

## **TECHNOLOGY MAY NOT REPLACE TEACHERS, BUT IT WILL REVOLUTIONIZE TEACHING**

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DOI: 10.46609/IJSSER.2023.v08i08.027 URL: <https://doi.org/10.46609/IJSSER.2023.v08i08.027>

Received: 13 August 2023 / Accepted: 31 August 2023 / Published: 5 September 2023

### **ABSTRACT**

This paper aims at responding to the question – Can Technology be a replacement of teachers?

The study covers the role of Augmented reality, Virtual reality, Artificial intelligence and other tools that are pillars of the modern technology. The perspective presented in the study talks about whether technology is a replacement or a tool to improve the education system that exists today.

A deeper understanding and clarity can be developed towards the evolving education system and its impact for both teachers and the overall development of students.

**Keywords:** Augmented Reality, Virtual reality, development, Education

### **Technology and Education**

It is a known fact that technology has changed almost everything in our age. We don't require paper and pen because software can be used to write, we don't require physical books due to the advent of eBooks and PDFs. Does this mean that technology can replace teachers? Is technology developed enough to take up the role of an educator? Or do we still need human touch in the field of education?

In my view, without good teachers, technology is just a useful tool and does not support or engage students. Ultimately, what matters is not the replacement of technology by teachers, but how teachers adapt to using technology in their teaching. Technology is just an improvement for teachers. It can assist the learning process, but it can never replace the role of the teacher. Calculators have not yet replaced math teachers, and technology will help teachers teach students effectively and engage students.

Teachers provide a level of human connection and intimacy that technology cannot replicate. They build relationships with students, understand their individual needs, and encourage the reflection necessary for effective learning.

Teachers can adapt the teaching method to meet the different learning needs of students. They can identify areas where individual students may struggle and provide individualized instruction and support that may be difficult to achieve with technology.

While technology can improve some aspects of learning and provide access to information, it can make it harder for students to develop critical problem-solving skills and critical thinking. Teachers can guide students through difficult concepts, encourage inquiry, and facilitate discussion to develop better thinking.

Technology can enhance learning by providing access to a variety of resources, providing personalized learning opportunities, and facilitating interactive and participatory learning. It can be an important tool for teachers to improve teaching and simplify administration, dedicating more time to personal training and student support. Finally, a combination that combines positive outcomes with teacher training will lead to the best learning outcomes.

I recently asked Bud, Google's chatbot, if artificial intelligence could replace teachers. He wrote: "Artificial Intelligence is unlikely to replace teachers soon."

### **Technology is a tool**

Technology does not discriminate according to a student's abilities or skills but also allows students to use the familiar environment. To like them, let's not forget that technology is constantly changing, not only in our classrooms but also in our daily lives, so it's natural for us to attend classes more.

In geography, we can now take students to explore other countries on Google Street View, and in English class we can take them back in time to learn about Shakespeare's life show on YouTube. Students can watch a video explaining how to use algebra at home or have them witness the life of plants.

If robots replace teachers, teachers have time to prepare. While robots can support and enhance teaching and learning, teachers can assist and rely on support by focusing on relationships with students, their families, and the communities in which they live. Technology can satisfy the curiosity by connecting students to a wider and more effective learning context and collaboration. For example, effective use of technology can reduce teacher workload and improve student performance.

Technology provides instant access to information, so it's essential to have it in the classroom. Smartphones, computers and tablets have become essential elements of students' and teachers' daily lives. It is only necessary to explore the use of technology in the classroom to create meaningful learning experiences for students of all ages.

Using different types of technology in the classroom, including virtual classrooms, can create students who are interested in learning goals. Technology also creates opportunities for differentiated instruction to meet the unique needs of students as learners in the wider classroom setting.

Middle school students can develop their independence and critical thinking by using technology to explore and learn important life skills. Familiarity with Microsoft Office and Google Drive allows them to create and share documents, presentations and presentations; these skills are skills that will be useful for future jobs that include collaborative knowledge and collaboration. According to a report by Markets and Markets, the global AI market in Education has experienced significant growth and is projected to reach \$3.7billion in 2025 with a CAGR of 36, from \$800 million in 2020.

