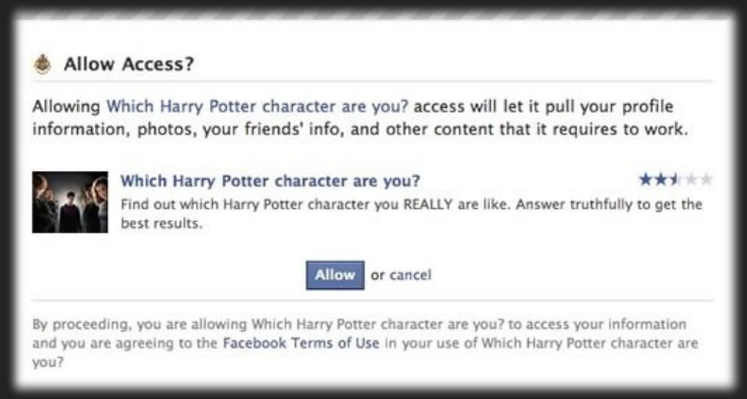
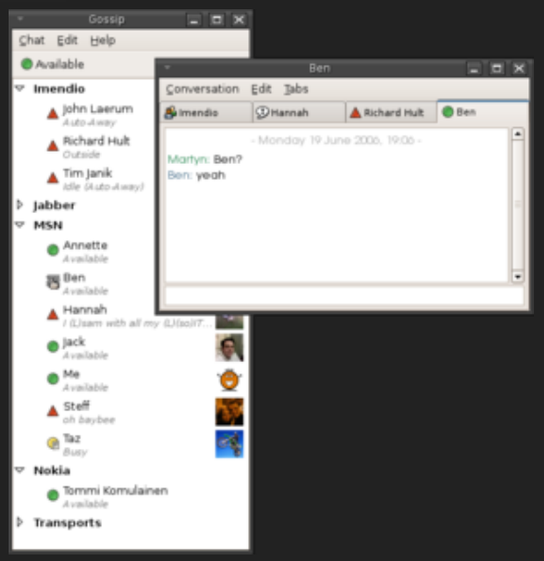
Kate Glazko

How schools, educators, and parents can empower youth to claim agency in their digital lives.

THE NEXT GENERATION OF PRIVACY AND SECURITY

LET'S GO BACK TO 2007 FOR A MOMENT





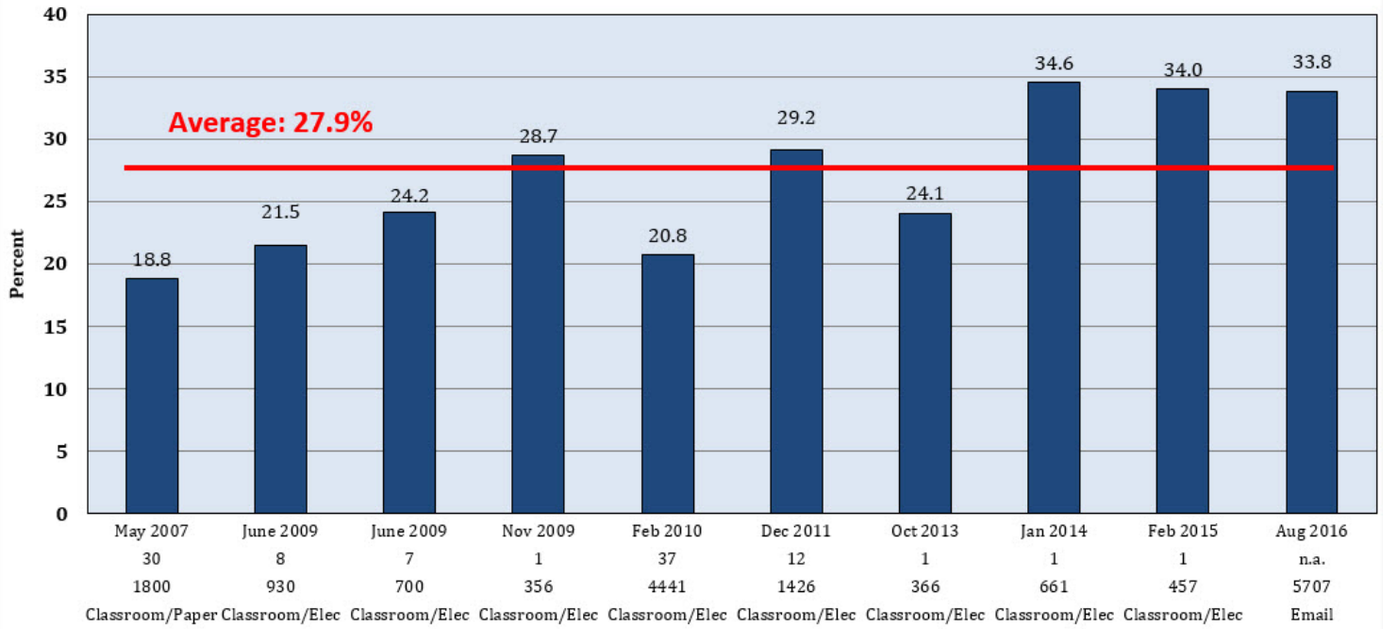
COMPUTER LABS. NO COMPUTER TRAINING.

