

Technology Update

Developing 21st Century Skills in All Learners

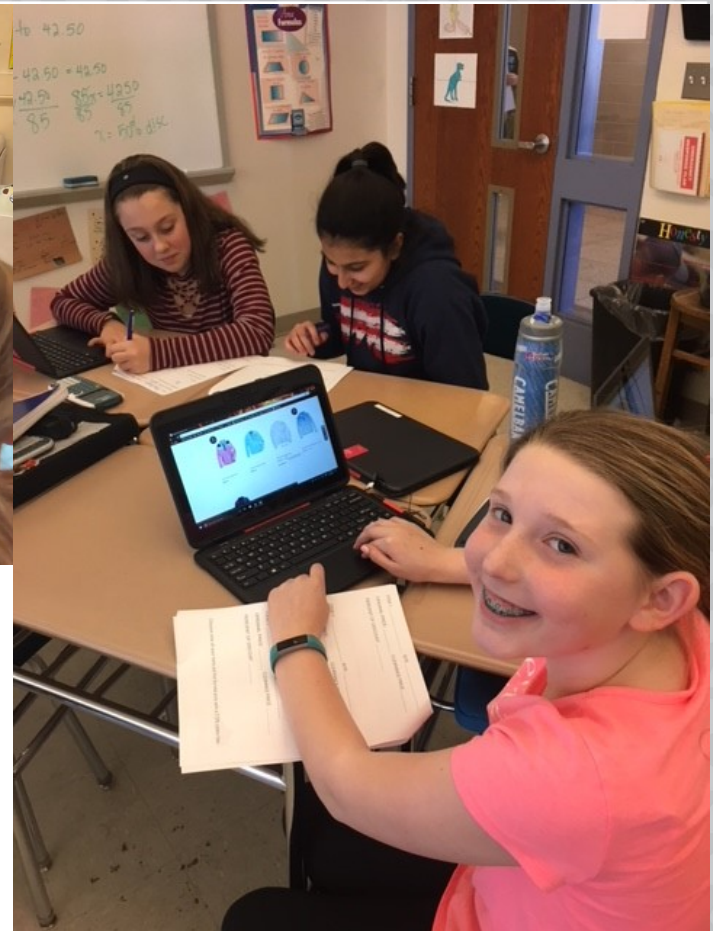
BOARD OF EDUCATION

October 23, 2018

Agenda

- A snapshot of technology use in classrooms.
- How did we get here? A look at:
 - Technology Infrastructure
 - Technology Management
- Using data to plan areas of focus.
- Digital Literacy curriculum improvements.
- Communication and Collaboration improvements.

