Welcome to the Girls RISEnet monthly newsletter, bringing you information on RISEnet resources, and our community to advance your work in creating girl-friendly science and engineering learning environments.

Introduction

December 9-15th is Computer Science Education Week, and we hope you will consider sponsoring an Hour of Code at your organization.

Whether it’s connecting with friends, creating digital art, or exploring our world, technology is a big part of our lives. However, only 12% of computer science degrees are awarded to women! As educators, it’s important to get girls to be creators of technology, not just consumers of technology. So plug in and get your tech on! In this newsletter, there are many helpful resources to do just that.

Speaking of getting girls involved in coding, our congratulations to Kimberly Bryant, the founder of Black Girls Code, for receiving the White House Champion of Change for Tech Inclusion award in August 2013! Kimberly was a guest speaker at the Girls RISEnet National Institute 2013, and a Girls RISEnet minigrant recipient in 2012. The minigrant funded “It’s All About Robotics” which was Black Girls Code’s first summer camp.

“One of the things that really benefited us in 2012 was the ability to receive a RISEnet grant. And that was what really fueled our summer program, our very first summer camp, that we held in San Francisco. And now that has become one of our major and flagship programs.”

-Kimberly Bryant, speaking at the Girls RISEnet National Institute 2013

The toy industry has finally realized that girls like building too! Goldieblox is a new toy on the market invented by CEO Debbie Sterling, an engineering graduate from Stanford University, and she sure knows how to get young girls excited about engineering!

Upcoming Girls RISEnet events

Encouraging Girls as Makers
Date: 12/07/2013
Organization: Maryland Science Center

Engaging Girls in Science and Technology
Date: 12/07/2013
Organization: Maryland Science Center
Designing STEM Programs that Engage Girls
Date: 01/17/2014
Organization: NYSci

Collaborations - Fulfilling the Needs of Our Diverse Community
Date: 02/20/2014
Organization: Kentucky Science Center

Visit our showcase to learn more about recent Girls RISEnet activities

Girls RISEnet and White House Champions of Change

Girls RISEnet National Institute 2013
Date: 10/22-24/2013
Organization: Girls RISEnet National Network

Girls Day
Date: 11/9/2013
Organization: MIT Museum

Explore the latest resources and research on engaging girls in STEM learning

What Parents Want: Educational Preferences and Trade-Offs
By: The Thomas B. Fordham Institute

Inspiring IDEAs for Girls
By: MIT Women’s Initiative

Is There a STEM Workforce Shortage?
By: Katie Kirkpatrick

Integrating Programming with Core Curriculum
By: Jennifer Roland

4 Effects of K-12 Coding Programs for Higher Ed
By: Jennifer Roland

Comparing the Mobile Novice Programming Environments: App Inventor for Android vs. GameSalad
By: Krishnendu Roy et al

Who Earns Bachelor’s Degrees in Science and Engineering?
By: The National Science Foundation (NSF)

Find new engineering activities to use with girls

Want to teach coding and don’t know where to start? The Scheller Teacher Education Program of MIT has designed five hands-on interactive activities that will explain the step-by-step planning method used in computer programming. There are also useful lesson plans and resources on egfi (Engineering, Go For It!), a website provided by the American Society for Engineering Education. Get started today!
If you want to transform girls from users to creators of technology, developing an app is a great way. There are two user-friendly programs so girls can quickly get started: App Inventor for Android phones developed by MIT, and GameSalad for iPhones, Androids, iPad, Nook, Kindle, and desktop computers created by independent developers. Imagination is the limit!

Java is a useful computer programming language used to transform simple websites into sophisticated sources of information. University of California, San Diego has created a free game that teaches users how to use Java. In CodeSpells the user wakes up in a strange world and has to use magic, ie Java, to navigate! The game was tested on 40 girls who demonstrated that the game taught them the basics of Java.