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Scenario 1 by Phuong Nguyen

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Ms. Tran teaches 15 autistic children, ages 6-12. When the morning bell rings, the students enter room P5. Upon seeing a stranger standing in front of the room, the students exchange glances among one another. After the students are in their seats, Ms. Tran announces, “Students, this is Kate—she is going to be helping us everyday all the way to June.”

Ms. Tran turns to Kate and smiles,

“Kate, would you like to say hi to the students?”

Kate looks at the students, waves, and says timidly,
“Hi.”

The children immediately swarm around Kate in front of the classroom. Kate is not an ordinary aide. She has a lunchbox-size head; she wears a white t-shirt and a pair of jeans, and walks on two wheels. Kate has an unchanging happy-face smile, below a pair of large, plastic eyes. Kate is a robot. All the students love Kate. However, towards the end of the day, a couple of boys try to yank off Kate’s arms. Immediately, Kate lets out a loud scream in pain; it never happens again.

For the first few weeks, Ms. Tran watches Kate very closely. Kate seems to have a very strong rapport with the students. However, Ms. Tran is concerned, along with some of her students’ parents. Will Kate be aware of the children’s needs and feelings? Will Kate be able to comfort the students if they are sad? Ms. Tran has been informed from Mr. Duvichi, the principal, that Kate has been programmed for motion tracking and speech recognition among human beings; it is a significant factor in the effectiveness of these robotic aides, especially for Kate who works closely with autistic students.

Everyday, Ms. Tran has Kate work with students to teach them new vocabulary and simple skills. For vocabulary, Ms. Tran has Kate show images on her screen and instructs children to associate them with words. After 12 weeks, the children’s knowledge has improved by 25%. In addition to teaching students new vocabulary, Kate also teaches students how to perform tasks, such as tying shoelaces and setting a table. For instance, in one 20-minute session, Kate has taught these students how to set a table, a simple skill that Ms. Tran has unsuccessfully tried to teach the students for over a one-month period.

Kate does not resemble a human being; however, she exhibits similar characteristics of a human being. Her voice is almost identical to a human being, and she smiles to the children throughout the day. She has built a kind of trust in the children that is greatly needed. Kate is responsive to the needs of every student. In addition, Kate reads to the students and effectively engages them in discussions. While she reads, she imitates the voices of the characters. What’s so charming about Kate is that she knows martial arts. During recess, she demonstrates martial art kicks and chops and persuades children to imitate her. Afterward, she encourages a particular child to lead.

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Kate's assistance in Ms. Tran's classroom is critical in these children's development. Ms. Tran has seen progress in her students ever since Kate's arrival. She declares,

"Kate is supplementing learning in my classroom. At first I was uncertain of how the students would respond to a robot aide. But Kate is very amicable—she doesn't act like a robot. She plays with them and talks in their language; she is one of them. Soon the students forget that Kate is a robot and treats her like one of their friends."

At the end of the day, Kate is rolled away in the classroom closet and locked up by Ms. Tran. Kate is extremely reliable—she is never absent from Ms. Tran's class. The school does not have to compensate for Kate's position as Ms. Tran's aide. Kate is tremendously bright—she delivers the content with enthusiasm and precision. Because of her pace, her energy is infinite which enables her to work with every child every day. Kate is consistently in good shape. The school district has robot specialists who reports to school promptly in case of malfunctions of robot aides. Every day, Kate is checked by a robot specialist to ensure that Kate is fully operational. To keep Kate fully functional, she just needs to be oiled, dusted, and hugged by the students weekly.

Scenario 2 by Jeannice Turner

It is the year 2025 and education has continued to spiral downward. Many school children can barely read or write, and are unable to solve simple mathematical problems without the use of a calculator. Parents, teachers, and the university system are aware that students are not achieving as high as students in other countries. That is why so many college freshman have to take remedial courses their first year of college.

Unfortunately, because there is so much pressure put on teachers, and not the parents and community, there is now only a handful of accredited public schools. Society continues to blame teachers and school systems for low student achievement and state test scores. The state tries to increase the morale of teachers, by offering them extra pay, incentives for achieving and maintain high test scores, extra professional development and an extended school day and school year. Nothing works. With teachers being the blame for the decline of student success, not many individuals wanted to choose teaching as a professional career. Students are unable to get an education near their homes and within their cities because accredited public schools are not as abundant as they were fifteen years ago.

But because education is necessary in life to succeed and prosper, one must go to school. But if there are not enough schools to educate all of the children, then the schools must come to us.

Derrick and his mother live in a small town in southern California. The dialogue below is an example of a typical conversation Derrick and his mother have every morning before Derrick attends school.

