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.
Today’s Discussion:

- Introduction to **Project Tomorrow** and the **Speak Up Research Project**
- Countdown of **“Ten Things”** about students & digital learning
  - *Orange County findings from Speak Up 2014*
- Invitation to participate in Speak Up 2015
- *Your ideas/comments/questions*
Something new in the air in schools today . . .
Key trends from our research:

- Connecting digital learning with global skill development
- New classroom models gaining acceptance
- Criticality of connectivity – in school and at home
- Changing ideals for measuring outcomes and results
- New approaches to developing teacher capacity
- Evolving culture for professional development

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Key trends from our research:

- Learning is a 24/7 enterprise for students
- Blurring of informal and formal arenas for learning
- Students as content producers not just consumers, especially in the arts
- Game-based learning is changing classroom dynamics
- Self-directed, collaborative learning is preferred
- Desire for greater personalization

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- Changing ideals for measuring outcomes and results
- New approaches to developing teacher capacity
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New sense of urgency to get it right
Key finding from our research:

Students, educators and parents agree – we need a different kind of learning experience to prepare students for the future

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“Knowing it and seeing it are two different things.”

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

Introducing the **Speak Up data** about students & digital learning to inform your district plans and opportunities
**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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Speak Up survey question themes

- Learning & Teaching with Technology
- College and career ready skills
- Students’ Career Interests in STEM
- Professional Development / Teacher Preparation
- Internet Safety / Data Privacy Issues
- Administrators’ Challenges / Bandwidth Capacity
- Emerging Technologies both in & out of the Classroom
  - Mobile Devices, Online Learning, Digital Content, E-texts
  - Educational Games, Social Media tools and applications
  - Flipped Classroom, Print to Digital, Online Assessments
- Designing the Ultimate School/Classroom

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### Speak Up 2014 national participation: 521,846

<table>
<thead>
<tr>
<th>Category</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 Students</td>
<td>431,231</td>
</tr>
<tr>
<td>Teachers &amp; Librarians</td>
<td>44,289</td>
</tr>
<tr>
<td>Parents (in English &amp; Spanish)</td>
<td>35,337</td>
</tr>
<tr>
<td>School/District Administrators/Tech Leaders</td>
<td>4,324</td>
</tr>
<tr>
<td>Community Members</td>
<td>6,656</td>
</tr>
</tbody>
</table>

### 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

(c) Project Tomorrow 2015
<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 Students</td>
<td>28,176</td>
</tr>
<tr>
<td>Teachers &amp; Librarians</td>
<td>1,222</td>
</tr>
<tr>
<td>Parents (in English &amp; Spanish)</td>
<td>733</td>
</tr>
<tr>
<td>School/District Administrators</td>
<td>95</td>
</tr>
<tr>
<td>Community Members</td>
<td>155</td>
</tr>
</tbody>
</table>

Orange County total surveys in 2014: 30,381

Top participating districts include:

Anaheim City, Newport-Mesa, Fullerton Elementary, Placentia-Yorba Linda, Santa Ana and Irvine
Top Ten Things Everyone Should Know about Today’s Students and Digital Learning

Views of your Orange County students

1 2 3 4 5 6 7 8 9 10

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In this student’s life, they ……..

- Play digital/video games regularly in school (73%)
- Want to learn how to code (63%)
- Take tests online in class (62%)
- Have a personal tablet – not school provided (57%)
- Are more engaged in what they are learning when technology is involved (49%)
- Say they are interested in a future job in a STEM field (47%)
Who is a . . . . . ?

- 3rd grade girl
- 6th grade boy
- 9th grade girl
- 12th grade boy
Correct response:

Who is a 3rd grade girl?

Results from 18,663 3rd grade girls in fall 2014
What have we learned over the past 12 years?

