PROJECT TOMORROW-NETDAY

SPEAK UP ORANGE COUNTY!

STUDENT AND TEACHER VIEWS ON SCIENCE, TECHNOLOGY & EDUCATION

REPORT ON NETDAY'S 2005 SPEAK UP EVENT
IN ORANGE COUNTY, CA

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SPEAK UP ORANGE COUNTY!

STUDENT AND TEACHER VIEWS ON SCIENCE, TECHNOLOGY & EDUCATION

NETDAY'S 2005 SPEAK UP EVENT

NetDay is a national nonprofit with a ten year legacy of building local school and community capacity around technology use in education. In the fall of 2005, NetDay merged with Project Tomorrow, a regional nonprofit in Orange County, California, with a successful track record of adopting and promoting innovative approaches to science education. As a new organization, Project Tomorrow-NetDay celebrates its new focus: promoting science, math, and technology as key levers for developing 21st century skills.

Speak Up Events are annual online surveys that provide students and teachers a voice into national and local policies that impact education. In 2003 and 2004, NetDay hosted surveys for K-12 students and teachers with a special focus on their views of technology use for learning. The objectives for the 2005 survey were to continue our legacy of tracking technology use by students and teachers and to begin to explore opportunities to promote science learning.

By participating in the survey, students and teachers are contributing to local policy – each participating school and district has free online access to their own data – and to the national dialog about 21st century learning. Schools, districts, regions, and states use their data for school and district technology plans, to plan new professional development strategies, or to develop ways for student and teacher voices to be included in local decision-making. Authentic student comments were used to inform a special report "Visions 2020.2" in collaboration with the U.S. Department of Commerce and the U.S. Department of Education and NetDay's "Students Speak Up to the President."

Speak Up for Students – 2003, 2004, 2005

Speak Up for Teachers – 2004, 2005

National Survey Participation

* 562,000 K-12 students
* 26,000 teachers
* 7,000 schools
* All 50 states plus Department of Defense overseas schools

The success of Speak Up reinforces the acceptance of this kind of online data collection and how the reporting of pulse point views can provide value within an education environment. NetDay is honored to have the opportunity to be a conduit for the insights and ideas of our nation's teachers and students on education technology. It is our goal to continue to foster a new national awareness on the importance of including a wide variety of stakeholder voices in such national discussions, and to stimulate new conversations around effective practices in education through our research and reports.

"My school should make sure there is more computer and research time during school such as a homeroom class or if a student finishes in-class work they could go to a computer lab. It could also help if the classrooms had more computers in them for student access." (8th grade boy, Newport Beach, CA)

ABOUT THE ORANGE COUNTY REPORT

As an organization with headquarters in Orange County, NetDay adopted a special initiative to engage Orange County school districts in this year's Speak Up event. Orange County is the second largest county in student population in California and the fifth most populated county nationwide. The county's schools educate a diverse population of students with diverse language and educational needs.

This report summarizes the 2005 data collected from 16,967 student surveys and 419 teacher surveys from 15 school districts in Orange County, California. The report also draws comparisons between Orange County and the national summaries. The national report **Our Voices, Our Future** was released on May 5, 2006 following a Congressional briefing in Washington D.C. The Orange County report was released May 19, 2006 in Orange County, California at Project Tomorrow's **Innovation in Education Summit**.

Orange County Enrollment 2005
* 513,744 students
* 27,961 teachers

Orange County Speak Up Participation 2005
* 16,967 students
* 419 teachers

Both reports can be downloaded at http://www.netday.org

The Orange County report will be shared with educators, decision-makers, and business leaders in Orange County to inform policy and educational programs in order to prepare students to be successful in their lives and in the 21st century workforce.

ORANGE COUNTY PARTICIPATING SCHOOL DISTRICTS	STUDENTS	TEACHERS
ANAHEIM ELEMENTARY	165	9
BUENA PARK ELEMENTARY	0	2
CAPISTRANO UNIFIED	170	24
CYPRESS ELEMENTARY	120	4
FOUNTAIN VALLEY ELEMENTARY	3	0
FULLERTON ELEMENTARY	1637	125
HUNTINGTON BEACH CITY ELEMENTARY	6	0
LA HABRA CITY ELEMENTARY	124	13
NEWPORT-MESA UNIFIED	11,291	137
OCEAN VIEW ELEMENTARY	901	25
ORANGE UNIFIED	721	26
PLACENTIA-YORBA LINDA UNIFIED	149	2
SADDLEBACK VALLEY UNIFIED	1,461	36
SANTA ANA UNIFIED	210	15
WESTMINSTER ELEMENTARY	9	1
TOTAL PARTICIPATION	**16,967**	**419**

ORANGE COUNTY SPEAK UP PARTICIPATON

STUDENT AND TEACHER PROFILES

Geography: Orange County, California

Schools with highest participation: Corona del Mar High, Newport Harbor High, Trabuco Hills High, Ensign (Horace) Intermediate, Tewinkle (Charles W.) Elementary, McPherson Elementary, Costa Mesa High, Newport Coast Elementary, Lincoln (Abraham) Elementary

Major responding districts: Newport-Mesa Unified, Fullerton Elementary, Ocean View Elementary, Saddleback Valley Unified, Orange Unified

Total Participation: 16,967 students, 419 teachers, 15 districts, 92 schools

STUDENTS

Grade Distribution

- K-2 (14%)
- 3-5 (34%)
- 6-12 (52%)

Gender Distribution:

- Female (48%)
- Male (52%)

School Characteristics[*]

- Urban (61%)
- Suburban (39%)
- Title I eligible (41%)
- Majority Minority Population (49%)

TEACHERS

Grade Assignment

- K-5 (48%)
- Gr. 6-8 (25%)
- Gr. 9-12 (16%)

Gender distribution

- Female (79%)
- Male (21%)

Age distribution

- under 29 (19%)
- 30-39 (26%)
- 40-49 (26%)
- 50+ (30%)

Teaching experience

- 1-3 yrs (14%)
- 4-10 yrs (37%)
- 11-15 yrs (16%)
- 16+yrs (32%)

Teacher ethnicity

- White (80%)
- Asian (3%)
- Hispanic (9%)
- Other (8%)

For national participation profiles, see the national report, "Our Voices, Our Future," at www.NetDay.org.

[*] Data retrieved from NCES Common Core of Data Public Elementary/Secondary School Universe Survey: School Year 2003-04, (NCES 2006-324). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

ORGANIZING THEMES FOR NETDAY'S 2005 SPEAK UP SURVEY

- What technology products and Internet tools are students and teachers using, and how are they using them?
- What new trends are evident in student use of technology at school and at home?
- What obstacles and issues are students and teachers facing in using technology for teaching and learning?
- How are our nation's schools encouraging science learning and innovative science practices?
- What else can our nation's schools do to encourage student achievement through technology or otherwise?

MAJOR THEMES OF NATIONAL FINDINGS

- Students are setting trends with their use of technology both in school and out of school. They are innovative users of technology, adopting new technologies to support their learning and their lifestyles.
- Communication is a key motivator for students and drives their use of technology for learning and for personal use. The result is an explosion of communications tool use and the desire to transcend communications obstacles. Sixth grade is the tipping point when students begin to show their enthusiasm for using technology for communication.
- Younger students are continuing to adopt more sophisticated technologies in the footsteps of their older siblings. Their use of devices designed for specific purposes suggest increased availability as well as increased sophistication of young students.
- Students and teachers want access to up-to-date technology tools at school and they want it to be available when they need it. Their main frustrations result from restrictions to technology use for learning tasks.
- Teachers' professional use of technology is approaching a comfort level but is not keeping up with the advances in how kids are using technology. Despite conventional wisdom, our data does not show significant differences between how younger teachers and older teachers are approaching their technology use.
- Students are strong believers in the power of technology to enrich their learning experiences. They have ideas about their futures that include using technology tools for learning and preparing themselves for a competitive job market.

ORANGE COUNTY FINDINGS: TECHNOLOGY DEVICES & INTERNET TOOLS

Our nation's students don't think they're doing anything special. They're going about their business using the tools available to them. Our survey data provides the opportunity to take a quantitative look at what Orange County students are doing with the tools they have. Most adults will be impressed, some will be surprised.

We asked students and teachers to tell us about the technology, Internet, and communication tools that they use both for school and out of school. Our findings show that both students and teachers nationwide and in Orange County have become accustomed to using technology for research, for personal projects, for entertainment, and most-importantly, for communication. Students are indeed the trendsetters leaving even the more tech-savvy teachers to catch up with their innovative uses of technology.

Top technology products shared by both teachers and students in Orange County include the desktop computer, the cell phone, and the DVD or CD burner. Game playing is very popular with over 50% of students in each grade level saying they use a personal game player on a weekly basis. As with many of the statistics quoted in this report, Orange County student data compares closely with the national data.

