

# Increasing K-12 Educator Knowledge to Prevent Cyberbullying & Enhance K- 12 Cybersecurity Courses

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# Mother cites bullying for daughter's suicide

Bullying in school played a major part in the suicide of a 13-year-old Stephens City girl earlier this week, her mother said Friday.

By The Northern Virginia Daily May 31, 2012

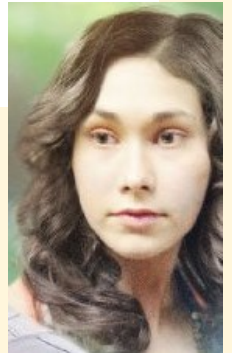
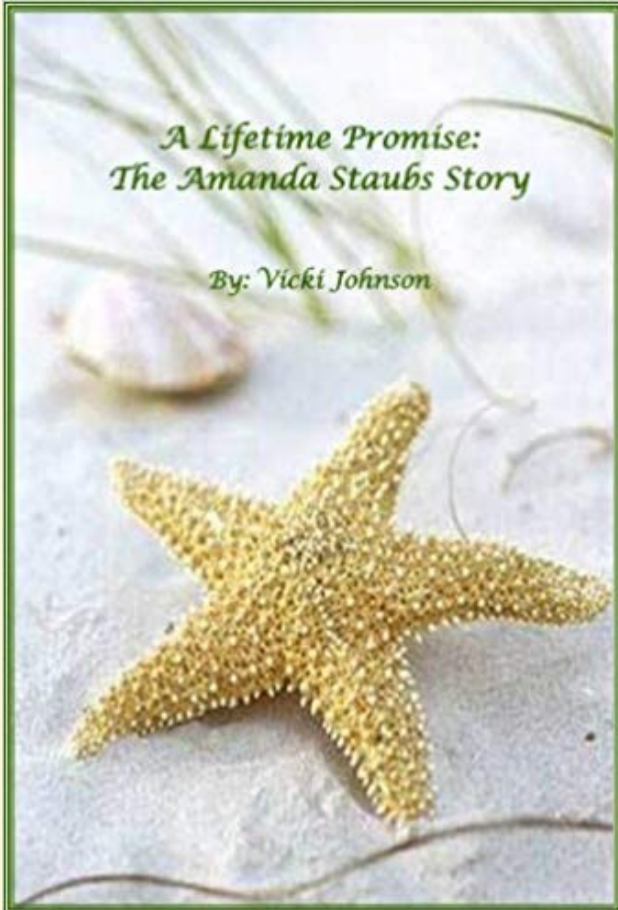
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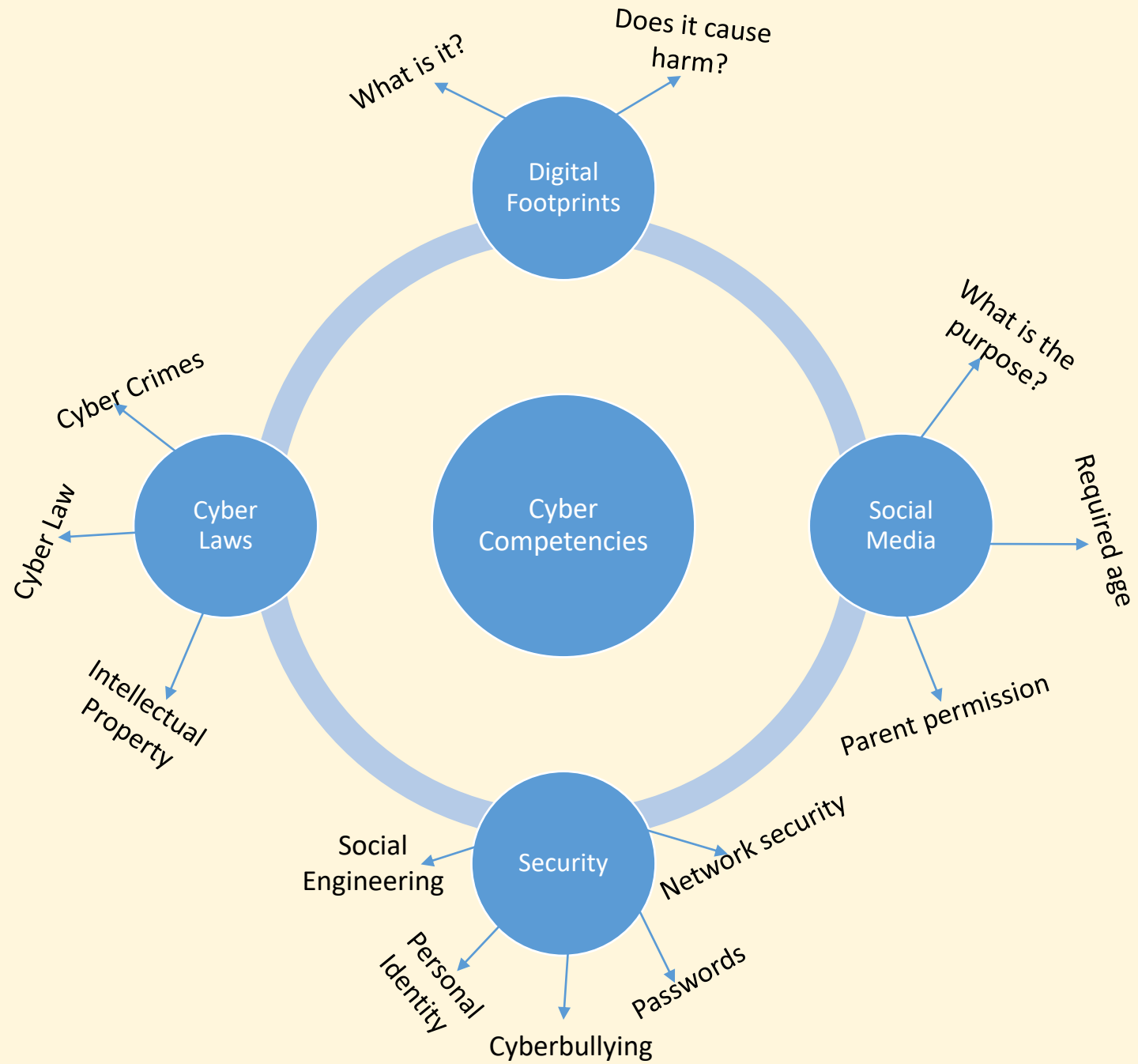
The woman's voice broke as she described her daughter as "very smart, loving, caring, a helper, and a friend."