- At this CA public high school, we had computer labs. We were taught to use Microsoft Office and how to search for research papers.
- “Harmful” sites were blocked by an admin at the network level. Kids used VPNs as a workaround.
- We weren’t taught at any point about internet safety, data privacy, or computer security in our 4 years at the school.

THERE ARE CONSEQUENCES. FOR EXAMPLE:

Lifetime Cyberbullying Victimization Rates

Ten Different Studies 2007-2016



	May 2007	June 2009	June 2009	Nov 2009	Feb 2010	Dec 2011	Oct 2013	Jan 2014	Feb 2015	Aug 2016
	30	8	7	1	37	12	1	1	1	n.a.
	1800	930	700	356	4441	1426	366	661	457	5707
	Classroom/Paper	Classroom/Elec	Classroom/Elec	Classroom/Elec	Classroom/Elec	Classroom/Elec	Classroom/Elec	Classroom/Elec	Classroom/Elec	Email

Justin W. Patchin and Sameer Hinduja
Cyberbullying Research Center
www.cyberbullying.org

INTERNET HABITS AND PREFERENCES ARE CHANGING

"One of the biggest takeaways from the study is that everyone, regardless of age, wants the web to be safe and free. However, the ways each generation views safety vary.

All agree that they want to be protected from malware, ID theft, and fraud. The main distinction comes down to privacy. ***According to the study, older generations are concerned about anonymity online and making sure their data and personal information is kept private.***

This is in sharp contrast to Generation Z who is comfortable sharing personal data in order to get a more personalized experience. In fact, millennials and Gen Z are over 25 percent more likely than Gen X and Baby Boomers to opt for a predictive Internet. ***The study goes farther finding 50% of Gen Z would stop visiting a website if it didn't anticipate what they needed, liked or wanted.****"*

https://torquemag.io/2017/12/generation-z-opts-personalization-privacy-means-wordpress/

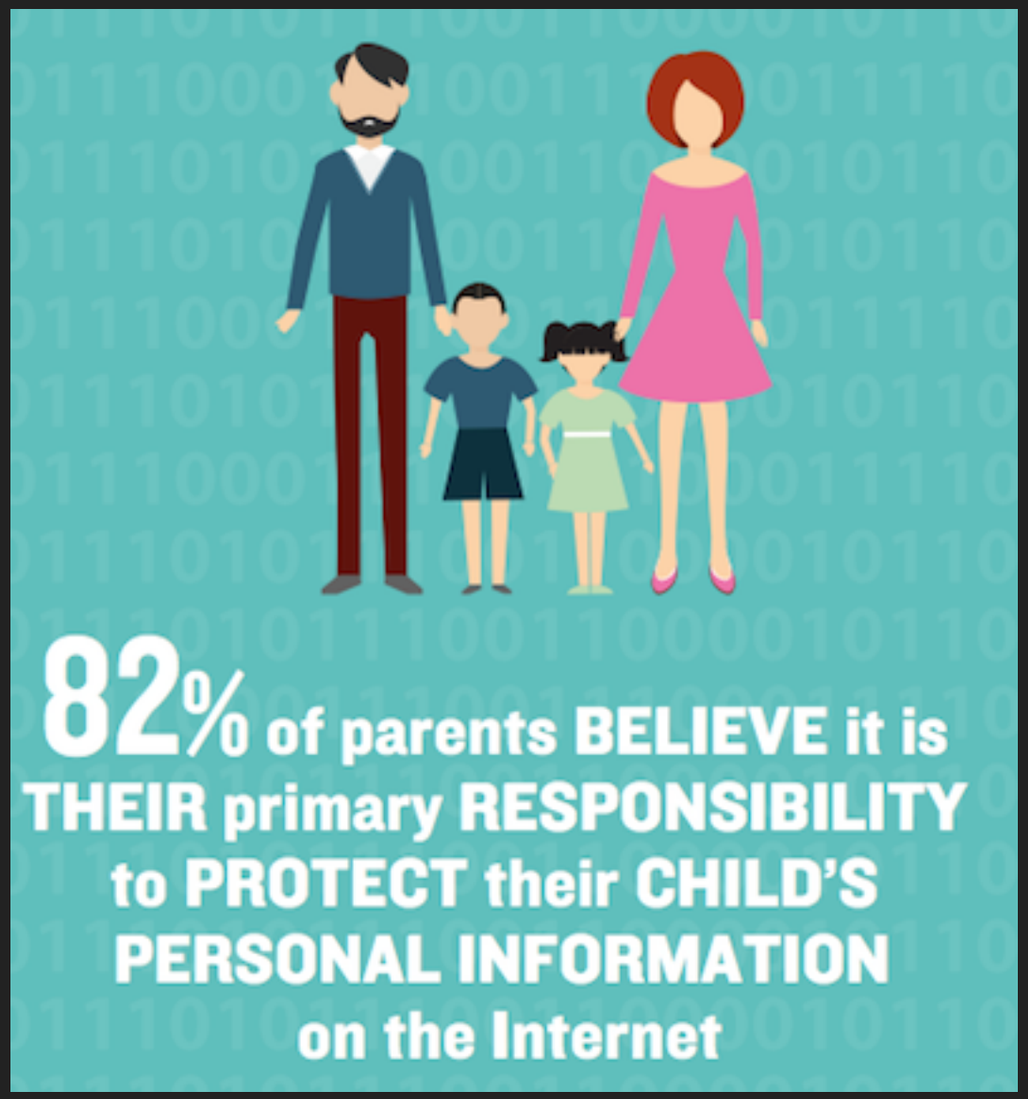
PEOPLE ARE GETTING ONLINE EARLIER THAN EVER

