normal science for learning is a traditional teaching method, teaching takes place within the four walls of a classroom. The teacher is the only source of knowledge here. It is a teacher-centered method that promotes

teacher dominance within the classroom. Also, all aspects of learning are their will. Teacher:

1. Take full control of your learning environment.
2. Determine teaching methods.
3. Determine the curriculum.

In traditional teaching methods, teachers followed memorization exercises and routine methods. In this way, children learn through repetition and memorization. There is little or no room for critical thinking. To better understand what traditional teaching entails, let's look at some of its main features [14].

1. Learning takes place in the physical space within her four walls of the classroom.
2. Traditional learning methods give the teacher full control over the learning environment.
3. Learning takes place at a predetermined pace and schedule.
4. Face-to-face interaction between teacher and student.
5. Strict reliance on textbooks.
6. All students study in the same environment

Further explanation of the Learning for Normal Science can be found in this table.

Table 2. History of Technology for Learning (Normal Science).

Years	Phase	Description
-1955	Instruction Begins Assisted by Computer	Beginning in the mid-1950s, IBM researchers designed computer-assisted educational programs for use in public schools. Although computers came much later, this was his first use of education by CAI. - Erin McPheters.
-1956	Educational Objectives by Taxonomy	six categories of cognitive domain from Benjamin Bloom is a Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation.
-1957	Formative Evaluation launch by Sputnik Indirectly	The US government improving math and science education invested millions of dollars. This is a process that allows you to try and modify the material before finalizing it. Shocked by Sputnik's success.
-1960	Educational Technology use A Constructivist Approach	Constructivism is the theory that students construct knowledge rather than passively receive information. By building their own representations and integrating new information into existing knowledge (schemes) [15].
-1967	Formative and Summative Evaluation by Michael Scriven	Summative-formative assessment is used to get feedback on the comprehension carried out with the exam [16] . After figuring out that many substances made to enhance math and technology training withinside the US have been not effective, Michael Scriven proposed method formative assessment and the method of comparing substances after their as summative assessment.
-1969	Internet	The Internet was born of the Advanced Research Projects Agency Network or ARPANET. Funded by the US Department of Defense, allowed many computers to communicate on a single network, broadcasting its first message "internode" communication on October 29, 1969.
-1972	Transactional Distance Theory	Recognizing the potential of technology and its ability to communicate over distance prompted Michael G. Moore to publish his theory of transactional distance, first published in 1972. Michael Moore later pioneered the field of distance learning, which relied heavily on educational technology. (Luis Alvarado). Moore, M. "Trading Distance Theory" Keegan, D., ed. "Theoretical Foundations of Distance Learning".
-1981	Learning at the Back Door: Reflections on Lifelong Nontraditional Learning	Charles Wedemeyer explores learning as a natural human education that can usually be renewed through long-term study. His influential paintings, published in 1981, consider research in both conventional and non-conventional settings.
-1983	Increased use of computers in schools	The PC technology introduce around the world into availability of microcomputers has enabled schools buildings. all primary schools used Computers in over 40% of and all secondary schools over 75% in 1983,.
-1990	Systems transform instruction of Virtual Learning Management and provide new opportunities in education	1990 Virtual Learning Management System Transforms the Classroom and Offers New Opportunities for Teaching With the invention of the Learning Management System (LMS), a common virtual place to share materials, provide feedback, and communicate. offered to teachers and opened up a new way of looking at the classroom. with students
-1991	First interactive whiteboard (SMART Board)	In 1991 LCD screen technology the world's was developed as first interactive whiteboard by SMART Technologies.
-1992	Birth of the (Commercial) Internet	US Congress passes the Science and Advanced Technology Act. This law allowed the National Science Foundation to provide commercial access to the Internet, not just to research and educational institutions. Although there has been some form of interest since his ARAPNET in the early 1970s, the Advanced Science and Technology Act opened up the Internet to users outside government and academia.

-2006	Introduction of "Web 2.0"	The development of "Web 2.0" opened up the Internet to possibilities for user-generated content such as blogs, YouTube, Wikipedia, Flickr (and sites like them). This development spawned new ways for users to interact with the Internet, ultimately paving the way for social media and open source platforms and tools.
-2007	First MOOC Created	Massive Open Online College call as MOOC was officially coined in 2008, but in 2007, the first course was created by David Wiley to find participants, offering courses in eight countries. enrolled 50 students and 5 face-to-face students from .
-2012	Morten Versvik, Johan Brand and Jamie Brooker was founded Kahoot.	Kahoot serves as an interactive, K-12 and higher education classrooms and other organizations using game-based.
-2016	K-12 Computer Science Standards Framework	To align computer education schools with K-12 students nationally, the K-12 CS Framework was developed which makes standardized environmental recommendations for students and teachers to be critical of computer science education.
-2019	COVID-19 Pandemic Triggers Emergency Remote Teaching	As the COVID-19 pandemic closed schools and colleges around the world, an urgent shift to remote teaching and learning began. Face-to-face classes are turning into remote environments, often with video conferencing tools like Zoom, Microsoft Teams and Cisco Webex.