0% overestimated time.

Educators need to support AI applications in their work to facilitate personalized learning, increase student achievement and meet the growing need for AI based on problem-solving learning that transforms learning and teaching.

### **Using Technology in Schools:**

#### **Grading Software:**

Artificial Intelligence grading software frees teachers to be more productive by simplifying and streamlining the grading

**process.**

Workflow:

AI automates administrative tasks in training, allowing staff to focus on the importance of quality training and reduce manual work.

#### **Personalized Learning**

Intelligent learning tools personalize learning by customizing learning plans, providing tailored instruction, and tailoring it to student needs.

### **Intelligent Content**

Artificial Intelligence Tools Personalize and adapt learning through intelligent content, AR/VR environments and monitoring tools to improve learning performance.

### **Virtual Learning Environment**

VR technology supports learning by providing interactive content, small group experiences, immersive learning, student interaction and skill development simulations.

### **Gamification**

AI-driven gamification uses game content to inspire and motivate students, improving learning while improving problem solving and critical thinking.

### **Augmented Reality**

Augmented Reality (AR) has the potential to enhance the learning experience by projecting digital information into the real world, creating an interactive learning environment. However, AR is unlikely to replace teachers. While AR can provide additional visual and interactive content to support learning, it cannot replace the expertise, experience and guidance provided by teachers. Teachers can create personalized lessons based on student's individual needs. They can adjust instruction, provide additional support, and provide feedback based on each student's progress.

AR can provide some level of customization, but it won't have the same level of flexibility and individuality as a human trainer. It guides students through difficult tasks, encourages analysis and reflection, and develops more critical thinking skills. While AR can deliver interactive experiences, it may not replicate the depth of teaching and scaffolding a teacher can provide. The AR can bring abstract and complex content to life by projecting digital data into the real world. Students can see and interact with 3D models, diagrams, and simulations that make it easy to understand complex concepts such as physics, chemistry, or engineering.

It also encourages collaboration and enables learning. Students can manipulate virtual objects, conduct experiments and solve problems in interactive and interactive ways. The AR provides personalized and flexible learning that can be tailored to the needs of individual learners. Students can progress on their own, get instant feedback, and access additional resources or support as needed. This change helps address different education and skill levels.

It can make learning easier and more inclusive. It can provide vision and hearing aids, support students with disabilities and create additional learning opportunities for students with

disabilities. The simulates a work environment that allows students to practice their skills in a safe and controlled environment. For example, medical students can do virtual surgery and doctors can practice on virtual equipment.

Allows students to spend time working in the classroom while reducing the time they spend learning using new technologies.

AR can also improve human understanding. It provides a two-dimensional approach to presenting information that is not always one-dimensional. The combination of discussion and reflection allows students to retain what they have learned and acquire knowledge and skills faster.

AR Promotes collaboration, communication and collaboration among students in learning. It prepares them for future tech workers while complementing the current curriculum with hands-on experience, stimulating interest, and providing a foundation for classroom activities. No need to update the syllabus.

The AR experience is on the rise and becoming more and more important, and it is estimated that by 2023 there will be 2.4 billion augmented reality mobile users worldwide. However, the number of users in 2015 was only 200 million. This is a great influx that cannot be ignored. Another feature of the AR experience is that it contains 25% digital reality and 75% present reality.

This means that it does not replace the entire environment with virtual ones; instead, it incorporates virtual objects into the real world. Now you may wonder how this helps e-learning. What does Article

### **How is AR used?**

- University of Southern California in the USA uses AR to help students study physics. Students can use AR to view 3D models of the human body and interact with them in ways not possible in traditional textbooks.
- In Finland, Everlast Education uses AR to help students learn about history. Students can use AR to visit historical sites and interact with artefacts.
- Another great example of AR/VR in education is Google Expeditions, which lets users see 3D objects like volcanoes, storms, and even DNA in the classroom. The app features over 100 AR expeditions, including the history of technology, the moon landing, and more.

