Tomorrow's Schools

Preparing for Future Classroom Scenarios

~ Sujata C



About forty years ago, schools in their physical form still existed, where the main objective of teaching was to help students score high marks in examinations. Imagine training the human brain, which is more powerful than a supercomputer in such primitive, archaic and outdated ways.

This is how people of the next generations might talk about the education of the early 21st century. So what will the classrooms of the future be like, say in 2060? To do that, let's look at the status of the present education scenario in India.

On one side, private education is becoming more and more expensive every year, making it hard for parents to keep up with the rapid hike in school fees. On the other hand, absenteeism of teachers in government schools is a rising menace. Research shows that six out of every seven teachers fail to qualify the Teacher Eligibility Test (TET). The rate of dropouts in government schools is also grim –

four out of ten students leave school by class eight¹. Corruption is rampant while appointing teachers, and those who get the job, lack the skills and interest in teaching. Except the privileged class, most students in India are victims of an education system that is not concerned about their benefits. The failure of schools to provide a solid academic foundation proves a burden for the colleges too.

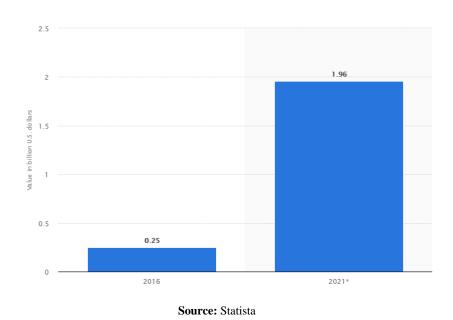
It is believed that education is the key to a country's progress, and a nation fails when that institution starts collapsing. To prevent that, we must start taking appropriate measures. Though it is a hard task to foresee future classroom, we can make inferences based on the factual parameters we have with us.

Broad indicators: School education in future will be controlled by technology, and its successful implementation will depend on the skills of teachers. Classroom teaching will become radically different. Digital technology will become more affordable, and will slowly make their way into the classroom. Thus, education will be more democratic by catering to different socio-economic classes.

Rapid growth of online learning: In the next five years, the online education market in India is projected to reach about 2 billion US dollars. It was at 250 million US dollars in 2016 and is anticipated to increase at a rate of about 52%, according to *statista.com*.

E-Commerce > B2C E-Commerce > Online education market value in India 2016-2021

Value of the online education market in India in 2016



¹ Source: Annual Survey of Education Report 2017 (http://www.asercentre.org/)

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We are looking at a future where physical classrooms will be replaced by the cloud, and classes will be held online. Institutions will increasingly embrace technology to avoid disruptions caused by socio-political unrests or natural calamities. Physical classrooms alone will not remain the exclusive centres of learning. Virtual classrooms providing greater flexibilities of choosing time and place will be highly accepted. More e-learning platforms will crop up and governments will be forced to recognize such schools.



Source: https://dam.oup.com/share/proxy/alfresco/slingshot/node/content/workspace/SpacesStore/b74fd01e-ad32-4ff6-8662-2885bcc949cf/shutterstock_158049731.jpg

No more heavy school bags: Heavy school bags are going to become a thing of the past, and mobile devices, lite tablets will replace textbooks. Not only will technology reduce the cost of education, it will also make it accessible to all. iPads and similar devices are likely to be the learning tools of the future, with textbooks supplementing a technology-based learning system.

Increased importance of hands-on skills classes: Online classes will be supplemented with practical lessons so that students learn to do things on their own, and tackle real-life problems by coming up with possible solutions. Educationists are gradually realising the importance of problem-solving and critical

thinking skills. Hence, learning beyond the classroom will see a rise in the near



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future. Project-based education that provides more hands-on learning experience will be preferred across the academic fraternity. **Personalized learning environment** will give students the freedom to learn at their own pace. They will be provided with customised study tools that adapt to their learning capabilities.

Aptitude-aligned learning: Digital assessment solution will indicate the learning gaps. Students will work on those with the assistance of teachers to gain all-round proficiency.

Various alternatives to the current system of education will emerge.

- ➤ Merit will be identified through **internationally recognised contests**.
- ➤ **3D printing technology** will be adopted by institutions to make models and simulations.
- Touch-enabled **smart boards** will replace blackboards and overhead projectors. They will add fun elements to ensure higher student engagement.
- Attendance will be taken through **biometric devices** for students and teachers alike.
- ➤ Children in early primary classes will learn **keyboarding skills**.
- > Tech-savvy teachers will steer students towards **authentic online resources**.
- ➤ Schools will adopt BYOD Bring
 Your Own Device approach where
 students will be asked to carry their
 tablets to class. Subjects related to
 humanities (history, geography, civics,
 languages, etc.) will be easily taught
 through smartphones as they provide

opportunities for visual and auditory stimulation as well as student engagement.



