EDUCATION, FEAR AND TECHNOLOGY

by Prajwol Khadka

Acknowledgement

My name is Prajwol Khadka, a tech enthusiast pursuing a BSc (Hons) in Computing at Softwarica College of IT & E-commerce. I am passionate about software development, VR in education, and solving real-world problems. In this article, I share my insights, suggestions, and research on the complex relationship between Education, Fear, and Technology, exploring how emerging tools can shape learning while addressing challenges and uncertainties.

Abstract

This article investigates the critical interplay between education, fear, and technology. It argues that deep-seated fear of failure, judgment, and unmet expectations is a primary barrier that hinders curiosity and forces learning into a process of rote memorization. We propose that the thoughtful integration of emerging technology, such as VR simulations, can transform the learning environment. These tools foster a non-judgmental space for exploration, experimentation, and confidence-building. The paper includes a case study demonstrating how a student-developed, VR-based Chemistry Lab Simulation successfully turned a traditionally fearful subject into an engaging and practical learning experience for students. Ultimately, collaborative solutions between students and institutions are essential to merge education and technology, helping learners face future realities with boosted confidence and reinforced curiosity

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Introduction

One most frequently heard word throughout one's lifetime might be "**Education**" -starting from one's own educational journey to their offspring's journey education is an integral part of every human's life. To be able to think is a basic human ability but to think rationally and take decisions considering different dimensions to the actions being or to be performed, education enables one to be able to consider consequences prior to any actions.

"**Technology"** on the other hand has been a part of daily routine directly or indirectly, refraining from the use of technology today means to stay outdated and irrelevant. The intersection of education and technology, therefore, is not just inevitable but essential for progress.

Moving forward, a person in his/her lifetime can decide the level of education they wish to pursue or the extent of technology they want to engage with regardless of the relevancy but psychological factors (fear, happiness, sadness, anger, etc.) are not something completely under the complete control of humans, these emotions sculpt our thoughts, decisions, and interactions, and ultimately, it makes us humans.

Education and Technology

We talked about how humans need both education and technology to stay relevant in the current time; old-school teaching learning methods are effective whatsoever but are they actually “The Best” method of teaching? The literal idea of teaching is to educate the learners with enough context to subject matter so the question again is are books and copies with explanations with figures on the board enough?

Undeniably, many of the greatest minds in history, who made discoveries far ahead of their time, emerged through these very teaching techniques. However, this does not mean that newer, more effective approaches cannot be developed. The father of modern physics, **Sir Isaac Newton**, studied during an era that we now label as “old-school.” Yet, during his time, those techniques centered around models, experimentation, extensive reading, and note-taking - were considered highly advanced.

This very same method can still be used and is effective even today, but only if we run it parallel with modern technology, integrating digital tools, simulations, and interactive platforms into our current teaching-learning models. When education and technology intersect each other, learning evolves from being a process of memorization to one of exploration and experience.

Fear and Education

You must be a super-man to not be afraid of failure, losing, tests, and the moments before the results – everyone is scared of these factors and it is very common and justified. We're afraid of these moments in our lives because of few factors like Society and Family, Teachers and Peers, Self-relationship and the fear of not meeting our own standards.

Fear while learning can be a silent teacher that drives a student to prepare harder, to focus, and to perform better – but only to a certain extent, once it exceeds a healthy limit, it starts doing the complete opposite. Fear of failing often compels students to not think out of the box and just mockup the textbook – which often results in curiosity being killed. Learners stop presenting queries, avoid experimenting, and prefer rote learning over understanding it. This is a prime reason which has shaped our educational evaluation method into a memory evaluation method.

As per my view, fear of failing is not the sole problem the students are facing in the current context. Education is about learning, growth, and exploration, fear should never be a part of the entire foundation. So, what are students actually afraid of? Are they afraid of just not performing well to match expectations of themselves, families, and society? Or are they afraid of getting scolded upon not performing well? A simple answer to these questions may be why not look for the roots, and the answer starts to unfold. Students are scared of the future. Students fear the reality which is inevitable. And the cause? Students in schools, home, and society are expected to match their expectations rather than allowing them to perform to their full potential. It is completely okay to have expectations but it is not okay to put load of expectations on the students' shoulders.