WHICH OF THESE TECHNOLOGY PRODUCTS DO YOU USE ON A WEEKLY BASIS?	ORANGE COUNTY K-3	ORANGE COUNTY 3-6	ORANGE COUNTY 6-12	ORANGE COUNTY TEACHER
Desktop computer	65%	54%	81%	87%
Laptop computer	18%	32%	38%	70%
Cell Phone	37%	50%	78%	64%
Hand-held device (PDA)	n/a	11%	14%	13%
Digital camera	28%	25%	46%	41%
Video camera	13%	15%	21%	10%
Scanner	4%	7%	n/a	16%
DVD or CD burner	14%	29%	56%	32%
MP3 player or iPod	16%	30%	60%	12%
Video game player	51%	51%	53%	2%
Smart Board	n/a	n/a	n/a	8%
None of the above	n/a	5%	2%	0%

The **Internet and communication tools** frequently used both by teachers and by students in Orange County include email, bookmarked websites, search engines, and research sites. NetDay has its eye on student and teacher use of Internet tools that facilitate communication, that encourage online communities, and that shape the way students and teachers are interacting with their peers in local and global settings. This year we've continued to follow the rise in student popularity of Instant Messenger, even over its older cousin email. And, we've started watching the emergence of Web logs (blogs) and the use of personal websites, such as MySpace.com.

GRADES K-3 – ORANGE COUNTY

Top technology products Students in grades K-3 are having fun with technology but clearly using it with all seriousness. Over 50% of K-3 students in Orange County reported using a desktop computer and a video game player in the past week. Other technology tools that these students reported using recently include the cell phone (37%), a digital camera (28%), a laptop (18%), an MP3 player (16%), an electronic book (like a Leap Pad) (14%) and a DVD or CD burner (14%). Eighty percent of Orange County K-3 students say they have a computer they can use at home.

Internet and communication tools Younger students nationally and in Orange County are approaching technology with increasingly more ease and sophistication. Orange County 2005 data reveals that 21% of K-3 students have their own email accounts, primarily emailing their friends, parents, and other family members. Nineteen percent have an Instant Messenger (IM) screen name, with 46% of K-3 students who know what Instant Messaging is. Orange County K-3 students say their favorite communication tool is email (nationally, the favorite tool for this age group is the home telephone.) Their second choice for communication is the home phone followed by the cell phone.

Outside of School Seventy-five percent of Orange County K-3 students use computers in their free time. They play games (55%); visit favorite websites (24%); use software to draw pictures, make cards, or movies (22%); listen to music (19%); use a search engine to look for information (14%); and talk or email with friends or family (10%). These students' technology use ranks in popularity in the same order as their peers nationwide, however their usage overall averages about 10% lower than the national average.

GRADES 3-6 – ORANGE COUNTY

Top technology products Like their younger peers, students in grades 3-6 are using a wide range of technology devices. Between 50-60% of Orange County students in this group responded that they had used a desktop computer, cell phone, or video game player in the past week. Nationally, when looking back to 2003 and 2004, we found a notable increase in additional technology products. Orange County data matched this national trend in use of digital cameras (25%), DVD or CD burners (29%), and MP3 players (like an iPod) (30%). The increased use of devices for specific purposes suggests both increased availability as well as increased sophistication of students younger than grade six.

Internet and communication tools While it might not surprise some that the most popular Internet use among this age group is using online game sites, it might surprise others that over 31% of Orange County students say that they have used a search engine in the past week, and 40% have visited a favorite website. Twenty-two percent of Orange County 3-6th graders report using email or IM every day, primarily emailing their friends, parents, and family. The message we're getting is that for these students, using computers and the Internet for playing, for researching, and for communicating on a regular basis is commonplace and important in their lives.

Outside of School Ninety-three percent of Orange County students in grades 3-6 say they use computers in their free time. They play games just as much as their older peers (74%); listen to music (46%); talk or email with friends or family (35%); and use software to draw pictures, make cards, or movies (26%).

GRADES 6-12 – ORANGE COUNTY

Top Technology Products Nationally, students in grades 6-12 are ahead of the game with their use of technology products, with over a third of students saying they use a desktop computer, cell phone, DVD or CD burner, **and** a video game player on a weekly basis. Students in this age group are using more kinds of technology, and they're using it more regularly. Data from Orange County very closely matches the national

data with very high percentages of students saying they use desktop (81%) and laptop (38%) computers on a weekly basis. An important note here is the common weekly use of peripheral devices such digital cameras (46%), video cameras (21%), and DVD or CD players (56%). The use of the MP3 player in Orange County is 14% higher than the national average with 60% of students saying they use the device on a weekly basis.

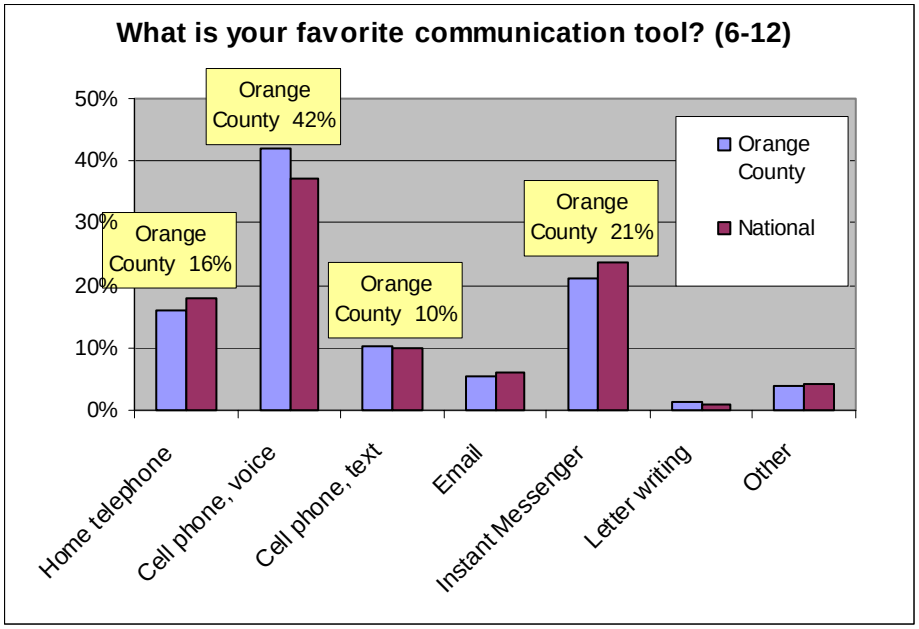
Internet and Communication Tools Our nation's middle and high school students are the trendsetters and groundbreakers in terms of using the Internet for communication. Communication is a key technology and learning driver for students resulting in an explosion of communications tool use and the desire to transcend communications barriers. Responses from Orange County students closely match the national averages. The cell phone is their favorite communication tool (42%), followed by Instant Messenger (IM) (21%).

- Cell phones, email, and IM are not the only tools students are using to communicate. They are sharing, joining, and meeting up on personal websites, such as MySpace. Fifty-six percent of Orange County students in grades 6-12 report updating their personal websites on a regular basis. (This data is weighted heavily towards older high school students.)

- Orange County students are also using the Internet to stay informed. Over half of middle and high school students say they access news websites for information. Orange County students are also joining their national peers on weblogs (18%) and podcasts (10%). NetDay is eager to monitor this growing trend as a new way for students to receive and share information.

- Today's students are surpassing their teachers in using technology for communication. While 97% of Orange County teachers now comfortably use email, students are moving on to more specialized forms of communication depending on the task at hand.

- Take note of the popularity of IM: When we look specifically at the students who say they use email and IM on daily basis, they overwhelmingly prefer IM to email.



Outside of School If our middle and high school students are the trendsetters at school, it's important to also look at how they're using technology at home. Orange County students use technology similarly to the national averages:

- The top three activities Orange County students do at home include listening to music (81%), playing games (71%), and talking or emailing with friends or family (75%). This paints a picture of the typical activities we expect of teens and pre-teens.

- Orange County students are big game players (71%). This trend is not going away. Adults might take note of how students are using these tools socially, interacting with each other, and problem solving in virtual worlds.

- Where students are surprising us is in the other activities selected by over 40% of Orange County students in grades 6-12: Students are getting information about events, activities, or hobbies (63%); they're going online for news, sports, weather, and entertainment updates (51%); using graphics, design, photo, video editing or music editing software (53%); conducting personal research (46%); and yes, they're shopping (41%). These activities paint a picture of an active tech user: using online tools to inform, learn, and grow.

TEACHERS – ORANGE COUNTY

Top Technology Products Sixty percent of the Orange County teachers we surveyed depicted themselves as average or beginner tech users. If their self-depictions are accurate, we can positively report that the average teacher in Orange County schools is now using technology tools and their schools or districts are providing them with many of the tools that they need.

- Over 90% of Orange County teachers say that their school provides them with a computer for classroom use.

DOES YOUR SCHOOL OR DISTRICT PROVIDE YOU WITH THESE TECHNOLOGY TOOLS? **(ORANGE COUNTY TEACHER DISTRICT SUMMARIES)**	CLASSROOM COMPUTER	LAPTOP	EMAIL ACCOUNT	EMPLOYEE DISCOUNTS
ANAHEIM ELEMENTARY	100%	88%	100%	33%
BUENA PARK ELEMENTARY	100%	0%	50%	0%
CAPISTRANO UNIFIED	95%	100%	91%	34%
CYPRESS ELEMENTARY	100%	0%	33%	33%
FULLERTON ELEMENTARY	81%	99%	90%	33%
LA HABRA CITY ELEMENTARY	100%	0%	91%	0%
NEWPORT-MESA UNIFIED	90%	12%	90%	44%
OCEAN VIEW ELEMENTARY	84%	60%	68%	28%
ORANGE UNIFIED	96%	80%	96%	57%
PLACENTIA-YORBA LINDA	100%	100%	100%	0%
SADDLEBACK VALLEY UNIFIED	97%	69%	88%	44%
SANTA ANA UNIFIED	92%	7%	64%	71%
WESTMINSTER ELEMENTARY	100%	0%	100%	100%

- Schools are also providing teachers with other supporting technologies including email accounts (88%), tools to create websites (53%) and class management software, like Blackboard (23%). Orange County is ahead of one trend with 39% of teachers saying that their schools offer employee discounts for computer purchases to their teachers compared to 17% nationally.