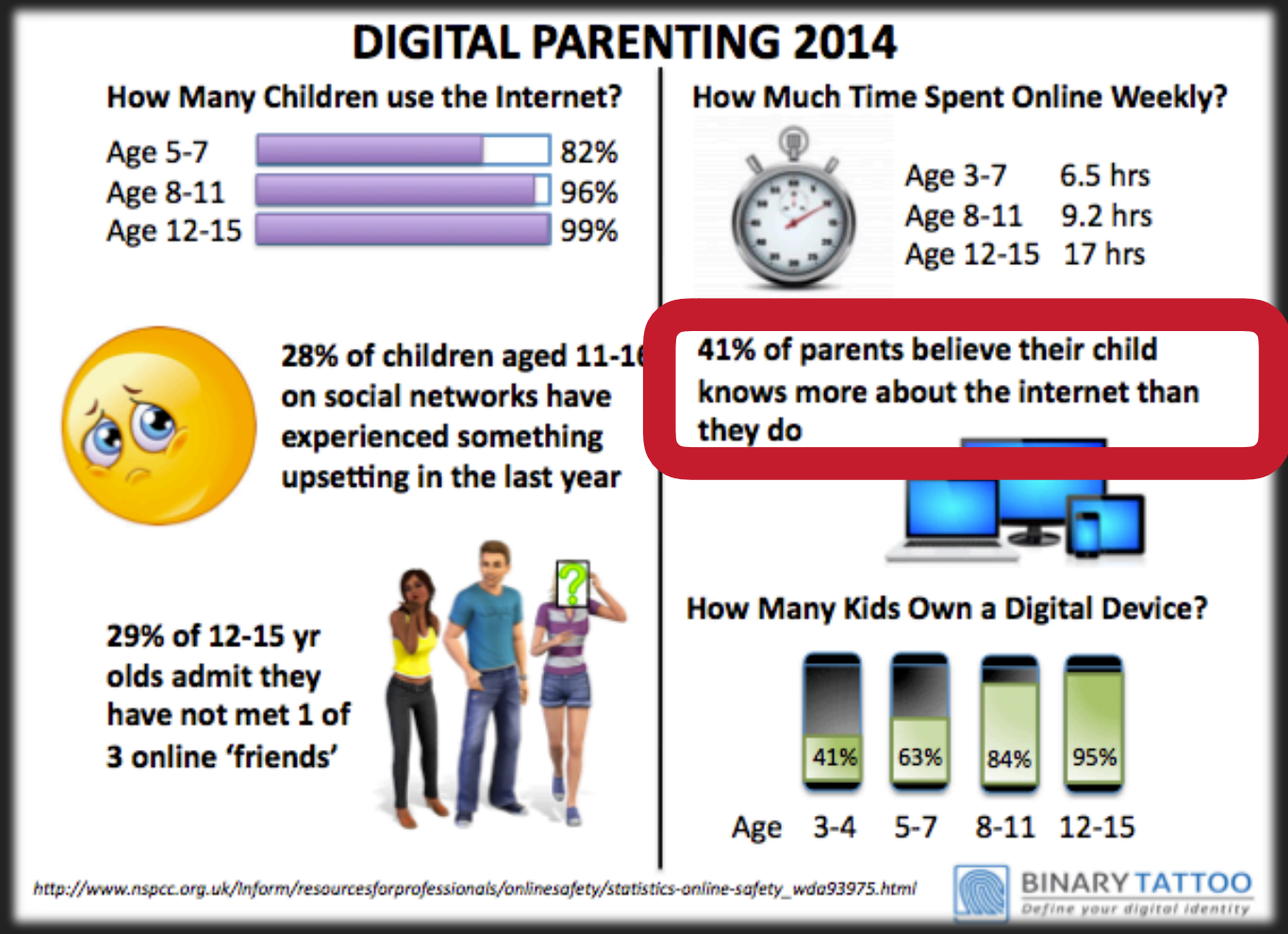
"If you're a millennial mom, there's a pretty good chance you have a social media account for your baby. No, we're not talking about posting a ton of baby pics on your personal Facebook or Instagram page—but on a dedicated account with your baby's own name on it.

