

Understanding Digital Leadership Practices for Engaging Girls in Tech

Thank you for joining us. The webinar will begin shortly.

Housekeeping Notes



Experiencing Delays?

Try closing out the other programs running on your computer.



Audio difficulties?

Let us know in the chat so we can help!



Have a question or comment?

Use the group chat to interact with presenters and other participants.

Agenda

1. Housekeeping and introductions
2. Digital leadership and Girl Scouts' new report
3. Promising practices for engaging girls in tech
4. Q & A

Growing interest in teaching computer science

- Cybersecurity
- Priority for this administration
- Growing need for computer science workforce
- Many 21st century skills associated with learning computer science

Afterschool is a great place for computer science

- Encourages trial and error
- Promotes hand-on learning and collaborative projects
- Can be provided without the restraints of the school day
- Increases access to low-income students and students of color
- Provides exposure to mentors and careers

Why girls?

- Many of the same reasons that computer science works in afterschool
 - Safe environment to fail
 - Surrounded by caring adults
 - Access and exposure to mentors and career opportunities
- Goal of expanding computer science to underrepresented populations

Speakers:



Kamla Modi
Senior Researcher
Girl Scouts of the
USA



Chris Neitzey
Director of STEM
Initiatives
Afterschool Alliance



Andrea Henkel
Senior Manager of
Curriculum
Girls Who Code



DECODING THE DIGITAL GIRL:

DEFINING AND SUPPORTING GIRLS' DIGITAL LEADERSHIP

A report by the
Girl Scout Research
Institute

RESEARCH BACKGROUND



- Various studies have looked at *what* kids are doing in the digital space, but our study looks at **how girls are using their digital experiences to improve their lives, their communities, and the world.**
- With a particular lens on **digital leadership**, we sought the meaning of this term, and how girls, boys, and Girl Scouts fare in this measure.

***METHODOLOGY.** The Girl Scout Research Institute conducted a national research study with nearly 2,900 girls and boys ages 5-17, as well as their parents. Girl Scouts (35% of the girl sample, n=323) and non-Girl Scout girls were matched demographically. These samples aligned with U.S. Census data with regard to age, race/ethnicity, geographical region, urbanicity, and household income.*

SNAPSHOT ON GIRLS' DIGITAL USE

- Girls are using smartphones, iPads/tablets, laptops, and gaming devices.
 - **Girls ages 5-17 spend 4 hours/week** on smartphones acquired at age 10 (on average);
- 77% of girls live in homes with some



SNAPSHOT ON GIRLS' DIGITAL ACTIVITY



- Girls engage in a wide range of activities online:
 - Watching videos and movies (84%)
 - Listening to music (77%)
 - Playing games for fun (72%)
 - Looking up and researching topics (62%)
 - Doing homework and using school apps (61%)
 - Taking and editing photos (61%)

Girls are more likely than boys to engage in educational activities online, and boys are more likely than girls to play games for fun.

- 31% of boys game after school for 4+ hours.

DEFINING GIRLS' DIGITAL LEADERSHIP



- **A digital leader seeks to improve their own lives and the world through their digital experiences.**
- She is a problem solver, a critical thinker; she is sure of herself and her ability to learn and grow in the tech space. She is aware of issues that exist in the world and wants to bring people together to help. She is already tapping into her talents, creativity, and innovations online.

