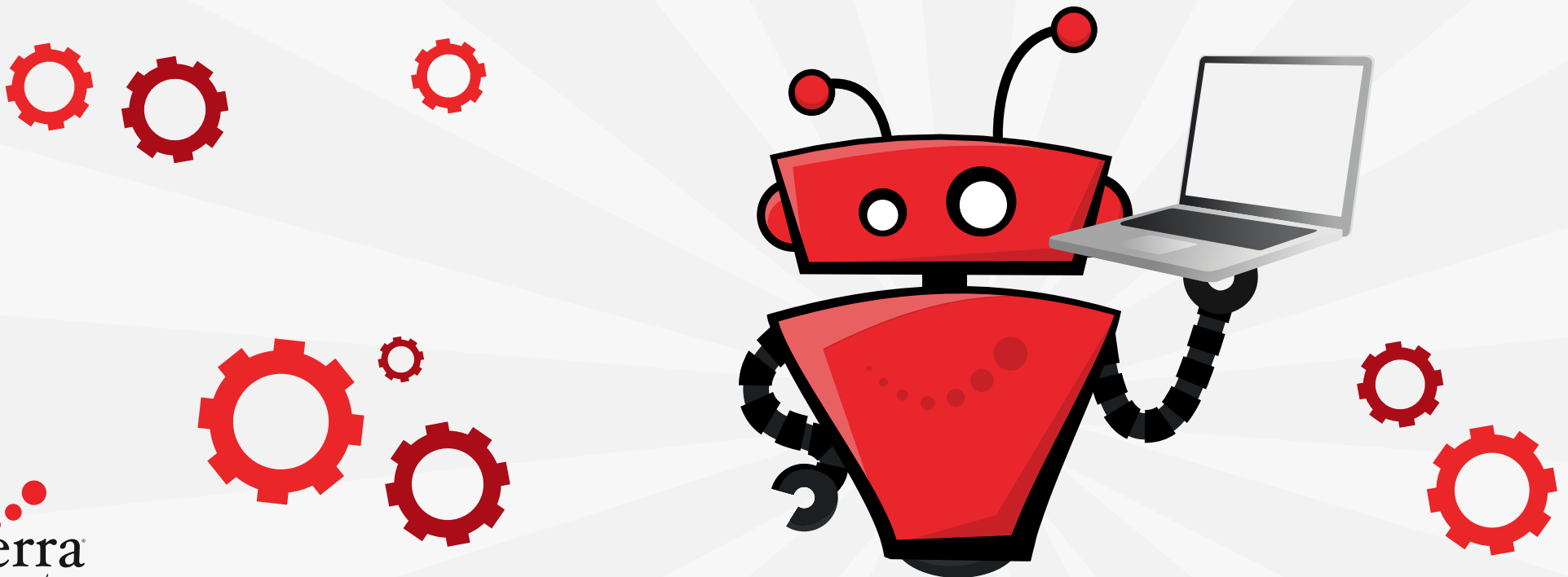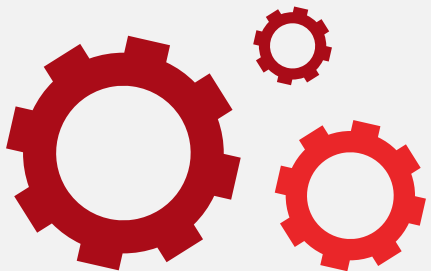# The Evolution of

EDUCATION

An eBook on how traditional teaching methods have become outdated, and technology has taken over the classroom.
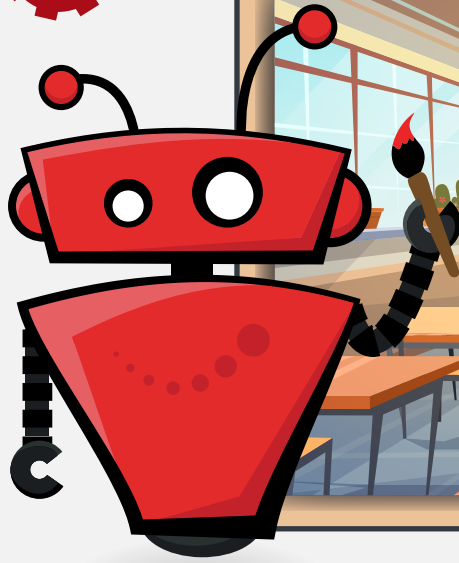
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PAINTING A PICTURE

