

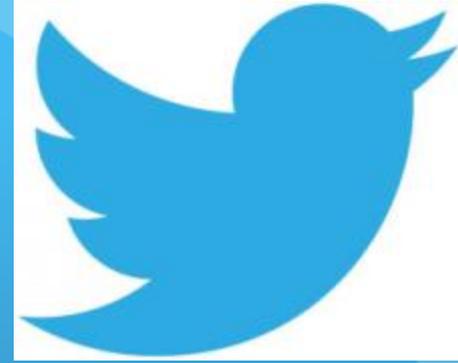
An Evaluation of How 1:1 Technology Can Support Student Success in the IB

John J. Falino (IB Head of School)
Marion Halberg (IB Coordinator)
Candace Reim (IB Administrator)

DOBBS FERRY HIGH SCHOOL, NY

Session Outcomes

- To share the Dobbs Ferry story of transitioning to a 1:1 Chromebook Environment.
- To better understand how technology allows students to develop 21st Century skills for success in the IB.
- To share Action Research that was conducted at DFHS along with a rationale for implementation.
- To provide you with an instructional rationale for implementation.



We encourage all participants to
“backchannel” during this workshop at

#IBCHI1to1

Build a 1:1 PLN!

Opening Tweetchat (#IBCHI1to1)

Where is your school in terms of 1:1 implementation? (considering, in process, experienced)

and/or

What are some of the “IB Skills” that students have gained as a result of technology use?

- John Falino (@johnfalino1)
- Candace Reim (@careim2)
- Marion Halberg (@meghalberg)

