

# Computational thinking, technological fluency, computational literacy, and 21<sup>st</sup> century skills: A Research-Evaluation working group conversation

Wednesday, December 3, 2014

Hosted by:

STEM Learning & Research Center  
(STELAR)

Education Development Center, Inc.

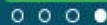


RECENT WEBINAR

## STELAR WEBINAR: ITEST SOLICITATION INFORMATION

Learn about the current ITEST grant program from an NSF Program Officer.

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*Helping prepare a diverse, skilled, and innovative STEM workforce.*

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## Upcoming Opportunities

**People Connector Directory for ITEST Proposals**

*Due by Thursday, November 6, 2014 | [READ MORE »](#)*

**CADRE Webinar: Common Guidelines for Ed Research & Development**

*Due by Monday, September 29, 2014 | [READ MORE »](#)*

**Innovations: Call for Presenters**

*Due by Friday, September 26, 2014 | [READ MORE »](#)*

## STELAR Newsletter

News from ITEST, current events, and more.

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# Announcements

Welcome to your STELAR Dashboard! From here you can add content to your project or personal profile, join STELAR Working Groups, or suggest content to be added to the site.

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### STEM Learning and Research (STELAR) Center

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## Working Groups

### Groups to Join

Outreach and Dissemination

### My Groups

Research-Evaluation

Data & Impact

[Sign Up »](#)

## My Events

Computational thinking, technological fluency, computational literacy, and 21st century skills: A Research Evaluation working group conversation

Wednesday, December 3, 2014 - 2:00pm to 3:00pm

[Cancel Registration](#)



## Research-Evaluation



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A new page has been created for this group.

[GO TO WORKING GROUP PAGE](#)

**Group Members:** Carrie Parker, Kate Goddard, Gloria Banuelos, Sukey Blanc, Becca Schillaci, Neal Pollock, Christine Lee, Brian Johnson, Sarah Stewart, Kevin Glass, Bernadette Sibuma, Sarita Pillai, Leslie Herrenkohl, Ginger Fitzhugh, Rhonda Christensen, Katie Andersen, Karen Peterman, Karen Gareis, Amy Grack Nelson, Rebecca Bangura, Nancy Taylor, Alfred Hall, Janet Beissinger, James Diamond, David Reider, Neil Heffernan, Morton Sternheim, Karen Peterson, Emma Lukasiewicz, Joyce Malyn-Smith, Rebecca Schillaci

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## Discussion Forum

This forum is for members of [STELAR](#) and ITEST projects to discuss research and evaluation topics relevant to STEM learning.






\*\* Note: If you are a member of this working group and would like to post to the forum, you will need to login with the username and password we have created for you.

Your Username is **your lowercase first initial and lowercase lastname** (ex: cparker). Your default password is **Stel@r2014**.

After logging in you will be able to view and change your profile settings including your password.

For assistance, please email [stelar@edc.org](mailto:stelar@edc.org). \*\*



Discussion		Started by	Replies	Last post
<a href="#">How to Login to the Research-Evaluation Working Group</a>		Becca Schillaci	0	Mon, 1 Dec 2014, 2:42 PM
<a href="#">Sign up for December Webex looking at Computational Thinking and 21st Century Skills</a>		Carrie Parker	1	Mon, 1 Dec 2014, 2:40 PM
<a href="#">Eastern Evaluation Society Call for Proposals</a>		Carrie Parker	0	Fri, 21 Nov 2014, 9:30 AM
<a href="#">Attitudes, Skills &amp; GRIT, Oh my!</a>		Bernadette Sibuma	0	Mon, 10 Nov 2014, 2:34 PM
<a href="#">August 2014 Convening Working Group Notes</a>		Bernadette Sibuma	0	Fri, 17 Oct 2014, 11:49 AM


### Log in

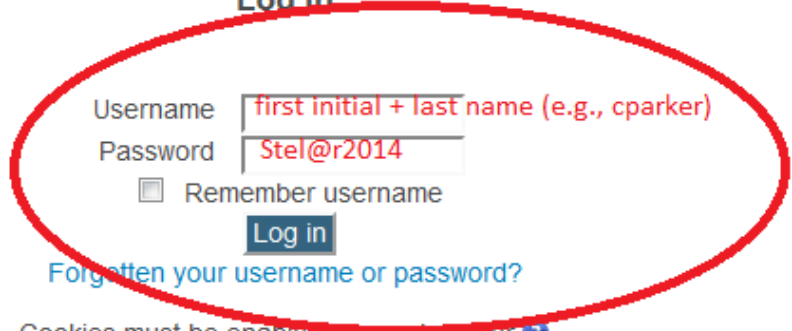
Username

Password

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Logged in user

**Rebecca Seston**  
City/town:  
[rseston@gmail.com](mailto:rseston@gmail.com)

People

Participants





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### Rebecca Seston

▶ Expand all

General

<b>First name*</b>	Rebecca
<b>Surname*</b>	Seston
<b>Email address*</b>	rseston@gmail.com
<b>Email display</b>	Allow only other course members to see my email address
<b>Email format</b>	Pretty HTML format
<b>Email digest type ?</b>	No digest (single email per forum post)
<b>Forum auto-subscribe</b>	No digest (single email per forum post)
<b>Forum tracking</b>	Yes, highlight new posts for me
<b>Text editor</b>	Default editor
<b>City/town</b>	
<b>Select a country</b>	Select a country...
<b>Timezone</b>	Server's local time
<b>Preferred language</b>	English (en)
<b>Preferred theme</b>	Default
<b>Description ?</b>	<p>Paragraph <b>B</b> <b>I</b> [List icons] [Link icon] [Image icon] [Video icon] [Attachment icon]</p>



***iDesign*: Developing technological fluency  
through culturally-relevant game design**  
(Roberto Joseph, PhD, Hofstra University, PI)

- Project page: <http://idesign.hofstra.edu>
- NSF award page:  
[http://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1312240&HistoricalAwards=false](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1312240&HistoricalAwards=false)

## ***Definitions***

- Technological fluency: (MIT)—*being technologically fluent involves not only knowing how to use technological tools, but also knowing how to construct things of significance with those tools*
- Computational thinking: (CMU)—*a way of solving problems, designing systems, and understanding human behavior that draws on concepts fundamental to computer science...creating and making use of different levels of abstraction...thinking algorithmically and with the ability to apply mathematical concepts such as induction to develop more efficient, fair, and secure solutions*

## ***Scratch Ed***

- Concepts, Practices, Perspectives
  - <http://scratched.gse.harvard.edu/ct/defining.html>
  - <http://scratched.gse.harvard.edu/ct/assessing.html>

## ***Of interest...***

- Standardizing a measure(s) for computational thinking: possible?
- Writing a lit review?
- Pooling resources—Have others here measured “it”?