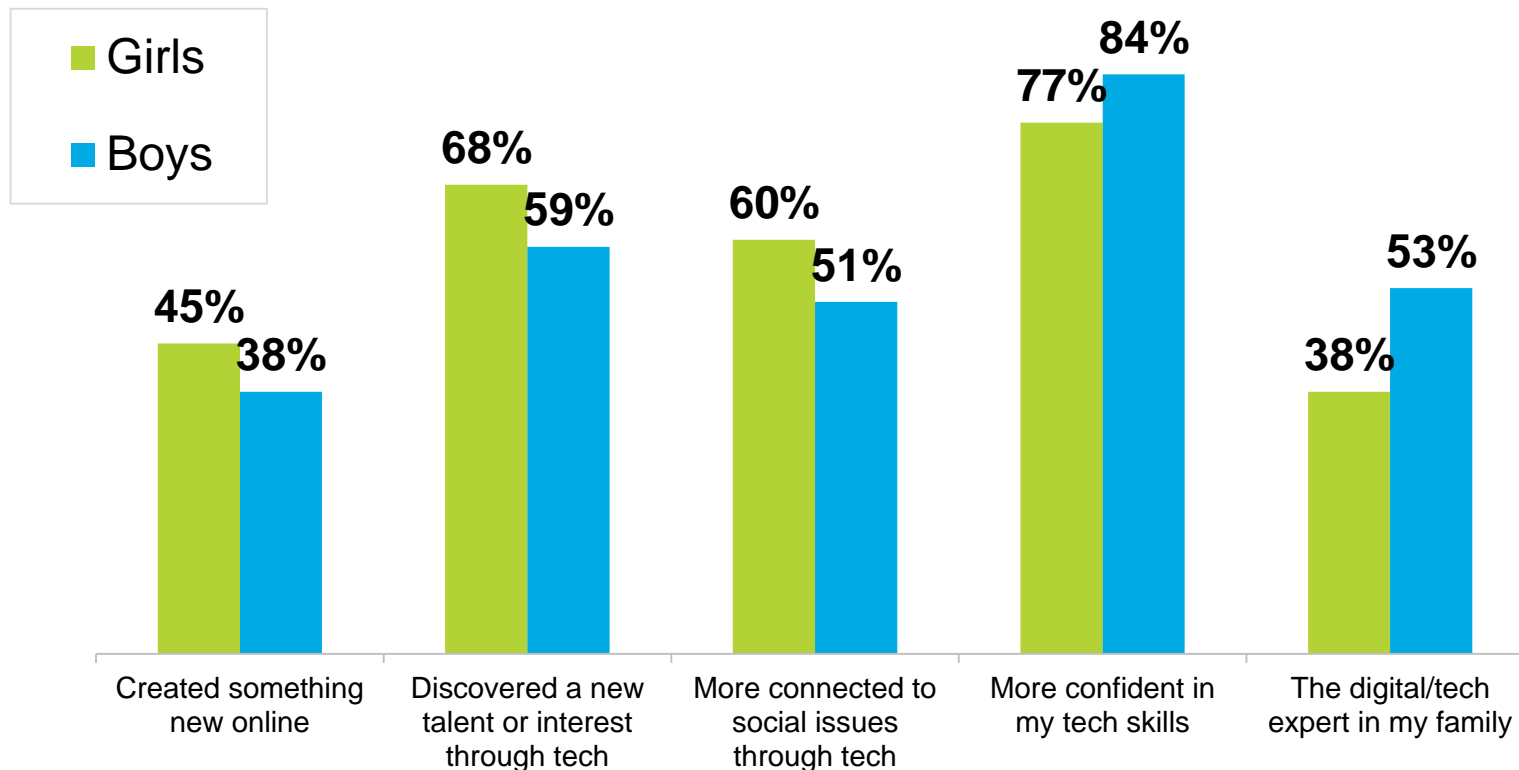
DEFINING DIGITAL LEADERSHIP:

52% of girls and 50% of boys are digital leaders.

Digital leadership survey item	Girls	Boys
I love to learn or try new technology.	85%	88%
I have helped other people (friends, family) use their phone or computer.	77%	79%
I am confident in my tech skills.	77%	84%
When I have a question, I can usually look it up and find the answer online.	76%	81%
I can find reliable information online for school assignments.	59%	60%
I learn more about news/current events and issues in the world [online].*	83%	84%
I have discovered a new talent or interest [by exploring online].*	68%	59%
I am more connected to social issues and causes [because of the internet].*	60%	51%
I have gotten my friends and/or family connected to social issues.*	49%	44%
I have created something new through an app or [online] program.*	45%	38%



GENDER DIFFERENCES IN DIGITAL LEADERSHIP



DIFFERENCES IN DIGITAL LEADERSHIP BY HOUSEHOLD INCOME



Digital Leaders



54%

Higher-income
girls



45%

Lower-income
girls

- Girls in lower-income households are less likely to be digital leaders than their higher-income peers.
- Lower-income girls are less familiar with tech skills, and less likely to be interested in STEM fields (58% vs. 65% of higher-income girls) or a tech career (41% vs. 49% of higher-income girls) in the future.