- Orange County teachers are using desktop computers (87%), cell phones (64%), laptops (70%), and digital cameras (41%) for professional activities. The percent of teachers using laptops is almost twice as much as the national average.

Internet and Communication Tools In a profession that was once noted for its isolation, it's a great boon for the profession to see the use of email for broadening the teacher professional community. Teachers in Orange County now use email even more than students (97% of teachers say they email on a weekly basis). Email is widely used by Orange County teachers to communicate with colleagues, administrators, support staff, professional organizations, and parents of their students. Forty percent of teachers say they use email to communicate with their students and although only 8% say they are using Instant Messenger for school purposes, we anticipate both of these numbers to rise in the next year to catch up with student demand. Orange County teachers are also using the Internet for research and lesson planning. (85% say they use a search engine weekly for work and 80% say they use specific websites they have previously bookmarked.)

Outside of School As evidence to their catching up to students in the technology realm, 98% of Orange County teachers and 98% of teachers nationwide report using technology during their free time. Their personal use of technology is not all that different from that of their students: Orange County teachers talk or email with friends and family members (94%); get information about events, activities, or hobbies (90%); find out about current events, sports, or weather (76%); and of course, they shop (71%)! While teachers don't play games (28%) or listen to music online (46%) as frequently as their Orange County students do, some teachers clearly share some of the same interests.

ORANGE COUNTY FINDINGS: TECHNOLOGY FOR LEARNING AND TEACHING

Students are using technology tools for research, for completing school projects, and for checking up on their grades. Teachers are using technology tools for lesson preparation, record keeping, communication, and research. Our questions in this category focus on how students and teachers are learning to use technology, how they feel it helps them in their studies, and what teachers are doing to support their use of technology. Our data showcases students using technology naturally for their needs; their biggest frustrations center around not being able to use the tools they need, how they want, when they want, and where they want.

GRADES K-3 – ORANGE COUNTY

Like their peers nationwide, K-3 students in Orange County learn about technology and websites from their teachers and from their families. Eighteen percent also say that they explore on their own. They say that they use technology because "it's more fun," they "learn more," and they "make fewer mistakes." Compared with national data, fewer Orange County K-3 students report using technology for school-related projects: 62% in Orange County versus 76% nationally.

WHICH OF THESE DO YOU DO WITH A COMPUTER FOR SCHOOL? (K-3)	ORANGE COUNTY K-3	NATIONAL K-3
Play learning games	52%	64%
Learn songs/listen to music	25%	35%
Practice spelling or reading	32%	50%
Practice numbers or math	31%	53%
Make pictures	44%	50%
Create a presentation	8%	19%
Email my teacher	2%	8%
Use an online book	5%	17%
Email an expert	2%	7%
Go to favorite websites	38%	42%

Of the Orange County K-3 students who report using technology for schoolwork, over half report using computers to play learning games, with other high responses including making pictures (44%), using favorite websites (38%), and practicing spelling, reading, or math (32%).

GRADES 3-6 – ORANGE COUNTY

Like their younger peers, students in grades 3-6 still report learning about technology and websites from their teachers and from their families, but at this age 24% of Orange County students report exploring on their own. Starting in grade 3 and continuing as students get older, data shows that they are much more likely to learn about technology through their peers and by exploring on their own, and less from their families and teachers.

As with the national data, teachers' perception of how their students are learning about tech does not match up with student data. Many more teachers believe that their students are learning about technology at school. This disconnect is evident in grades 3-6 and even more so in grades 6-12.

- Orange County students in grades 3-6 say that they like using technology for school because "it's more fun" (57%), they "learn more" (43%), they "get the best information online" (44%) and "they can work more quickly" (40%).

- For these students the most common use of technology for schoolwork is using the Internet for assignments. About one-quarter of Orange County students also report visiting a school or class website; taking tests online; checking on their grades, and creating a web page, movie, or slide show.

Nationally, students in all grades surveyed responded that they would like math better if they could use technology more. In Orange County, the results varied. In grades K-2, reading/writing tied with math with science and music following closely. In grades 3-6, math received the most votes followed by science, reading/writing, and P.E./Gym. In grades 6-12 social studies and science received the most votes with math and reading/writing close behind.

WHICH SUBJECT WOULD YOU LIKE BETTER IF YOU COULD USE MORE TECHNOLOGY?	ORANGE COUNTY K-3	ORANGE COUNTY 3-6	ORANGE COUNTY 6-12
Math	24%	25%	17%
English, Reading and Writing	25%	12%	16%
Social Studies	10%	11%	18%
Science	22%	15%	18%
Art	3%	1%	7%
Music	23%	11%	7%
P.E. or Gym	10%	12%	9%

GRADES 6-12 – ORANGE COUNTY

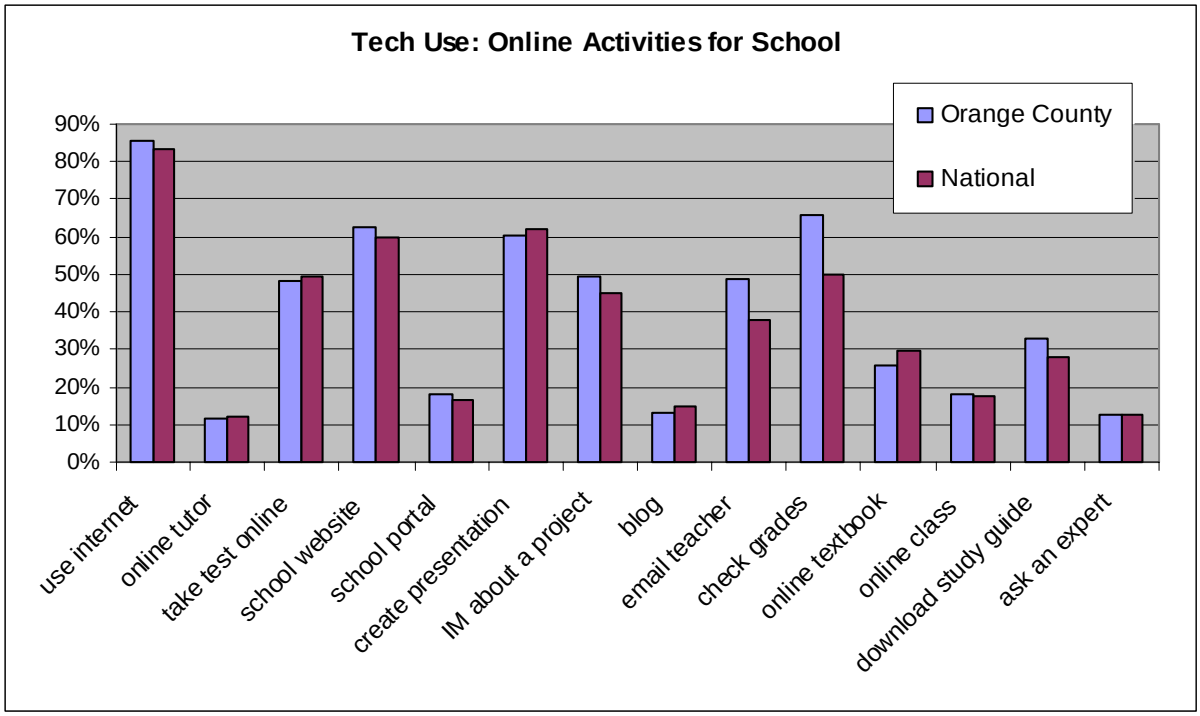
Students in grade 6-12 are increasingly likely to learn about technology from their peers and by exploring on their own. Only 11% of Orange County middle and high school students report learning about technology from teachers or classes in school. Orange County students along with students nationwide tell a lot about their technology use in response to the question **"Which of these activities do you expect to do online this year?"** There are several notables from these findings: (Orange County data shown in parentheses.)

1. Students are using the Internet to research information. (83%)
2. Students are using technology to create presentations, web pages, slide shows, and movies to report on what they are learning. (60%)
3. Students are using technology in new ways to manage their learning, such as emailing teachers (49%), checking grades (66%), downloading study guides (33%), taking tests online (48%), using online textbooks (26%), and instant messaging with peers about projects (49%).
4. Orange County data was higher than the national averages in two activities: emailing a teacher and checking grades online.

It's easy for upper grade students to articulate the benefits of using technology for schoolwork.

- The two top responses in Orange County are "I can get assignments done more efficiently" (69%) and "I can get the most accurate and up-to-date information online" (69%), followed by "It's more fun." (63%)

- Other responses to this question that received positive responses from over 50% of students in Orange County include "I can do multiple things at once" and "I make fewer errors." These responses show students understanding the benefits of technology to their success in school and support their desire for access.



TEACHERS – ORANGE COUNTY

Technology is an important part of teaching, for lesson planning as well as for administrative tasks, communications, and data accountability. For teachers, there's also an element of learning – they are learning along with their students. And, like many students in grades 6-12, Orange County teachers learn about new technology from their peers (36%) and exploring on their own (33%). They also take advantage of learning through their district technology staff (15%) and professional development opportunities (10%). Only 1% of Orange County teachers say that they learn about technology from their students.