It's Monday morning again, a new school week has just begun. The students are filing into the classroom and taking a seat at their assigned desks. They pull out Friday's math worksheet and their spiral-bound notebook with the vocabulary assignment scrawled throughout. The teacher tells them to pull out their science textbook, and they all rummage through their desks looking for the correct one – they have 8 after all. Next, is social studies. One student makes his way to the globe to identify Africa; another monotonously reads aloud from the text. After that comes Math. Various students file up to the blackboard to scribble out math problems from last week's homework assignment... how much did all that chalk cost again? And how about those notebooks? The textbooks?

With every method of teaching, there are pros and cons. Traditional teaching methods surely have both, however with the addition of technology into schools and classrooms, these old-school practices are making less and less sense. Not only does the implementation of technology save money in the long run, but it eliminates the outdated practice of memorization and recitation as a form of learning because let's face it, that's hardly effective and rarely sticks in a student's memory.

TRADITIONAL TEACHING PROS & CONS

Check out this list of pros and cons of traditional teaching methods and decide for yourself:

PROS

- **Active Learning**
  One-on-one with teachers

- **Active Participation of Students/Teachers**
  Help other students, ask questions, etc.

- **Communication & Face-to-Face Interaction**
  Good communication between teacher and students

- **Recreational Activities**
  Stress relief, breaks from study

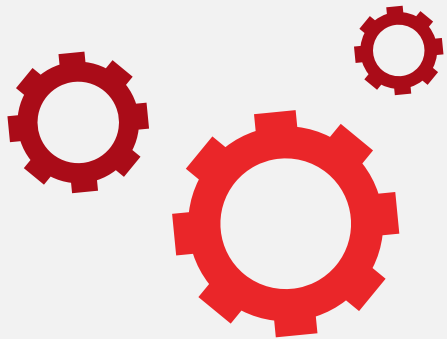- **Scheduled**
  Schedule = Execution = Discipline/Punctuality

CONS

- **Spoon Feeding/Passive Listening**
  Dependent on teachers, merely absorbing information

- **Lack of Motivation/Obligation**
  Not getting the opportunity to express personal interests & skills

- **Favoritism/Negative Groups**
  Teacher bias, friend groups impacting studies

- **Costly**
  Textbooks, school supplies, etc. (frequently comes out of teachers' pockets)

- **Poor Future Preparation**
  Future jobs and careers are likely to include working on a team and collaborating in technology-focused environments

Quite possibly one of the biggest downfalls is the risk of being left behind.

Whether we like it or not, the world is evolving and technology has become prevalent. Schools and institutions that refuse the opportunity to upgrade their methods are essentially refusing to give their students the best education, opportunities, and preparation for their futures.

CHANGES TO THE SYSTEM

☑ **Flipped Learning**

This practice flips the classroom dynamic by switching classwork and homework. This allows teachers to engage students in class and have them watch online lectures on the subject matter later.

☑ **Modern Scheduling/Organization**

Lesson plans are no longer bound to grade books and printed syllabuses. New software applications such as Blackboard allow students to look ahead at lessons and assignments for the entire semester or school year to better prepare themselves.

☑ **Quick Information Retrieval**

It's no longer necessary to use encyclopedias or dictionaries to spend countless hours finding the information you're looking for. Students can spend less time searching and more time learning by using the internet and its massive library of resources.

☑ **Videoconferencing Classroom Technology**

Videoconferencing and online lectures opens various doors to students all around the world seeking opportunities they might not be able to find in their local schools.

☑ **Computer Networking**

IT departments can create a network to have teachers monitor their students internet traffic and alert them if they ever go off track.

☑ **Going Paperless**

Not only is printing pages and pages of worksheets, notes, etc. bad for the environment, but it can become costly! Putting a virtual system in place allows for better organization at a lower price in the long run.

PROMINENT TECH TOOLS & SERVICES

Listed below are examples of some technologies that have been implemented into the classroom setting.

