Today’s Students and Digital Learning

Speak Up 2014 Congressional Briefing

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CEO, Project Tomorrow
April 30, 2015
Welcome and Remarks
- Julie Evans, Project Tomorrow
- Jessica Rosenworcel, FCC

Release of National Findings
- Digital learning models: mobile, blended, virtual and STEM
- Students as self-directed digital learners

Discussion with our Panel of Experts – meet our students!

Your Questions, Thoughts and Comments
Meet our panel of experts

Students from elementary, middle and high schools from the following schools and districts:

The Empowerment Academy
Baltimore City Public Schools (MD)

Key Middle School
Fairfax County Public Schools (VA)

Cesar Chavez Public Charter School for Public Policy
Washington, DC
Thank you!

Senator Patty Murray
Washington State
What is Speak Up?

Key report highlights

Student ideas
Project Tomorrow, a national education nonprofit organization

Programs:

• Research & evaluation studies
• STEM education programs
• Advocacy for digital learning

Mission: To ensure that today’s students are prepared to become tomorrow’s leaders, innovators and engaged citizens of the world.
**Speak Up National Research Project**

Annual national research project

- Using online surveys + focus groups
- Surveys for: K-12 Students, Teachers, Parents, Administrators, Community Members
- Special: Pre-Service Teachers in Schools of Education
- Open for all K-12 schools and schools of education
- Schools, districts & colleges receive free report with their own data

Inform policies, plans & programs

- Local: your stakeholder data
- State: state level data
- Federal: national findings

4 million surveys since 2003

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Saluting our Speak Up 2014 Sponsors:

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Rosetta Stone®

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Many thanks to our K-12 National Champion Outreach Partners:
Speak Up 2014 national participation: 521,846

K-12 Students 431,231
Teachers & Librarians 44,289
Parents (in English & Spanish) 35,337
School/District Administrators/Tech Leaders 4,324
Community Members 6,656

About the participating schools & districts
- 8,216 schools and 2,676 districts
- 30% urban / 40% rural / 30% suburban
- All 50 states + DC + Guam + DODEA schools

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Key trends from Speak Up 2014

- Increased urgency around digital learning
- Interest in new models – mobile, blended and flipped learning
- Usage of digital content in classrooms on the rise
- Leveraging STEM to develop college and career readiness skills
- Focus on using technology to personalize learning
“Knowing it and seeing it are two different things.”

Suzanne Collins, Mockingjay
“Without data, you are just another person with an opinion …
“Without data, you are just another person with an opinion …

2014 Speak Up data about students & digital learning can inform your policies, plans, programs and opportunities
Remarks

Jessica Rosenworcel
Commissioner
Federal Communications Commission
Today’s Students and Digital Learning
Views of 430,000 K-12 Students

1. Mobile learning environments
2. Online learning environments
3. STEM learning environments

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Meet our panel of experts

Nia Grade 3
Tendai Grade 5
Darelle Grade 6
Roy’el Grade 6
Andrea Grade 8
Mohamed Grade 8
O’Lori Grade 12
Mobile Learning Environments
Students’ personal access to mobile devices

- **Gr 9-12**
  - Digital Reader: 17%
  - Tablet: 38%
  - Laptop: 51%
  - Smartphone: 82%

- **Gr 6-8**
  - Digital Reader: 26%
  - Tablet: 46%
  - Laptop: 56%
  - Smartphone: 68%

- **Gr 3-5**
  - Digital Reader: 29%
  - Tablet: 46%
  - Laptop: 51%
  - Smartphone: 60%

- **Gr K-2**
  - Digital Reader: 30%
  - Tablet: 49%
  - Laptop: 56%
  - Smartphone: 42%

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## Home internet access

Students in grades 6-8 nationwide:

<table>
<thead>
<tr>
<th>Type of access</th>
<th>Urban</th>
<th>Suburban</th>
<th>Rural</th>
<th>Title I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast, broadband access</td>
<td>50%</td>
<td>51%</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>Access through mobile device plan</td>
<td>43%</td>
<td>46%</td>
<td>44%</td>
<td>43%</td>
</tr>
<tr>
<td>No or slow access</td>
<td>14%</td>
<td>15%</td>
<td>17%</td>
<td>18%</td>
</tr>
</tbody>
</table>
Mobile learning class models:

<table>
<thead>
<tr>
<th>What type of mobile device do you use at school?</th>
<th>Gr 6-8</th>
<th>Gr 9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>My own device</td>
<td>23%</td>
<td>58%</td>
</tr>
<tr>
<td>School laptop</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>School tablet</td>
<td>21%</td>
<td>14%</td>
</tr>
<tr>
<td>School Chromebook</td>
<td>21%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Devices enable digital learning