### **Virtual Reality:**

VR in Education enhances learning with rich visualization and experience. Speech technology supports students by providing detailed information in spoken language. VR makes learning easier by replacing books and physical materials.

The VR facilitates collaborative learning in education without risk or high cost. VR creates an interactive computer-generated environment that makes the classroom less boring. Work with 4,444 VR developers to create great educational apps. VR has changed the traditional way of learning and improved the overall learning experience. Students improve performance and understanding through a meaningful learning environment. Schools are recognized for providing the best education through VR technology.

"32% of teachers use technology to bring expertise or experience to the classroom." State of Educational Technology:2016

### **Making Education Work Well**

Research shows that interactive and hands-on learning is more effective than traditional methods. Virtual reality (VR) enables teachers to deliver effective learning experiences in the classroom, eliminating the need to attend school and providing opportunities for participation in daily social interaction.

### **Remove the distraction**

With the VR, students can immerse themselves in a synthetic environment. It keeps them away from the noise of school and as every teacher knows, students learn better when there are no distractions.

### **Enable collaboration**

VR sparks students' imaginations and encourages collaboration, providing an engaging and exciting learning experience. It has many sandboxes to explore and learn, supported by content and tools that will be helpful and useful.

### **Helping Students Learn Complex Subjects**

Research studies show that VR improves spatial awareness, memory, and cognition by allowing students to experience learning from a first-person perspective as people see it, leading to a better understanding of complex topics, thoughts and words.

### **Preparing students for work**

Teachers must acknowledge and support the use of technology in the millennium because it is important to prepare them for the future where automation will replace traditional work. Developing their passion for technology will equip them with the skills necessary for the changing world of work.

### **Classroom Broadcast**

Virtual Reality breaks down the barriers of the traditional classroom. Instead, learning can be done from anywhere. Similarly, VR can be used to bring outside experts to school; add value and relevance to the curriculum. How to Use

### **VR: How to Use?**

#### **Go on a virtual field trip**

Students may go to any location in the globe quickly with the Google Expeditions app and a cardboard viewer. Teachers of history, science, and English can take their classes on field trips to explore Ancient Greece, Mars, and Roald Dahl's writing hut, respectively.

#### **Brings Science to Life**

Use VR applications such as VR Roller Coaster, In Cell, In Mind, or Expeditions to create immersive learning environments that explore ideas such as energy, forces, the human brain, and the cardiovascular system.

#### **Reconstructing Real-Life Buildings**

Take a physical or virtual trip to a historic site (such as a local disaster) and then use technologies like the Oculus Rift headset or the Sketchfab app to let girls learn how to design in virtual model/ 3D. interpreting what they have just seen.

#### **Create Fictional Spaces**

Allow students to reproduce the settings from a book they are reading or develop a fictitious city using Co Spaces tools, then let them explore it in VR.

#### **Solving the Mysteries**

Introduce children to unsolved mysteries like the murder of King Richard III to motivate them to solve some of the world's biggest challenges.

#### **Be the Story**

Create role-playing games that let students immerse themselves in a 3D story using the Google Cardboard platform.

Numerous applications are available to assist you in doing this.

### **Outcome**

Clearly, we have seen that technology is not equipped enough to replace teachers, but it can be a huge help to them.

Technologies like augmented reality and virtual reality is designed to help places people thought were impossible for technology to touch. This software is a blessing for the teachers as well as the students. The teachers can let the machine do the technical aspect while they focus on teaching. These technologies make the learning more interesting and interactive for the students which helps them understand it better. Tools like Spark AR and Tailspin Reality labs can be used in the classroom.

This is going to be a huge change to how we did things in the past. There are still some developing nations or even some parts of developed ones where not everyone has a computer or knowledge about technology. We are going to start this process slowly but steadily till one day extended reality in hand with our traditional teachers is the way forward.

Such change doesn't come quickly, and it doesn't come easy, but it is going to come. There are going to be hurdles and we are going to overcome them all in the hope of a trailblazing tomorrow.

“If we teach today, as we were taught yesterday, we rob our children of tomorrow.”

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