Mother: Honey, get up, it's time to prepare for school

Derrick: Aww mom, do I have too?

Mother: Yes, hurry up, brush your teeth, set up your computer for class, and make sure your virtual glasses are charged

Derrick: Okay! I love putting on these cool virtual glasses to participate in school. I feel like I'm in a movie or even a video game. It's awesome!

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Mother: I know, I like them too. Virtual classroom is cost effective for our state and it helps out our environment. We don't have to hop in the car every morning just to get you to school. The virtual classroom also helps with our air quality; the less cars on the road equals less pollution
Derrick: Okay, ok mom, don't talk to me anymore. I have to pay attention to the teacher"

Virtual games and 3D movies have played a vital role in the entertainment industry within our society. Therefore, the creation of a virtual classroom has grasped the interest of our society as well. Virtual classrooms have been a good convenience to our society for various reasons. Students don't have to leave the comfort of their own home to get an education. Students just have to put on their virtual room glasses which are connected to their computer or television. Once the glasses are on it looks as if they are in a classroom and they are able to ask and answer questions and interact with the teacher the same way they would if they were in an actual classroom.

Some drivers for the virtual classroom are it is cost effective, it helps our environment, and parents have a choice. The virtual classroom is cost effective because it allows the state to save money on teacher salaries and benefits. The fewer teachers there are, the more money the state saves on hiring teachers. The virtual classroom also helps our environment because parents don't have to operate their vehicles to take their children to school. This saves gas and reduces air pollution that comes from their vehicles. Lastly parents have a choice who educates their children; they don't have to be restricted to a specific jurisdiction. Parents also are able to choose who teaches their child throughout every grade level. For example, if a child lives in San Diego, CA the parent can choose a teacher from Miami, Florida or even Tokyo Japan to teach their child.

Though there are many positive aspects of the virtual classroom, there are still some uncertainties that we are yet to resolve. Such as, will there be enough funding to allocate each child with a computer in their household; one computer might not be enough if there are multiple children in the home. Also, what would happen if there were power outages? Will the students be docked for points if he/she is unable to attend school? Lastly, how will students who have disabilities such as visually impairment attend classroom virtually. It is required by law that schools accommodate all types of students no matter what their disability is.

Scenario 3 by Adan Gallardo

It is now 2025 and technology has progressed so rapidly that it has become an essential element in the education system and society. Technological achievements have brought us to the point where nanotechnology and nanocomputer implants are commonplace. Traditional schools are almost non-existent, learning is primarily accomplished by simply downloading information from the web directly into these computer implants. With the advent of these neural computer implants it was determined that traditional schools were obsolete. The majority of people purchase these implants at varying costs depending on what features they want to have, with upgrades always being an option and also receive a traditional, standard knowledge pack that is download and is essential to function in society. "Higher Education" is available via the purchase of additional knowledge packs ranging from a basic general education add-on with 1 base specific field of interest to advanced doctorate degrees.

The ease of educational add-ons has greatly simplified life since a complex doctorate upgrade takes roughly a week to download and process. Time has been saved significantly since one no longer needs to waste ten years of one's life studying for what can be achieved in a week when compared to the education system of the early 21st century. Often these advanced degrees are paid for by firms to young and promising employees with a minimum commitment of a few years to the firm. The technology as allowed education to be commoditized and gives the individual the flexibility to learn as much as they want in little time.

There are still to this date some uncertainties that we have yet to resolve and make some people hesitant. For example there are the occasional power outages/surges that are known to occur. We have adapted to the loads on our power grid as much as possible, but this is still a problem and poses a small, but significant risk during the computer-implanting phase that has on rare occasion resulted in deaths. These power surges also pose a problem during the knowledge downloads in that also on rare occasion the downloads become corrupted, but are not rejected by the hosts computer. The consequences are that the individuals entire system becomes corrupted and has to be reinitialized. This process takes about a month and does not harm the student, but it leaves them with out access to any of the knowledge they are accustomed to having as well as the constant online connection and all forms of communication aside from the traditional face to face.

There also happens to be the light risk of malfunction, while the computer system is fully capable of self repair for minor damage, extensive malfunction or failure requires a surgical procedure to remove the old system, allow for a few weeks for full cerebral healing, and then reimplantation of a new system. The delays before being fully operational and able to return to work vary from individual to individual.

Because of some of these factors individuals will occasionally opt out and refuse to purchase the implants. Cost can sometimes be prohibited, but on average most people will purchase the basic implants along with the base knowledge pack. Overall though the benefits and time savings that are provided significantly outweigh the few known risks.