According to a new survey conducted by Gerber.com, ***close to 40 percent of moms aged 18 to 34 created social media accounts for their baby before the child's first birthday*** *– and another 7 percent made one before their kid's second birthday. "*

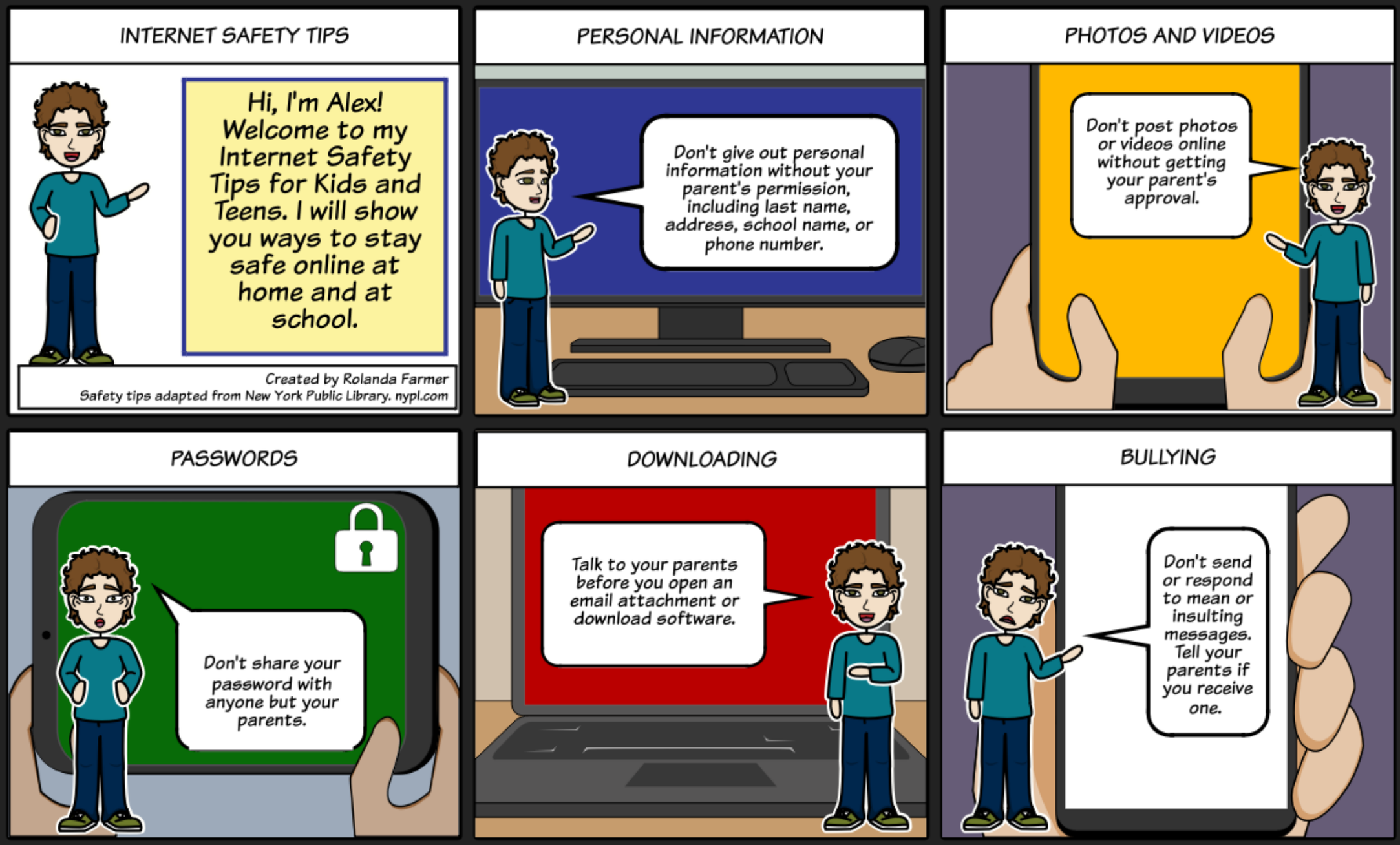
https://www.today.com/parents/have-social-media-account-your-baby-40-percent-millennial-moms-1D80224937

SO WHAT CAN WE DO? RECRUIT PARENTS?





