Microsoft Research Faculty Summit 2014

15TH ANNUAL

Microsoft Research
Faculty Summit
2014 15TH ANNUAL

Big Dream: Campaign to Unite & Grow More Women in Computing

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Agenda

Topic	Speaker
Introduction	Rane Johnson, Microsoft Research
Setting the context	Jennifer Breslin, UN Women
What is the Big Dream Campaign?	Rane Johnson, Microsoft Research
Goals of the Documentary & view glimpse into the movie	Kelly Cox, Iron Way Films
Collaborating for the Big Dream: *Resources and Connections from the National Girls Collaborative Project*	Karen Peterson, NGCP
How You Can Help with support from National Center for Women in Technology	Lucy Sanders, NCWIT
Conclusion & Open for Q & A	Rane Johnson, Microsoft Research

ICTs for Women

Opportunity

:: Enablers in all areas of development, women's lives & exercising rights
:: General channels for engagement, mobilization, amplification of voice
:: Access to knowledge and exposure to broader horizons
:: Citizenship, access to services and accountability of government
:: Socio-economic development and innovation

Challenge

:: Deliberate attention to and investment in girls and women
:: Access, capacities and quality of engagement
:: Availability of relevant content and applications
:: Online threats
:: Data and impact

Women in ICTs and STEM

Opportunity

:: Influence a critical sector

:: Growing and comparatively well paid
:: Convergence with all areas of life
:: Women benefit from economic opportunity and we benefit from their talent

Challenge

:: Women are under-represented with ICT, STEM
:: Young women are not in the pipeline
:: Stereotypes and biases against girls and women in STEM

UN Women's Work

Programmes and Policy

:: Global and national policy frameworks
:: Education, economic and political empowerment
:: Digital literacy and women's ICT skills

With Microsoft

:: Safe Cities
:: Knowledge Gateway for Women's Economic Empowerment
:: Broadband Commission Gender Working Group
:: International Women's Hackathon

Big Dream

:: Girls inspired, connected and at the forefront

1.4 MILLION
COMPUTING JOBS WILL OPEN IN THE U.S. BETWEEN 2008-2018

LESS THAN **27%**
OF WOMEN FINISH MASTERS OR PHD DEGREES

46%
OF AP TEST TAKERS ARE GIRLS

ONLY **19%**
TAKE CS AP

40%
HIGHER CITATIONS FOR PATENTS WITH **WOMEN** CO-INVENTORS, VS. THOSE WITH MEN-ONLY INVENTORS

57% BACHELOR'S DEGREES

ONLY **18%**
OF UNDERGRADUATE COMPUTING AND INFORMATION SCIENCES DEGREES ARE AWARDED TO **WOMEN**

27%
OBTAIN ASSOCIATES DEGREE IN CS DOWN FROM **48%** in 1997

34%
HIGHER RETURN ON INVESTMENT WHEN **WOMEN** ARE IN **LEADERSHIP POSITIONS**

Need to Change the Message

My parents always asks my brother's help for technology issues, obviously I am not supposed to be good at technology…

My parents restrict my time on the computer and think only my brother likes to play games but so do I…

My daughter is very creative and collaborative she is not a science or tech type…

My parents don't like math and sciences and encourage me more in arts & humanities even though I like science..

Our Opportunity

- We need more girls interested in becoming the producers of technology- especially computer science, electrical engineering & information sciences.
- Research has shown diversity drives innovation. Currently, we do not have diverse development teams creating tomorrows innovations. We are missing the mark in true innovation!
- There are many amazing NGOs, corporations and academic institutions doing similar work that are also not widely known or reaching all these young women.
- Current outreach lacks coordinated effort & targeted-audience specific content that creates an emotional connection to young girls. Many of them don't know & don't understand the opportunity
- Much of the information doesn't reach worldwide or connects to the needs of the various cultures to empower women's economic development through careers in technology.
- If we can connect everyone's work, free tools and programs, tools and programs that may cost money, in person and virtual opportunities we can then create the momentum to excite millions of girls around the world and empower them with the resources to become amazing innovators!