Responses from teachers in Orange County match those from teachers across the nation when asked **"In which areas of your professional responsibilities has technology had the biggest impact?"**

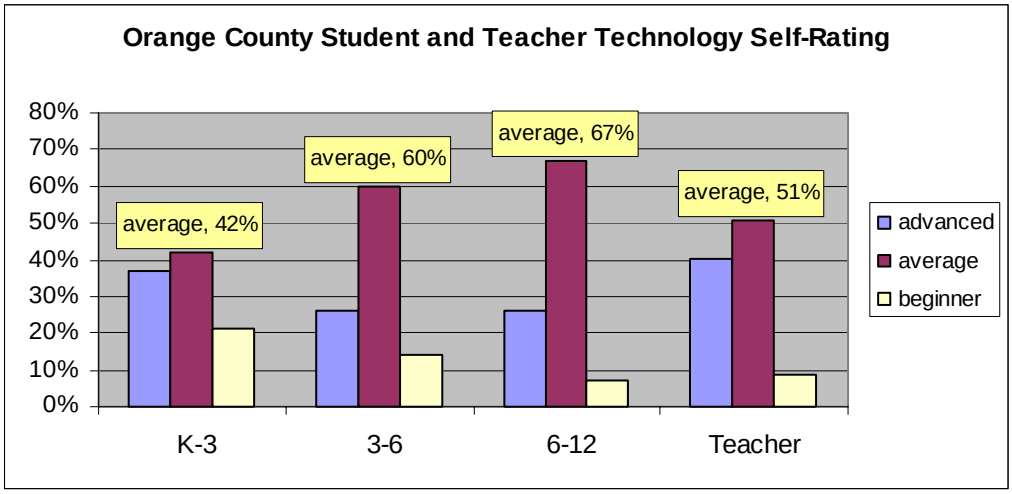
- Teaching and instructional support: research, preparation, presentation of lessons (33%)

- Communications: emails, newsletters, or class websites (18%)

- Student data & accountability: reporting grades, progress, and test scores to school, district, or parents (14%)

SPOTLIGHT: TECHNOLOGY SELF-RATING IN ORANGE COUNTY

We asked students and teachers alike to rate themselves in comparison to their peers. Overall, nationally and across Orange County, students and teachers are most likely to rate themselves as average tech users.



Across most participating districts in Orange County, the majority of students in grades 6-12 also rated themselves as average tech users.

THINKING ABOUT THE OTHER STUDENTS AT YOUR SCHOOL, DO YOU CONSIDER YOURSELF … (GRADES 6-12 ORANGE COUNTY DISTRICT SUMMARIES)	AN ADVANCED TECH USER	AN AVERAGE TECH USER	A BEGINNER TECH USER
ANAHEIM ELEMENTARY	0%	50%	50%
CYPRESS ELEMENTARY	0%	100%	0%
FOUNTAIN VALLEY ELEMENTARY	100%	0%	0%
FULLERTON ELEMENTARY	27%	67%	6%
HUNTINGTON BEACH CITY ELEMENTARY	0%	75%	25%
LA HABRA CITY ELEMENTARY	25%	65%	11%
NEWPORT-MESA UNIFIED	25%	67%	7%
OCEAN VIEW ELEMENTARY	31%	64%	5%
ORANGE UNIFIED	34%	61%	5%
PLACENTIA-YORBA LINDA UNIFIED	31%	65%	4%
SADDLEBACK VALLEY UNIFIED	24%	69%	6%
WESTMINSTER ELEMENTARY	71%	29%	0%

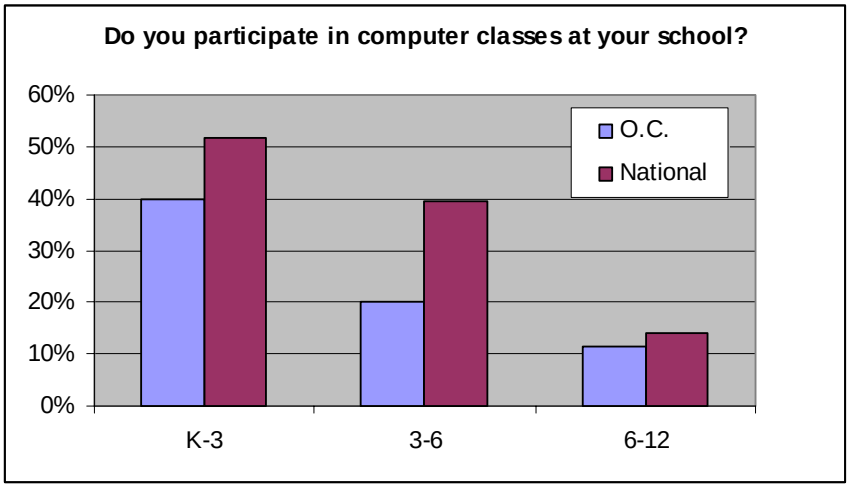
SPOTLIGHT: TECHNOLOGY OPPORTUNITIES AT SCHOOL

With one of the biggest issues in technology use in schools today related to accessibility to computer resources, NetDay was interested in finding out what tools and special services are available to our nation's schools and what, if any, equity issues are involved. We asked students in grades 6-12 to report on which technology services were available at their schools. Orange County school data matches closely to the national averages:

DOES YOUR SCHOOL OFFER ANY OF THE FOLLOWING TECHNOLOGY SERVICES FOR STUDENTS?	ORANGE COUNTY	NATIONAL
A useful school website	80%	79%
A school content portal	22%	20%
Laptops for students -borrow at school	31%	32%
Laptops for students - can be taken home	9%	9%
Access on school network for storage or file sharing	24%	30%
Email accounts for students	13%	21%
Computer-science classes	32%	32%
Digital photo or video lab	25%	20%
Help for families to get computers at home	5%	5%

- Some of the results are encouraging; for example over 80% of students in grades 6-12 in Orange County say that their school provides a useful school website. Twenty-five to thirty percent also say that their schools provide lap tops for use at school, offer use of a photo or video lab, and provide students with access on the school network for storage or file sharing.

- Other results, in our opinion, are a call to action to our nation's schools and Orange County schools in particular. In Orange County, only 32% of students in grades 6-12 reported that their schools offer computer science classes. A closer look shows that while 40% of students in grades K-3 are learning about computers at school, by the older grades only 11% are taking computer classes. These are even lower than the national averages. If Orange County schools want to keep up with national goals to create a competitive workforce in math, science, and engineering fields, they will want to consider how they are preparing students with 21st century skills.



Does your school offer any of the following technology services for students?

(GRADES 6-12 STUDENTS: ORANGE COUNTY DISTRICT SUMMARIES)	USEFUL SCHOOL WEBSITE	SCHOOL PORTAL	LAPTOPS AT SCHOOL	EMAIL ACCOUNTS	COMPUTER SCIENCE CLASSES	EQUIPMENT FOR FAMILIES AT HOME
CYPRESS ELEMENTARY	100%	0%	0%	0%	0%	0%
FULLERTON ELEMENTARY	79%	10%	72%	11%	50%	7%
HUNTINGTON BEACH CITY ELEMENTARY	100%	25%	25%	25%	25%	0%
LA HABRA CITY ELEMENTARY	63%	5%	3%	5%	47%	3%
NEWPORT-MESA UNIFIED	80%	17%	18%	14%	29%	4%
OCEAN VIEW ELEMENTARY	72%	13%	88%	6%	18%	3%
ORANGE UNIFIED	80%	94%	70%	14%	32%	12%
PLACENTIA-YORBA LINDA UNIFIED	92%	10%	81%	17%	39%	4%
SADDLEBACK VALLEY UNIFIED	85%	51%	25%	14%	41%	6%
WESTMINSTER ELEMENTARY	67%	17%	33%	17%	50%	17%

SPOTLIGHT: OPINIONS ABOUT CELL PHONES AND FILTERS

Middle school and high school students have some strong messages for decision-makers about how they feel about accessibility to technology during school hours. Prompted by open-ended responses we gathered from the 2004 Speak Up survey, NetDay added several questions to the 2005 survey about the freedom to use communications technologies during school hours.

Cell Phones at School With over three-quarters of Orange County middle and high school students saying they use a cell phone on a weekly basis, we have been hearing from students since last year about wanting to be able to use their phones at school. Administrators considering this issue might consider this: Orange County student responses show that 83% think that cell phones should be allowed at school with a quarter of these students agreeing to emergency use only. Only 6% of students think cell phones should not be used at all during school hours.

Where Orange County students were given a choice of ten things they would change at the school if they were principal, allowing students to use cell phones, IM, and email at school is the third most popular answer.

Internet Filters: This topic also showed up continuously in the open-ended responses from 2004. Students voiced their frustration with Internet filters, saying that filters block access to information they need for school work. This year, 31% of Orange County students in grades 6-12 said "Filters are obstacles. They prevent me from finding the information that I need for my schoolwork." Twenty-seven percent say "Filters

are good because they block bad websites and ads." Sixteen percent say "Filters are not a problem. We can easily get around most filtering software to get to the websites we need."