"Her dad and I are devastated," she added.

The Northern Virginia Daily's policy is not to report on suicides, except when the information is already widely known and likely to be of unusual interest to much of the community.

The girl's mother said it was clear months ago that something was troubling her daughter.







- Born between 1996 and 2010
- Acquiring more than \$44 billion in purchasing power and making up 25.9% of the population, the largest percentage in the U.S. By 2020, this generation will account for one third of the population.
- Has 12 seconds less of the attention span recorded in 2000, coming in at 8 seconds.
- Thinks spatially and in multiple dimensions
- 54% percent are Googling themselves regularly, with 10% self-searching on a daily basis
- 92% of Gen Z has a digital footprint

61%

said secure storage and protection of personal data was important to them

43%

said clear terms and conditions were important

39%

said clearly explaining what data will be collected and for what purpose was important to them



# Digital Footprint Competency

1. Don't be a DIGITAL DUMMY: **Get real! The Web is public and permanent**
2. Don't be a DIGITAL GOSSIP: **Talking about others negatively, makes you look shallow**
3. Don't be DIGITAL WEAK SAUCE: **Don't let friends influence your better judgment**
4. Don't be a DIGITAL DIVA/DIVO: **Inappropriate Screen names/pictures & legal issues**
5. Don't be a DIGITAL DAREDEVIL: **Be carefully about the sites & friends**
6. Don't be a DIGITAL CREEPER: **Be careful what you download, look at, even for a laugh**
7. Don't be a DIGITAL Mean Kid: **Don't hide behind your computer**
8. Don't be a DIGITAL DORK: **Information about you is impossible to remove 100%**
9. Don't be a DIGITAL PRIVACY KIDDIE: **There are always ways to get around privacy settings**



# Social Media Competency

## JoJo Siwa

- Fan base is 4-13 year olds that follow her on Instagram & YouTube
- Turns comments off on Instagram after someone posts a bad comment
- Is promoting 4-13 year olds to use social media during TV interviews