- Students function as a “Digital Advance Team”
- Students regularly adopt and adapt emerging technologies for learning
- Students’ frustrations focus on the unsophisticated use of technologies within education
- Persistent digital disconnect between students and adults
- Exacerbation of lack of relevancy in current education
- Students want a more personalized learning environment

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Student Vision for Digital Learning

Social–based learning
Un–tethered learning
Digitally–rich learning

Personalized Learning

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Ten Things Everyone Should Know about Today’s Students and Digital Learning

1 Use of digital tools for learning
Current uses of technology

Four types of technology usage by students:

- **In school:**
  - teacher directed
  - student self – initiated

- **Out of school time:**
  - supporting schoolwork
  - supporting personal learning
### Students’ Use of *Teacher-Facilitated* Technology in the Classroom

<table>
<thead>
<tr>
<th>Digital Activity</th>
<th>OC Elementary School Grades 3-5</th>
<th>OC Middle School Grades 6-8</th>
<th>OC High School Grades 9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access class information through online portal</td>
<td>17%</td>
<td>60%</td>
<td>82%</td>
</tr>
<tr>
<td>Use Internet services (Dropbox, Google docs)</td>
<td>N/A</td>
<td>68%</td>
<td>69%</td>
</tr>
<tr>
<td>Take tests online</td>
<td>65%</td>
<td>61%</td>
<td>28%</td>
</tr>
<tr>
<td>Use online textbooks</td>
<td>13%</td>
<td>40%</td>
<td>23%</td>
</tr>
<tr>
<td>Watch teacher created videos</td>
<td>19%</td>
<td>28%</td>
<td>17%</td>
</tr>
</tbody>
</table>

(c) Project Tomorrow 2015
Students’ use of digital tools and resources to self-direct learning, outside of the classroom

Such as:

Watching an **online video** to learn how to do something

Playing **online games** to learn about things that interest them

Using **online writing tools** to improve writing skills

Using **social media** to learn what others think
How are you using technology outside of school to learn new things or skills?

“I use technology outside of school mostly for academic activities. I play a game called total war which explains the battles/events of a country thousands of years ago. This helps me learn about history especially when were learning about Rome, Egypt, and any other country/civilization back then. I also use technology for websites like Aleks or Khan Academy or to research things I need to know for school work.”

Middle school student (CA)
Obstacles to tech use at school
OC Students: 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

Gr 9-12 vs. Gr 6-8
Ten Things Everyone Should Know about Today’s Students and Digital Learning

Social Media
Social media: tools to connect, collaborate, create

**Instagram:**
- 62% of OC HS students
- 45% of OC MS students

**Twitter:**
- 22% of OC students in Gr 6-12

**Creating/watching videos:**
- 74% of OC 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 (national)

Facebook
33% of OC students in Gr 9-12
decrease of +41% since 2007 nationally
# Students and social media: tools to connect, collaborate, create

<table>
<thead>
<tr>
<th>Platform</th>
<th>“All the time”</th>
<th>“Never”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>11%</td>
<td>44%</td>
</tr>
<tr>
<td>Twitter</td>
<td>10%</td>
<td>65%</td>
</tr>
<tr>
<td>Snapchat</td>
<td>32%</td>
<td>33%</td>
</tr>
<tr>
<td>YouTube</td>
<td>42%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Ten Things Everyone Should Know about Today’s Students and Digital Learning

4 Game-based learning
### Who is playing games for learning?

<table>
<thead>
<tr>
<th>Grade</th>
<th>2007</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-2 students</td>
<td>60%</td>
<td>73%***</td>
</tr>
<tr>
<td>Gr 3-5 students</td>
<td>47%</td>
<td>72%***</td>
</tr>
<tr>
<td>Gr 6-8 students</td>
<td>40%</td>
<td>55%***</td>
</tr>
<tr>
<td>Gr 9-12 students</td>
<td>23%</td>
<td>43%</td>
</tr>
</tbody>
</table>

*** no gender differentiation in frequency of game playing
What do OC students say are the benefits of playing educational games?