What is Big Dream Movement

- Anchored by a film
- Free screenings with toolkit to ensure grassroots, local connections
- Share local opportunities to parents, teachers, counselors and girls
- Share research and resources

Movement Leadership Team

To ensure we connect all the necessary resources, get the amazing stories and individuals making a difference and ensure we are sending the right message the following is the Big Dream Movement Leadership Committee:

- Jennifer Breslin, UN Women
- Ana Santos, EU Commission
- Gary Fowler, ITU
- Saniye Guler Corat, UNESCO
- Julie Wolf, UNICEF
- Lucy Sanders, NCWIT
- Catherine Didion, NAE
- Telle Whitney, ABI
- Kimberly Brant, Black Girls Who Code
- Janice Cuny, National Science Foundation
- Karen Peterson, NGCP
- Kristen Grennan, Global Girls Scouts
- Valeria Barr, ACM-W
- Erik Russell, CRA-W

Big Dream Film

Behind the Film

- ## Who is Iron Way?

Since 2006 we've developed infotainment-focused storytelling for brands working in the science, technology, environment, and lifestyle markets: The Walt Disney Company, National Academy of Engineers, PBS, Cisco, NRDC, QVC, US Open, and many more.

- ## Why the Film?

The data has been in- and everyone in the STEM world is talking about the issue.

--But we aren't capturing the stories and mindsets of the girls

Goals & What you can do

- ## Goals in Distribution
  Accessing our partner networks and key screening opportunities

- ## Connecting with the audience
  Host screenings that will help get the film- and the vast amount of resources- to the girls.

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Collaborating for the Big Dream: *Resources and Connections from the National Girls Collaborative Project*

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What is the National Girls Collaborative Project?

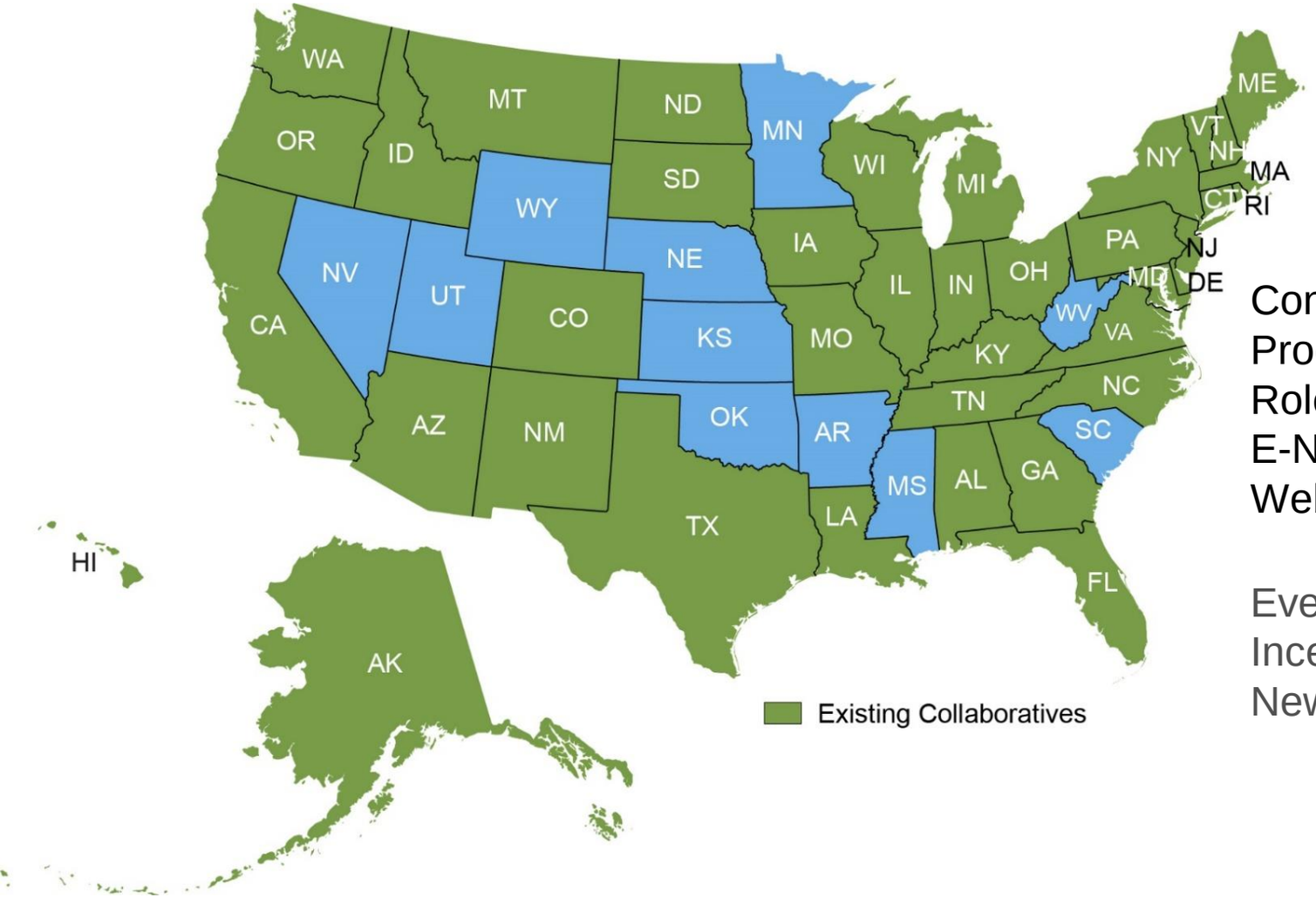
NGCP brings together organizations in the United States committed to informing and encouraging girls to pursue careers in science, technology, engineering, mathematics and computer science.