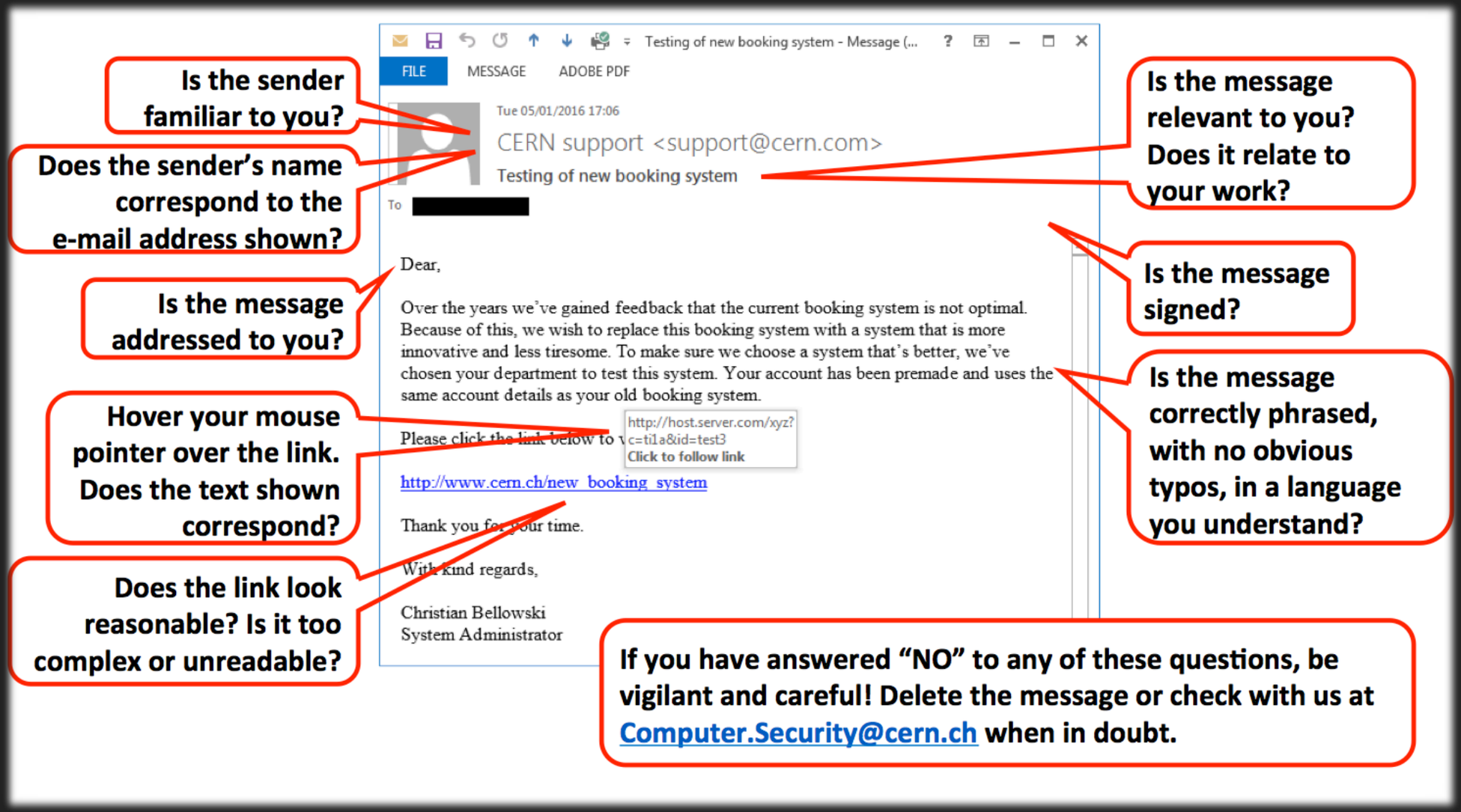
THERE ARE SOLUTIONS THAT CAN BE TAUGHT AT HOME



THERE ARE GAMES THAT CAN TEACH INTERNET SAFETY

"In celebration of Internet safety month, Google has released a classroom curriculum and computer game to teach children about online safety and security."

THERE ARE GUIDES AND RESOURCES TO SHARE



BUT.. WHY NOT TEACH INTERNET SAFETY/SECURITY/PRIVACY AT SCHOOL?

- Kids typically spend anywhere between 6-8 hours at school on a given day; the vast majority.
- Kids are introduced to computers and technology early, with tech becoming a key part of classroom work and even test-taking.
- Kids wouldn’t have to be dependent on their parents’ skill level or resources to learn.

EXAMPLE: AES LESSON PLAN FOR TEACHING INTERNET SAFETY IN MIDDLE SCHOOL

2. Read the URL Carefully

Online scammers know how easy it is to make an “r” and an “n” look like an “m.”

That may not sound like much — but it makes an enormous difference when you’re looking at URLs like:

www.bankofamerica.com
www.bankofarnerica.com

One of those URLs goes to a well-known and long-established bank in the United States.

The other one is an imposter website that could do anything from installing ransomware on your computer to downloading your browser history.

Fortunately, there’s a way to help your students avoid this danger altogether.