Technology in Action



Technology in Action

Schoology Learning Management System Use, 10/9-10/16

17,164

Total Visits

142,437

Page Views

Avg 37.48 Per User

00:06:47

Avg. Time Per Visit

573

Comments Posted

Avg 0.15 Per User

880

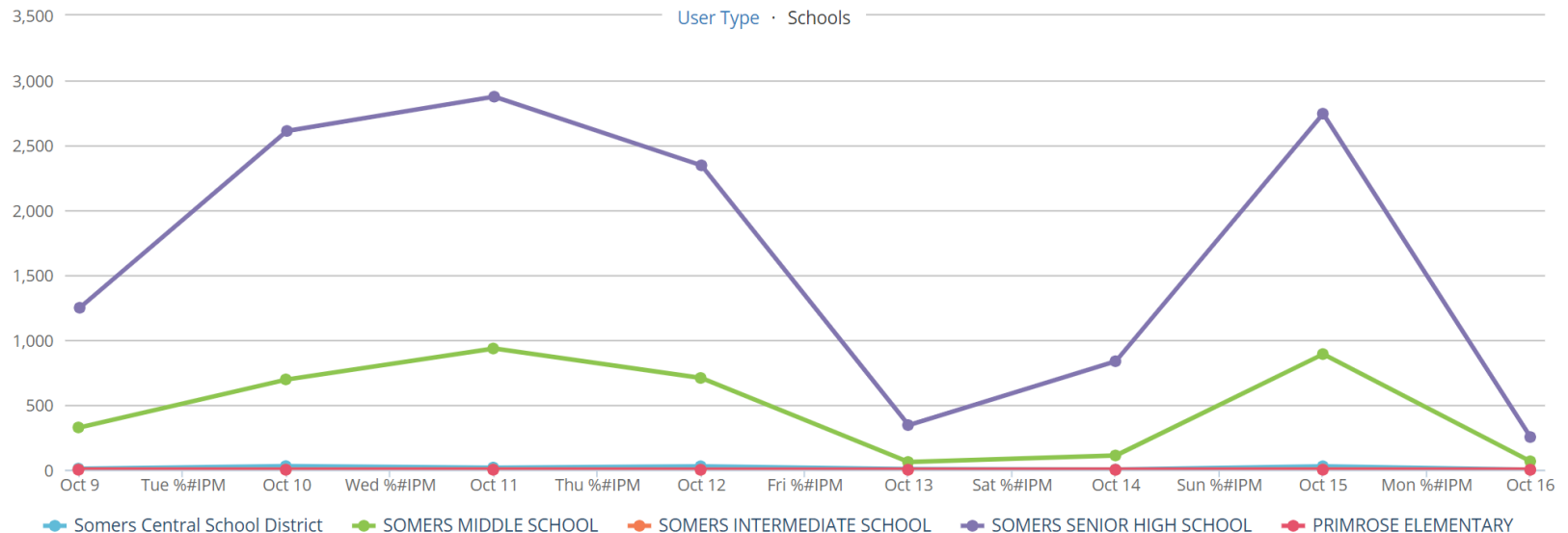
Submissions

Avg 0.23 Per User

647

Files Uploaded

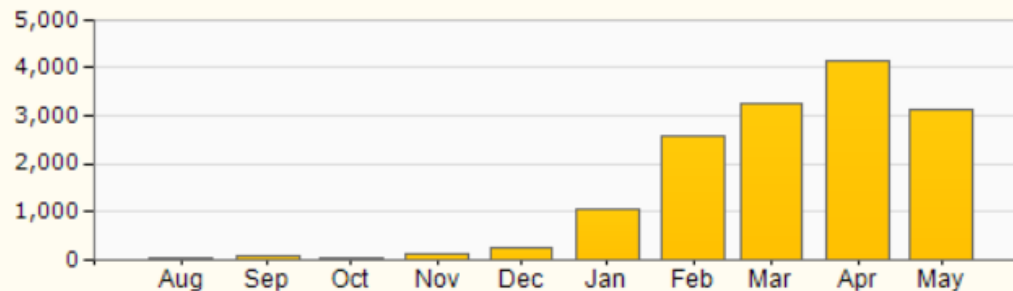
Avg 0.17 Per User



Technology in Action

Learning.com Digital Literacy Use:
Grades K-5 2017-2018 School Year

Logins Per Month



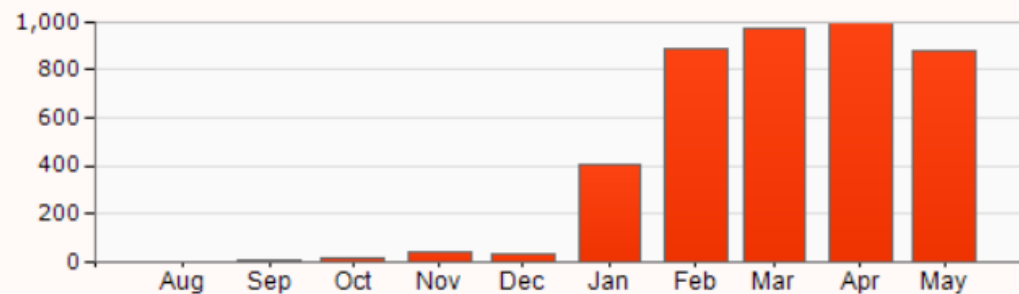
16,371

Total **Logins** over the
2017 - 2018 school year

1,124

Students have used
Learning.com during the
2017 - 2018 school year

Active Students Per Month



Technology in Action

Learning.com Digital Literacy Use K-5: 2017-2018 School Year

School	Curriculum Launches	Unique Lessons Launched	Engaged Students	Launches Per Engaged Student
Primrose School	12,649	62	497	25.5
Somers Intermediate	20,643	49	625	33

GLOSSARY OF TERMS

ENGAGED STUDENTS

Enrolled Students who have launched at least one curriculum item.