Fear of Reality

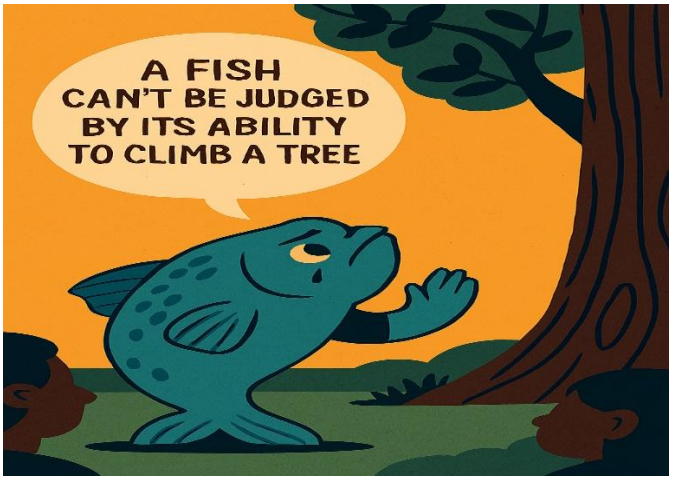
Laela Adamson in her article "**Fear and shame: students' experiences in English-medium secondary classrooms in Tanzania**" writes, "*If the teacher asks if they have understood, there must be those who have not understood, but the majority ... many of them say 'yes'. That voice makes you afraid to say that you haven't understood ... you feel ashamed to say.*". Students fear asking and presenting themselves even in a classroom environment where they should be comfortable the most. The fear of facing the reality that *I didn't understand this class* is greater than the feeling of *I have to understand* this, what might be causing students to feel so ashamed of asking questions or what might be causing students to feel scared of facing reality?

There can be a few cause of the fear; Judgements from peers, Teacher's attitude, Cultural and societal expectations, grading system, etc. Education system is supposed to teach students that *making mistakes is good and a sign that you tried*, instead the system now defines intelligence based on a 3 hours memory test. Furthermore, some teachers tend to discourage interactive sessions, they stick to a feeling of *what I taught was perfect, the learners are the problem,* they act strict unintentionally or intentionally creating a tense environment which changes the purpose of a classroom.

The Kathmandu Post in their article "**Does fear work in teaching?**" writes, "*It can have long-term negative consequences for children and adults, making it harder to learn.*". Further in the article the author clarifies that the adults being exposed to forced and feared learning environment often tend to avoid taking on new tasks, and responding to questions, the author in the article states, "*Many people who experience anxiety in adulthood have been exposed in their childhood to environments where they have felt consistently threatened.*".

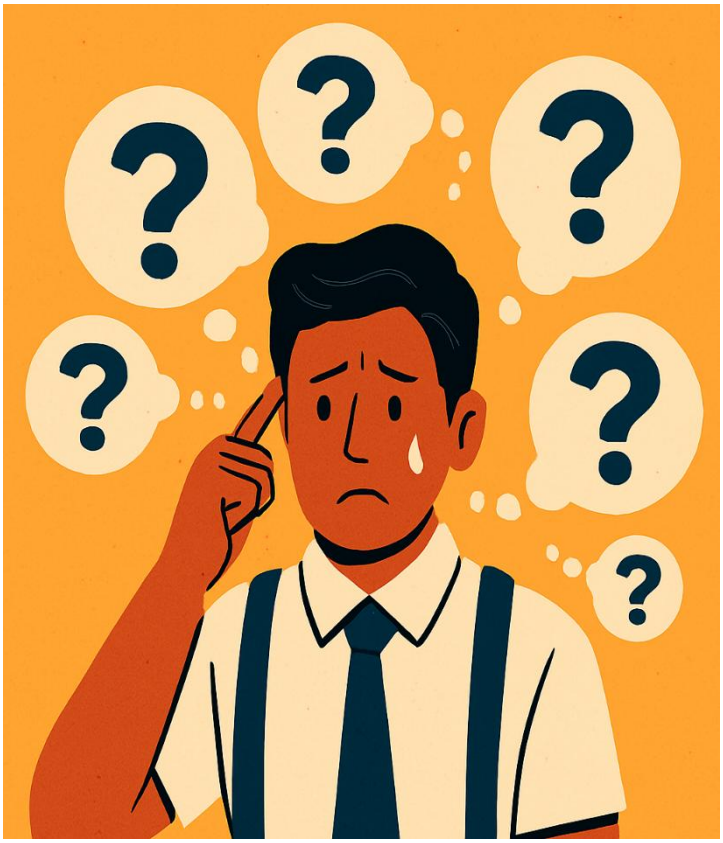
Clearly, fear – when embedded in education – not only hampers immediate learning but can also leave lasting effects on confidence, curiosity, and problem-solving skills.

