Methacton's Digital Learning and Instruction Evolution

Meeting: Methacton School Board Work Session

Date: 4/19/2016

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Work Session - April 19, 2016

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Agenda

Our goal is to:

- review Methacton's evolution with respect to technology usage for instruction and learning
- discuss where we are today
- share our recommendation for the future

Request board support to move forward with a 1:1 digital learning environment

Our Evolution

2013-2014

- District-wide wireless
- Mobile devices (laptops/iPads) in classroom
- Student network account and resources (2nd - 12th)
- Professional development opportunities to support technology integration
- METS ConnECT (K-6)
- Mounted all smart boards and projectors in classrooms (K-12)
- Network infrastructure upgrade (core switches)

METS ConnECT
Create • Empower • Collaborate • Transform

2015-2016

- ILEARN - Flexible learning environments (HS Aux. Library, Commons, CSR)
- "Libratory"- Flexible learning environments (SV Library)
- BrightBytes survey (District-wide technology readiness assessment)
- Continued GAFE professional development (K-12)
- Student Advisory Council (HS)
- Creation of ILEARN courses (HS)
- Established and initiated the elementary vision for technology
- ILEARN - 1:1 Chromebook pilot (HS)

2014-2015

- Staff and student Bring Your Own Device (BYOD)
- Google Apps For Education (GAFE) (K-12 Teachers; 2-12 Students)
- "The Source" - Flexible learning environment (AC Library)
- ILEARN - Flexible learning environment (HS Library)
- Professional development to support GAFE - Certification track
- METS ConnECT 2.0 (K-6)
- ELA, math, and science devices (AC)
- Network infrastructure upgrade (Continuation)

Google Apps for Education

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ILEARN

What is ILEARN?

- Independent Learning, Environments, And Responsible Networking
- It is a byproduct of our vision for teaching and learning supported by technology for the past three years.
- It provides an opportunity to enhance instructional strategies and resources.
- Further facilitates the growth of lifelong learners and continues to address college and career readiness challenges.
- Supports STEM skills and concepts of Creativity, Communication, Collaboration, Citizenship, and Critical thinking

ILEARN is a Teaching and Learning Initiative not a Technology Initiative

ILEARN - 1:1 Chromebook Pilot

This pilot afforded us the ability to identify, design, and implement the supports required to expand this model in the district.

- 170 students were selected as a part of the pilot in the 15-16 school year
  - 4 teachers across core areas (Math, English, Social Studies, and Science)
  - 2 sections for each teacher
  - Courses include students from each academic level (Academic, Honors, and AP)
  - Students are from all 4 grade levels (9-12)
- Students were assigned a personal Chromebook just as they would be a textbook
- Parents/Students had the OPTION for 24/7 accessibility to the Chromebook to extend and support learning outside the classroom
  (All participants elected 24/7 Option)

Observed Benefits/Outcomes

- Afforded greater differentiation to support student-centered learning
- Greater collaboration among students and teachers (in and outside school)
- Improved use of formative assessment data in instruction
- Increased technology skills development as seen through BrightBytes
- Enhanced communication between student and teachers
- Increased learning opportunities - anytime/anywhere
- Increased student engagement

What the 1:1 Pilot Students had to Say

- "I love using the Chromebook because it's easier to start assignments during study hall and amazing for taking notes in class. It's also very handy when you need to research something during class." - Student 1
- "Yes I would recommend it for all the students because they are reliable, helpful, and make things easier. In my opinion, using the Chromebook has made my freshman year much easier." - Student 2
- "Yes, this is definitely something I would recommend. I like the fact that the Chromebook helps to contribute to a more "paperless" environment." - Student 3
- "The Chromebook is overall a great addition to our education." - Student 4

What the 1:1 Pilot Teachers had to Say

- "Using computers in the classroom have made my teaching better and has made the students more engaged." – Brian Robbins, High School Social Studies Teacher
- "I think having a 1:1 program would help the students in so many ways, I don't understand why we wouldn't move in this direction to help our students." – Gina Fabrizio, High School English Teacher
- "Technology yields fast and effective ways to differentiate instruction, and provides the teacher with an opportunity to connect with their students." – Jason Pfeil, High School Math Teacher
- "Having students with readily available technology is an awesome resource with endless possibilities for us as teachers" – Steve Kistler, High School Social Studies Teacher