GIRLS WHO ARE DIGITAL LEADERS HAVE MORE STEM AND TECH CAREER INTEREST.



And this interest can potentially narrow the gender gap in STEM career interest.

STEM Interest

67%
of girl digital leaders

47%
of girl digital non-leaders

70%
of all boys

62%
of all girls



Tech Career Interest

51%
of girl digital leaders

30%
of girl digital non-leaders

69%
of all boys

46%
of all girls



SUPPORTING GIRLS' DIGITAL LEADERSHIP



Girls who are digital leaders have
a lot in common...



They can **regulate their own screen time.**



Their **parents have a positive outlook**
on tech.



Home = **tech-supportive environment.**

TIPS/RECOMMENDATIONS FOR ADULTS



- Emphasize to girls that they have what it takes to lead in the digital space.
- Find out exactly what girls are doing on the internet.
- Teach girls to be skeptical about information they find online.
- Encourage girls to take healthy risks and learn from setbacks in their online activity.
- Give all girls a range of opportunities to explore STEM topics and potential STEM careers throughout childhood and adolescence.



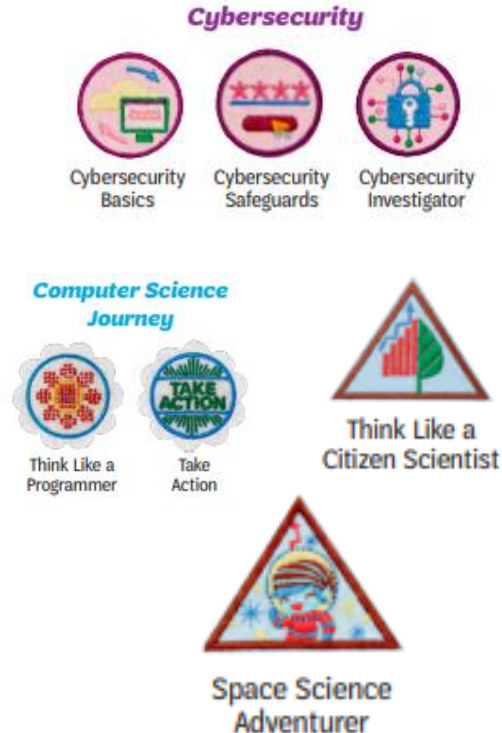
HOW GIRL SCOUTS BUILDS DIGITAL LEADERS



- Out-of-school time activities like Girl Scouts, which cater to girls' specific learning and leadership styles, may reflect the most promising practices for developing more girls who are prepared to lead us into the digital future.
- At Girl Scouts, we offer STEM programming that helps girls become leaders in the digital space. Girl Scouts helps pique girls' interest in tech and develop digital literacy skills by offering programming in web design, robotics, computational thinking, cybersecurity, and engineering.