The term "smart classroom" often ranked first in the top lists. Other commonly used terms were "learning analytics," "e-learning systems," "augmented reality," "virtual reality," and "artificial intelligence." Blended learning for intelligent learning, MOOCs, and course content management, IoT and cloud computing, STEM education, affective and biometric computing, intelligent learning analytics, software development for e-learning systems and intelligent learning apps. included In contrast, there was a topic called smart learning for special education that saw a marked decline in research interest [17].

F. Anomaly

Anomalies are surprising discoveries that cannot be defined through a paradigm, together with discoveries of troubles that cannot be solved through a paradigm. Comprehension models (paradigms) can normally be changed to explain anomalies. This is how principle matures. However, whilst a few anomalies are unexplained, they start to accumulate [10]. Technology Supported Learning equipment are able to improving college students` experiential mastering and related competencies, but there have been some of pedagogical, technological and mental demanding situations that confronted college students and teachers due to the surprising migration on-line, which can be probable to play a function withinside the obstacle of the college students' mastering cycle, because of the shortage of preparedness in reaction to the kingdom of emergency created through Covid-19. The look at additionally famous that through overcoming several the technical demanding situations inclusive of sluggish net connection and interruptions, instructions learnt from the surprising migration to on-line shipping amid COVID-19, will assist create new possibilities for using combined mastering processes to fulfill the wishes of the on-going COVID and destiny on-line deliveries [18].

The lock down following the COVID-19 pandemic has made us extrude in a single day from mastering withinside the bodily international to mastering withinside the virtual one. A feel of area is vital to mastering, even though mastering isn't always handiest approximately the area. Learning is a social revel in. while listening occurs in class, actual mastering occurs outdoor whilst we technique the mastering revel in with our buddies in cafes or on taking walks routes. At the coronary heart of all mastering is the technique of learn-do-reflect labs and tasks satisfy the `doing` part and reflecting occurs whilst the educator offers feedback. Going digital has dismantled the complete mechanism [19].

G. Crisis and Emergence of Scientific Theory

Model crises are the third phase of the Kuhn cycle. At this step, the subject's model of understanding drifts and can no longer makes rational decisions, leaving the subject in crisis. Their foundation for solving their core problem is shaken by the discovery of too many anomalies that their core theory cannot explain. At this point in the cycle, the energy of the field is optimally used to build new models that work [11].

During the COVID-19 pandemic, the instructional establishments closed withinside the 194 countries, affecting over 1.5 billion college students global. Fortunately, cellular gadgets that could connect with the Internet have allowed college students to keep getting to know in virtual environments. Transcending the spatial obstacles of traditional classrooms, virtual getting to know permits for college students to comply with the getting to know content material prescribed via way of means of instructional establishments and instructors the use of their favored getting to know techniques and at their handy time and location. Educational establishments global have tried to use instructional era for offering synchronous or asynchronous on-line getting to know. Researchers have additionally warned that the pandemic might exacerbate intellectual stress [20].

H. Scientific Revolution

At this stage, the situation knowledge fashions undergo an innovative change. A vintage version broke down, triggering the Model Crisis movement. A version revolution starts whilst one or extra competing new fashions emerge from the crisis. This step is innovative, due to the fact the vintage version is generally so firmly ingrained withinside the questioning behavior and existence of customers that the brand-new manner of questioning is incomprehensible, or at

the least to begin with unacceptable. The "version revolution" step also can be defined as "locating new fashions that work". The duration of this step is first-class stored to a minimal due to the fact the results of now no longer locating a brand-new version in time might be catastrophic. Unless pushed with the aid of using a very good process, this step is generally bumpy, unnecessarily slow, and unpredictable [21]. In the ultimate decided on definition with the aid of using Yusuf and Nathan (2020), the expression "everywhere at any time" must know no longer be interpreted -or at the least for the instant and withinside the first instructional levels- because the loose and self-sufficient control of gaining knowledge of. "A student-centric sensible gaining knowledge of surroundings enriched with virtual gaining knowledge of sources to offer clever pedagogies that assist smart learners` personalized gaining knowledge of reviews everywhere at any time the use of smart transportable gadgets and related throughout instructional establishments or schooling team of workers thru the development and superiority of smart and wifi technologies" [22].