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1:1 is Research Supported

Project RED

Project RED, a 1:1 Research Initiative, investigated 1:1 computing programs at American schools. 997 principals and technology coordinators were surveyed. Several of the key findings were:

- Schools with a 1:1 student-computer ratio outperform non-1:1 schools on both academic and financial benefits.
- Technology-transformed interventions in ELL, Title I, special education, and reading intervention are the top-model predictor of improved high-stakes test scores, dropout rate reduction, course completion, and improved discipline.
- Online collaboration increases learning productivity and student engagement.

Reference:
Project RED. (2016, March 5). Research Overview. Retrieved from Project RED: http://one-to-oneinstitute.org/research-overview

Project RED
REVOLUTIONIZING EDUCATION

Studies Suggest

- Keengwe, Schnellert and Mills' (2011) study revealed 1:1 programs produced a positive impact on student learning and engagement through the improvement of student motivation.
- Penuel (2006) synthesized findings from multiple studies and reported improvements in student learning outcomes: proficiency with using technology, literacy and writing skills, motivation, collaboration, engagement, and participation
- When technology is used regularly in the classroom, teachers' practices, as well as students' learning, improve (Kim et al., 2013)

Reference:
Keengwe, J., Schnellert, G. & Mills, C. (2011). Laptop initiative: Impact on instructional technology integration and student learning. Education and Information Technologies, 17(2), 137-146. http://dx.doi.org/10.1007/s10639-010-9159-8

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1:1 Districts Near Methacton

Montgomery County

- Boyertown SD - (Montgomery/Berks)
- Jenkintown SD
- Lower Merion SD
- Pope John Paul II High School
- Pottsgrove SD
- Souderton Area SD (Piloting 15-16)
- Upper Dublin SD
- Upper Merion SD
- Upper Moreland SD
- Wissahickon SD

Neighboring Counties

- Conestoga Valley SD - Lancaster
- Ridley SD - Delaware
- Exeter Ridley SD - Berks
- Penn Delco SD - Delaware
- Penn Manor SD - Lancaster
- Pequea Valley SD - Lancaster
- Salisbury SD - Lehigh County
- Wilson SD - Berks

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- Salisbury SD - Lehigh County
- Wilson SD - Berks

Moving Forward

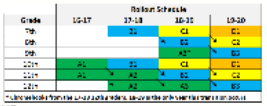
Recommendation

Our recommendation is that for the 2016-2017 school year we begin establishing a 1:1 digital learning environment leveraging Chromebooks.

Why Chromebooks?

- Increased instructional time as a result of:
  - 8 second boot time
  - 8-10 hour continuous use battery
- Thousands of free apps and resources
- Maximize our Google Apps environment
- No missing or lost files - leveraging the cloud
- Remote administration and management eliminating software deployments and imaging

Phased Rollout



2016-2017
- Rollout Chromebooks to grades 10 & 11

2017-2018
- Rollout Chromebooks to grades 7 & 10
- Therefore, grades 7, 10, 11, & 12 are 1:1 learning environments

2018-2019 (Program Stabilization Year)
- Rollout Chromebooks to grades 7 & 10
- Therefore, grades 7 through 12 are 1:1 learning environments

Professional Development

- Integrators will continue to leverage the SAMR framework to provide targeted trainings to staff in instructional technologies
- Continue Google Certification Track - Summer 2016
- Online collaboration tools to further enhance instructional strategies across departments and grade levels
- Additional opportunities through MIAC, ISSS, & In-service trainings throughout the year

Other Supports

- Internet Essentials from Comcast
- Student driven help desks
- Accidental protection plan / battery replacements
- Google cloud management
- Technicians trained to service Chromebooks

1:1 Cost Projections

2016-2017

Total lease *:	$ 260,000
Annual lease payment:	$ 92,000

2017-2018

Total lease * :	$ 238,000
Accrued annual lease payment (Y1 & Y2):	$ 176,000

2018-2019 (Program Stabilization Year)

Total lease *:	$ 237,000
Accrued annual lease payment (Y1, Y2, Y3):	$ 260,000

* Approximates based on estimates of Oct 1st, 2015 4th - 12th student counts; Includes device and warranty cost; 3 year FMV lease at 3%