UNIQUE ITEMS LAUNCHED

Unique curriculum items launched at the school level.

CURRICULUM LAUNCHES

Total curriculum item loads for the school year

LAUNCHES PER ENGAGED STUDENT

Curriculum Launches / Engaged Students.

Infrastructure Upgrades

Upgrade	Building
MDF Chassis Upgrade	SIS and PES
Server Upgrade	District
Print Server Deployment	District
VoIP Switch Installation	District
Classroom Display Upgrade	District
Teacher Device Replacement	SIS and PES
Student Device Replacement	SMS and SHS

Device Management (DM)

Provides centralized control of all computer assets on the SCSD network including application deployment, configuration, remote servicing and ensures better network security.

- Two MDM solutions are now deployed on the SCSD network:
 - SCCM: Allows for monitoring and management of all wired computer assets.
 - “Wake on Lan” Function
 - Automated application deployment and license management
 - Remote monitoring
 - Operating System update control
 - Intune: allows for monitoring and management of all wireless computer assets.
 - Decreases configuration time for new assets
 - Assists in lifecycle tracking
 - Automated application deployment and license management at the class level.
 - Remote monitoring
 - Operating system update controls
 - User permission controls

Management (continued)

- Help Desk: New system deployed that integrates inventory and helpdesk requests that allows:
 - Root Cause Analysis protocols to be implemented.
 - Total cost of ownership analysis to be completed for aging assets.
 - Computer aide responsibility reassignment using a tiered approach aligned with industry standards.
- Multiple SSID for WiFi including guest access.
- Digitized form collection for Bring Your Own Device (BYOD), Responsible Use Policy (RUP).



- Single Sign On (SSO) and Rostering system implemented to streamline:
 - Logon process
 - Rostering
 - Data migration
 - Reporting



- Migration of shared folders at SIS and PES to cloud.
- Restructuring of Licensing agreement with Microsoft.
- Website ADA compliance update



Digital Literacy Rationale



Elementary student-reported ease of creating a spreadsheet

* Sample taken
from grades 3-5

Somers Central School District

FRAMEWORK: Technology & Learning

DOMAIN: Skills

SUCCESS INDICATOR: Student Foundational Skills

VARIABLE: Elementary Student Foundational Skill Confidence

DATA FROM: Jul 1, 2017 To Dec 31, 2017

FILTERED TO: Elementary



11% Easy

10% Hard

79% Impossible

Why This Matters

The National Council of Teachers of Mathematics considers spreadsheets a “vital component of a high-quality mathematics education” and contends that this, among other technology tools, can extend mathematical reasoning and computational fluency (NCTM, 2008).

Citation

NCTM. (2008). “The role of technology in the teaching and learning of mathematics: A position of the national council of teachers of mathematics” [Position paper]. Retrieved from http://www.nctm.org/uploadedFiles/About_NCTM/Position_Statements/Technology%20final.pdf

Digital Literacy Rationale



“I learn technology easily.”

Somers Central School District

FRAMEWORK: Technology & Learning

DOMAIN: Skills

SUCCESS INDICATOR: Student Foundational Skills

VARIABLE: Elementary Student Foundational Skill Perceptions

DATA FROM: Jul 1, 2017 To Dec 31, 2017

FILTERED TO: Elementary



49% Yes, always

46% Sometimes

5% No, never

Why This Matters

Students of all ages show a desire to make decisions to personalize their learning using technology in school and are able to make these decisions in their daily, personal lives (Project Tomorrow, 2013).

