

Online Learning: Maximizing Results by Leveraging Technology

By Amanda Clark, Education Policy Analyst

Introduction

It's time for Maine to embrace innovation in education through online learning - a method inherently customized to suit the needs of our individual students. Think about the technological progress we've made in different areas of life over the past few centuries. At one time, surgeons knew only large incisions and operated tirelessly, often experimentally, in hopes of saving their patients' lives. Now, surgeons are successfully performing laparoscopic surgery and sending their patients home the following day, often even the same day. Telephones, which used to be affixed to the wall or a booth, migrated to your office desk to your car to your pocket! All the while our American education system has remained relatively the same – a teacher in a classroom with a chalkboard and her students in their chairs fixed neatly facing her, pencils and paper in hand.



Third grader Mason wants to be an astronaut when he grows up. He's really motivated and by 10:00 a.m. he's finished all three of his math worksheets and Mrs. Sucky resorts to giving him busy work while she finishes coaching his fellow classmates through their work. Third grader Sophia, however, is still stuck on math problem number one. She's too embarrassed to ask Mrs. Sucky to slow down and repeat the lesson again. Mrs. Sucky is a terrific teacher and

she recognizes her students each learn in different ways – some by doing, some audibly, some visually. However, there's just not enough time in a day to fully meet each of her students varying needs. Mrs. Sucky's 25 students are akin to train cars all on the same track, all forced to go the same speed, run by one engine. If she as the engine slows the train down, Mason will be altogether bored and break away. If she speeds up to accommodate Mason, she'll certainly lose students, and most definitely blast Sophia beyond her speed!

Technology is the key to revolutionizing education for all kids around the world. The term "online learning" embraces this very concept.



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What is online learning?

Online learning, often referred to as “anywhere, any time learning,” is an education model whereby a student completes his coursework through internet-based programs. Of course this model can take many different shapes. It is possible for a student to enroll in a full-time online learning program which is comprehensive of the entire subject matter for his grade level. Or, a student may take just one or a handful of courses online while he is enrolled in a traditional brick and mortar school.

Most popular models of online learning

Full Time:

Students enrolled in full time online learning perhaps have the most flexibility in their education. Rather than a traditional brick and mortar school setting, students “log on” to school with the click of a button on their computer from anywhere with internet ... a home desktop, an airplane, a hospital bed, a hotel room, the list is endless.

Examples: K12, Inc. and Connections Academy - Both are widely popular across the U.S. and each were to be online learning providers for the two proposed virtual charter schools in Maine. Last year, the two proposed virtual charter schools were recommended by the Maine Charter School Commission to resubmit their applications in the next reviewing cycle and they did so in January of 2013. The Commission denied both applications and has not yet approved a virtual charter school in Maine.

Although Maine’s charter school law does allow provisions for a full time virtual charter school, use of this full time virtual school model currently exists in Maine only in a home school situation where parents pay for it out of pocket (in addition to their taxes which in part fund the local public school system).

Blended:

Students’ time is divided between online learning and teacher-led, hands on workshops where there is engaging discussion and activities which complement the individual learning taking place through the online programs. Traditional desks are replaced by mini cubicles containing personal computers. Students are with their fellow classmates in a brick and mortar school and are supervised by teachers. Students take the same online courses but may progress at each of their



Carpe Diem Collegiate High School and Middle School in Yuma, AZ

individual paces.

So for example, Mason and Sophia are taking the same third grade math curriculum. Mason is completing his long division unit after watching the virtual lesson on his computer earlier this morning; he looks forward to moving on to fractions next week! Sophia is feeling confident in her division skills as she was able to hit “pause” during the virtual lesson, while she takes some extra notes. She proceeds to start her exercises and realizes she forgets her first step. She goes back to the virtual lesson and clicks “repeat.” Meanwhile, Mrs. Suzy who has the ability to mill around the room and monitor the progress of her students as individuals, has her own computer and receives a red flag notification on her monitor indicating Sophia may need some encouragement or a bit of an explanation.

Examples: Carpe Diem Collegiate High School and Middle School in Yuma, Arizona

Carpe Diem’s expenditures per student are \$4,000 less than the national average.¹

This model, in its purest form, does not yet exist in Maine. However, with state surplus funds, the Maine Learning Technology Initiative, launched in 2001 by the Maine Department of Education and Apple, Inc., issued laptops to all middle school students and teachers. Through negotiations with Apple, Inc. in 2009, the MLTI expanded and supplied new laptops to all of Maine’s public high school students.² Given this laptop program and the widespread support of superintendents throughout the state, Maine has a nearly perfect foundation to implement the blended model of online learning.

