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U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
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Webinar Series sponsored by Housing and  
Urban Development, Department of Energy  
and Department of Education

Leveraging Lifelong Learning  
Opportunities in STEM: Public Library  
Services for Public Housing Residents



# Leveraging Lifelong Learning Opportunities in STEM: Public Library Services for Public Housing Residents

July 21, 2016



# Today's Speakers

- **Christine Caputo**, *Chief, Public Service Support*, Free Library of Philadelphia
- **Rebecca Ranallo**, *Information & Technology Literacy Manager*, Cuyahoga County Public Library
- **Tim Carrigan**, *Senior Program Officer*, Institute of Museum and Library Services

# Agenda

- Introduction and objectives
- About IMLS and how libraries support lifelong learning in communities across the country
- Community close-ups: Philadelphia and Cuyahoga County
- Discussion/Q&A

# About the Institute of Museum and Library Services

- IMLS is a U.S. federal agency
- Funded through annual congressional appropriations
- Established in 1996
- Presidentally appointed Director and Board
- FY2016 budget of \$230 million



# Our Mission

To inspire libraries and museums to advance

- Innovation
- Lifelong learning
- Cultural and civic engagement



# Our Activities

- Grant Programs
- Policy Making and Convening
- National Initiatives and Partnerships
- Research, Statistics, and Publications

# Our Strategic Plan

Three programmatic strategic goals drive IMLS grant-making:



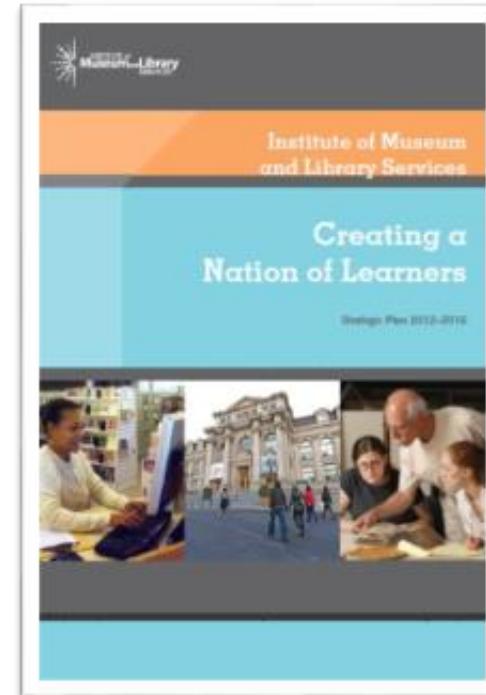
Learning experiences



Community Anchors



Collections Stewardship



*Read more here:*  
[www.imls.gov/about/strategic\\_plan.aspx](http://www.imls.gov/about/strategic_plan.aspx)

# IMLS Community Catalyst Initiative

- A cooperative agreement between IMLS and The Reinvestment Fund, with support from William Penn Foundation
- Purpose is to support libraries and museums in developing a deeper understanding of their role as enablers of community vitality and co-creators of positive community change.
- May result in frameworks, tools, and resources to support staff skill-building needed to help transform the connections libraries and museums have with their communities.

# What do museums and libraries offer communities?

- Rich and authentic content
- Dedicated and knowledgeable staff with deep expertise
- Safe, trusted settings

# Lifelong learning opportunities in libraries

- Early learning programs for parents and caregivers
- Summer learning programs
- Afterschool programs for teens
- Employment training and job placement assistance;
- Public access to a broad range of emerging technologies
- Services for new Americans