Citation

Project Tomorrow. (2013). "From chalkboards to tablets: The emergence of the K-12 digital learner." Retrieved from <http://www.tomorrow.org/speakup/pdfs/SU12-Students.pdf>

Digital Literacy

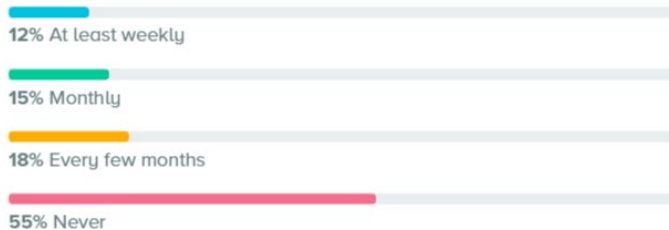
- Student-driven, adaptive, play-based curriculum that develops core competencies in digital literacy.
- 2017-2018 Accomplishments:
 - 5 content strands were implemented in grades K-5:
 - Computer Fundamentals
 - Keyboarding
 - Word Processing
 - Charts and Graphs
 - Research and Evaluation
 - Note: By 2020, all 3-8 Math and English Language Arts assessments must be administered online (Current grade 2)
- 2018-2019 Goals:
 - Expand content strands to include inquiry units aligned to core curriculum areas of ELA and Math.
 - Pilot use of block-based coding software within the Learning.com platform. (2-5).

Communication Rationale

 Students are asked to receive feedback online from someone other than a teacher

Somers Central School District

FRAMEWORK: Technology & Learning DATA FROM: Jul 1, 2017 To Dec 31, 2017
DOMAIN: Classroom FILTERED TO: Middle, High
SUCCESS INDICATOR: Student Use Of The 4Cs
VARIABLE: Student Communication



Why This Matters

Moving away from lecture-style teaching "allows teachers to pose gripping questions, problems, and challenges so compelling that students have to reach out to others to solve them using collaborative methods" that are more reflective of 21st century learning experiences (Wardlow, n.d.).

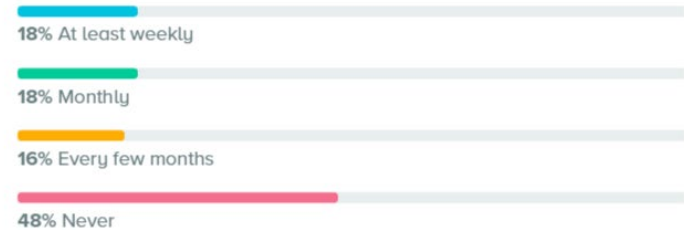
Citation

Wardlow, L. (n.d.). "The science behind better collaboration and student groupings and technology: Teaching in a digital age" [White paper]. Pearson. Retrieved from http://researchnetwork.pearson.com/wp-content/uploads/DigitalAge_CollaborationScience_0930131.pdf

 Students are asked to share schoolwork online using e-Portfolios

Somers Central School District

FRAMEWORK: Technology & Learning DATA FROM: Jul 1, 2017 To Dec 31, 2017
DOMAIN: Classroom FILTERED TO: Middle, High
SUCCESS INDICATOR: Student Use Of The 4Cs
VARIABLE: Student Communication



Why This Matters

Electronic portfolios allow students to personalize their work through dynamic links, provide opportunities for digital self-reflection and peer feedback, and offer ongoing storage, organization, and progress tracking (Meyer et al., 2010).

Citation

Meyer, E., Wade, A., Pillay, V., Idan, E., & Abram, P. (2010). Using electronic portfolios to foster communication in K-12 classrooms. In Black, E. (Ed.), "The Dynamic Classroom: Engaging Students in Higher Education" (125-134). Madison, WI: Atwood Publishing.