Smartboards / Electronic Whiteboards

These boards are much like a standard white board in that you can write on them, however they are interactive, allow access to online resources, and help to enhance a student's learning experience.

Laptops and Tablets

Much like the Smartboards, this allows for an interactive and enhanced experience for the students, but each student or group can work on their assigned device to complete their work, and since these devices are mobile the classroom can be taken anywhere. In fact, a study done by PBS stated that **81% of K-12 teachers believe that tablets enrich classroom education,** as well as, **77% of teachers found technology to increase a student's motivation to learn.**

Teaching Applications and Software

As mentioned on the last page, applications such as **Blackboard** and **Google Classroom** can be used to organize, schedule, interact, and entertain. Holding discussions, making assignments available out of the classroom, and so much more can be done with education-focused apps.

Word Processing Apps

Applications like **Microsoft Word** allow students to write essays and take notes more easily and efficiently. It's no longer necessary to strain your hands and wrists writing long papers. Also, word processing applications can spell and grammar check for your students, so they can focus on the topic they're writing about. Not to mention, having notes and assignments in a virtual environment allows for quick retrieval in the future.

Virtual Field Trips

Field trips can be expensive and tedious for both the school and parents. With the recent popularity of Augmented Reality (AR) and Virtual Reality (VR), you can bring the field trip to your classroom. **Check out this article** to view some cool trips you can take all around the world or download the **Google Expeditions** app to go on some of their virtual adventures.

3D Printing

3D printing is another newly introduced technology that can enhance the classroom experience by fostering creativity, building enthusiasm, and adding value by linking the lesson to real-world applications with a physical model or object. Also, integrating a 3D printer into the classroom is affordable. In fact, 3D printers often come in cheaper than laptops and computers.

BEYOND THE CLASSROOM

Teachers and students aren't the only ones inside a school that can benefit from technology advancements...

Administrative

- Creating/sending memos, flyers, newsletters, etc. to staff and parents easily with online tools, email, and software applications
- Reaching a wider audience with less effort
- Parent portals to keep parents/guardians in the loop and reducing the need of in-person meetings

Financial / Budgeting

- Easily keeping spreadsheets or using budgeting software to create and track budgets for each department, grade, etc.
- Eliminates the need for manual math (which in turn reduces human error) and makes it easier to have a tangible plan that can be easily changed, updated, and passed on

Guidance Counselors / Scheduling

- Using scheduling and tracking software to create student class schedules and staff/faculty meetings which maximizes productivity and frees up more time to connect with students about personal issues, future plans, etc.

LOOKING AHEAD
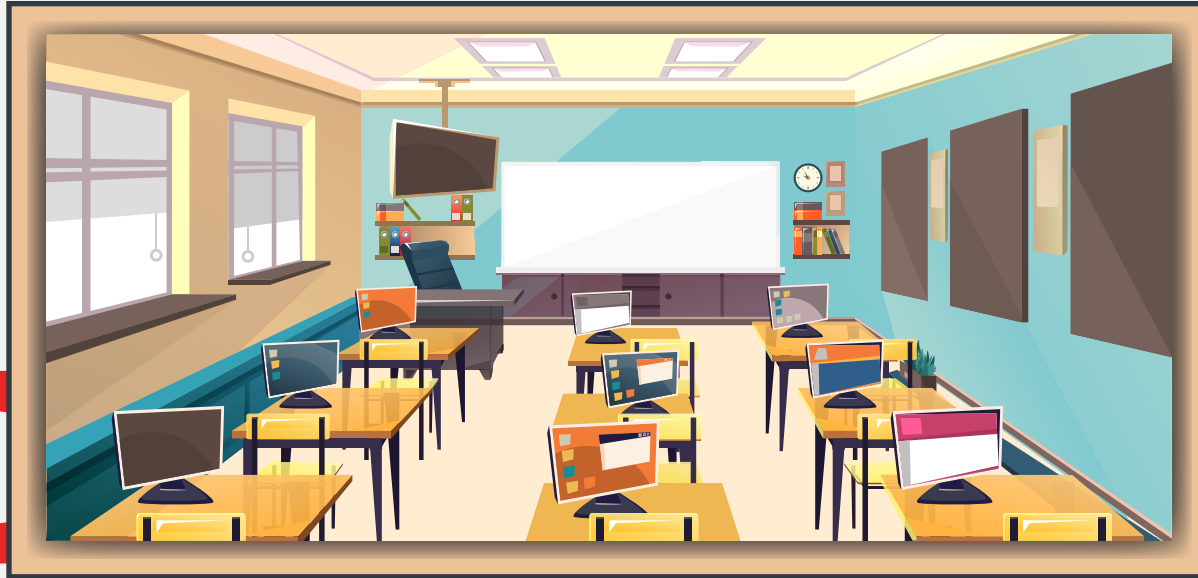
Technology isn't going anywhere. The sooner it's implemented into schools, the easier it will be to transition to new advancements as they come in the future. Someday, physical school supplies and traditional, old-school ways of teaching will be obsolete. Don't wait until then to start making the transition.