More than18,000 programs are part of the NGCP network serving more than 8 million girls (and 4 million boys!).

Project Goals

- **Maximize** access to shared resources
- **Strengthen** capacity of existing projects
- **Collaborate** to create the tipping point for gender equity in STEM

Collaborative Networks and Activities



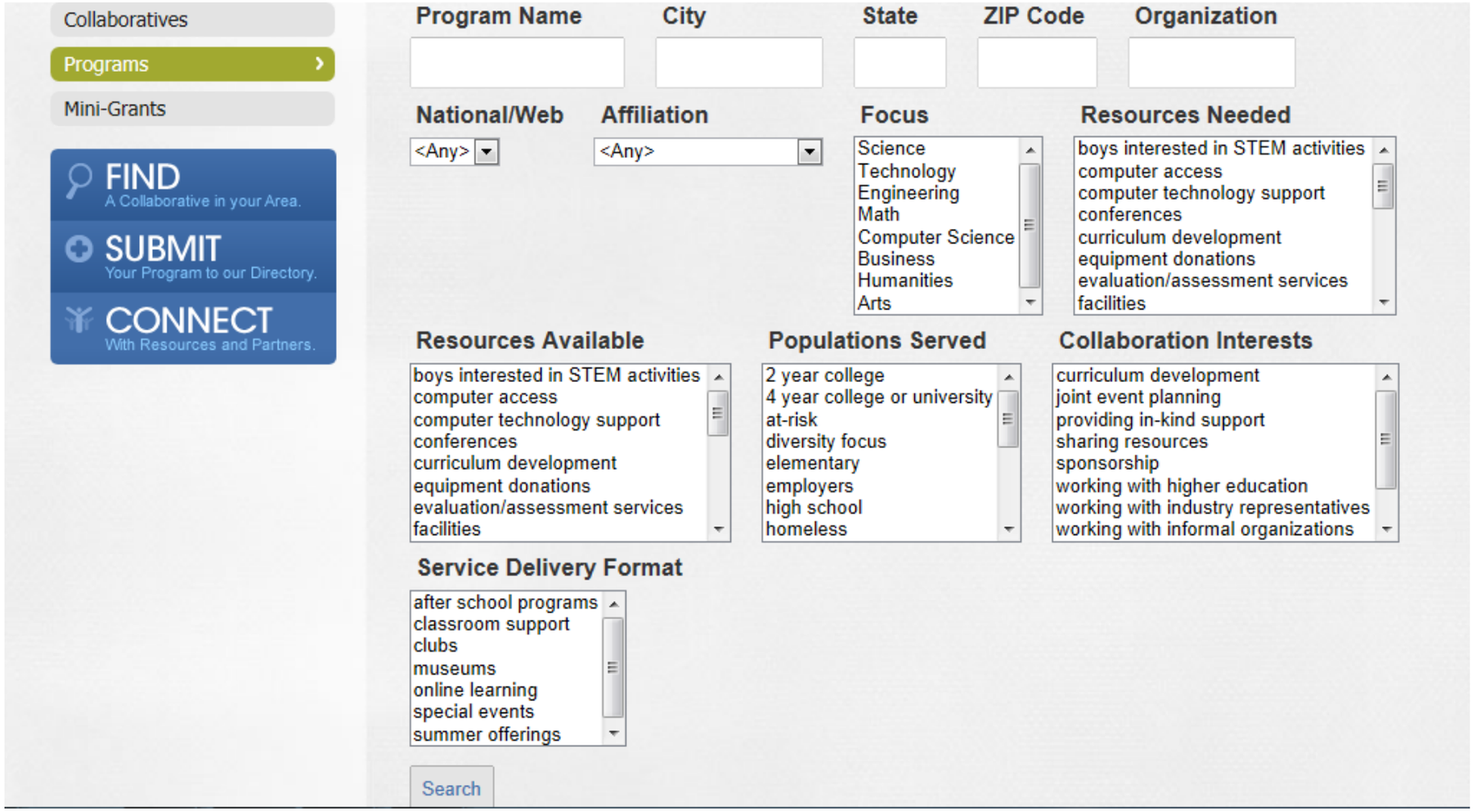
Virtually

Content Rich Website
Program Directory – *Online Collaboration Tool*
Role Model Directories
E-Newsletter
Webinars

State Collaborative Networks

Events: Conferences and Forums
Incentives to Collaborate: Mini-Grants
Newsletters and Local Resources