What then?



Every mind is different; everyone thinks in a different way and has different coping mechanisms that might not work universally. What someone else is thinking is hard to accurately tell as the interpretation of everyone differs as well. So, it is actually hard to determine what is the most accurate method of teaching might be, or what might be the most accurate method to evaluate someone's capabilities as it's said *can't judge a fish by its ability to climb a tree*.

But the good news is that we can reform our teaching-learning methods by adapting technology to determine the accuracy of the newer model and if it should be implemented on a larger scale. Is it so difficult for institutions to implement a virtual teacher or AI instructor in the classroom to give students a different studying environment while also not giving up the old-school methods? The answer is no for few schools and yes for many – lack of infrastructure, lack of resources, and lack of manpower to carry out these changes causes appointing AI instructor or teacher difficult.



Can a teacher have an interaction session at the end of the class to genuinely solve the queries or to make students comfortable and let them know making mistakes is good or being curious is good? The simple answer to this is yes but implementing this might be not as easy as we think as some teacher tend to keep their "I'm strict" persona. Also, teachers might not be familiar with modern technology and even though the institution is able to afford all the technology needed the teachers might refuse to work with.

If implementing the latest technology and implementing an interaction session from the old-school playbook so difficult then what can be done? This question might seem complex and challenging

but not so much if we think about it, schools might not be able to develop an AI instructor or afford to purchase a model but it can surely emphasize integrating technology (Science Lab, Computer Lab, Workshops, etc.) by tying up with organizations, NGOs/INGOs, and even Students.

Schools and Colleges working alongside students pursuing their degrees in IT or related fields can be a smart move as it will help not only the institution but will also help students gain hands on experience – a win-win situation for both side for a bigger and better future.

Teaching students with the technology can help them gain confidence in experimenting as technology makes human curious – prompting them ask, How does this work? How was this made? What else can be done? – and fosters an environment where learning is driven by exploration rather than fear. Learning with an interactive machine that will solve queries and won't judge you for being confused will help students regain lost confidence and prepare them to face reality with boosted and reinforced confidence.

Students to integrate Education and Technology minimizing Fear

The idea of students collaborating with institutions to help integrate education and technology to minimize the fear of reality comes from personal experience. A group of friends collaborated with two different schools to evaluate the product they developed and to help school students understand Chemistry in a safe and practical way without a need to fear reality. The product was a VR-based Chemistry Lab Simulation designed and developed for students of grade 7. By interacting with the simulation, students could explore concepts hands-on, ask questions freely, and learn through trial and error without pressure. The experience demonstrated that technology can transform learning into an engaging and confidence-building process, helping students face challenging topics with curiosity rather than fear. This project reinforces the idea that collaboration between students, teachers, and institutions can create innovative solutions that merge education and technology to foster a more supportive and effective learning environment.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Conclusion

Education, fear, and technology are fundamentally interconnected forces that define the modern learning journey. While fear – whether of academic failure, societal judgment, or an uncertain reality can stifle the very essence of learning by killing curiosity and fostering anxiety, technology offers a powerful corrective. Thoughtful integration of digital tools, like VR simulations and interactive platforms, allows students to transition from being passive recipients of knowledge to active explorers and confident experimenters. By providing a safe space for trial and error, technology effectively minimizes the pressure of failure and rebuilds the confidence needed to face reality. Moving forward, the successful model involves collaborative initiatives between learners, educators, and institutions to merge traditional teaching methods with innovative technological approaches. This synthesis is the key to creating an educational environment that is not just effective, but fundamentally inclusive, confidence-building, and equipped to prepare students to navigate real-world complexities with genuine curiosity and resilience.

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