<table>
<thead>
<tr>
<th>Benefits of Games</th>
<th>K-2</th>
<th>Gr 3-5</th>
<th>Gr 6-8</th>
<th>Gr 9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helps me understand difficult learning concepts</td>
<td>54%</td>
<td>48%</td>
<td>58%</td>
<td>56%</td>
</tr>
<tr>
<td>School would be more fun</td>
<td>47%</td>
<td>40%</td>
<td>55%</td>
<td>49%</td>
</tr>
<tr>
<td>More interested in the learning</td>
<td>39%</td>
<td>44%</td>
<td>59%</td>
<td>58%</td>
</tr>
<tr>
<td>Learn more about a subject</td>
<td>50%</td>
<td>46%</td>
<td>48%</td>
<td>41%</td>
</tr>
</tbody>
</table>

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Ten Things Everyone Should Know about Today’s Students and Digital Learning

5 Mobile devices
Orange County students’ personal access to mobile devices

Gr 9-12
- Digital Reader: 16%
- Tablet: 43%
- Laptop: 58%
- Smartphone: 87%

Gr 6-8
- Digital Reader: 19%
- Tablet: 46%
- Laptop: 60%
- Smartphone: 62%

Gr 3-5
- Digital Reader: 15%
- Tablet: 44%
- Laptop: 58%
- Smartphone: 41%

Gr K-2
- Digital Reader: 25%
- Tablet: 36%
- Laptop: 48%
- Smartphone: 54%

Digital Reader  Tablet  Laptop  Smartphone
Students’ use of mobile devices to support learning

64% of OC high school students say they use their smartphone to support learning while at school

- 51% use mobile apps for learning
- 51% take photos of assignments or text book pages
- 61% text classmates about schoolwork questions
- 14% text their teachers with questions also!
## 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?**

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC Gr 6-8 students</td>
<td>72%</td>
</tr>
<tr>
<td>OC Gr 9-12 students</td>
<td>65%</td>
</tr>
<tr>
<td>Nat’l Principals</td>
<td>86%</td>
</tr>
<tr>
<td>Nat’l District Administrators</td>
<td>84%</td>
</tr>
</tbody>
</table>

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Ten Things Everyone Should Know about Today’s Students and Digital Learning

Different tasks = different mobile devices
Different tools for different tasks

“What mobile device I use depends upon the task”

Read a book or articles?

Take notes in class?

Use social media?
Communicate w/peers & teacher?
Create/watch videos?

Create presentations?
Take online tests?
Write reports?
Ten Things Everyone Should Know about Today’s Students and Digital Learning

Internet Connectivity
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>
Do we have a “homework gap?”

Homework gap is about more than at home Internet access:

- 1/3 of students say that they often have a problem doing digital or Internet-dependent homework
- Parents are making decisions about who has priority for limited home digital resources
- 71% of OC teachers say “digital equity” is holding them back with digital learning implementations
Ten Things Everyone Should Know about Today’s Students and Digital Learning

8 Different classroom models
Blended learning

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

60% of OC students in grades 6-12 say this would be a good way for them to learn
Blended learning

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

60% of OC students in grades 6-12 say this would be a good way for them to learn

But only 9% of OC teachers have implemented blended learning in their classroom
If you had to take an online class … what subject would you like to take online?

What do OC middle school students say?
Online class in what subject?

OC middle school students say:

1. Math (48%)
2. Science (43%)
3. Computer programming (41%)
4. Video production (40%)
5. Social Studies/History (37%)
**Policy discussion**

Is it important for students to take an online class as a high school graduation requirement?

<table>
<thead>
<tr>
<th>OC Stakeholder group</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students – grades 6-8</td>
<td>45%</td>
</tr>
<tr>
<td>Students – grades 9-12</td>
<td>31%</td>
</tr>
<tr>
<td>Parents</td>
<td>53%</td>
</tr>
<tr>
<td>Principals</td>
<td>58%</td>
</tr>
</tbody>
</table>
Ten Things Everyone Should Know about Today’s Students and Digital Learning

9

STEM Interests
CA students: Are you interested in a career in a STEM field?