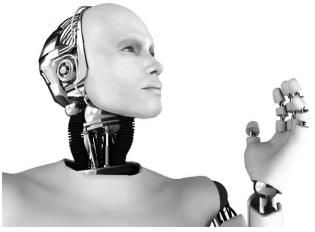
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There will be a rise in the number of schools teaching subjects like coding and robotics. Teaching robots will be deployed in classrooms as Artificial Intelligence-based tutoring will prove beneficial for students, especially for slow learners. They will not replace teachers, but will be used as

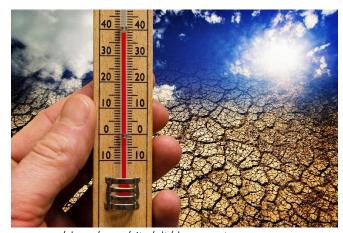
academic assistants.



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> Study of climate change will become compulsory so that adaptation and mitigation strategies are actively taught to students.



Source: https://dam.oup.com/share/page/site/elt/document-details?nodeRef=workspace://SpacesStore/e534e872-e678-4eda-996a-05eb10a06a51

➤ Rote learning will be gradually dropped in favour of lifelong learning. Parents will become greater risk-takers and encourage their children to go for offbeat careers. The norm of higher academic achievement bringing better social standing will be dropped. More families will opt for homeschooling to avoid the downside of competition, peer pressure and bullying. This method will keep the students in focus, nurture creativity and foster learning from real-life situations.

- ➤ More counsellors will have to be deployed in schools to help students overcome the psychological challenges.
- ➤ The number of parents **working from home** will rise, resulting in close-knit families. Thus, future generations will enjoy better mental health as schools will give importance to social, emotional and spiritual intelligences.
- ➤ Rising pressure by parents, availability of affordable technology, and sharp scrutiny by media will ensure that **education as a profit-making business comes to an end**.
- ➤ Evaluation and assessment will undergo a sea change. Students will be put together in groups based on interests and skill levels, and age-specific gradation will cease to exist.
- ➤ Collaboration and teamwork skills will be emphasised by making students solve real-life problems.
- Augmented Reality (AR) will change education as digital information and the users' environment will be integrated in real time. This technology is currently deployed in higher education to explain an interesting topic as well as provide more information.



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Technology is both a boon and a bane, and is not a magic solution that will rid school education of its woes. It depends on how educators adopt and implement technology in their classrooms, real or virtual. Technology makes us less human. It demands our time and energy giving us little scope for real interactions, and as a result our social skills get affected. Staying honest is also a challenge in digital times. Teachers have to tread a fine line while using technology in the classroom. They must become aware of its effects and work consciously by imparting values and soft skills to students.

Sujata C is a writer and editor with more than thirty years of experience. She writes on children, environment, society as well as technology. She has also been a copywriter with an advertising agency for almost fifteen years.

Lesson Plan: Future Classroom Scenarios

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Teachers can prepare for future classroom scenarios by keeping themselves

updated with the changes happening constantly around them every day. Their biggest challenge in a technologically-saturated learning environment will be to find out new ways to assess students. The advent of technology in classrooms will increase the importance of the role played by teachers, rather than be eroded. Technology



will identify the learning styles of students, which in turn will dictate the teaching style or method to be followed.

Source:

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Technology-based tools will help teacher find where each student stands and where he needs improvement, making tests personalised. Under such circumstances, teachers must keep developing their skills and capabilities to suit the future requirements.

Recommended tasks for teachers:

- > Read the books on learning and teaching styles.
 - *Divaswapna* (English translation) by Gijubhai Badhaka gives clarity on the fundamentals of education.
 - Learning Styles and Personalised Teaching by Barbara Prashnig tells what to do, what to avoid, how to combine learning styles with existing teaching method, etc.

• *Learning Styles and Inclusion* by Gavin Reid outlines the way to approach students with different learning styles.