NGCP Program Directory



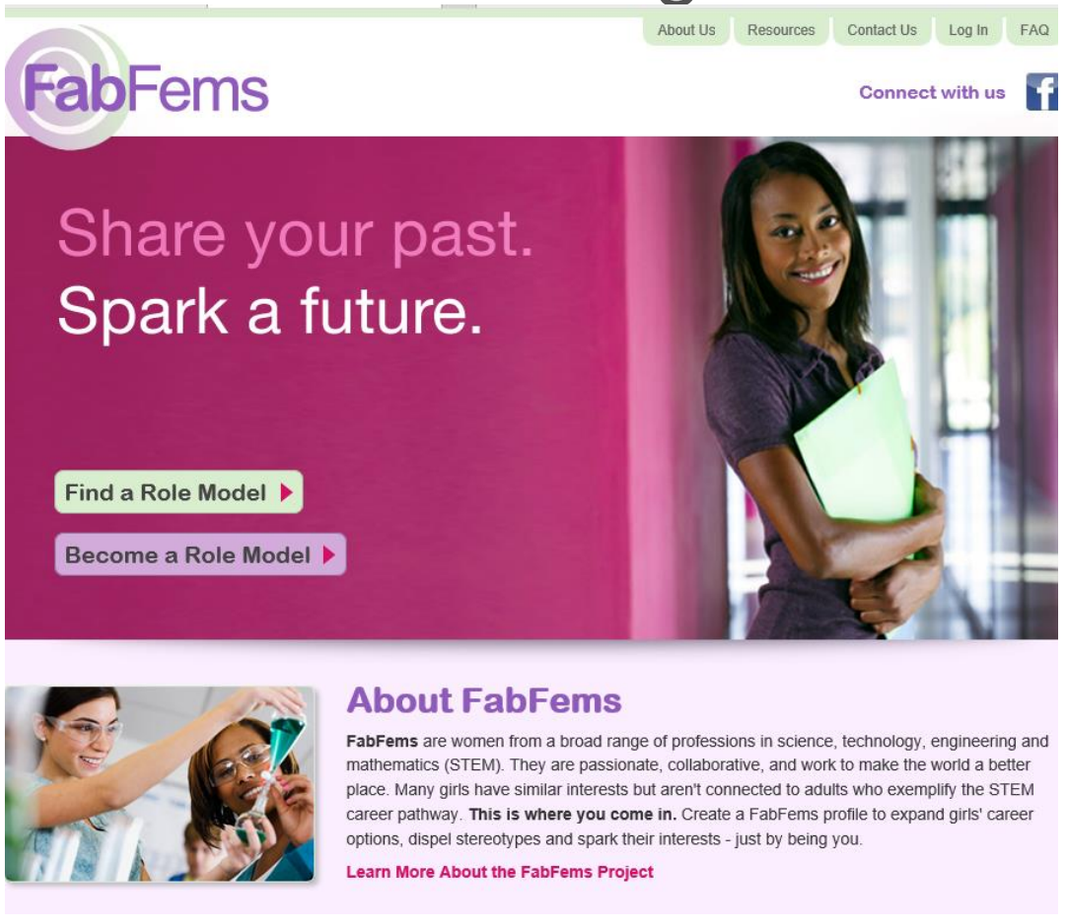
FabFems

FabFems is an online, searchable directory