You can teach them how to identify an online scam.

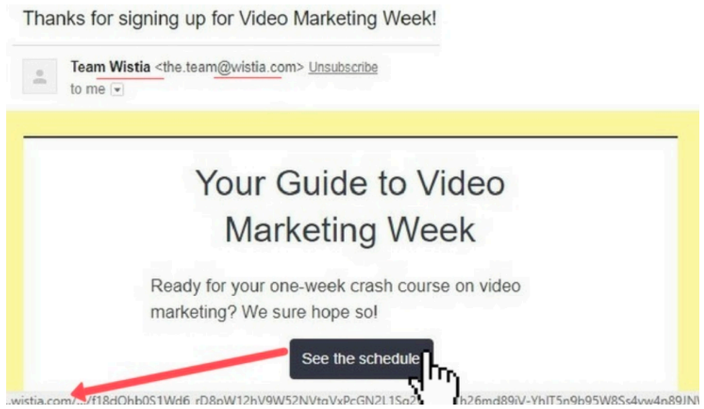
Step 3. Identifying an Online Scam

While scammers upgrade their tactics for every new scheme, they can’t beat the one thing that almost everyone feels when they encounter a scam.

1. Hover the Cursor over the Link before Clicking

This is the simplest way to verify if a link is legitimate or not.

Hover your mouse cursor over the link (or image, in some cases) and look at the URL that pops up. It’s important to keep your cursor motionless at this point, otherwise the URL will disappear.



If you recognize the URL, that’s a great sign!

If you don’t, then don’t click!

2. Read the URL Carefully

Online scammers know how easy it is to make an “r” and an “n” look like an “m.”

That may not sound like much — but it makes an enormous difference when you’re looking at URLs like:

On one hand, this is amazing since it gives students access to the world’s largest knowledge database.

But it’s also scary since middle school students may not grasp the principles of Internet safety.

After all, the Internet is a double-edged sword. It lets us see, research, and understand the world — but the world can see us back.

That’s a scary thought, especially when it applies to middle school children.

So how do you make sure your students know how to stay safe online?

You have to teach Internet safety.

The best way to do that is to lay foundation for your students’ understanding of safe behavior online.

The seven internet safety topics you should teach in middle school are:

1. Verifying someone's identity
2. Verifying a link is safe
3. Identifying an online scam
4. Protecting privacy
5. Creating and using passwords
6. Identifying, not participating, and stopping cyberbullying
7. Becoming a good digital citizen

https://www.aeseducation.com/blog/how-to-teach-internet-safety-to-middle-school-students

EXAMPLE: I-SAFE.ORG COMPLETE CURRICULUM K-12

Cyber Security (Lesson 3)	
Grade K	The i-SAFE character, i-Buddy, is used to introduce the abstract concept of the computer virus, and to reinforce that students should have adult assistance when using the Internet through the following: • Review of previous lessons • Concept introduction: computers can get "sick" • Terminology introduction and discussion: virus • Compare descriptions of "sick" people and "sick" computers • Concept introduction: computer viruses can be found in e-mails • Age-appropriate prevention technique: Do not open emails without permission.
Grade 1	Grade K concepts are introduced and built upon by introducing the following: • Terminology introduction and discussion: infected • Concept introduction: a computer virus is a computer program.
Grade 2	Grade 1 concepts are introduced and built upon by introducing the following: • Terminology introduction and discussion: attachment • Concept introduction: there are laws and consequences governing people who invent viruses. • Terminology introduction and discussion: prevent, used in conjunction with how to protect the computer from viruses.
Grade 3	Grade 2 concepts are introduced and built upon by introducing expanding explanations, vocabulary, and age-appropriate computer virus prevention techniques.
Grade 4	Grade 3 concepts are introduced and built upon by introducing the following: • Terminology introduction and discussion: e-mail forwards. • Forwarded email is a red flag for viruses. • Terminology introduction and discussion: automatically, as it is related to viruses and e-mail. • Reinforcement of age-appropriate computer virus prevention techniques.

	• Construct an educational story on lesson concepts. • Share original Internet safety stories with younger students.
Grade 6	Review information about e-mail protocol and computer virus prevention and utilize information to construct an educational story or other language arts activity for students in a younger grade. Student activities provide specific focus for grade level: • Construct an educational story on lesson concepts. • Share original Internet safety stories with younger students.
Grade 7	Review and reinforce the necessity of using caution when interacting online, including how to deal with mean or bullying interactions, and utilize information to construct an educational story or other language arts activity for students in a younger grade. Student activities provide specific focus for grade level: • Construct an educational story on lesson concepts. • Share original Internet safety stories with younger students.
Grade 8	Review and reinforce the necessity of using caution when providing personal information on the Internet and utilize information to construct an educational story or other language arts activity for students in a younger grade. Student activities provide specific focus for grade level: • Construct an educational story on lesson concepts. • Share original Internet safety stories with younger students.

