There's an App for That!

10 Ways New Technology Can Benefit Learning

v2.5.19

BEYON K-12
TECHNOLOGY EDUCATION

Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.
-- Bill Gates

10 Ways New Technology Can Benefit Learning

Often times principals, superintendents and other educational leaders reach out to learn about offers, ideas and other services that can help them achieve their goals as leaders. Information is always in demand and at no time has there been more questions in education than now! The emergence of mobile and touch-based technology, cloud services and Common Core have transformed what was once a cottage industry into a full-fledged Silicon Valley Investment Sector! Everyone is searching for funding, improved methods and the next big thing to save time, money and avoid disaster. The front page doesn't lie (often!) and technology roll-out disasters are always at the top. What new planning and implementation model will ensure that your technology roll out goes smoothly? That is the question on everybody's mind.

New Ideas Require a More Sophisticated Approach

Most education leaders are now aware that the current state of game playing with technology, downloading worksheets to teach as a crutch, accessing random and inappropriate websites and focusing on simple tasks such as keyboarding are not going to solve the problems we are facing in K-12 education. On top of that, security breaches and lost equipment are making the use of technology in our classrooms a big question mark for many people. Let's start a conversation around the question "why do we need technology in our classrooms?" We have started a list below but we want to hear from you, the reader, why you think we need these tools today more than ever.

There's an App for That!

10 Ways New Technology Can Benefit Learning

1. Allows Students to access current information

> The times they are a-changin.
> - Bob Dylan, 1964

What was true in 1964 is even more true in 2014. Let's take the tried and true textbook. How many have you purchased in your lifetime? Imagine all of the information found in textbooks based on a five to ten year adoption cycle. It is impossible to keep printed textbooks current the way that digital text can.

2. Gives students the ability to understand their classroom content while focusing on whatever learning methodology works best for them

"The **theory of multiple intelligences** is a taxonomy of intelligence that differentiates it into specific (primarily sensory) "modalities", rather than seeing intelligence as dominated by a single general ability." *Wikipedia, The Free Encyclopedia*. Retrieved 06:42, January 15, 2014


ERNIE WITH SIR KEN AT CUE 2013

In no other time in human history have different types of learners been so understood and different types of learning opportunities existed. In fact this is one of the core reasons why education is on the verge of massive disruption. No longer must we put all kids through the same structured lessons using the same old methods that may work for some learners and not others. In addition, our schools are faced with an incredibly diverse culture of learners often times having English as a second or third language. Technology has the ability to level the learning field for all students. It's no wonder that Sir Ken Robinson's TED Talk, "How Schools Kill Creativity" (http://goo.gl/hius) has received almost 21 million views making it the most viewed TED Talk of all time. He gets it!

3. Provides teachers with unlimited content

Teachers love extension lessons and the ability to keep the learning going when the main lesson ends. The "teachable moment" can go on and on. So many students are excelling in different areas of learning brought on by the tools and information resources available. Now teachers

4. Teachers now have the ability to use the tools that students are using in their personal lives in the classroom, making learning more relevant

I was visiting a school in Northern California two years ago. I noticed in each classroom that there was a pocket covered drape on the back of each classroom door. On closer inspection I realized it was a shoe holder that would hold about 25 pair of shoes on the back of each door. I asked what they were for and was shocked to learn that every student was required to "park" their cell phones before class. Their personal devices were not allowed in the classroom. The dark ages of device use are behind us and the flood gates have been opened. Today, with the appropriate polices in place and safety nets handled, students and teachers can now access unlimited resources. The only limitation is the experiences and imagination of those involved.

5. Digital Curriculum and other resources are now available to students both in and outside of the classroom

We love cloud services. What was once only available on my desktop or laptop hard drive is now accessible form any device from anywhere with a Wi-Fi or 4G connection. Not only is it available anywhere with a connection but it is available on any device we may be using. My smartphone, my tablet, my laptop and even my Xbox! Access will also be available on my wrist and in my glasses one day soon. Smart text book publishers and even smarter digital curriculum services are rushing to create the best digital curriculum services available. They will be easy to use, available on everything from anywhere, current and up to date with a variety of learning modalities built in. Innovative organizations like The Learning Counsel (http://www.thelearningcounsel.com/) are in the process of developing a framework so educators can not only organize what digital resource they currently have available in their

6. Collaboration, critical thinking, complex problem solving, and higher level thinking skills are easily accomplished using mobile technology

Many students learn best when they are learning in groups. Collaboration and team learning is often the key to engaged learning. This is true not only within the classroom but between classrooms, between schools even between countries. The opportunities to collaborate across the globe via web services such as Skype, Google Drive, Google Hangouts, OpenClass and others allow for a deeper learning experience. Tapping into student creativity and higher order thinking skills provides more meaningful learning today and preparation for a complex world that they will be competing in over the years to come.