Supplemental:

A student may enroll in an online class or two, in addition to his traditional education, for various reasons. Some students, especially those who live in rural areas, would not otherwise have opportunities to learn Mandarin Chinese or take an Advanced Placement course in preparation for college. Others need to catch up on a particular subject over the course of the summer; perhaps they were sick for an extended period of time or just simply succeeded in all but one subject. Those who don’t like to get their hands dirty, can even virtually dissect a frog in an online biology class!

Examples: PLATO Learning, Inc. and Virtual Learning Academy (with either of these providers, students may enroll in one or two courses or full time)

This model does exist in Maine. Founded in January 2012, the Maine Virtual Learning Consortium which was established by the Maine International Center for Digital Learning and RSU 19, offers eight courses including Latin, Anatomy and Physiology, and Art History. Schools which choose to participate are called “Partner Schools;” they pay an annual enrollment fee and must contribute two one-semester online courses to be distributed for use throughout the other Consortium Partner Schools.³

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Who provides online learning?

Just in the past year, the number of Maine state-approved online learning providers has increased from three to seven. These private providers, approved for use in the public school classrooms, are: Advanced Academics, Apex Learning, Connections Academy, K12, Inc., Lincoln National Academy, PLATO Learning, Inc., and Virtual Learning Academy.

Teachers

Online learning teachers interact with their students through e-mail, electronic real time white boards, instant messaging, blogs, forums, phone, chat rooms, and more! The screenshots below give you an idea of the face to face class time and accountability that can take place even through cyberspace. Students interact and respond to questions through use of the chat box, private messaging, and through a microphone when called upon by their teacher. Teachers can use the whiteboard to type instructions, draw shapes and even graph mathematical equations. Class may meet once a week or multiple times per week. Extra tutoring can take place between the teacher and students as needed on their own time. Homework can be submitted via e-mail or posted on a forum with indications of whether or not students have met the set deadline.

Participants

Participant Name	Count
Jo Nelson 1 (Moderator)	1
Michelle F	2
Erin 1	3
junho	
Cori Sawyer	
matt dimeo	
mimi s	
Rob Nyland (Me)	

3 of 8 Hands Raised

Chat

Show Public

Me: and she makes killer jewelry!
 Michelle F: Yes, thanks
 Michelle F: thanks Rob!
 matt dimeo: explain taht !
 mimi s: Michelle is up high
 Me: that's when we said our secret stuff
 Me: we made up our secret handshakes and passwords
 matt dimeo: I'm writing every word down so we're good

Send to This Room

Audio - Jo Nelson 1

Teleconference available

Whiteboard - Main Room (Scaled 129%)

Public Screen

- ✓ Please perform an audio as soon as you join. Go to Tools; Audio, Audio
- ✓ Familiarize yourself with the video camera icon seen at the bottom of the screen
- ✓ Note the microphone icon in the lower left hand corner. Click to turn on; click to turn off.

Video - Multiple Cameras

Preview Transmit

Medium Color Device... Advanced...

In session for 46 minutes.