- "We should be able to have more time to explore the internet and not have filters. Our teachers should be able to trust us." (8th grade girl, Orange, CA)

- "Filters are an obstacle for everyone except the advanced, so that might need to be addressed. (8th grade boy, Newport Beach, CA)

- "They can provide us with faster online and wireless access and block the filters because it is an obstacle because the main websites like Google don't work." (8th grade boy, Huntington Beach, CA)

- "Take out filters so we can look information up on things like 'The Grapes of Wrath' without the computer saying 'this site has been blocked because a restricted word was found in the content. word: 'rape'" (12th grade girl, Newport Beach, CA)

ORANGE COUNTY FINDINGS: ISSUES FOR STUDENTS USING TECHNOLOGY

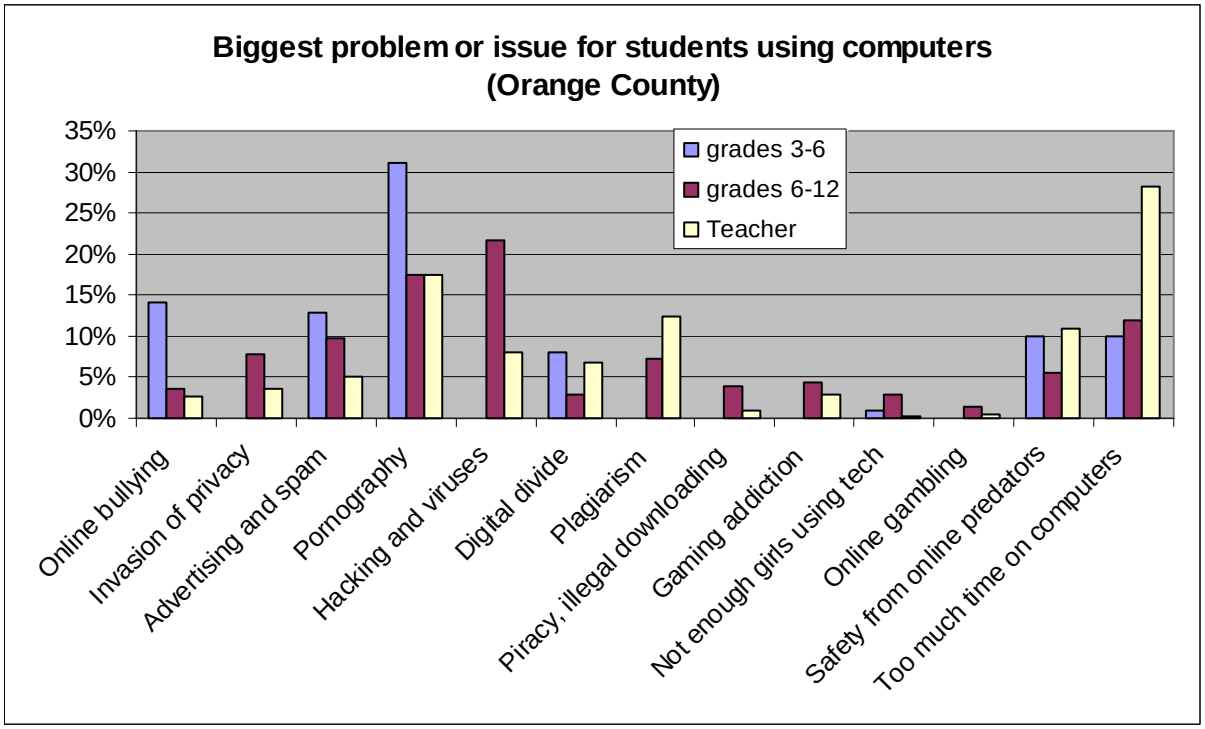
From month to month, the news stories trumpeting the dangers of technology change. One day the big story is cyber-bullies are more menacing than any playground bully. The next day the big worry is too much time on the computer is seen as a cause of childhood obesity. And, another day parents are warned about the online predators preying on students on the MySpace website. This year NetDay took these issues to students and teachers to find out what they see as the biggest problem or issue: **"What is the biggest problem or issue for students using technology?"**

- The top problem noted by Orange County in grades 3-6 are "websites that are bad for children" (31%). This was also the top problem noted by the students in this age group nationwide. This issue was followed by online bullying (14%), too many ads (13%), online safety (10%), and too much time on computers (not enough physical activity) (10%). Thirteen percent of students answered "None of the above."

- In grades 6-12, Orange County students' responses also matched national worries, including hacking and viruses (22%) and pornography (17%), followed by the issue of kids spending too much time on computers and not getting enough physical activity (12%).

- Teachers in Orange County share the same worries as teacher nationwide. They worry that kids are spending too much time in front of the machine (28%) followed by pornography (17%), plagiarism (12%), and safety from online predators (11%).

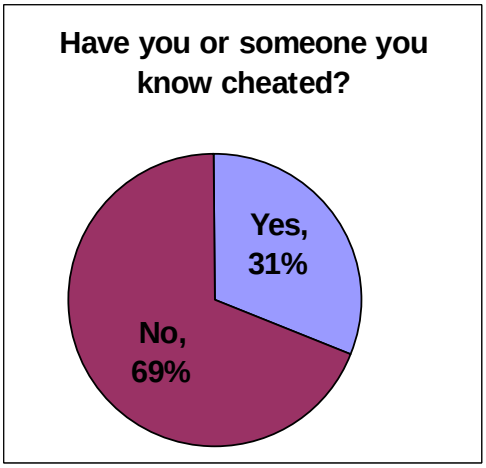
Surprisingly, despite much discussion about unequal access to computers (Digital Divide) and the availability of opportunities for girls, these issues did not show up as main concerns for any age group nationally or in Orange County. It's likely however, that issues such as child safety, appropriate resources, and health overshadow these other important issues.



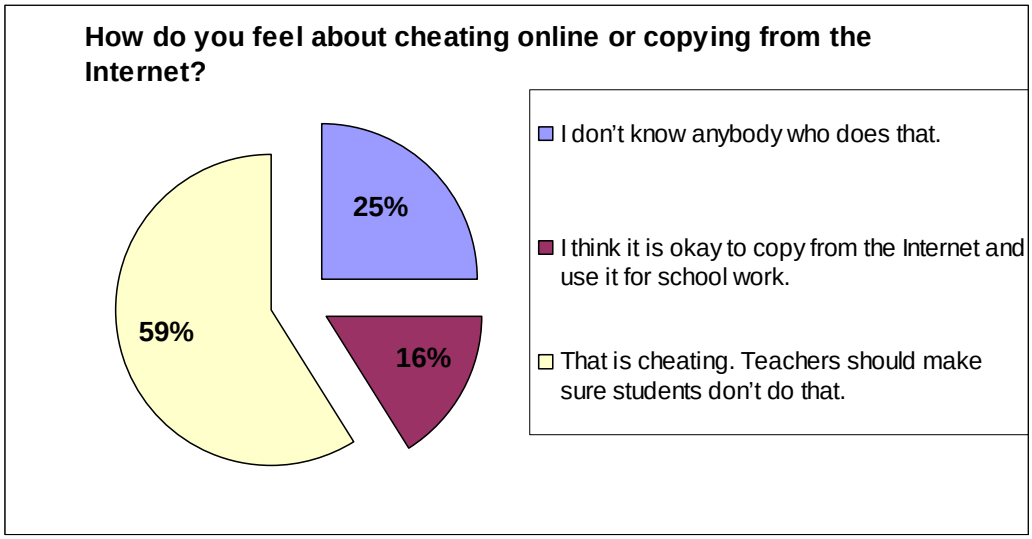
SPOTLIGHT: PLAGIARISM

Plagiarism in schoolwork is not a new issue in schools, but new concerns have arisen with the advent of the Internet and the ease by which a student can access information online and even purchase ready-made term papers. We asked students and teachers about their experiences with these issues.

- 73% of Orange County students in grades 3-6 and 63% of students in grades 6-12 say that their teacher has discussed school policies and laws related to cheating or stealing using the Internet.
- A third of 6-12 students surveyed say that they or someone they know have cheated.
- 54% of 6-12th graders and 25% of 3-6th graders say "I don't worry about it because my friends and I do all our own work anyway."
- 22% of 6-12th graders and 16% of 3-6th graders say "I don't think it is such as big deal if someone copies information from the Internet."



- 24% of Orange County 6-12th graders and 59% of 3-6th graders say "It is not fair that some students cheat and copy information from the Internet and get away with it. Teachers should do more to stop it from happening."
- 7% of 6-12th graders and 12% of teachers say plagiarism is the biggest problem or issue related to students using the Internet. This beats out "not enough girls using technology," "the digital divide," and "safety from online predators" but does not rate as high as "sites that are bad for kids" and "kids spending too much time on computers."



ORANGE COUNTY FINDINGS: TEACHING AND LEARNING SCIENCE

NetDay was very pleased to announce our merger in Fall 2005 with Project Tomorrow. NetDay and Project Tomorrow have long shared a vision and common understanding of the importance of providing excellence in education, and now we are combining our efforts to leverage the strengths of both organizations for increased effectiveness and impact, both locally in Orange County and nationally. Project Tomorrow's original programs focused on supporting high-quality innovative science programs in schools in Orange County. Our new organization's goals include preparing today's students to be tomorrow's innovators, leaders, and engaged citizens with a specific focus on math, science, and technology. With this new mission, the 2005 Speak Up survey forayed into new territory this year with a specific focus on science learning and instruction in our nation's schools. What is being done to engage students in science learning? What would students find more engaging? Are students and teachers speaking the same language?

"What would make learning science more interesting to you?" We presented this question to students in all grade levels with a wide range of choices. In each of the three grade groups there was a strong emphasis in their top choices for experiential learning. Their message to teachers and administrators? Learning by the text-book just isn't what it takes to get these kids excited about science.