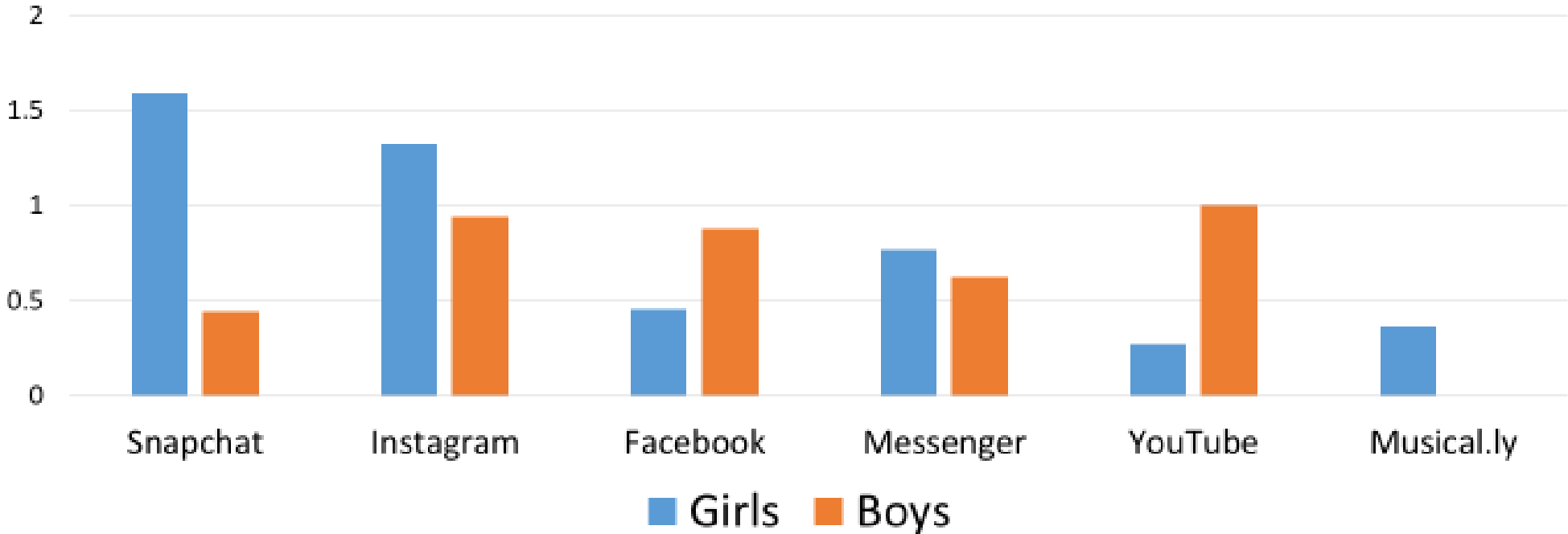


## Blue Whale Challenge

- Challenge that is on YouTube
- Human Trafficking
- Participants have a whale on their wrist
- Last challenge is to either run away or kill yourself

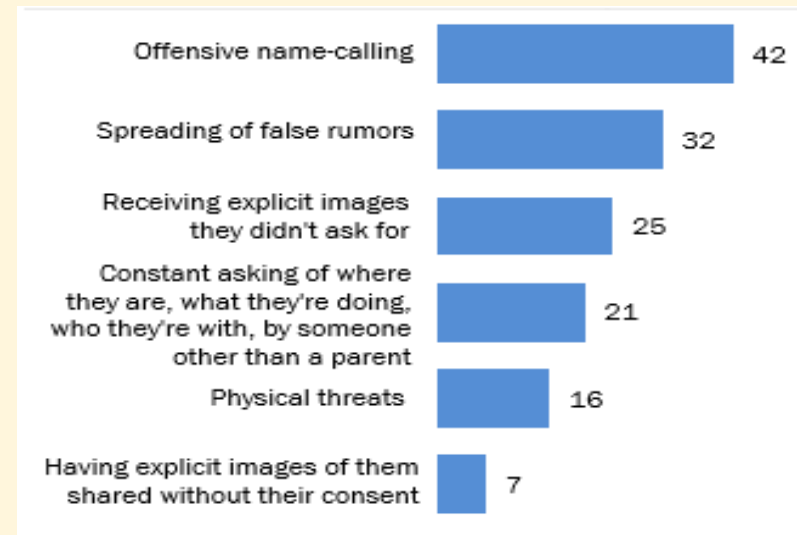
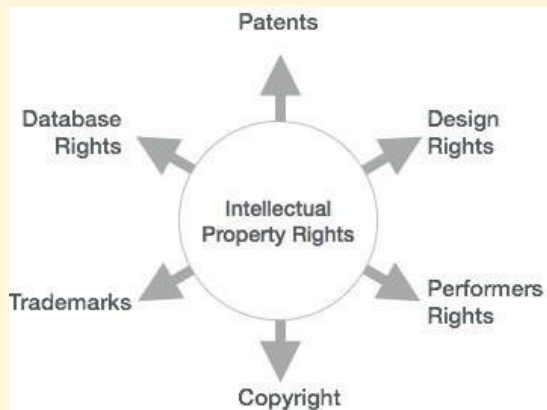