Five Learning and Development trends that I would expect in the post-pandemic world [19].

1. Blended learning
2. Knowledge-based training
3. Virtual facilitation competencies & virtual literacy
4. Trainers will spend much less time imparting content material and greater time facilitating studying.

Blended learning can be the brand new normal – "Blended learning". Technology has changed the way education is delivered to students. where traditional formal learning concepts, which take place in a single physical location, are becoming increasingly irrelevant. The modern learner is becoming dissatisfied with conventional educational approaches that require time of attendance, place of study, and mode of participation. The emergence of technology allows new generations to gain knowledge without having to meet at a physical location [23] .The pandemic has made it a developing trend. Thanks to the development of generation and extra newbies` familiarity with special sorts of on-line learning, mixed studying has end up greater critical than ever. It will without a doubt keep benefiting massive adoption with the aid of using each group and academic institutions. Instructional designers should be capable of take at the demanding situations of managing spikes in needs for powerful mixed programs. Moodle is free for Learning Management System [24] to develop a learning management system, Artificial Intelligence is one that really supports it effectively in its development [25].

Knowledge-based training can be an increasing number of self-directed - Global net get entry to be growing rapidly. According to the International Telecommunication Union, 51.2% of the worldwide population, i.e., 3. Nine billion people, are the use of the Internet. The Internet`s increase lets in us to get entry to big quantities of facts global with only a click. This acts as a catalyst for the proliferation of self-directed learning, inclusive of the Massive Open Online Courses (MOOC) made to be had with the aid of using an array of MOOC vendors from across the globe, along with pinnacle universities and education institutions.

Virtual facilitation competencies & virtual literacy turns into new capabilities for ready digital running shoes – Even skilled education experts could locate it hard to switch the face-to-face study room education into distinctly impactful, interactive, and tasty on-line programs. Undoubtedly, powerful on-line education calls for new competencies and capabilities of digital running shoes, inclusive of the skills to undertake a mix of studying modalities to preserve contributors engaged withinside the digital classrooms. With the arrival of latest technology, ready digital running shoes must be capable of integrate innovative use of technology with powerful digital facilitation to create seamless, exciting and significant studying stories for digital newbies, main to extra engagement and better studying retention. We should preserve ourselves abreast of virtual trends. For example, company systems like LMS and MS Teams have end up famous nowadays. Moving from the position of conventional running shoes to digital running shoes isn't always easy.

Trainers will spend much less time imparting content material and greater time facilitating studying - The flipped study room idea has been practiced with the aid of using the educators for lots of years. Some groups have commenced adopting this studying idea while designing and deploying their company education programs. Having the knowledge-primarily based totally studying shifted to self-directed, newbies come to the classrooms, irrespective of its miles face-to-face or digital, for skill-primarily based totally studying and inquiry-primarily based totally studying. With this essential shift, academic designers are required to position greater concept into designing a collaborative studying procedure that could permit running shoes to leverage treasured study room time with the aid of using asking questions, moderating discussions.

The smart learning cognizance and traits has emerged as a brand-new fashion withinside the international academic field. Different smart technologies, consisting of cloud computing, analytics of learning, huge information, Internet of things (IoT), wearable generation etc., sell the emergence of smart learning. Cloud computing, learning analytics and huge information, which cognizance on how learning information may be captured, analyzed, and directed in the direction of enhancing learning and teaching, guide the improvement of the personalized and adaptive learning. With those adaptive learning technologies. Smart learning surroundings is effective, green, and engaging. The learner is continually taken into consideration because the coronary heart of smart learning surroundings. And the aim of smart learning surroundings is to offer self-learning, self-influenced and personalized offerings which inexperienced persons can attend publications at their personal tempo and are capable of get entry to the personalized learning content material in line with their private difference [26].

4. Conclusion

Smart learning environments are described as bodily environments which are enriched with digital, context-conscious, and adaptive devices, to sell higher and quicker learning. Unique that the capacity standards of a smart learning surroundings consist of context-conscious, capable of provide immediate and adaptive guide to inexperienced persons, and capable of adapt the learner interface and difficulty contents. Smart learning surroundings now no longer handiest allows inexperienced persons to get entry to ubiquitous assets and interact with learning structures every time and anywhere, however additionally affords the important learning guidance, pointers, or supportive equipment to them withinside the proper form, on the proper time and withinside the proper place.

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