- Very interested: 32% (Boys 32%, Girls 20%)
- Somewhat interested: 36% (Boys 36%, Girls 37%)
- No opinion: 13% (Boys 13%, Girls 15%)
- Not interested: 19% (Boys 19%, Girls 29%)

(c) Project Tomorrow 2015
CA students: How do you want to learn about STEM careers?

<table>
<thead>
<tr>
<th>What would support your career exploration of STEM fields?</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part time job or internship</td>
<td>73%</td>
<td>63%</td>
</tr>
<tr>
<td>Field trips to companies</td>
<td>70%</td>
<td>61%</td>
</tr>
<tr>
<td>CTE classes</td>
<td>69%</td>
<td>60%</td>
</tr>
<tr>
<td>College planning mentors</td>
<td>60%</td>
<td>47%</td>
</tr>
<tr>
<td>Career professional teach classes at school</td>
<td>59%</td>
<td>54%</td>
</tr>
<tr>
<td>Teachers with prior professional experience</td>
<td>55%</td>
<td>52%</td>
</tr>
<tr>
<td>Take a quiz to identify strengths</td>
<td>49%</td>
<td>39%</td>
</tr>
<tr>
<td>Mobile apps / websites about careers</td>
<td>43%</td>
<td>40%</td>
</tr>
<tr>
<td>Use tech/maker tools in class</td>
<td>24%</td>
<td>37%</td>
</tr>
<tr>
<td>Play digital games about careers</td>
<td>23%</td>
<td>33%</td>
</tr>
</tbody>
</table>
**Interest in taking a coding class?**

<table>
<thead>
<tr>
<th>Yes, I am interested in learning how to code or program a computer</th>
<th>CA Girls</th>
<th>CA Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades 3-5</td>
<td>64%</td>
<td>74%</td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>52%</td>
<td>60%</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>44%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Decreasing level of interest – sweet spot is elementary grades

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Ten Things Everyone Should Know about Today’s Students and Digital Learning

Designing the Ultimate School for Today’s Learners
Favorite Speak Up Question: Superintendents & School Boards

“Imagine you are designing the ultimate school for today’s students, what technologies would have the greatest impact on learning?”
Do we have a shared vision around digital learning solutions?

- Schoolwide Internet
- Games
- E-textbooks
- Tablets
- Online classes

- Principals
- Teachers
- Parents
- Gr 6-8 students
How the Speak Up data can help you

Context for why digital “Customer” knowledge
Input for plans, programs & PD
Community buy-in
Myth busting
Today’s Discussion:

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- **Your ideas/comments/questions**
National Speak Up reports and infographics

Targeted and thematic reports
Digital learning trends
Mobile learning & social media
Games in the classroom
Blended learning outcomes

Presentations, podcasts and webinars

Services: consulting, workshops, evaluation and efficacy studies

More Speak Up?  www.tomorrow.org
Participate in Speak Up!

Online surveys for:
- K-12 students – individual + group
- Parents – English and Spanish
- Teachers
- Librarians/Media Specialists
- School Site & District Administrators
- Technology Leaders
- Community Members

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All schools are invited to participate
Surveys open Oct 1 – Dec 18

New this year:
special surveys for:
Science Teachers
Communications Officers
Why Speak Up?

- Have a voice in policy decisions
- Get authentic feedback from your students, colleagues, stakeholders – use real data, not anecdotes or myths for your decisions
- Compare your stakeholders’ views with others – within district, ESC, state, nation
- No gotcha – all 100% confidential
- Let us do the work for you!
- No costs to schools, districts, states – use your $ to impact student learning instead
Your thoughts, ideas, questions
Thank you for this discussion today!

For additional information about Speak Up please contact:

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