# Scores for Favorite Social Media Apps for Girls/Boys



# Cyber Law Competency

- Intellectual theft is stealing or using without permission someone else's intellectual property
- Intellectual property is protected by patent for inventions, and copyrights on creative pursuits such as music, photo, poems
- The FTC ruled that Facebook, and other social media sites, may now archive 7 years of a person's online activity
- Give examples like their personal games or program code, and how easily it could be stolen by a hacker, who may declare it as their own.
- Cyber law is any law that applies to the Internet and Internet-related technologies.
- Cyber Crime Categories: People, Property, & Government





# Security Competency

## *In the beginning..*

- What is it?
  - K-12 lacks of understanding of the term
- “Cybersecurity” thrust upon the K-12 levels
- K-12 curriculum design did not involve all stakeholders
- Lots of online resources, how to select one
- Promoted “hacking” fun side only
- Uses students to run networks instead of training staff



## *And now..*

- More cognizant to more appropriate resources
  - Virginia Cyber Range
  - NICE K-12 **Cybersecurity** Education Conference
  - K-12 Resource Center
  - CyberSeek
  - CTFs
- Seeking to transition to realistic core cybersecurity concepts (scanning, crypto, linux...) through the use of free resources
- Recognizes the need of Cybersecurity Advisory Groups to assist with curriculum
  - Frederick County Public Schools K-12 Cybersecurity Advisory Committee



# Resolving One Issue Sometimes Creates Another

- Now K-12 has access to resources
  - Exercises followed somewhat robotic but little explanation given
  - Students accept the hands-on method even without the causes or reasoning to do it.
    - Example: Using Wireshark but do not understand what software is really doing.
    - HS Teachers do not appear to understand Wireshark
- Methodology for Improvement
  - Community Colleges have the responsibility to K-12 educator's growth in this discipline.
  - For one example, community colleges can hold two-day camps of training for HS teachers
    - Go over each lab/step in detail to explain the results of the lab to the student
    - Stress that following commands/actions is not sufficient for understanding; teachers must understand thoroughly the material before relaying to student



# GenZ Cyber Solution

## Step 1

- Educators & Staff trained on the cyber competencies
- Educators & Staff trained on identification of cyber distress

## Step 2

- Create Cyber Task Force to integrate grade level cyber competencies
- School systems open to students suggestions

## Step 3

- Presentation to students need to be cross curricular
- Notify Parents of all required Web usage & offline options

## Step 4

- Continuously reevaluate & update cyber plan

# Cyber Resources

- RachelS Online ([rachels.online](http://rachels.online))
- Safe Surfin' Foundation (<http://safesurfin.org/>)
- Bikers Against Child Abuse (<https://bacaworld.org>)
- National CyberWatch Center (<https://www.nationalcyberwatch.org>)
- National Center of Women & IT (<https://www.ncwit.org>)
- Internet Safety 101 Organization (<https://internetsafety101.org>)
- VA Cyber Range (<https://virginiacyberrange.org>)
- StopBullying (<https://stopbullying.gov>)
- NICE (<https://www.k12cybersecurityconference.org/>)
- Girl Scouts USA (<https://www.girlscouts.org/>)
- IBM Cyber Days (<https://www.ibm.com/security/news/cyberday-for-girls>)



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**Gen Z and Millennials Obsessed with Digital Footprint <https://www.cpapracticeadvisor.com/small-business/news/12363404/gen-z-and-millennials-obsessed-with-digital-footprint>**

**Bank of America Trends in Consumer Mobility Report, <https://promo.bankofamerica.com/mobilityreport/>**

**Keeping Generation Z engaged: <https://www.nativex.com/keeping-generation-z-engaged/>**

**Bridging Generation Gaps: <http://www.generations.com/>**

**True Gen: GenZ and companies: <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-gen-generation-z-and-its-implications-for-companies>**

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