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- *Learning Outside the Lines* by two Ivy League students, David Cole and Jonathan Mooney, who struggled with learning disabilities and ADHD (Attention Deficit Hyperactivity Disorder), teaches students how to take control of their lives.
- *Right Brained Child in a Left Brained World* by Jeffrey Freed and Laurie Parsons gives insights into ADHD and understanding how to help such students do well in classrooms.
- Raising Self-Esteem in Primary Schools: A Whole School Training Programme by Margaret Collins would be a good reference.
- Watch useful videos easily accessible on the Internet.
 - Teaching Methods for Inspiring the Students of the Future | Joe Ruhl | TEDx Lafayette https://www.youtube.com/watch?v=UCFg9bcW7Bk
 - A teaching technique for the 21st Century | Dr Pravin Bhatia |
 TEDx Nagpur
 https://www.youtube.com/watch?v=uzu9RY4tP-A
 - What if Schools Taught Us How to Learn? | Jonathan Levi | TEDx White City
 https://www.youtube.com/watch?v=vtQzuwnyW6E
 - The Pulse: What Ails School Education in India gives some clarity on the ground reality. https://www.youtube.com/watch?v=86ldddEc0Fk

Conduct roundtable discussion
among the
teachers and
management of
your school to
brainstorm on
ways to approach
and embrace the
future scenario
that awaits



school education. source: https://dam.oup.com/share/page/site/oxford-education/document-details?nodeRef=workspace://SpacesStore/18818702-72c9-482f-9f9b-abba69d09988

- Arrange for discussion sessions among your students and ask them to speak on *How can we improve our schooling system?*
- ➤ **Brainstorm** on the challenges your school is going to face.

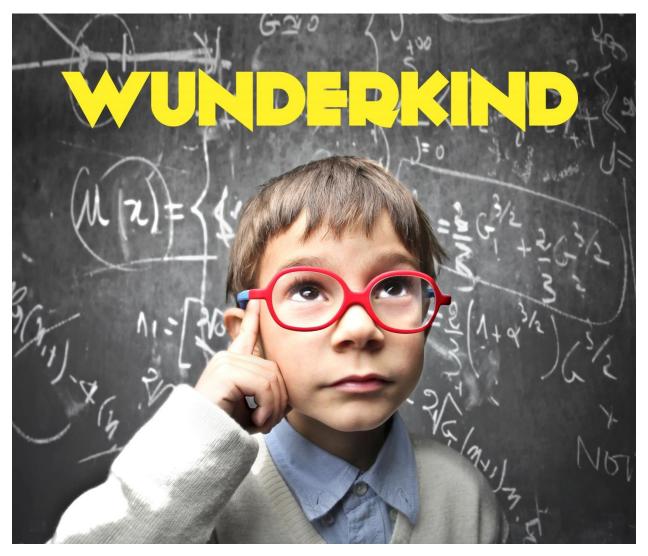


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- > Support students develop research and informational skills so that they can access information online from authentic sources.
- ➤ Help students develop problem-solving skills so that they can identify a problem, collaborate with friends, and come up with a real-life solution.

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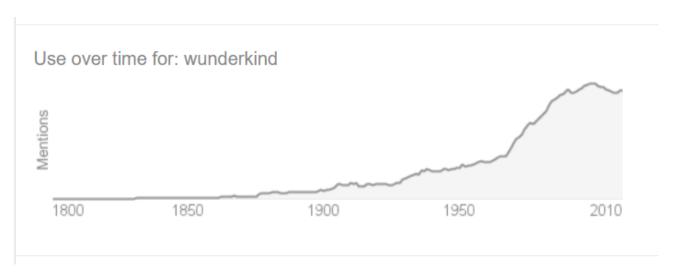
Wunderkind (noun)



Pronunciation: /'vondakind/

Meaning: A person who achieves great success when relatively young; a child prodigy

Origin and additional information: The word originated in the late 19th century from the German words, *wunder* (meaning, *wonder*) and *kind* (meaning, *child*). In plural, the word is both written as *wunderkinder* and *wunderkinds*. One of the earliest uses of the word is found in the fictional work, **Luttrell of Arran** (1865) by Charles James Lever, an Irish novelist.



Word section: In psychology research literature, the term, *child prodigy* is used for a person under the age of ten who is able to perform excellently in some domain matching the level of an adult expert in the same field. A short story written in 1936 by the American writer, Carson McCullers is named **Wunderkind**. The story revolves around a teenage musical prodigy. Nowadays, the word is also used for a highly talented individual, not necessarily a child, who rises to success in some domain of knowledge, profession, etc., at an early age.

Usage:

- i. More than a musical *wunderkind*, Devendra is also a writer and artist. (Source: https://en.oxforddictionaries.com/definition/wunderkind)
- ii. Every generation produces its infant Raphaels and infant Rosciuses, and Wunderkinder who can perform all the childish feats of Mozart.
 (Source: George Bernard Shaw's music criticism in The World, published in 1891)
- iii. What are the early indicators that a **wunderkind** might turn into a dangerous director?

Times, Sunday Times (2013)

iv. *Isn't he what your countrymen would call a Wunderkind, Mademoiselle?*(Source: Luttrell of Arran by Charles James Lever)