Homeland Security	
Grades 7 - 8	Integrate knowledge and concepts previously learned about hacking, steganography, malicious code (i.e. viruses and worms) with information on cyber terrorism, to identify and comprehend the utilization of the Internet in cyber terrorism and cyber warfare. . Student activities: • Review previous lesson concepts. • Participate in a webquest for knowledge about homeland security issues. • Construct guidelines that can be used to combat cyber terrorism by students and others in the community. • Share guidelines through a choice of various media.

Cyber Security (Lesson 2)	
Grade 5	Cyber security issues are addressed, focusing on the following issues: • E-mail protocol and etiquette • Attributes of viruses • Consequences of spam, flaming, and viruses Student activities: • Participate in a game to illustrate how viruses spread. • Design a brochure to inform about e-mail etiquette and safety. • Use a choice of venues to distribute brochures.
Grade 6	An overview of cyber security issues leads into a focus on: • Vocabulary associated with e-mail use • Attributes of computer viruses • Consequences of malicious behavior involved in online communication Student activities: • Develop a top ten list of e-mail rules. • Create a slogan to reinforce the necessity of proper e-mail etiquette.
Grade 7	An overview of cyber security leads into a focus on the aspects of cyber bullying: • Recognition • Consequences • Techniques to prevent or discourage Student activities: • Participate in a self-esteem activity. • Create a skit or scenario about cyber bullying or computer viruses, which presents a problem and appropriate solution. • Use a choice of media/venue to share information about cyber security.
Grade 8	Overview of cyber security issues, with details on specific threats and consequences of: • Computer viruses • Trojan horses • Worms • Hacking Student activities: • Complete a KEWL chart (KWLS-type). • Complete a topic review crossword puzzle. • Develop a way to share information learned about cyber security.

https://www.isafe.org/imgs/pdf/scope_sequence.pdf

EXAMPLE: NOVATO HIGH SCHOOL

Education Service Newsletter:

In August 2017, the Novato Unified School District launched the One to World Initiative. This one-to-one device program provided every student in the fifth, sixth, and ninth grade with a Chromebook to use in school as well as at home. This is the first of a three-year rollout plan where Chromebooks will be placed in the hands of all 3rd through 12th graders by 2020.

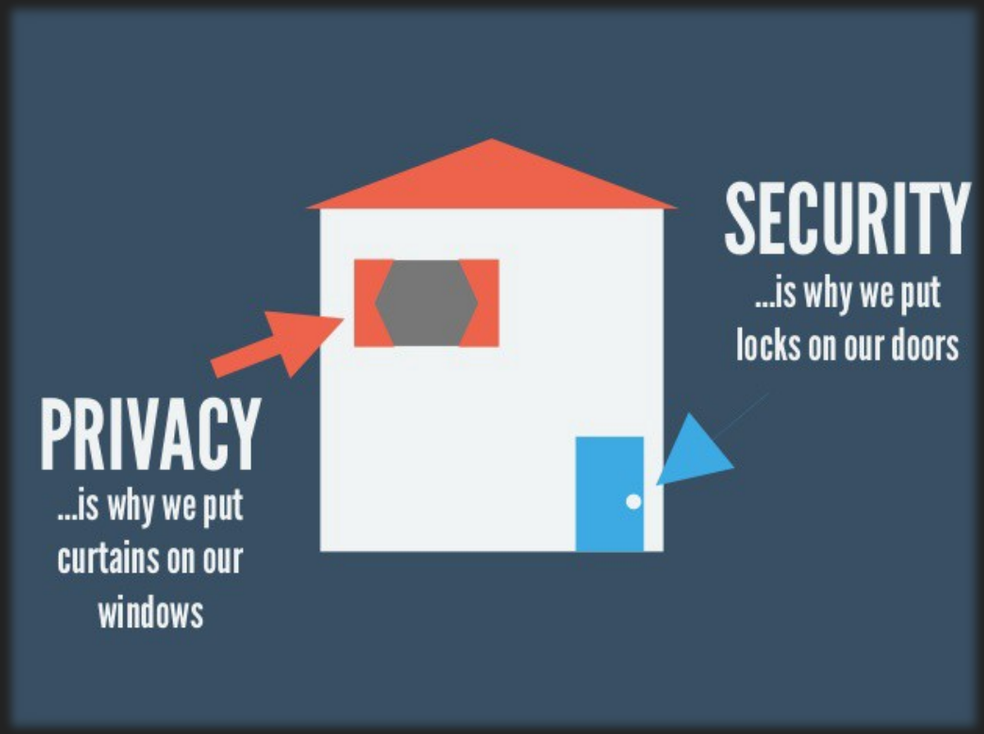
As the Chromebook roll out expands, digital citizenship education has become a priority focus both in our classrooms and our community. NUSD has adopted Common Sense Media's educational curriculum to address online citizenship and safety. These lessons are designed to empower students to think critically, behave safely, and participate responsibly in our digital world. From lesson plans, videos, student interactives, and assessments, to professional learning and family outreach materials, Common Sense Media Curriculum provides a whole-community approach to digital citizenship. (Common Sense, 2018)