- The number one response in each age group is "field trips to science museums, labs, zoos, etc." Other high rated responses included "meeting with scientists," "learning about science careers," and "solving real life problems." These responses match with Project Tomorrow's first-hand experience in Orange County classrooms where innovative science programs are engaging students by connecting them to personal experiences with science.

- Students also clearly are interested in using technology such as multimedia and interactive simulations, conducting research on the internet, and using traditional classroom tools like microscopes and watching films.

"How do you increase student interest in learning science?" We asked teachers how they were engaging students in learning science. Seeing that students are calling for more hands-on experiences in science, it's interesting to learn about current practice. In future surveys, we will be delving into these methods further and finding out with what frequency and/or urgency teachers are engaging student interest in the sciences.

- According to survey responses, Orange County teachers are using traditional methods to deliver science instruction: Over 50% of teachers surveyed say they present material in lecture format, conduct demonstration lessons, or guide students in investigations or experiments.

- When asked how they increase student interest in learning science, 62% of teachers encourage student-initiated investigations, 61% of teachers use the Internet for research projects, and 44% have students solve real-life problems. With field trips being most requested by students nationwide, Orange County students are fortunate. Sixty-two percent of Orange County teachers report taking students on field trips compared to the national average of 46%.

"What do you need more of to help you learn science?" It's not clear from the teachers' responses if their approaches are meeting their students' expectations. We followed up with the students in middle and high school grades and asked them to tell us what their schools need more of to help them learn science.

Again their responses show a desire for more experiential learning, specifically classes with special topics such as forensics. We also see requests for updated equipment and the use of technology.

- When asked to choose their top choice, 36% of students chose field trips, echoing the answer from the previous question.

- The next most common selections in Orange County and nationwide included classes with special topics like CSI (Crime Scene Investigation), updated books and lab equipment, and more use of technology, probes, and data collection devices.

"How do you use technology to help you learn about science?" With our experience in technology, we wanted to keep an eye on the cross-over between technology and science. We asked this to students in grades 3-6 and 6-12 and also to teachers.

- Forty percent of Orange County students in grades 3-6 and thirty percent of 6-12 students report using science specific websites, for example NASA and National Weather Service. This is confirmed by 68% of teachers saying they used these tools for teaching sciences.

- Using general search engines, for example Google, were also common uses of technology for science learning.

- Despite students' awareness of and interest in using technology for learning about science, in Orange County 27% of students in grades 3-6 and 33% of students in grades 6-12 report that they're not using technology at all to learn science. This doesn't quite match up with the less than 11% of Orange County teachers who reported not using technology for teaching science.

What is the number one thing that would help you teach science more effectively? The number one thing that would help teachers address any subject more effectively is time. In the case of science, this is no exception. Orange County teacher responses matched the national responses -- teachers say they need more instruction time for science, improved lab environments, and more professional development.

WHAT IS THE NUMBER ONE THING THAT WOULD HELP YOU TEACH SCIENCE MORE EFFECTIVELY?	ORANGE COUNTY TEACHERS	NATIONAL TEACHERS
More instruction time	20%	25%
Improved lab environment	21%	18%
Professional development	19%	14%
Updated books and lab materials	11%	11%
Integration with other content areas	8%	11%
Updated technology, software, etc.	11%	10%
None of the above	4%	5%
Teacher mentors	5%	3%
Focus in school/district priorities	2%	3%

OPEN-ENDED RESPONSES: SCIENCE, TECHNOLOGY, AND OUR FUTURE

NetDay wanted even more information about how students see their futures relative to the science and technology skills they are learning at school. A companion report created in collaboration with TechNet will be forthcoming. Meanwhile, here is a preview of how Orange County students answered this question: **"Science, technology and innovation are clearly important for your future. What should your school do to make sure you have the knowledge and skills to be successful?"**

- "Make sure everyone knows how to use computers very skillfully and train them to be innovative and think differently so that when the world goes to technology they can be the leaders." (11th grade boy, Costa Mesa, CA)

- Have more fieldtrips on science and technology so that kids who don't have any interest can have more fun and enjoy learning the subjects. In fieldtrips kids can actually talk to real scientists and learn new and amazing things. (7th grade girl, Fullerton, CA)

- "Make a computer literacy program that is a standard at a lower grade level. I think 5th grade would be a pretty good time to start doing easier things like Microsoft Word and Paint." (8th grade boy, La Habra, CA)

- "I think that we should promote science in schools in America. We need to support camps and activities for kids in 7th and 8th grade. That is when kids start to think about their future and that is when kids need to be shown how important science is to the world. It will show them that they are the future and they can make a difference." (8th grade girl, Newport Mesa, CA)

- "My school should make it mandatory for every student to take one full year of computer science. Computer science is expanding world wide. The demand for workers in computer jobs is high. Schools should encourage students to learn about science and technology. If every student in America learns computer and technology skills I guarantee you that they would become successful in life." (12th grade boy, Newport Beach, CA)

- "Maybe our school can have a lab, get an experienced science teacher, do fun experiments, and each student have a laptop to do research in science and every subject." (6th grade girl, Rancho Santa Margarita, CA)

- "Make a class where we can use computers and let us explore the internet and go on any sites and if we get stuck we can work our own way through the problem that way we would be able to learn from our mistakes and make our learning process grow." (10th grade girl, Mission Viejo, CA)

- "Teach more about using computers and smart-boards and also allow for e-mailing accounts and iPods. Doing this would help students become more comfortable around technology. More involved and interesting science courses would be good for learning technology skills because it would introduce students to new ways of thinking and solving problems." (8th grade boy, Huntington Beach, CA)

- "Make more time for science, because we never do science in our class." (6th grade girl, Newport Coast, CA)

- "Economics should be a required class throughout a 4 year period. Science should be more hands on and computer knowledge should be taught at a younger age." (12th grade boy, Newport Beach, CA)

- "My school should set up a technology class outside of teaching about dull programs like PowerPoint and Microsoft Word. To me, I'd be more interested in learning about how computers are built and how they function and how wireless servers are set up. " (11th grade girl, Costa Mesa, CA)

- "Supply computers in each room so when a student needs information that is needed for a report in that class, he can find the information." (8th grade boy, Fullerton, CA)

- "They should let us make some more of our own choices (as long as the choices are safe) so we will be more independent people." (6th grade girl, Fullerton, CA)

OPEN-ENDED RESPONSES: SCIENCE, TECHNOLOGY, AND OUR STUDENTS

To complement the student open-ended responses about science, technology and innovation, NetDay asked their teachers a similar question. A full report on these responses will be released with the student responses in the TechNet report. Meanwhile, here is a preview of how Orange County teachers answered this question: **"Science, technology, and innovation are clearly important for your students' futures. What should your school do to make sure your students have the knowledge and skills to be successful?"**

- "Have more computers available to all students since many do not have them at home." (Elementary teacher, Anaheim, CA)

- "All students should have access to any technology that will enable them to explore, investigate, and acquire the knowledge that will help them become productive members of society […] All technological devices must be updated in order for our students to maintain pace with all of the other developed nations of the world." (Middle school teacher, La Palma, CA)

- "In my experience, the students are more technologically advanced than the teachers. I think more in-service for teachers to enable them to be able to share useful and interesting ways of using technology to help their students learn more efficiently would be the best thing." (High school teacher, Newport Beach, CA)

- "Devote more time to science and technology--with the No Child Left Behind Act we are mostly focusing on language arts. We need to spend more time on technology, science and math." (Elementary teacher, Anaheim, CA)

- "Make Science a priority!!!" (Elementary teacher, San Juan Capistrano, CA)

- "All classrooms need to be equipped with up to date computers and the latest computer software. In addition, there should be technology workshop classes offered once a week to teachers. In addition, a technology specialist should be at each school site to assist and help with technology issues." (Elementary teacher, San Juan Capistrano, CA)

- "Update the current computer lab; provide laptops 1:1 for upper grade students; provide time for teachers to develop lessons." (Middle school teacher, Fullerton, CA)

- "The school should be behind laptops for students completely. Financing should come from the community which would be the recipient of such learning." (Middle school teacher, Fullerton, CA)

- "The most important thing students can achieve from using technology at school is to be self-motivated, independent learners." (High school teacher, Newport Mesa, CA)

ORANGE COUNTY FINDINGS: OUR VOICES, OUR FUTURE

Students are concerned about their futures, in high school, in college, and in the workforce. There is one strong voice coming through from their survey responses: They believe that having technology skills will help them find success.