Overview of Presentation

Part I: Establishing the Focus via Twitter

Part II: Dobbs Ferry High School (DFHS) Profile

Part III: DFHS Past and Present

Part IV: Transitioning to a 1:1 Environment

Part V: Action Research: Program Evaluation

Part VI: The 1:1 in Action—Top Takeaways

Part VII: Q & A

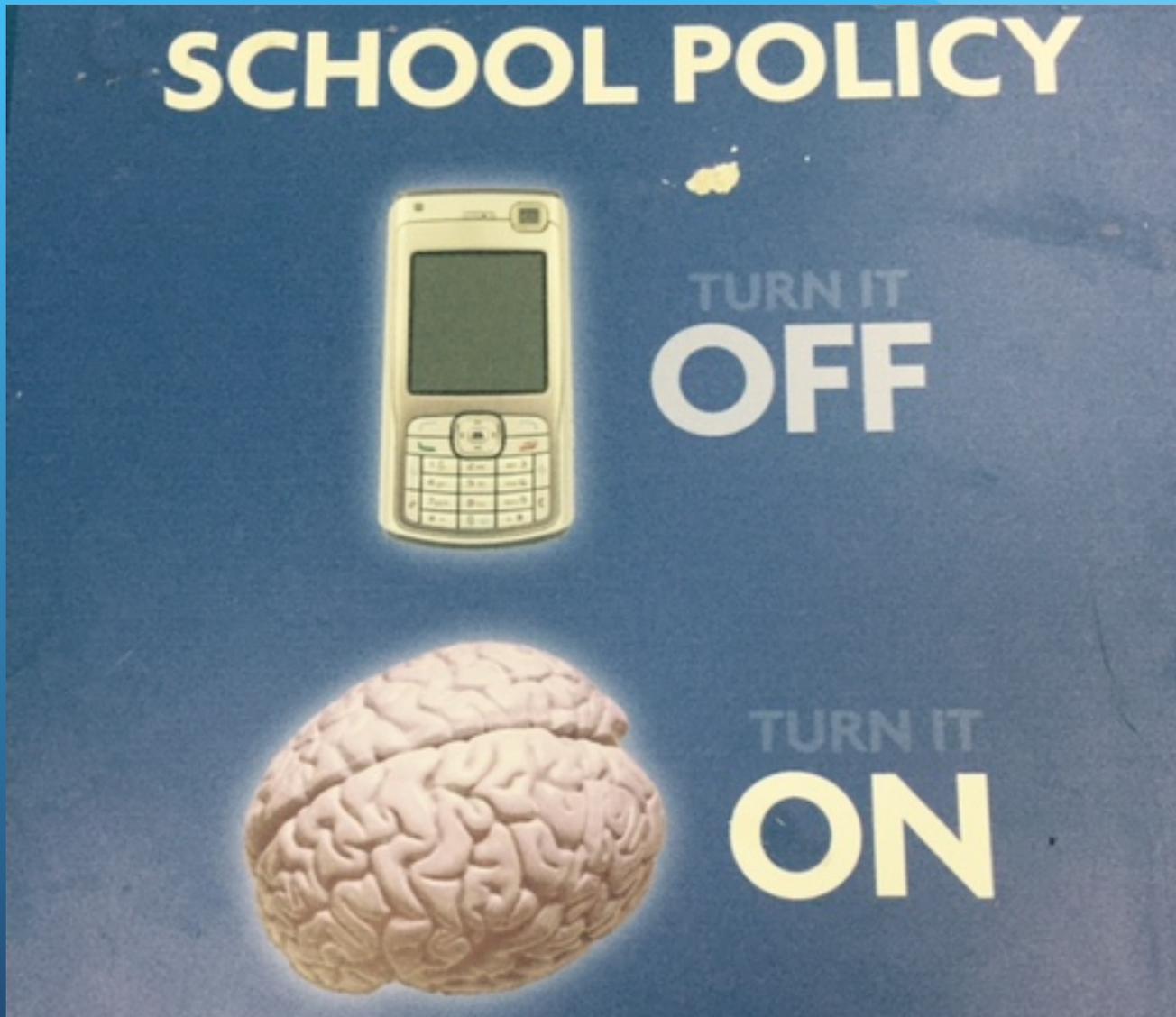
Dobbs Ferry High School Profile



Dobbs Ferry's IB Profile

- Small suburban high school in lower Westchester County, NY.
- Approximately 440 students.
- 1998 authorized to offer Diploma Programme. Began as a small “elite” program.
- “IB for All” Philosophy. All students take Math and English; most take minimum of three IB courses.
- May 2015 session: 36 Diploma Candidates; 440 Subject Entries.
- 2015: MYP Candidate district.

Only five years ago at DFHS...



A Paradigm Shift in Dobbs Ferry...

Vision Building:

- What do our graduates need for success in a 21st century global market?
 - What have our graduates told us?
 - 21st Century “Survival Skills” (Wagner) and the IB Learner Profile.
-
- A shared belief that our students will enter an ever-changing world where they will need to solve problems, think critically, communicate effectively, take initiative, and be adaptable.

What programs and experiences do we have in place to support this vision?

“Independent thinkers prepared to change the world.”



Moving Dobbs Ferry into the 21st Century...

- A clear vision that aligns to the IB Learner Profile.
- Emphasis on how instructional technology can be used to enhance and differentiate teaching and learning.
- 1:1 Chromebook Program for all students in grades 9-11.
- Google Apps for Education.
- Enhanced use of Social Media to further student learning and teacher learning.

Transitioning to a 1:1 Environment



Transition to a 1:1 Environment

A year of shifting the thinking around #edtech...

- Symbolic (removal of signs, removal of filters)
- Social Media (use of Twitter, Facebook, etc.)
- Became a Google Apps for Education District
- Identifying staff “capacity”
- Assessing Student and Parent Readiness (workshops)
- Differentiated Professional Development
- Teachers as students and problem solvers

Why Chromebooks?

- **District “Tech Group”**
 - Student Involvement
 - Chromebook Rationale
 - Capabilities
 - Practicality
- **Education Week (2014):** “Purchases of Chromebooks by schools have surged over the past year and are quickly becoming the device of choice over traditional laptops and tablets.”

Why Chromebooks? Leveling the playing field

- In-line with the district philosophy around differentiation and meeting the needs of ALL students.
- Promotes Equity and Access
- “The goal of IB is to increase access and engagement while removing barriers to learning.”