Technology Fee

MSD Technology Fee Option
- $48/ Year or $4/ Month ($24/year FRL)
- Easy Online Payment
- Permission to bring device home even over summer

What other districts are doing
- Annual technology fee ($30-$90)
- Damage and Repair per incident ($50-$100)

1:1 Cost Projections with Tech. Fee

2016-2017

Annual lease payment:	$ 92,000
Technology fee [2]	- $ 32,000
Total annual commitment	$ 60,000

2017-2018

Accrued annual lease payment (Y1 & Y2):	$ 176,000
Technology fee [2]	- $ 63,000
Total annual commitment	$ 113,000

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Prezi

Profes

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Phased Rollout

	Rollout Schedule			
Grade	16-17	17-18	18-19	19-20
7th		B1	C1	D1
8th			B2	C2
9th			A3*	B3
10th	A1	B1	C1	D1
11th	A1	A2	B2	C2
12th		A2	A3	B3

* Chromebooks from the 17-18 12th graders. 18-19 is the only year this transition occurs.

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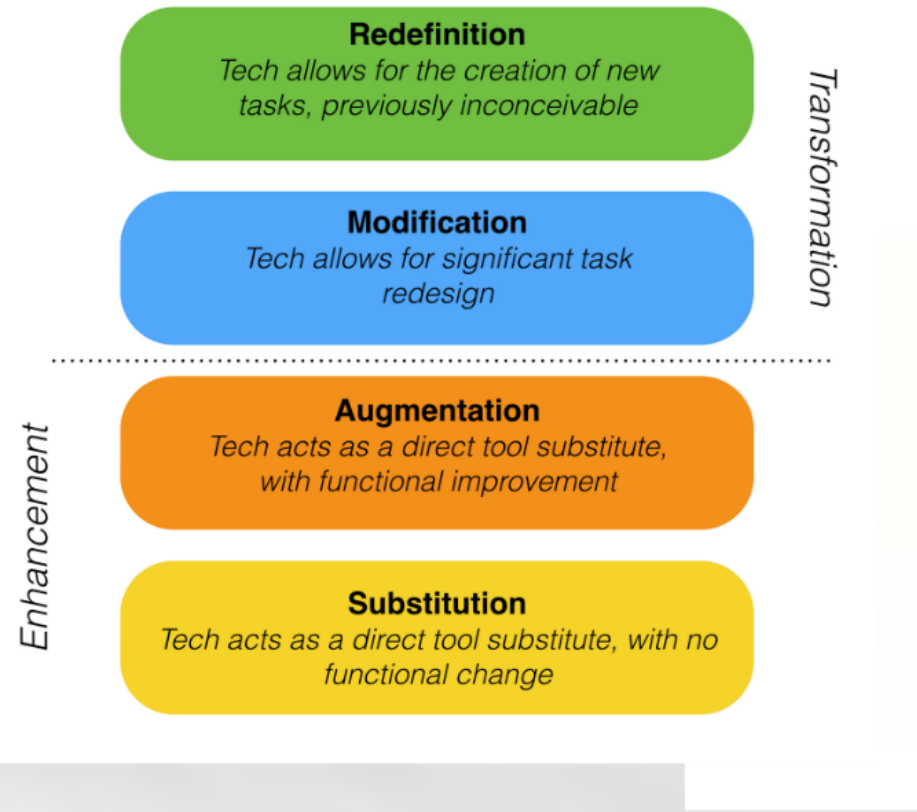

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Next Step

We are requesting the Board to move the following two resolutions forward to the April 2016 School Board Meeting:

- Approve the administration to establish a 1:1 learning environment for students in grades 7-12 to be phased in over three (3) school years beginning with the 2016-2017 school year at a projected annual leasing cost per year as follows: Projected leasing costs: 2016-2017- $260,000; 2017-2018 $238,000; 2018-2019 $237,000.

- Approve the administration to establish a technology fee annually per student in grades 7-12 who are issued 1:1 learning environment devices by the district and who choose to utilize the district provided device outside of the school day. Regular fee is $48.00 annually and $24.00 annually for students that qualify under the National School Lunch program for Free or Reduced price meals.