# A shift in library practice

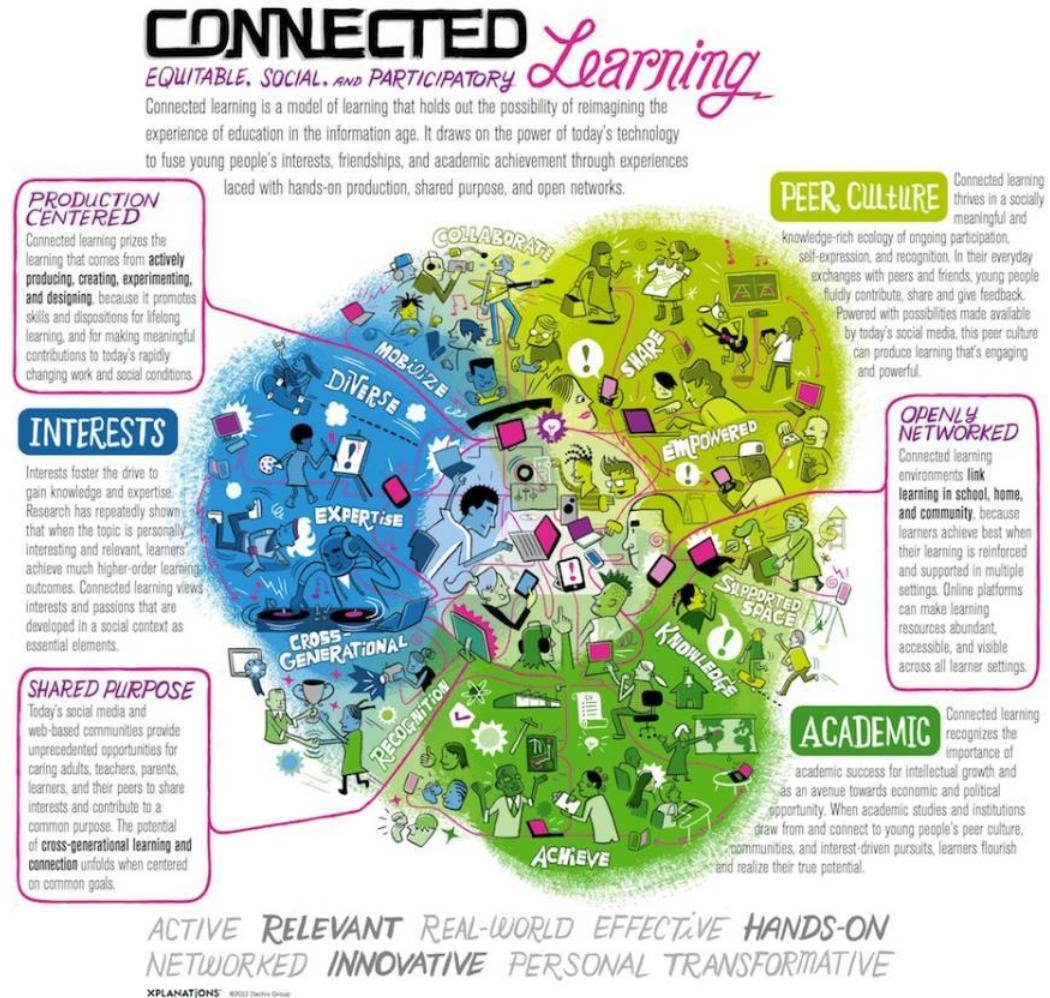
- “*Our libraries should transition to places to do stuff, not simply places to get stuff. The library will become a laboratory in which community members tinker, build, learn, and communicate. We need to stop being the grocery store or candy store and become the kitchen.*” – Joyce Valenza
- “To be a librarian is not to be neutral, or passive, or waiting for a question. It is to be a **radical positive change agent** within your community.” – R. David Lankes

# STEM in Libraries (Science Technology, Engineering and Math)

- Libraries offer people of all ages and backgrounds mentor-led learning opportunities that spark curiosity and build interest in STEM subjects.
- Librarians provide adults, families, teens, and children with new technology and equipment, including state-of-the-art digital media production tools.
- Libraries introduce learners who are underrepresented in the STEM workforce to important STEM concepts and skills, including authentic scientific practices.
- Libraries have learning spaces that feature youth-centered approaches to enhancing technical knowledge, strengthening independent learning skills, and building a foundation for the pursuit of higher education STEM opportunities and jobs.

# Connected Learning

- Learning Principles
  - Interest Powered
  - Peer Supported
  - Academically Oriented
- Design Principles
  - Shared Purpose
  - Production Centric
  - Openly Networked
  - [www.connectedlearningnetwork.org](http://www.connectedlearningnetwork.org)