-IB Guide to Inclusive Education

Action Research 2014-15

- Evaluation of our 1:1 Chromebook program.
- A focus on our stated goals around differentiation and 21st century skill development.
- Data gathered using qualitative methodology: interviews, observations, document analysis.
- Teachers purposefully selected from across the disciplines.

Action Research Questions

- In what ways, if any, do teachers use Chromebooks to differentiate teaching or learning?
- How, if at all, have Chromebooks helped to improve student learning and the acquisition of 21st century “survival” skills?

The 1:1 in Action: Top Takeaways



Takeaway #1:

The Benefits of “Owning” A Device

- The very act of owning a device 24/7, taking it home, charging it...brings forth a whole host of skills that students have to develop and demonstrate. While perhaps basic, we can't take for granted that students have these skills.”

-Lisa Brady, Ed.D., DFUFSD Superintendent of Schools

21st Century Skills: Adaptability, Initiative, Personal Responsibility

Takeaway #2:

The Benefits of “Paperless” Classrooms

- Documents and resources shared available to all students.
- Less time at copy machine means more time for student contact.
- Readings and assignments can easily be differentiated based on student readiness or interest.

21st Century Skills: Adaptability, Initiative, Communication, Imagination

Takeaway #3:

Transforming Teaching and Learning

- Virtual Options:
 - Old Way: Create a collage of artifacts around a period in history.
 - NEW Way: Create a virtual museum using Google Draw. Take advantage of “Minecraft” types of tools.
- Data Analysis:
 - Old Way: Plotting data on paper with limited analysis.
 - NEW Way: Organizing, analyzing, and sharing data across the disciplines using Google Spreadsheet.

21st Century Skills: Curiosity and Imagination, Critical Thinking, Analysis.

Ms. Newhouse's Earth Science Class uses 1:1 technology to process experimental data.



Takeaway #3:

Transforming Teaching and Learning

- Real Time Data:
 - Old Way: Opening Do Now activities using pen and paper.
 - NEW Way: Using Google Forms and real time data at the opening of lessons.
- Online Electives:
 - Old Way: Traditional “brick and mortar” classrooms.
 - NEW Way: Expanded opportunities via online offerings (Pamoja), MOOCS, and YouTube (Khan).

21st Century Skills: Curiosity and Imagination, Critical Thinking, Analysis, Initiative.

Mr. Cohn's class uses 1:1 technology to connect with Financial Professionals via Skype.



Takeaway #4:

Improved Student Writing

- Access to **Google Docs** allows students to share with both the teacher and other students.
- On-going monitoring and feedback instead of traditional “one-time” teacher comment(s).
- “Revision History” promotes the writing process as well as academic honesty.
- Significant increase in writing skills; clear differentiation of process based on readiness.

21st Century Skills: Written Communication, Analysis, Critical Thinking

Ms. Fahy and Ms. Cosgrove use the Google Docs Revision History to Monitor their Students' Writing.

The screenshot shows a Google Docs interface with a document titled "Maria Espinoza HRP Overview, Focus Points and Thesis SC". The document content includes a form for Name and Date, followed by an "Overview" section with a list of questions and answers about the Jallianwala Bagh massacre. A "Revision history" sidebar on the right lists changes made by Maria Espinoza and Taryn Phelan. The bottom of the screen shows a Windows taskbar with various application icons and a system tray with the time 8:56.

Name: _____ Date: _____
Global II Overview, Focus Points and Thesis

Overview (Summarize the issue. WHO did WHAT to WHOM WHEN, WHERE and WHY?):

- **WHO DID WHAT? ANSWER:** The British killed innocent Indians.
- **WHEN? ANSWER:** April 13, 1919 when the British were in control of India and the people were protesting the British control. The Indians gathered around to commemorate the holiday of Baisakhi. Which was the day they celebrate "the birth of Khalsa."
- **WHERE? ANSWER:** India, Jallianwala Bagh- garden
- **WHY? ANSWER:** The British were angry at the Indians. They didn't like the fact that the Indians were protesting, so they banned it. The Indians were upset because the British took over their country. The Indians couldn't do anything because they got rid of local businesses. Due to that they Indians could not be able to work. The British found out that the Indians were having a peaceful gathering at a park. They traveled with the Gurkha troops. They went to the to the place where the Indians were gathered and the British set fire and they killed 379 unarmed people and also wounded people. Setting fire was a way of giving them a message and showing the Indians that they would not tolerate the protesting.