Collaboration Rationale



Teachers ask students to collaborate online with classmates

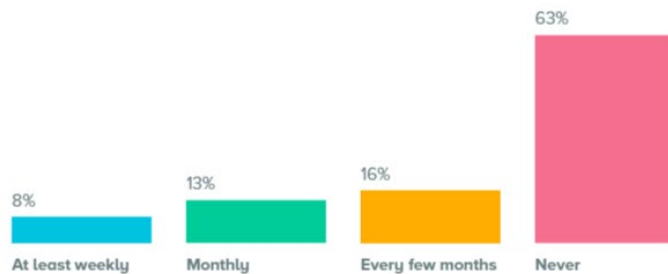
Somers Central School District

FRAMEWORK: Technology & Learning DATA FROM: Jul 1, 2017 To Dec 31, 2017

DOMAIN: Classroom

SUCCESS INDICATOR: Teacher Use Of The 4Cs

VARIABLE: Teacher Collaboration



Why This Matters

Opportunities to collaborate digitally foster better teamwork skills (Purcell et al., 2013).

Citation

Purcell, K., Buchanan, J., & Friedrich, L. (2013). "The impact of digital tools on student writing and how writing is taught in schools". Retrieved from <http://www.pewinternet.org/2013/07/16/the-impact-of-digital-tools-on-student-writing-and-how-writing-is-taught-in-schools/>



Students are asked to receive feedback digitally from others in the classroom

Somers Central School District

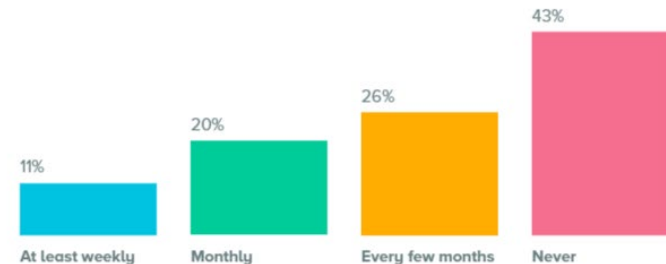
FRAMEWORK: Technology & Learning DATA FROM: Jul 1, 2017 To Dec 31, 2017

DOMAIN: Classroom

FILTERED TO: Middle, High

SUCCESS INDICATOR: Student Use Of The 4Cs

VARIABLE: Student Communication



Why This Matters

Students who collaborate in online spaces to provide feedback "learn from each other, improve their work, and develop their skills," making such interactions beneficial to students of all ability levels (Thomas et al., 2014).

Citation

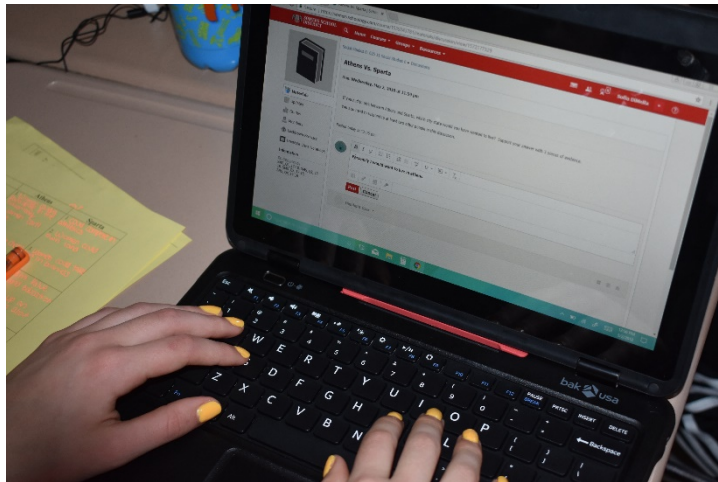
Thomas, E., Rosewell, J., Kear, K., & Donelan, H. (2014). Learning and peer feedback in shared online spaces. "Ninth International Conference on Networked Learning 2014," 7-9 April, 2014, Edinburgh, UK, 382-385.

Focus on Communication and Collaboration

2018-2019: Implement 6-12 Learning Management System (LMS) to facilitate communication and collaboration within and beyond the classroom while integrating disparate programs.

Schoology LMS:

- Is a web-based platform: Can be accessed anywhere, anytime, on any browser, by any device on the internet.
- Can push notifications on cell phones with free app.
- Contains a powerful, secure, balanced assessment system with lockdown browser and analytics tools.
- Integrates with many of current systems and district-supported software.
- Provides professional networking for teachers



Schoology in Action

