Promoting IT Careers

2015 FALL WORKSHOPS

DR. MICHELE SEIBERT, DIRECTOR, VIRGINIA CAREER VIEW
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2015 Fall Workshops

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- Who do you want to participate?
- How can you appeal to those students?
- How can you get parents and/or teachers/admin involved?
- How can you involve the community?
- What makes IT interesting?
- How does a student’s idea of information technology look?
- What can you do to enhance that idea?
- How can you make Information Technology seem fun and interactive?
By the Numbers

**Women and Information Technology**

- **57** Percent of professional occupations in the 2013 U.S. workforce held by women
- **26** Percent of professional computing occupations in the 2013 U.S. workforce held by women
- **24** Percent of Chief Information Officer (CIO) positions at Fortune 500 companies held by women in 2012

1.2 million

- **56** Percent of Advanced Placement (AP) test-takers in 2013 who were female
- **46** Percent of AP Calculus test-takers in 2013 who were female
- **19** Percent of AP Computer Science test-takers in 2013 who were female

**Percent of 2013 Intel Science and Engineering Fair (ISEF) finalists in Biochemistry who were female**

- **63**

**Percent of 2013 ISEF finalists in Mathematics who were female**

- **25**

**Percent of 2013 ISEF finalists in Computer Science who were female**

- **14**

**Percent of 2012 undergraduate degree recipients who were women**

- **57**

**Percent of 2012 Computer and Information Sciences undergraduate degree recipients who were women**

- **18**

**Percent of 2012 Computer Science undergraduate degree recipients at major research universities who were women**

- **12**

**Percent of 1985 Computer Science undergraduate degree recipients who were women**

- **37**

**Percent decline in the number of first-year undergraduate women interested in majoring in Computer Science between 2000 and 2012**

- **64**

**Percent of computing workforce who were women in 2013**

- **26**

**Percent of computing workforce who were African-American women in 2013**

- **3**

**Percent of computing workforce who were Asian women in 2013**

- **5**

**Percent of computing workforce who were Hispanic women in 2013**

- **2**

Promoting Girls in IT

GETTING GIRLS INTERESTED

Dr. Michele Seibert, Director, Virginia Career VIEW
Physical Space Design

National Center for Women & Information Technology: Promising Practices
Physical Space Design

- Plants
- Windows
- Art Work
- Colors
- Carpet
- Bean Bags
IcE Breaker Activity
with I T Activities

Powerpoint from Girlstart
ICE Breaker STEM Activities
STEM Resources
STEM Websites
Design Processes
Encourages Interaction
Easy to implement
MakeHers: Engaging Girls and Women in Technology through Making, Creating, and Inventing
THE Maker Movement

Using 3-D Printers
A key tool for women: Women in all countries surveyed were more likely to use 3-D printers than men (refer to Top 10 jobs in 3D Printing)

Social Service
Helping or giving while making things! Health apps, education apps, art apps.
How Kenya’s Mobile Apps are Changing the Face of Africa.
MedAfrica App, Study Apps, Mosquito Repellant apps

Identify with Arts and Creativity
Use tech tools to create Art, Music, Storytelling, design jewelry, etc. E-textiles: Lilypad Arduino,
Textiles and Girls in STEM
Scratch program
A **FREE** summer camp from Google and Make: for building, tinkering and exploring. Online and in your neighborhood!

Email parents about the Maker Camps

Virtual Summer Camp with Virtual Field Trips, sharing maker projects, and more!

Host a Maker Camp with free materials by becoming an affiliate.
E-Textiles in a Box

☼ Tutorial for adults
☼ Teaches young people about electronics and computing
☼ Click here.
Inform Parents & Family Members

- Send or post the laminated sheet: Intersecting Pathways to a Computing Career
- Send the infographic: By the Numbers: Women and Information Technology
- 3 pathways are defined
  - Military
  - University
  - Community College
Equip Counselors and Teachers

- Counselor Lesson Plan: Introduce Students to Computer Science in an Engaging Way
  - Includes Powerpoint slides
  - Script
  - Preparation Materials

- Encourage teachers to use Glogster for Projects or other alternative ways of writing reports, making posters, and projects.

- Refer to your electronic toolbox for Glogster Information
- Explore Engineering
- Glog Career Research Assignment
Connect the Community

- Refer to: Regional Celebrations in a Box: Connecting Communities of Technical Women
  - Small Conferences in the community
  - Compilation of materials and practices
  - Promotes role modeling

- Involve parents and community members
- Community college IT programs
- 4 Year IT students, faculty, and staff
Reach out with.. Outreach in a Box

- Refer to Outreach in a Box: Discovering IT
- Easy activities
- Geared for younger students
- Included Linechaserz car approximately $8-10
- Invite other students to participate in the Discovering IT outreach
- Promotes working with younger students
- Helping others
- Teaching Role
Makey Makey: See the [video](#)
Refer to “[Getting Started with Makey Makey: Set up and Project Guides](#)”
Career Information
www.vacareerview.org

- Virginia Career VIEW’s Career Search
  - Search over 900 Careers
  - Skill Search
  - Detailed information
  - www.vacareerview.org

- Virginia Career VIEW’s School Search
  - National School Search
    - 2 year
    - 4 year
    - Career Programs
Taking a look at the Electronic Toolkit

Located under Workshop Materials