Each focus point should address one aspect of the task.

Focus Point 1 (HOW were human rights violated?):

- **ANSWER:** They were executed and they were innocent civilians. They were at a

Revision history

- March 12, 12:18 PM
■ Maria Espinoza
- March 12, 8:03 AM
■ Maria Espinoza
- March 9, 8:11 PM
■ Maria Espinoza
- February 24, 12:14 PM
■ Maria Espinoza
- February 24, 8:54 AM
■ Maria Espinoza
- February 23, 6:47 PM
■ Maria Espinoza
- February 23, 5:52 PM
■ Taryn Phelan
■ Maria Espinoza
- February 23, 5:52 PM
■ Taryn Phelan
- February 23, 5:50 PM
■ Maria Espinoza
- February 23, 5:44 PM
■ Taryn Phelan
■ Maria Espinoza

Show changes
Show more detailed revisions

Takeaway #5:

Online Resources: Skill Development

- Teachers continue to find online resources based on student need in terms of content and skills.
- “Teachers cannot be expected to effectively and regularly differentiate without technology.” -Lisa Brady, Ed.D.
- Programs such as Test Wizard, Castle Learning, Quizlet, and “Turnitin” provide targeted support and increased ownership and self-monitoring for students.

21st Century Skills: Adaptability, Initiative, Analysis, Problem Solving

Ms. Stern's 9th Grade Global Studies Class.



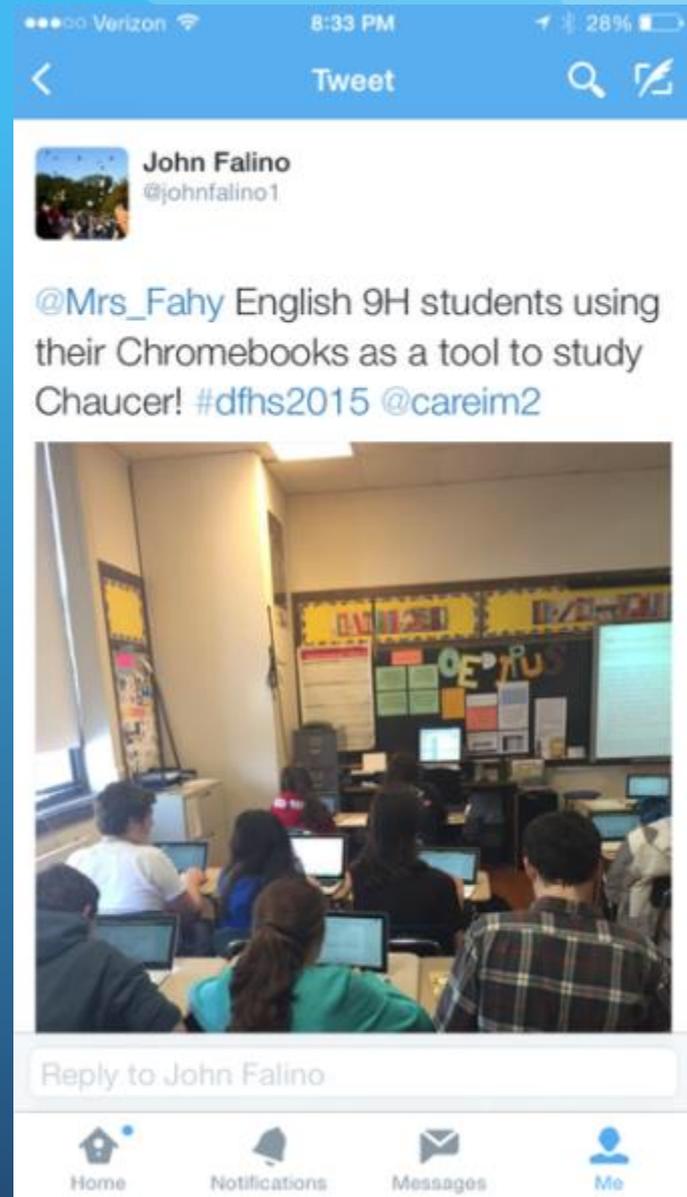
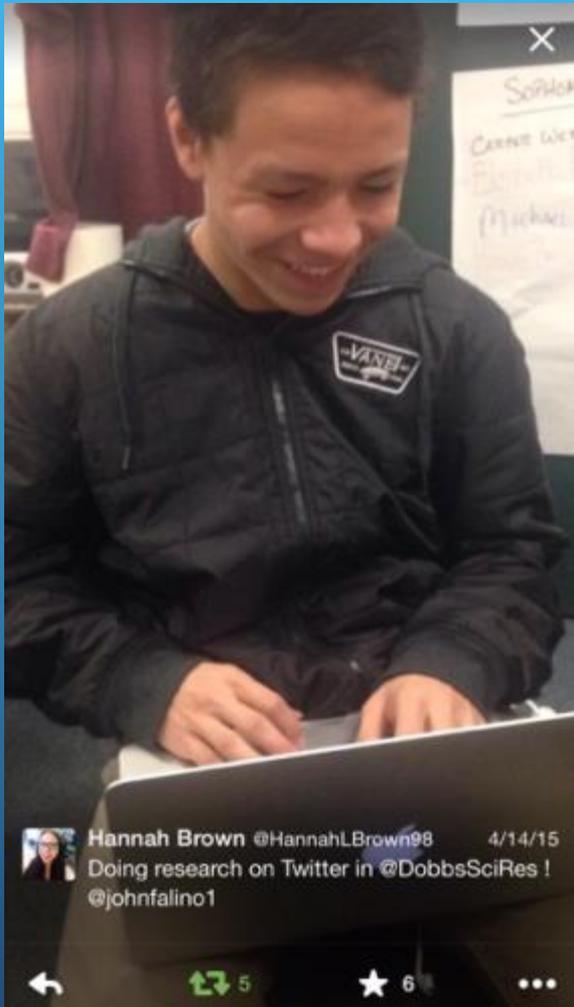
Takeaway #6:

Online Resources: Curiosity & Imagination

- Teachers continue to find online resources based on student interest in an effort to enhance existing curriculum.
- Easy access to sites such as (Khan Academy) promote exploration, curiosity and international mindedness
- Students can “group up” and “explore” based on interest and need.
- Increased participation in online elective courses!

21st Century Skills: Adaptability, Initiative, Collaboration, Curiosity and Imagination

DFHS Science Research
Students use 1:1 technology
to research possible topics for
exploration.



Takeaway #7:

Access to Google Classroom

- Allows teachers to easily post all documents and assignments in one location.
- Allows students to share notes with one another quickly and easily.
- Provides efficiency throughout daily lessons.
- Creates a digital timeline of the course.

21st Century Skills: Adaptability, Initiative, Collaboration,

Mr. Patrillo's Google Classroom

Verizon 9:02 AM 100%

Government and Economics
Period 2

STREAM STUDENTS ABOUT

Share with your class...

Announcement Assignment

ASSIGNMENT Scott Patrillo – May 1
DUE MAY 4

Financial Football/Soccer Review

7 DONE 9 NOT DONE

Financial Soccer / Football Rev...
Google Docs
Each student will get a copy

Add comment...

Verizon 9:00 AM 100%

classroom.google.com

Economics Final Review from Diagnostic Exam

Economics Final Review
Google Slides

Economics Final Review Prese...
Google Slides

Add comment...

ANNOUNCEMENT Scott Patrillo – Apr 17

Credit Power Point used in class

Credit.ppt
PowerPoint

Add comment...