- Take online tests
- Use Internet based services
- Use a school portal
- Use online textbooks
- Watch teacher created videos
- Post to class blogs

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Students choose best device for various academic tasks: Not “one size fits all”

<table>
<thead>
<tr>
<th>Laptop User</th>
<th>Tablet User</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Laptop</strong></td>
<td><strong>Laptop</strong></td>
</tr>
<tr>
<td>Write a report</td>
<td>Write a report</td>
</tr>
<tr>
<td>Take notes</td>
<td>Take notes</td>
</tr>
<tr>
<td>Take an online test</td>
<td>Take an online test</td>
</tr>
<tr>
<td>Read online textbook</td>
<td>Do online research</td>
</tr>
<tr>
<td>Do online research</td>
<td></td>
</tr>
<tr>
<td><strong>Tablet</strong></td>
<td><strong>Tablet</strong></td>
</tr>
<tr>
<td>None</td>
<td>Take notes</td>
</tr>
<tr>
<td></td>
<td>Read online textbooks</td>
</tr>
<tr>
<td></td>
<td>Watch videos</td>
</tr>
<tr>
<td><strong>Smartphone</strong></td>
<td><strong>Smartphone</strong></td>
</tr>
<tr>
<td>Communicate w/teachers</td>
<td>Communicate w/teachers</td>
</tr>
<tr>
<td>Communicate w/classmates</td>
<td>Communicate w/classmates</td>
</tr>
<tr>
<td>Watch videos</td>
<td>Watch videos</td>
</tr>
</tbody>
</table>

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Social media: tools to connect, collaborate, create

**Instagram:**
55% of HS students
50% of MS students

**Twitter:**
35% of students in Gr 6-12

**Creating/watching videos:**
74% of students in Gr 6-8
Social media: tools to connect, collaborate, create

Massively multi-player online games (MMOG)
30% of boys in Gr 6-8

Facebook
33% of students in Gr 9-12
decrease of +41% since 2007 nationally
Obstacles to using technology at school?

- Edu websites are blocked
- Too many rules
- Teachers limit tech use
- Internet is too slow
- Can't access social media
- Can't use my own mobile
- Can't text

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Importance of mobile device access

How important is it for every student to be able to use a mobile device in school to support schoolwork?

Gr 6-8 students 75%
Gr 9-12 students 74%
Principals 86%
District administrators 84%
Let’s ask our experts!

Nia Grade 3
Tendai Grade 5
Darelle Grade 6
Roy’el Grade 6
Andrea Grade 8
Mohamed Grade 8
O’Lori Grade 12

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Online Learning Environments
Blended learning as an option

Definition:
- Part of the week in a tradition classroom
- Part of the week in online learning
- Student controls time, place, path, pace of learning

63% of students in grades 6-12 think that a blended learning environment would be a good way for them to learn.
Current depth of blended learning in schools

In blended learning environments today:

- 25% of students in grades 6-8
- 23% of students in grades 9-12

Plus

21% of students in grades 3-5 say that they are regularly watching teacher produced videos for homework – flipped learning model?
Impact of blended learning model

Administrators say these digital learning approaches yield positive achievement results:

- Digital content within instruction (61%)
- Digital or online textbooks (51%)
- Blended learning models (45%)
## Impact of blended learning model

<table>
<thead>
<tr>
<th>Benefits of digital learning</th>
<th>Views of Gr 6-8 students in blended learning environments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am able to learn at my own pace</td>
<td>64%</td>
</tr>
<tr>
<td>I am developing creativity skills</td>
<td>63%</td>
</tr>
<tr>
<td>I collaborate more with my classmates</td>
<td>61%</td>
</tr>
<tr>
<td>I have more control over my learning</td>
<td>58%</td>
</tr>
<tr>
<td>I gain a better understanding of the class materials</td>
<td>56%</td>
</tr>
<tr>
<td>I am developing critical thinking and problem solving skills</td>
<td>54%</td>
</tr>
<tr>
<td>I am learning in a way that better fits my learning style</td>
<td>53%</td>
</tr>
</tbody>
</table>
Impact of blended learning model

Student Use of Technology at Home (Student self-directed technology use)

- Email teacher w/questions: 52% (traditional), 46% (blended)
- Use a mobile app: 50% (traditional), 46% (blended)
- Find online videos for homework help: 45% (traditional), 39% (blended)
- Post content online for comment: 23% (traditional), 16% (blended)

Key:
Grade 6-12 students in traditional classrooms
Grade 6-12 students in blended learning environments

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### Policy Discussion

Do you think that students should take a fully online or virtual class prior to graduating from high school in preparation for college/career success?