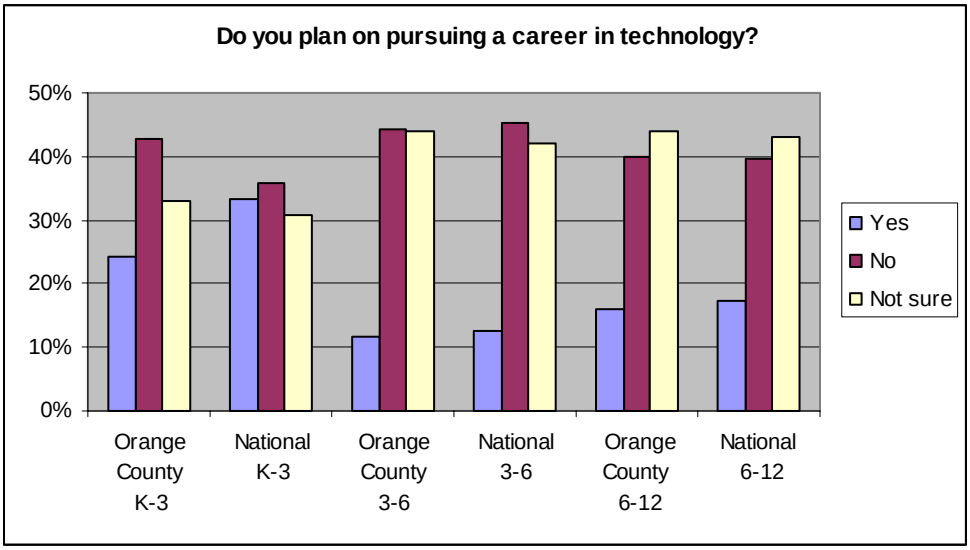
- 70% of Orange County students in grades 6-12 believe technology skills are necessary for doing well in school.
- 62% of Orange County students in grades 6-12 believe that technology skills are necessary for success in college.
- 55% of Orange County students in grades 6-12 believe that technology skills are necessary for getting a job.
- Over 25% of students in each grade group believe that technology skills are necessary for being happy.
- K-3 students in Orange County feel less strongly about the importance of technology compared with students in the same age group nationwide.

GOOD TECHNOLOGY SKILLS ARE NECESSARY FOR WHICH OF THE FOLLOWING?	ORANGE COUNTY K-3	NATIONAL K-3		ORANGE COUNTY 6-12	NATIONAL 6-12
Doing well in school	38%	52%		70%	70%
Finding a job	32%	50%		55%	61%
Success in college	n/a	n/a		62%	63%
Being well informed	32%	43%		57%	58%
Making money	29%	47%		46%	48%
Keeping in touch with family/friends	26%	42%		62%	63%
Being happy	25%	35%		36%	36%
Being a good citizen	15%	30%		24%	25%
None of the above	1%	13%		7%	8%

SPOTLIGHT: TECHNOLOGY CAREERS

Following up on our tech savvy students' proclivity towards using technology, this year we posed the question **"Do you plan on pursuing a job or career in computer science, programming, web design, or technology support?"**

- The majority of students are not planning on pursuing careers in technology fields: Only 16% of Orange County students in grades 6-12 plan on pursuing a technology-related career.
- When reviewing the data grade-by-grade, we see that the older students get, the more sure they are that they are **not** going into a technology-related career. While 24% of students in grades K-3 say "Yes" to this question, only 15% of students in 6-12 answer the same way.



DO YOU PLAN ON PURSUING A JOB OR CAREER IN COMPUTER SCIENCE, PROGRAMMING, WEB DESIGN, OR TECHNOLOGY SUPPORT? (GRADES 6-12 ORANGE COUNTY DISTRICT SUMMARIES)	YES	NO	DON'T KNOW
ANAHEIM ELEMENTARY	0%	0%	100%
CYPRESS ELEMENTARY	0%	50%	50%
FOUNTAIN VALLEY ELEMENTARY	0%	0%	100%
FULLERTON ELEMENTARY	18%	27%	54%
HUNTINGTON BEACH CITY ELEM.	0%	25%	75%
LA HABRA CITY ELEMENTARY	4%	35%	62%
NEWPORT-MESA UNIFIED	16%	41%	44%
OCEAN VIEW ELEMENTARY	16%	37%	47%
ORANGE UNIFIED	17%	38%	45%
PLACENTIA-YORBA LINDA UNIFIED	20%	33%	47%
SADDLEBACK VALLEY UNIFIED	17%	48%	35%
WESTMINSTER ELEMENTARY	43%	14%	43%

ORANGE COUNTY FINDINGS: WHAT STUDENTS WANT

We know that students believe that technology is important to their futures. We know that students who rate themselves as advanced tech users are more likely to pursue a technology-related career. We know that science and technology go hand-in-hand. We know that our nation is interested in a workforce confident in math and science. What are students saying about what will help them achieve the success they desire?

GRADES 6-12 – ORANGE COUNTY

- Limited access to the Internet and limited use of technology rate high as obstacles. The #1 obstacle for Orange County students in using technology in school is "slow Internet access" (50%) and the #3 obstacle is "not enough computers" (40%). Both of these rank 10% higher compared with the national data. Other related obstacles that rank high for Orange County students are "computers don't work regularly" (34%) and "not enough time in the school day" (32%).

- Like their peers nationally, students want more control over what technology they use and when they use it. The #2 obstacle for students in grades 6-12 is rules against students using their cell phones, email, or IM accounts. The #4 obstacle is "Teachers control when we use the computers." (Nationally, these rank as the #1 and #2 obstacles.)

- Responses from Orange County students tell a consistent story. Whether we ask them about obstacles, wishes, or ideas, students overwhelmingly are voting for more or better technology and more control over it. If students could be principal for one day, the first thing they would do would be purchase more or better computers and equipment (23%). They would also provide laptops for each student (19%) and change the rules about using communication devices at school (14%).

- Orange County students and students across the nation know the value of portable technology. The majority of students, from K to 12, nationwide and in Orange County said the #1 thing they would do if they were **"designing a new school for students just like them"** would be to provide laptops for every student that can be taken home (29%). The second choice for middle and high school students was to provide fast, wireless Internet access throughout the school (22%).

GRADES 3-6 – ORANGE COUNTY

- Students in upper elementary school want more time on computers. For grades 3-6 in Orange County and nationally, the #1 obstacle is "not enough computer time," followed by "computers don't always work," and "not enough computers".

- If students could be principal for one day, the first thing Orange County students would do would be to provide laptops for students (33%). They would also give each student an MP3 player (22%) and purchase more or better computers, software, printers, or digital cameras (16%).

- If students **"were designing a new school for students just like them"** they would provide "laptops for every student that can be taken home" (36%), provide "fast, wireless

Internet access everywhere at school" (14%) and "computer labs that stay open after school and on weekends" (11%).

GRADES K-3 – ORANGE COUNTY

- Even K-3 students know the value of easy and portable access to technology. If Orange County students **"were designing a new school for students just like them"** they would provide "laptops for every student that can be taken home" (30%), "computer labs that stay open after school and on weekends" (21%), and "digital cameras and video equipment for students" (13%).

OPEN-ENDED RESPONSES: IF STUDENTS WERE DESIGNING A NEW SCHOOL

In addition to the multiple-choice selections we posed to students about what their priorities would be if they were designing a new school, we also allowed students to type in their own responses. Here is a representative selection of their responses.

- "Fixed computers all the time." (7th grade boy, Fullerton, CA)
- "To have Access to Myspace and IM." (8th grade girl, Fullerton, CA)
- "Computers in every classroom at every desk." (6th grade boy, La Habra, CA)
- "Use iPods and cell phones for school" (6th grade girl, Newport Coast, CA)
- "A lot of online classes on a fast network." (12th grade boy, Newport Beach, CA)
- "Online textbooks." (10th grade girl, Mission Viejo, CA)
- "Smaller classes so that kids could get more info." (8th grade girl, Huntington Beach, CA)
- "A class that lets your thoughts run free." (4th grade girl, Newport Beach, CA)
- "After school tech classes." (8th grade girl, Orange, CA)
- "The best equipment of every type of technology." (8th grade boy, Placentia, CA)
- "Fully operable, minimally filtered computer lab" (12th grade boy, Mission Viejo, CA)

How can schools help? NetDay continues to promote a national agenda where schools and districts involve their students in decision-making at the local level. While we provide national summaries to the U.S. Department of Education and other national organizations concerned with student achievement, it's important for regions like Orange County to use their local data to create technology plans and schedule professional development, and organize conversations with business leaders and educators in the region.

While 14% of Orange County students in middle and high school say they are involved in technology decision-making at the school or district level, 29% say they are not involved but would like to be. Twenty-six percent of middle and high school students in Orange County say that nobody would listen if they had a better idea about how technology could be used at their schools. There is a great opportunity for schools to listen to students' ideas to provide better opportunities for them to achieve success in school and in their futures.

ORANGE COUNTY FINDINGS: WHAT TEACHERS WANT

As stakeholders and key members of our nation's learning communities, teachers have key insights into the impact of technology in the classroom and its possibilities for success. Administrators at the school and district levels should be certain to include their teachers' insights and ideas in technology planning and to inform professional development opportunities.

- Teachers say that technology is having a positive impact on their teaching and on their students' success: As a result of technology, Orange County teachers say their jobs are easier (70%), they communicate more with parents about their children's progress (47%), their lesson plans and student's learning experiences are richer because of information from the Internet and multimedia opportunities (49%), and students take a more active role in their learning (45%). Orange County teachers data matches the opinions of teachers nationwide.

- Forty-one percent of Orange County teachers and forty-seven percent of teachers nationwide say they are not sure if students are receiving the type of science and math instruction that will help them successfully learn 21st century skills. Orange County along with the rest of the nation will want to consider this information.

- Teachers will always need more time, but issues related to technology access follow at nearly the same rate of importance: The #1 obstacle Orange County teachers face in using technology at school for professional tasks is "lack of time in the school day" (59%). This was the same top obstacle reported nationwide. Other main obstacles in order of importance to Orange County teachers: "Not enough computers" (49%), "lack of time for planning" (48%), "computers don't work regularly" (47%), "not all students and families have computer access at home" (41%), and "slow or unreliable Internet access" (31%).