ASSIGNMENT Scott Patrillo – Apr 15
DUE APR 16

Assessing Credit Card Offers

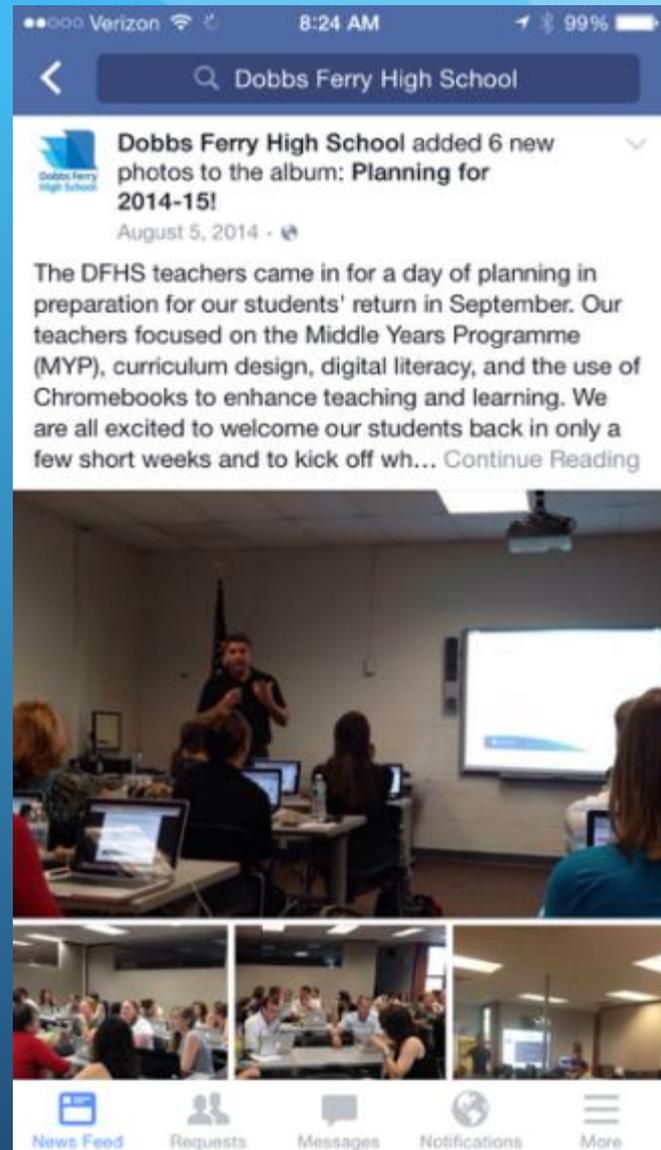
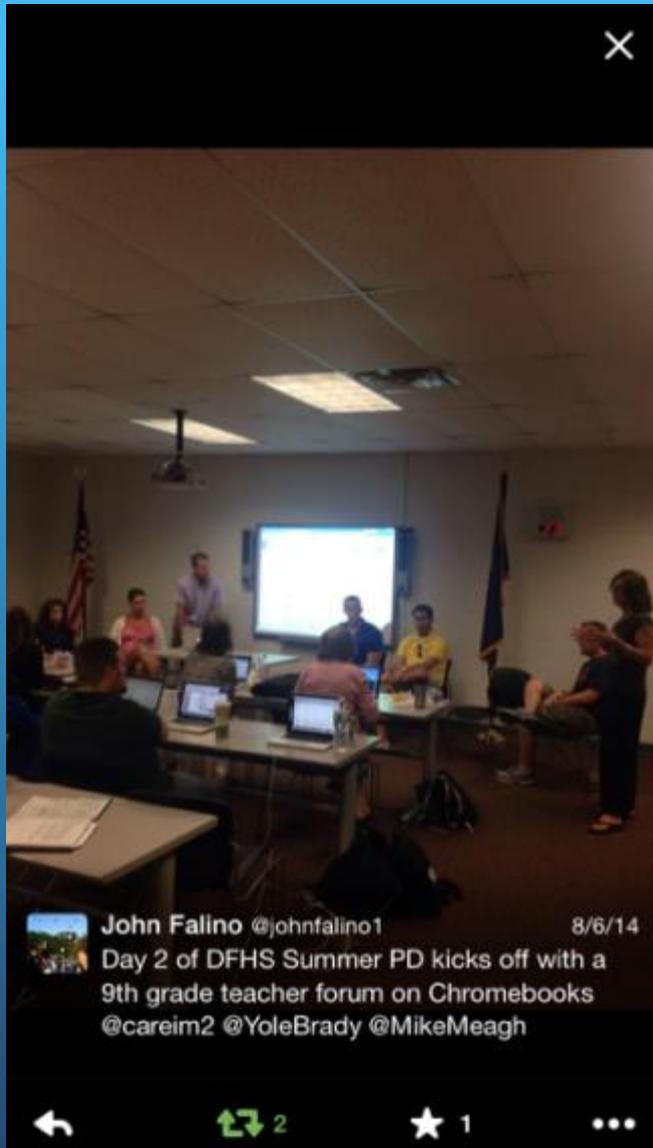
Takeaway #8:

Implementation: Teacher Buy-In

- Teachers continually reported that a lack of clear “outcomes” was liberating and resulted in success.
- Reduced pressure, could move at their own pace.
- Increased ownership.
- Creation of learning communities was organic; increased collaboration.
- Teachers as students!

21st Century Skills (for teachers!): Adaptability, Initiative, Collaboration, Problem Solving

Teacher Led Professional Development and Program Evaluation



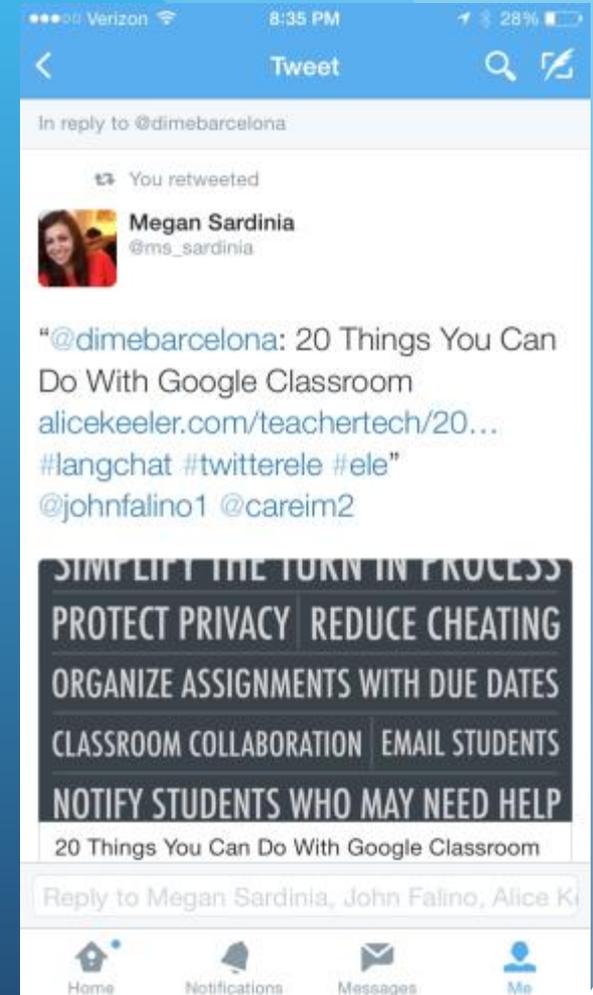
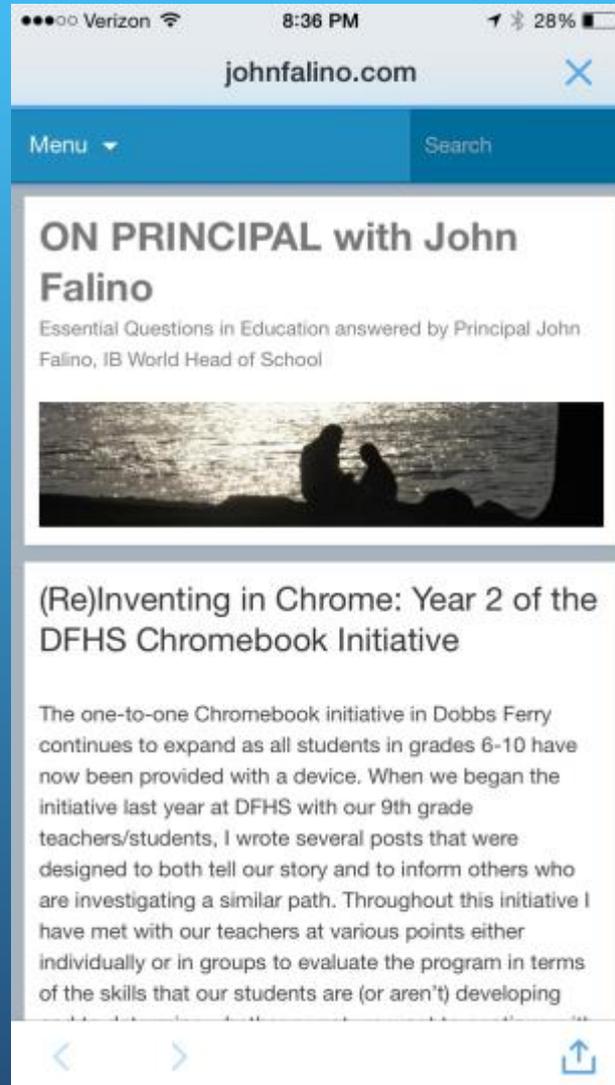
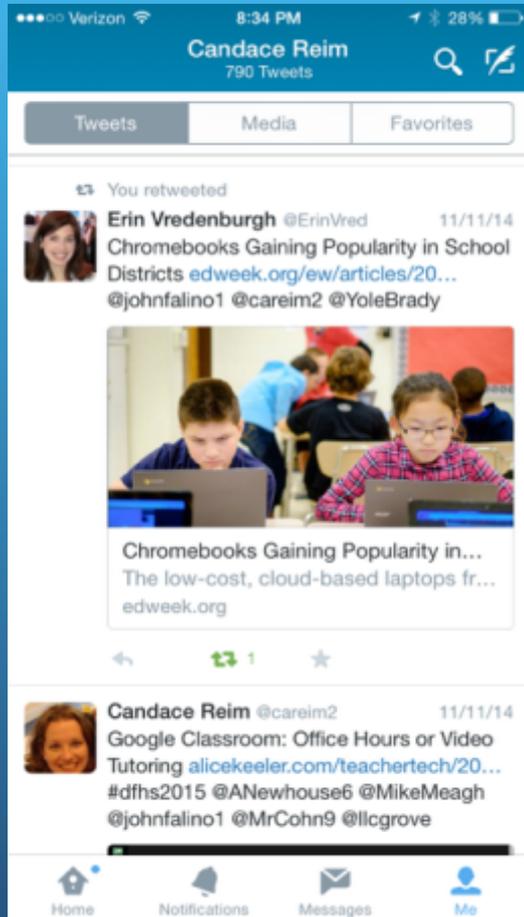
Takeaway #9:

Implementation: Community Buy-In

- Book Chats, Parent Chats, & Vision Building.
- Parent Information Nights and Training:
 - How to use Chromebooks
 - Why Chromebooks?
 - Chromebooks inside of the classroom.
 - Safety and Security
 - Insurance
- Social Media: Share your school's story!

21st Century Skills (for parents!): Adaptability, Collaboration, Problem Solving

DFHS Faculty and Administration continue to educate the community about the benefits of 1:1 technology.



Takeaway #10:

Still A Work in Progress

- Teachers on board with 1:1 technology!
- Inconsistent Use Among Teachers:
 - Reality of high stakes exams.
 - Limitations (perceived or real) for subjects such as Math and Science.
 - Varied skills and expertise.
- Ongoing monitoring and evaluation required.
- Ongoing and differentiated professional development a must.

21st Century Skills (for school leaders!): Adaptability, Initiative, Collaboration, Problem Solving

Questions?

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Candace Reim: reimc@dfsd.org

Dobbs Ferry HS: <http://hs.dfsd.org>

Principal's Blog: johnfalino.com