# Making and Learning in Libraries

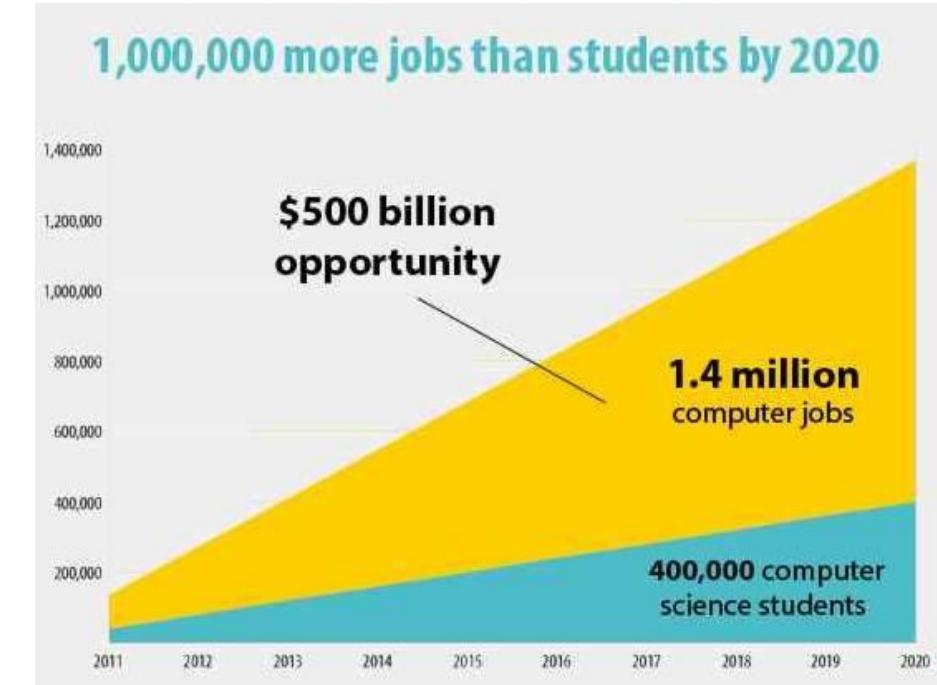
- “The maker movement is a global community of inventors, designers, engineers, artists, programmers, hackers, tinkerers, craftsmen and DIY’ers... As manufacturing tools continue to become better, cheaper and more accessible, the Maker Movement is gaining momentum at an unprecedented rate. Over the past few years... makerspaces have cropped up in cities and small towns worldwide—often in affiliation with libraries, museums and other community centers, as well as in public and independent schools—giving more people of all ages access to mentorship, programs and tools like 3-D printers and scanners, laser cutters, microcontrollers and design software.”

- Stewart, Louise. “Maker Movement Reinvents Education.” *Newsweek*. 8 September 2014.



# Coding and Robotics in Libraries

- Code.org projects significant increase in demand for workers with these skills in our increasingly digital economy.
- As lifelong learning institutions, libraries are well positioned to introduce patrons to these 21<sup>st</sup> century skills, especially those who are traditionally underrepresented in computer science professions, including women, minorities, and people with less financial means.



# Libraries and the Campaign for Grade-Level Reading

- National campaign focused on increasing the number of children able to read at grade level by third grade. Libraries often take on a leadership role in efforts at the local level.
  - School readiness
  - Chronic absence
  - Summer learning loss
  - Parent/caregiver engagement
  - [www.gradellevelreading.net](http://www.gradellevelreading.net)





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[www.freelibrary.org](http://www.freelibrary.org)



# words A B C at **PLAY**

VOCABULARY INITIATIVE



Jazz at his barbershop with book nook & preschool class

- Family and Community Engagement
- Vocabulary Development Focus for Young Children & Families



[www.freelibrary.org/wordsatplay](http://www.freelibrary.org/wordsatplay)



Free  
LIBRARY  
OF  
PHILADELPHIA

# Stories Alive

[www.freelibrary.org/prisonservices](http://www.freelibrary.org/prisonservices)



Connects Incarcerated Parents and Their Families Through Reading  
and Televisiting

Made possible in part by the Institute of Museum and Library Services



[www.freelibrary.org/](http://www.freelibrary.org/)