Don't believe us? Twenty years ago, for every 90 students, a school provided one computer. Today, that ratio is about four to one – and in some schools, it drops down to one computer for each student. Now a whole slew of schools are following suit. **Will your school be next?**

46% of students are more actively involved in courses that use technology.

37% of teachers say they plan to transition to only digital textbooks in the next 1-5 years.

86% of students say that tablets help them study more efficiently

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TRUST THE EXPERTS

No matter what stage of the technology implemation process you're in, Sierra Experts can help.

1

Monitor Existing Systems

IE: Penetration Testing, Latency & Bandwidth Monitoring

2

Value-Added Services

IE: VoIP Phone Systems, Virtualization

3

Putting New Systems Into Place

IE: Cloud Migration From On-Premises Systems

☑ Deployment, monitoring, and updating of hardware/software

☑ Network services

☑ Desktop virtualization

☑ Email solutions/security

☑ Providing hardware

☑ VoIP/phone systems

☑ Software licenses

☑ Custom software development

☑ And much more!

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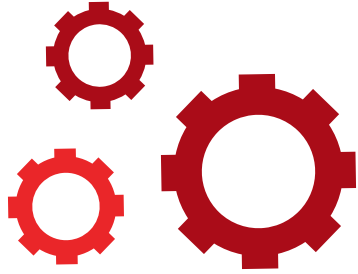*experts*

Bring your classroom, school, and district up to speed.

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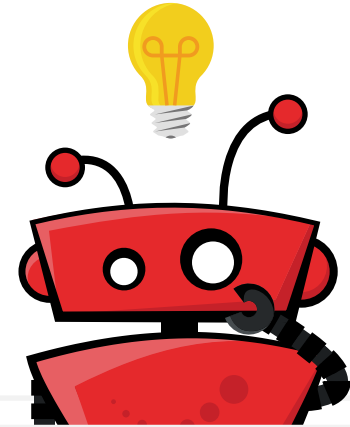
"5 Advantages and Disadvantages of Traditional Education." Essay Mania, 2017, www.essaymania.co.uk/5-advantages-and-disadvantages-of-traditional-education.

Creaswood, Kerry. "Traditional Schools and Colleges: Pros & Cons." Study Abroad | Free & Low Tuition Universities | Free Scholarships | Study-Domain.com, 15 July 2016, www.study-domain.com/traditional-schools-and-colleges-pros-cons/.

"Best Education Software in 2018." G2 Crowd, www.g2crowd.com/categories/education.

"Tablets vs. Textbooks - ProCon.org." ProConorg Headlines, Feb. 2017, tablets-textbooks.procon.org/.

"Virtual Field Trip Apps and Websites." Common Sense Education, Common Sense Education, 7 Aug. 2018, www.commonsense.org/education/top-picks/virtual-field-trip-apps-and-websites.

Stern, Gary. "No More Books: High School Goes All Digital." USA Today, Gannett Satellite Information Network, 18 Sept. 2013, www.usatoday.com/story/news/nation/2013/09/12/no-more-books-high-school-goes-all-digital-/2807577/.

"6 Ways Technology Is Driving a Digital Evolution in Education Infographic." e-Learning Infographics, 6 Aug. 2017, elearninginfographics.com/technology-driving-digital-evolution-education-infographic/.

"Education Technology Services | Managed IT Services." Bell Techlogix, belltechlogix.com/industry-solutions/education/education-technology-solutions/.