7. Security and content management is becoming more seamless with mobile devices and cloud computing

Security is serious business. With the widespread data breaches being uncovered at places like Target, Buffer App, SnapChat and Neiman Marcus, many consumers and educators are wondering if their data is safe. Although nothing is full-proof at this time, the major cloud services have fared pretty well so far. The upside is that students and teachers are finding themselves more organized than ever. Files, notes, worksheets, website and video references are all right where they are supposed to be and easily accessible from school or at home from any connected device. A note of caution is the fact that many resources ask users to follow their age restrictions guidelines. For example, Edmodo wants users of their site to be age 13 and up.

This organization trend has also created a need for digital portfolios. Students can now keep a permanent record of their finished work which may be quite valuable down the line when they are up against other college applicants or job seekers in a competitive environment. The proof will be in the cloud!

9. Assessment and project management help keep goals and objectives on track

When data is easily accessible and easily organized, management of student expectations and academic success can more easily be monitored. With this eye on data, a more prescriptive approach to teaching and learning can take place and individual learning plans can be created. In addition to student data, technology plans and other school projects can be more easily managed and delegated with shared drives and text or email alerts.

10. Students are being exposed to and staying current on the latest technologies to help them at the next level of education and in their careers

Complex problem solving, collaboration, creativity, coding, database management, complexity management. These are all skill sets that our students will be required to possess to be successful in the near future. If you follow the data points from the last 20 years you will see that technical skills will be required to be eligible for the fastest growing and best paying career options in the future. Other countries are excelling at preparing their students for a hyper competitive global labor market. Movements like STEM and STEAM education are trying to

shine a light on the need to improve our education system in these areas. If we fail to prepare our students to actively participate in technical fields of study we will fail to support the growing needs of a great and powerful nation. Our students are our future and our future is our students.

What Should Today's Educational Leader Do?

I believe it was David Thornburg that said "any teacher who can be replaced by a computer should be replaced." But not by a computer but a better teacher. Many educational leaders think it's all about the device. The "do-it-yourselfers" often overlook the subtle nuances of an appropriate five-part technology plan. It should not be teachers or students figuring out this problem. The five parts need to be addressed independently and as a whole. The leader should take into consideration the five major technology planning and implementation categories that will help them effectively develop a plan that will allow them to achieve their goals with technology. Failing to plan is planning to fail.

Five Planning Areas

To ensure goals are met, these five categories will be a roadmap to take you where you need to go with technology.

The five areas include:

1. Assessing, training and supporting classroom teachers
2. Providing basic skill development for students in an age and grade appropriate way
3. Standards based, curriculum related projects, plans and integrated lessons need to be developed for each grade and subject and updated over time
4. The school infrastructure and device acquisition plan needs to be created and a forecast for changing resources needs to be managed
5. Project management and assessments need to be in place to determine the effectiveness and quality of the project over time

Even though there are only five main categories there are multiple factors that go into making this plan work. Experience and access to resources greatly improves your success in implementing a well thought out plan with the right technologies and reduces risk. A good plan will also help your vision get implemented within deadlines and under budget.

What are the Options?

With enough time and a certain level of ability, a strong tech leader can find many of the answers to these problems online or through their professional organizations or personal learning networks (PLN'S).

On-Line Resources May Come With a Steep Learning Curve

The benefit of using online resources is that there is a possible cost savings. A major drawback besides the tremendous learning curve is that the information can be outdated or the methodologies used are obsolete. This can lead to a large waste of time in developing an ineffective plan. It is difficult to understand the potential outcome if there is a lack of experience.

Planning and Consulting Partners Provide Experience and a Road Map for Success

A better strategy to get your school online effectively and under budget is to hire a consultant to develop a plan using the five implementation and planning categories. The school leader should first get familiar with the five key planning concepts and how using those to plan can benefit the school. Next they need to work with a professional to identify goals and objectives for each planning category. At some point all stake holders need to be in agreement of the direction of the plan and that resources are available. Once everybody is in agreement and resources have been identified the school can then set a timeline for execution.

Will the Do-It-Yourself Approach Work for You?

Choosing and working with a proven and capable consulting solution has been proven time and again to be superior to the do-it-yourself approach. This solution can be validated by school improvement metrics and countless applications across the country. It's natural to doubt this approach or to be skeptical. However, thousands of educators can't be wrong and tens of thousands of high achieving students are enough to show that this implementation model is the way to improve teaching and learning in a simple and organized way.

Experience and a Successful Track Record Are Imperative

When looking for the right provider to help you develop a technology plan, find the one with experience and that you are comfortable with. The key to success falls largely on these two criteria. Also, make sure you are working with someone experienced with these five areas who has the ability to communicate the needs of your school effectively.

For over 22 years, the founders of Beyond Technology Education have been assisting educational leaders identify and plan for their technology needs. With experience comes a unique perspective. As Steve Jobs famously said "**Simple can be harder than complex**: You have to work hard to get your thinking clean to make it simple. But it's worth it in the end because once you get there, you can move mountains".

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