In addition to in-class lessons, each monthly Education Services Newsletter will include information to help families and community members support our youth in utilizing technology in a responsible and impactful way. Topics will vary from Privacy and Internet Safety to Screen Time Guidelines. The Common Sense website has a wealth of information and resources for students, educators, guardians, and community members. Click on the video to learn 5 Internet Safety Tips for Kids.

https://novatohigh.nusd.org/news/5-internet-safety-tips-for-kids/

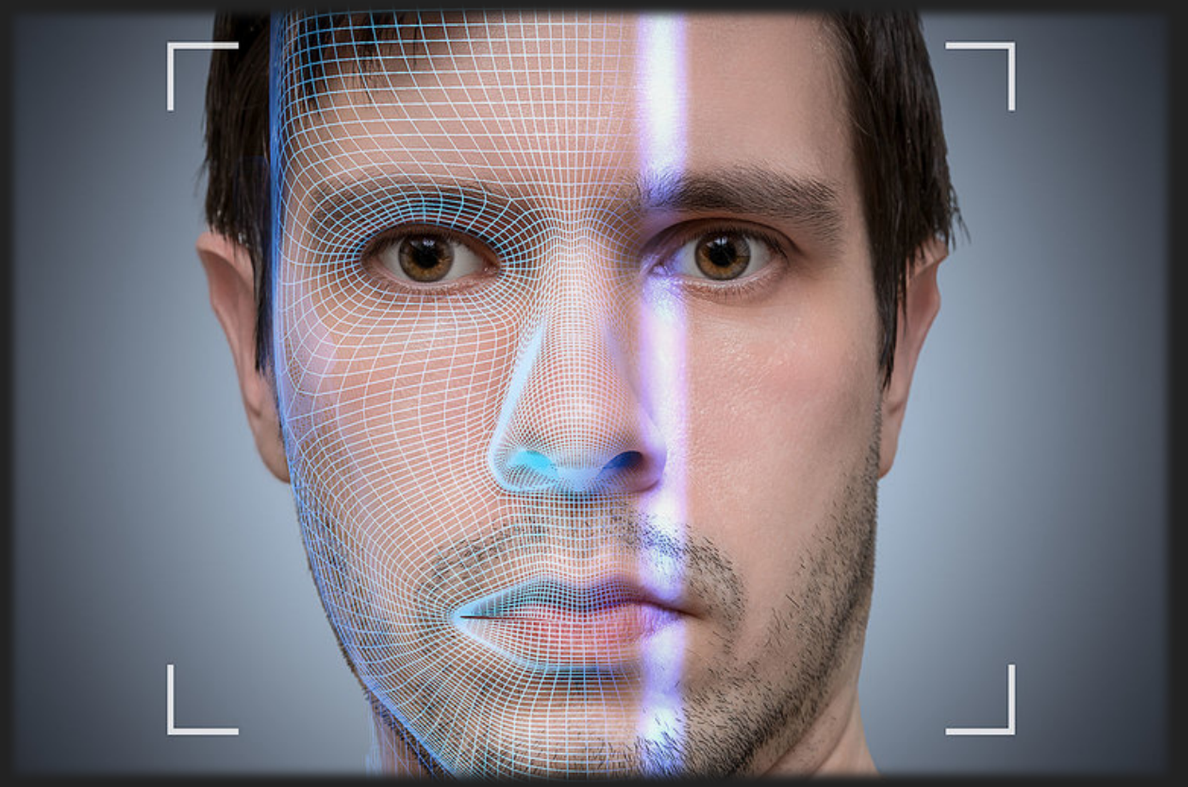
WHAT ELSE CAN WE DO?

- Petition to create and allow Internet Safety/Privacy/Security classes to be taken in place of Cooking/HomeEc/etc.
- Volunteer to teach teachers and share curriculum materials with them because not all are trained in internet safety.
- At universities like USC? Express demand for less-technical Gen Ed. Classes around privacy and security open to all students regardless of major.



AND WHAT ELSE?

- If you have the privilege of knowing, share your knowledge. Teach your friends/family/ teammates, share articles, talk about social impacts relevant to them.
- Look beyond the hype of new technologies (such as facial recognition etc.) and have discussions that encompass both pros and cons



BECAUSE TECH DOESN'T WAIT FOR ANYONE

- Technologies such as VR and AR and robotics and games are becoming more advanced than ever. This will increase the knowledge gap between being a consumer of a product vs. knowing how it works; making users susceptible to harm.
- The definition of 'privacy' in terms of the standards that define it is constantly evolving with technology and the comfort level of users.

END

THANK YOU! IDEAS? QUESTIONS? ALSO, SEE MY REFERENCES BELOW.

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