of female STEM professionals interested in outreach to girls

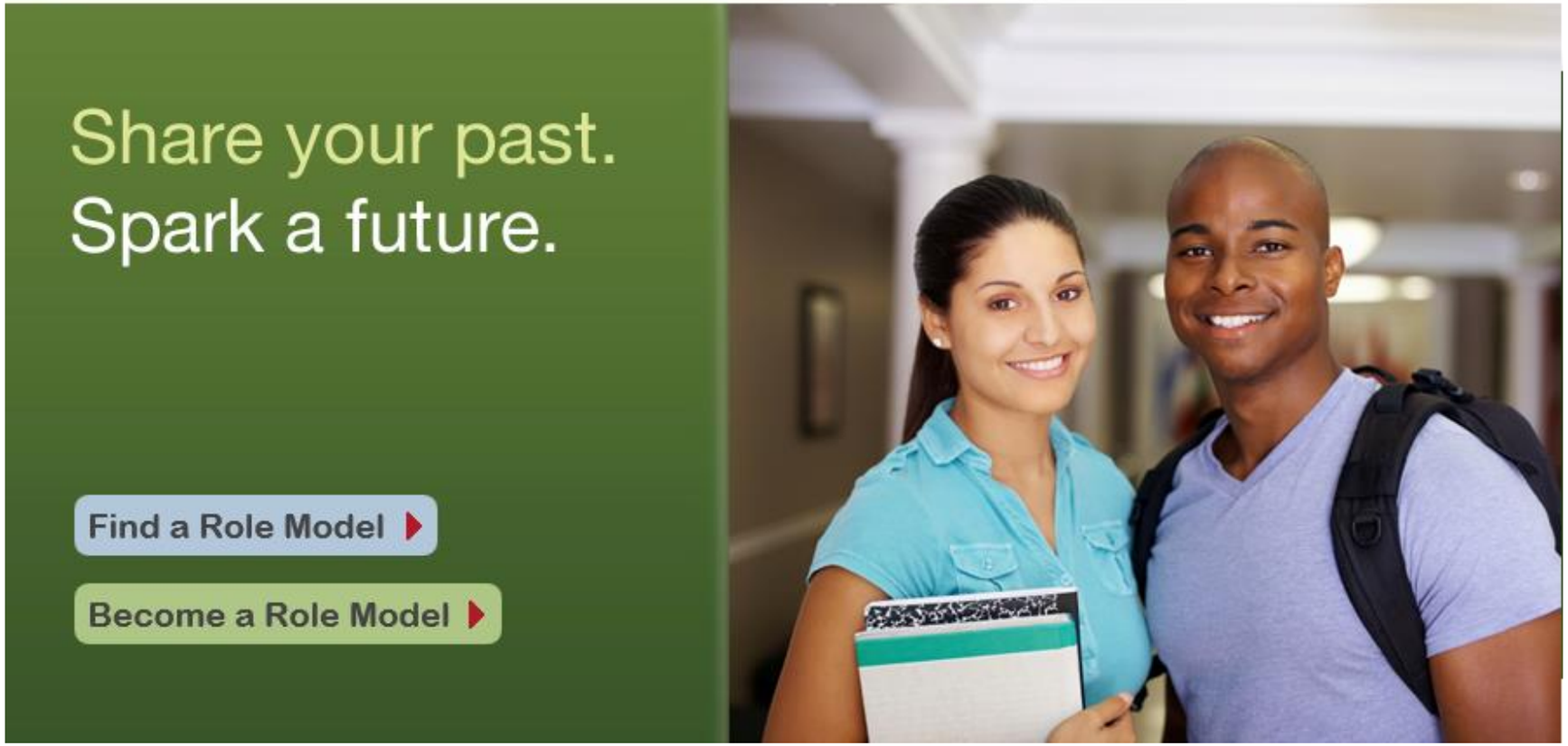
Audience:

- Role Models
- Girl-Serving Programs
- Parents and Girls

www.fabfems.org



National Role Model Directory



Online, searchable directory of STEM professionals interested in outreach to girls

www.stemrolemodels.org

Targeted Big Dream Activities

- Leveraging
- Local Events
- Training
- Awareness and Advocacy

How Can You Benefit from NGCP?

and activities building upon the Big

growing and becoming a global
015
M Role Models Database

hived and Live

Thank You!

Karen Peterson
Principal Investigator
kpeterson@edlabgroup.org
www.ngcproject.org

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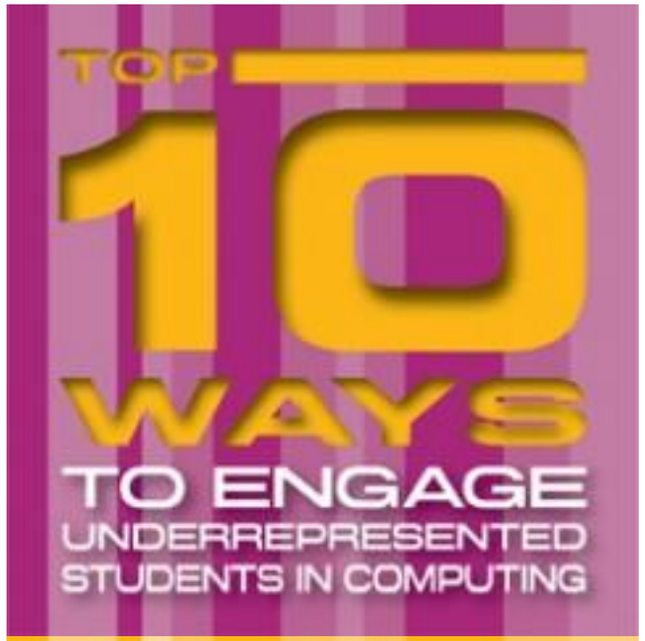
How You Can Help
Lucy Sanders - NCWIT

Microsoft

Never Underestimate the Simple Act of Sincere Encouragement


TOP
10
WAYS
TO ENGAGE
UNDERREPRESENTED
STUDENTS IN COMPUTING

TOP
10
WAYS
OF RECRUITING HIGH SCHOOL
WOMEN INTO YOUR
COMPUTING CLASSES

TOP
10
WAYS
TO INCREASE GIRLS'
PARTICIPATION IN
COMPUTING COMPETITIONS

NCWIT Tips
8 Ways to Give Students More Effective
Feedback Using a Growth Mindset

REGIONAL CELEBRATIONS-IN-A-BOX:
CONNECTING COMMUNITIES OF TECHNICAL WOMEN
www.ncwit.org/rcwicbox
acm-w

E-TEXTILES-IN-A-BOX
WWW.NCWIT.ORG/ETEXTILES
MIT

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Seed Fund Award
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Microsoft
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Advocacy From Both Women & Men Especially Helpful

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Q & A

Rane Johnson
MSR

Jennifer Breslin
UN Women

Kelly Cox
Iron Way Films

Karen Peterson
NGCP

Lucy Sanders
NCWIT

Microsoft

Save the planet and return
your name badge before you
leave (on Tuesday)

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