- Teachers want more time and more access for themselves and for their students. If Orange County teachers were designing a new school for teachers just like them, they would provide fast, wireless Internet access throughout the school (23%), they would schedule professional development time for learning with technology (15%), they would provide adequate technology maintenance and support" (15%), and they would provide a laptop for every student (14%). (These same top three priorities are consistent with the national responses.)

- Of the many trends in educational technology, Orange County teachers believe the following technology services have the potential to improve students' success in school: Providing a useful school website (62%), providing laptops for students (61%), offering computer science classes (48%), providing access on the school network for storage or file sharing (37%), and selling or loaning computer equipment to families for use at home (32%).

- The good news is that teacher education programs and Orange County professional development offerings are receiving high ratings from teachers in terms of preparing them to use technology for instruction. Sixty-eight percent of teachers say that their pre-service education prepared them somewhat or very much. Eighty-eight percent reported that school or district professional development opportunities have helped them prepare to use technology for instruction.

- In general, technology is helping teachers do their jobs well. Fifty-eight percent of Orange County teachers believe that technology is an asset in helping them meet No Child Left Behind requirements. Only 7% say it's a distraction.

OPEN-ENDED RESPONSES: IF TEACHERS WERE DESIGNING A NEW SCHOOL

Just like we asked students, we gave all teachers the opportunity to fill-in-the-blank and tell us what their priorities would be if they were designing a new school. Good news for students eager for laptops: 25% of all open-ended responses we received from teachers also mentioned laptops – either for every teacher, for each student, or both. Many of the responses also mentioned projection devices and interactive white boards, more equipment, more reliable technology, and more time.

- "A budget for new computers every 2 years for teachers." (High school instructional aide, Newport Beach, CA)
- "Support tech and continuous teacher training." (Elementary teacher, San Juan Capistrano, CA)
- "A SmartBoard in every classroom." (School technology coordinator, Newport Beach, CA)
- "New computers with fast Internet and updated software." (Elementary teacher, Fullerton, CA)
- "A qualified computer lab teacher (full time)." (Elementary teacher, Newport Beach, CA)
- "A computer lab equipped with a computer instructor." (Elementary teacher, Huntington Beach, CA)
- "Current hardware/software, technology/content support." (Middle school teacher, Fountain Valley, CA)
- "Time to teach skills." (Middle school teacher, Anaheim, CA)

ABOUT THE SPEAK UP PROCESS

The Speak Up surveys are developed with input from a Student Advisory Council representing students from all across the United States, teacher and administrator advisors, as well as our network of educational non-profit partners and friends around the nation. With an eye towards trends and key issues, the surveys aim to collect stakeholders' ideas and suggestions for education decisions that impact their futures.

All schools and districts were invited to participate in the survey, receiving invitations through listservs and website postings from Project Tomorrow-NetDay and our network of over 75 Speak Up Partners and our Speak Up sponsors: BellSouth Foundation and Dell. A single school contact registered each school for participation and students and teachers accessed the surveys online from school or from home. The surveys were open between October 21 and December 1, 2005.

The surveys included three grade-appropriate online surveys for K-3, 3-6, 6-12, and a teacher survey. Each survey included 20-40 multiple choice questions and 2 open-ended responses. The survey could be completed from any Internet accessible computer and took approximately 15 minutes to complete. The surveys did not collect individual student or teacher names or email addresses, although we did ask teacher participants to provide demographic data such as age, gender, racial or cultural identity and years of teaching experience. In addition to the online surveys, Speak Up events this year included post-survey focus groups with middle and high school students in Denver, Colorado; Baltimore, Maryland; and Herndon, Virginia.

The NetDay Speak Up data is based upon a self-selected, convenience sampling of teachers and students. We have not completed any statistical significance testing on the data collected. With our convenience sampling methodology, we are aware that our data may be more representative of technologically-friendly schools. Because of this, we paid special attention this year to some of our largest participating school districts including Newport-Mesa Unified School District in California which encouraged the majority of the students in their district to participate. Their participation included schools at various levels of technology integration, ethnic backgrounds, and affluence.

Newport-Mesa USD participation: 9,341 students, 138 teachers

Our review of these large districts shows that while some survey data varies across states, regions, districts, and neighborhoods, many of the attitudes towards technology and common usage statistics are amazingly similar to the national results. As such, it will be interesting for local entities to review their own data and reflect on local universities, industries, or other factors which influence schools and resources in their areas.

ACKNOWLEDGMENTS

OUR SPEAK UP 2005 CHAMPIONS

NetDay Speak Up events for 2005 are generously supported through grants and in-kind support from the BellSouth Foundation, the BellSouth Corporation, and Dell. NetDay is very proud to be a recipient of a Google Grant to help us with outreach for our Speak Up events.

NETDAY SPEAK UP 2005 RESEARCH SUPPORTERS

NetDay Speak Up events benefit from the expertise of several key partners including the NetDay Student Advisory Council, teacher advisors, and individuals in the business community. Thank you for providing valuable consulting support on the development of the 2005 Speak Up event.

ORANGE COUNTY OUTREACH AND SUPPORT

NetDay's 2005 Speak Up owes much of its success to the teachers, principals, and technology coordinators who helped organize the survey events at their own schools. We'd also like to thank the students and teachers for sharing their amazing voices with us this year.

Thank you to the Orange County Department of Education for its support as a key partner in the development of the Orange County Speak Up Report.

The Orange County Speak Up Report was released at Project Tomorrow's **Innovation in Education Summit** in May 2006. We would like to acknowledge and thank the leading sponsors of the summit: Washington Mutual, Joel and Judy Slutzky, The Boeing Company, International Rectifier, Orange County Department of Education, Orange County Teachers Federal Credit Union, and Southern California Edison.

OUR 2005 NONPROFIT PARTNERS

Alliance for Excellent Education, American Association of School Administrators, American Electronics Association (AeA), American Federation of Teachers, American Institutes for Research, Association of Materials Resource Centers, Benton Foundation, Cable in the Classroom, Califonia Charter Schools Association, The Centers for Quality Teaching and Learning, The Children's Partnership, City of Seattle Department of Information Technology, College Board, Computer Using Educators (CUE), Consortium for School Networking (CoSN), Council of Chief State School Officers (CCSSO), Council for Exceptional Children (CEC), Educating Future Generations (efg), Educational Testing Service (ETS), Florida Virtual School, The Forum for Youth Investment, Gaggle, Generation Yes, George Lucas Educational Foundation, GiveKidsGoodSchools.com, Greater Lafayette Chamber of Commerce, GreatSchools.net, High Tech High, iEARN (International Education and Resource Network), International Society for Technology in Education (ISTE), Kidz Online, McKenzie Group, MAR*TEC, MassCUE, Math Forum @ Drexel, MOUSE, NASA Office of Education, The National Alliance of State Science and Math Coalitions, National Association for College Admission Counseling (NACAC), National Association of Elementary School Principals (NAESP), National Board for Professional Teaching Standards, National Commission on Teaching and America's Future, National Council for Community and Education Partnerships (NCCEP, GEAR UP), National Council for the Social Studies, National Council of Teachers of English, National Education Association (NEA), National Education Knowledge Industry Association (NEKIA), National Middle School Association, National Park Foundation, National Rural Education Association (NREA), National School Boards Association (NSBA), National Science Digital Library, National Science Resource Center -- Regional LASER Sites, North American Council for Online Learning, One Economy, Points of Lights Foundation, Project Tomorrow, Professor Garfield Foundation, Public Education Network, Science@OC at the California Science Center, Software & Information Industry, Association (SIIA), State Educational Technology Directors Association (SETDA), TechCorps, TechNet, Technology Information Center for Administrative Leadership, Think.com, USATODAY Education, US Conference of Mayors, Virtual High School, Inc., Who's Who Among American High School Students

OUR PROJECT TEAM

Thank you to our support team who helped make our visions for the 2005 Speak Up event a reality.

Judith Marciante	Web Designer, Point Line Interactive
Carl Paul	Engineer, IBT Software
James Schremp	Survey Administration, NetTango
Kelly Connelly	Cover Design, Kelly Connelly Design + Print

ABOUT NETDAY AND PROJECT TOMORROW

OUR MISSION AND VISION

NetDay Speak Up is a national initiative of the nonprofit education group, Project Tomorrow. This new national 501(c)(3) organization is the result of the merger of the national education technology group, NetDay, and the Orange County, CA science education group, Project Tomorrow, in September 2005. Our new mission is to support innovative, research-based uses of science, math and technology resources to develop critical thinking, creativity and problem solving skills in K-12 students. Our vision is to prepare today's students to be tomorrow's innovators, leaders and engaged citizens.

SPEAK UP INITIATIVE

Since 2003, NetDay has surveyed over **562,000 K-12 students** and over **26,000 teachers** from schools in all 50 states through our annual online survey event held each fall. The Speak Up data represents the largest collection of authentic, unfiltered stakeholder input on education technology and is used regularly by education, business and policy leaders to inform federal, state and local programs on education and technology.

The Speak Up initiative has three general goals:

- To collect national data about what students and teachers think about education and technology.
- To raise awareness about the importance of including student and teacher voices in national and local discussions on education and technology.
- To stimulate local conversations about the role of technology in learning and workforce preparedness.

In the Speak Up 2005 surveys, we included new questions about science education, 21st century skills, online learning, science education, and teacher professional development. We are very pleased to salute our Speak Up sponsors: **BellSouth Foundation and Dell, Inc**., and to recognize the support of **Google, TechNet and our 65 nonprofit partners.**

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