Tutor Trove Demo

print · help · home

Users Files

Ell Page 1 You

Greg Page 1

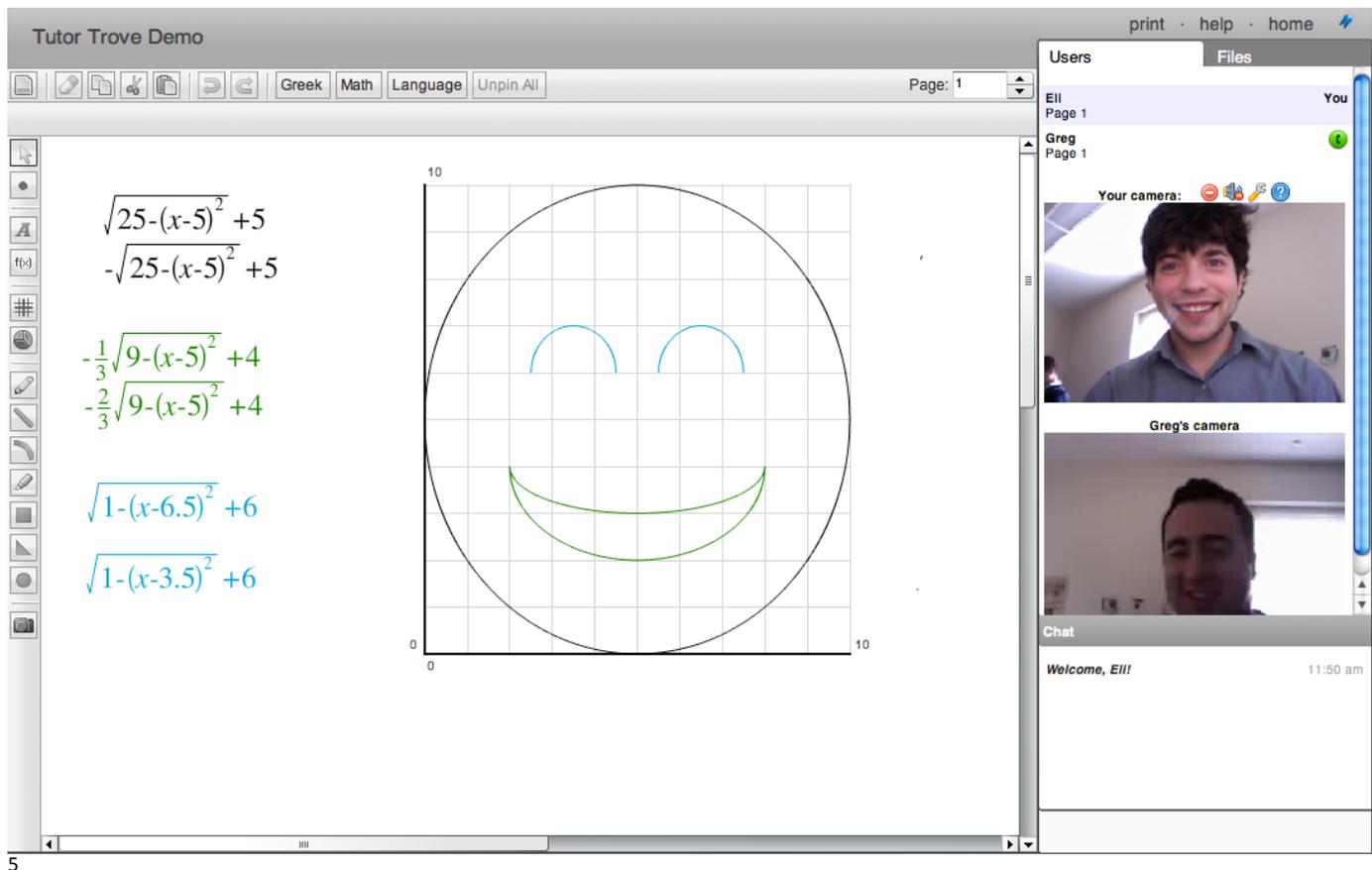
Your camera:   

Greg's camera 

Chat

Welcome, Ell! 11:50 am

5



Conclusion

Online learning embodies the greatest qualities of customized learning. Through online learning, classmates like Mason and Sophia can progress in courses at their own pace, according to their strengths and weaknesses in different subjects. Teachers like Mrs. Sucey, who tirelessly strive to meet the needs and interests of each of her students, can devote more time to tracking and encouraging the progress of her students as unique individuals. Online learning empowers her as just one teacher to have several “engines” running, with students each on their own tracks - slowing down, breaking, and accelerating according to their abilities. The bottom line is leveraging technology maximizes results. Given the laptop programs and online learning programs already in place throughout our state, Maine has the potential to revolutionize education to such a degree that every student can realize his full potential.

Notes and Sources

¹ Diana Moore and Olivia Leonard, iLearn Project, Freedom Foundation, 2011.

² Maine Learning Technology Initiative, "About MLTI," Maine Department of Education.

<http://maine.gov/mlti/about/index.shtml>

³ Maine Virtual Learning Consortium, "Membership and Costs." <https://sites.google.com/a/mevlc.org/mevlc/membership>

⁴ Nyland, Rob, "Instructional Resources for Faculty – Intro and Composition Exercise," June 8, 2012.

<http://www.robnyland.com/blog/page/2/?cat=3>

⁵ Yoong, Janine, "TokBox <3 Tutor Trove!," November 22, 2012. <http://www.tokbox.com/blog/tokbox-3-tutortrove/>

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