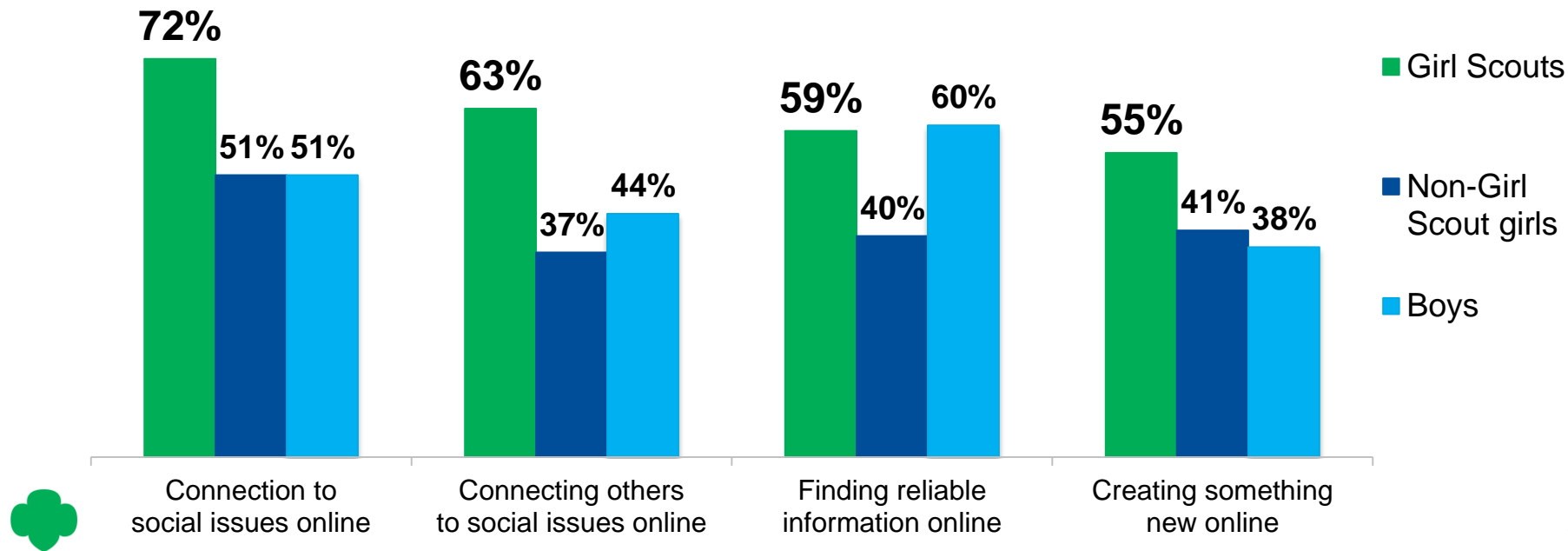
HOW GIRL SCOUTS BUILDS DIGITAL LEADERS THROUGH STEM PROGRAMMING

- Examples of Girl Scout STEM Programming that helps build digital leaders:
 - Palo Alto Networks cybersecurity badges
 - Raytheon Think Like a Programmer Journey
 - NASA/SETI Space Science badges
 - SciStarter Think Like a Citizen Scientist Journey



GIRL SCOUTS ARE MORE LIKELY TO BE DIGITAL LEADERS.

64% of Girl Scouts are digital leaders (vs. 50% of boys and 43% of non-Girl Scout girls), and are particularly strong in the following areas of digital leadership:



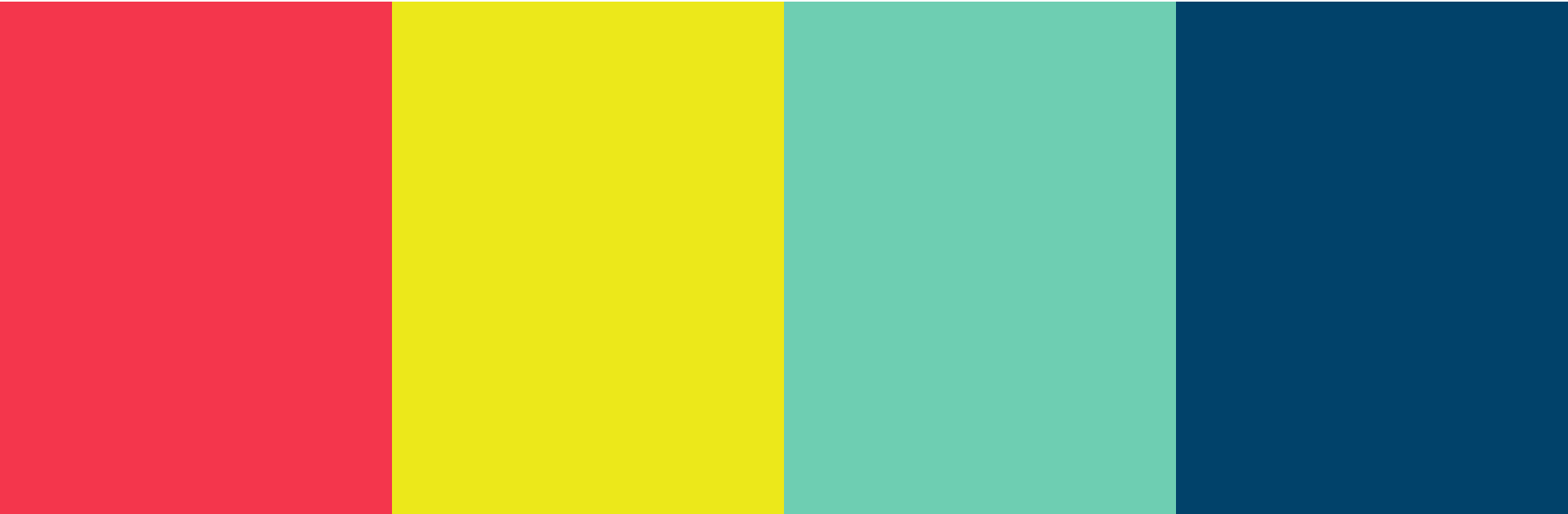
CONCLUSIONS



- In the digital space, **girls are our world's current and future innovators, designers, advocates, and community connectors.**
- With the right access, adult support, and awareness of opportunities in the digital space, **all girls can become digital leaders.**



Program and Pedagogy Overview



OUR REACH



200,000+ students served by
Spring 2019

OUR PROGRAMS



Clubs (3-5)

Clubs (6-12)



SIP

**College
Loops**



OUR APPROACH

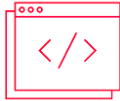
**Build girls' identities as computer
scientists**



EDUCATIONAL PHILOSOPHY



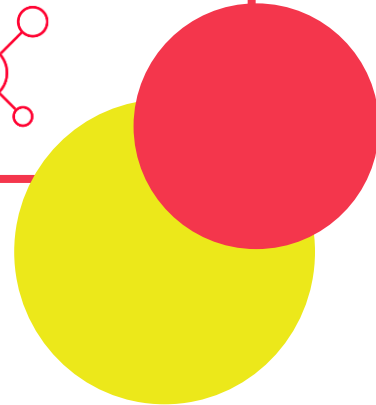
**MORE THAN
CODE**



IMPACT



SISTERHOOD



ESSENTIAL QUESTIONS

More than Code:

- What do I become my best computer science self?
- What is CS and what are its limits?

Sisterhood:

- What does it mean for me to be a Girl Who Codes?
- Why is it important to have women in tech? What can we learn from them?

Impact:

- Why learn CS?
- What is the effect of CS on society at large?

LEARNER PROFILES

Learner Profiles

- Research has shown us that equipping girls with **character traits** necessary to persist and emphasizing **key underpinnings of CS** can help us build a pipeline of powerful female engineers.



LEARNER PROFILE: 3-5 Clubs / 6-12 Clubs



Bravery

Be bold and take risks.



Resilience

Learn from setbacks and keep trying.



Purpose

Know your passions and your impact.



Creativity

Seek new ideas and create new solutions.



LEARNER PROFILE: Summer Immersion



Brave and Resilient



Socially Just



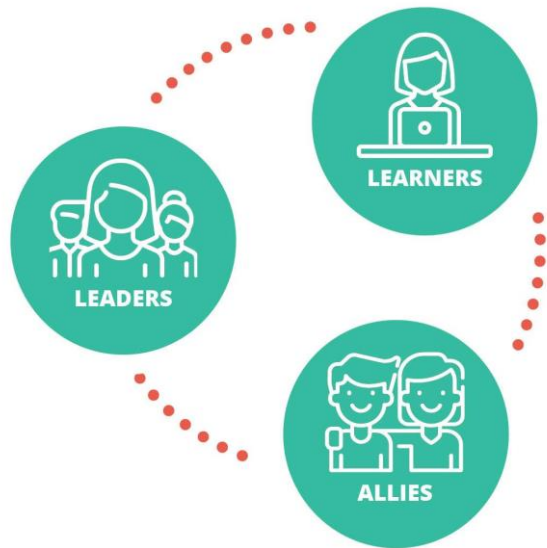
**Emotionally
Intelligent**



**Intellectually
Curious**



LEARNER PROFILE: College Loops



Q & A