<table>
<thead>
<tr>
<th>Group</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>50%</td>
</tr>
<tr>
<td>District Administrators</td>
<td>59%</td>
</tr>
<tr>
<td>Students</td>
<td>36%</td>
</tr>
<tr>
<td>Students in virtual schools</td>
<td>55%</td>
</tr>
</tbody>
</table>
Students’ interest in fully online classes

<table>
<thead>
<tr>
<th>Subject</th>
<th>Gr 9-12 Students</th>
<th>Gr 6-8 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>25%</td>
<td>44%</td>
</tr>
<tr>
<td>Science</td>
<td>23%</td>
<td>40%</td>
</tr>
<tr>
<td>Coding</td>
<td>27%</td>
<td>38%</td>
</tr>
<tr>
<td>History</td>
<td>24%</td>
<td>37%</td>
</tr>
<tr>
<td>English</td>
<td>25%</td>
<td>34%</td>
</tr>
<tr>
<td>World Languages</td>
<td>24%</td>
<td>34%</td>
</tr>
<tr>
<td>All of my classes</td>
<td>16%</td>
<td>24%</td>
</tr>
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<tr>
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<td>24%</td>
<td>37%</td>
</tr>
<tr>
<td>English</td>
<td>25%</td>
<td>34%</td>
</tr>
<tr>
<td>World...</td>
<td>24%</td>
<td>34%</td>
</tr>
<tr>
<td>All of my classes</td>
<td>16%</td>
<td>24%</td>
</tr>
</tbody>
</table>

8% in 2013
3X increase
### What do our experts think?

<table>
<thead>
<tr>
<th>Name</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nia</td>
<td>3</td>
</tr>
<tr>
<td>Tendai</td>
<td>5</td>
</tr>
<tr>
<td>Darelle</td>
<td>6</td>
</tr>
<tr>
<td>Roy’el</td>
<td>6</td>
</tr>
<tr>
<td>Andrea</td>
<td>8</td>
</tr>
<tr>
<td>Mohamed</td>
<td>8</td>
</tr>
<tr>
<td>O’Lori</td>
<td>12</td>
</tr>
</tbody>
</table>

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Are you interested in a career in a STEM field?

- Very interested: 32% boys, 20% girls
- Somewhat interested: 36% boys, 37% girls
- No opinion: 13% boys, 15% girls
- Not interested: 19% boys, 29% girls

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**Interest in taking a coding class?**

Girls in various grades | Yes, I am interested in learning how to code or program a computer
--- | ---
Girls – Grades 3-5 | 64%
Girls – Grades 6-8 | 50%
Girls – Grades 9-12 | 37%

**Decreasing level of interest – sweet spot is elementary grades**

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### STEM experiences lead to self-directed learning

<table>
<thead>
<tr>
<th>Examples of self-directed learning outside of school</th>
<th>STEM Academies</th>
<th>Computer coding clubs</th>
<th>School tech support teams</th>
<th>All students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding and watching online videos to learn how to do something</td>
<td>52%</td>
<td>49%</td>
<td>43%</td>
<td>45%</td>
</tr>
<tr>
<td>Finding experts online to answer questions</td>
<td>22%</td>
<td>26%</td>
<td>29%</td>
<td>17%</td>
</tr>
<tr>
<td>Posting questions on discussion boards</td>
<td>14%</td>
<td>19%</td>
<td>24%</td>
<td>8%</td>
</tr>
<tr>
<td>Play a game or virtual simulation activity</td>
<td>29%</td>
<td>35%</td>
<td>33%</td>
<td>21%</td>
</tr>
<tr>
<td>Take a self-paced tutorial or online class</td>
<td>23%</td>
<td>18%</td>
<td>26%</td>
<td>11%</td>
</tr>
</tbody>
</table>

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Students and Digital Learning: New Questions

Are we ready to support a new kind of educational ecosystem that acknowledge learning as a 24/7 enterprise for today’s students?

What do we need to do today to enable and empower more student-centric digital learning for all students?
Tapping into our future:

Nia    Grade 3
Tendai Grade 5
Darelle Grade 6
Roy’el Grade 6
Andrea Grade 8
Mohamed Grade 8
O’Lori Grade 12
Visit tomorrow.org to download the report and access other data from Speak Up.

Sign up to receive news about upcoming reports and Speak Up 2015.

@SpeakUpEd #SpeakUpBriefing
Thank you for joining us today – let’s continue this important discussion!

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jevans@tomorrow.org
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