# SUMMER

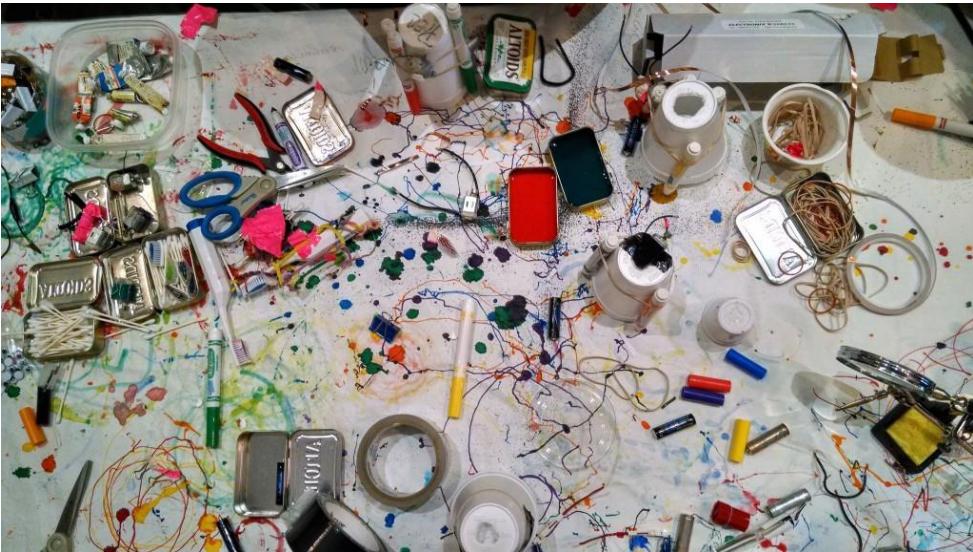


<http://yourreader.org/>



# Maker Jawn

- provides a unique space for community members
- self-directed experimental and experiential learning is promoted through a focus on creativity, critical thinking and skill-building



<http://makerjawn.org/>

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[www.gethypephilly.org/](http://www.gethypephilly.org/)

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# Transforming Library Services to the Job Seeker through Collective Impact



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# Digital Literacy

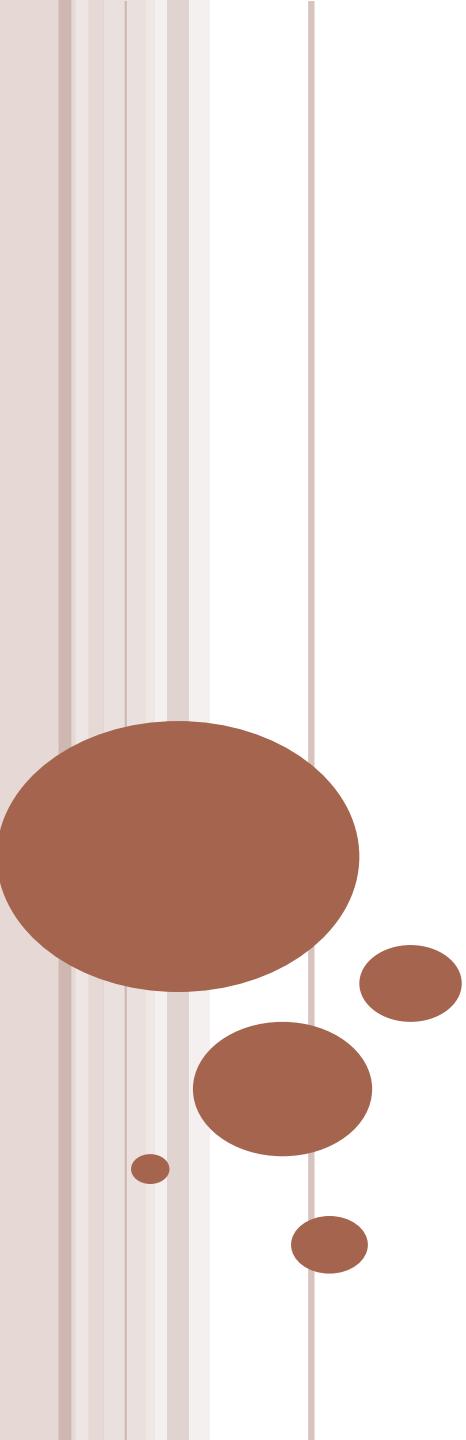


[www.freelibrary.org/hotspots](http://www.freelibrary.org/hotspots)



[www.freelibrary.org/techmobile](http://www.freelibrary.org/techmobile)



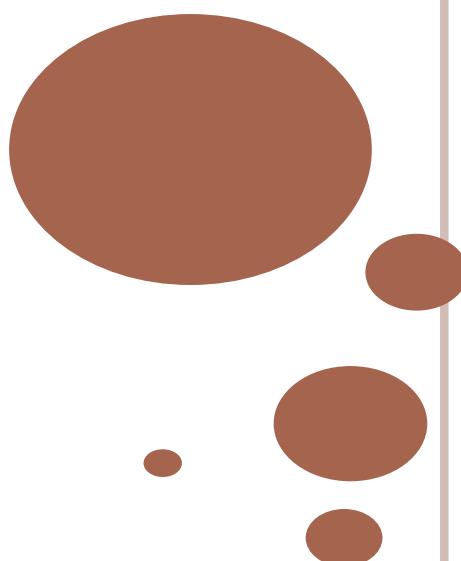
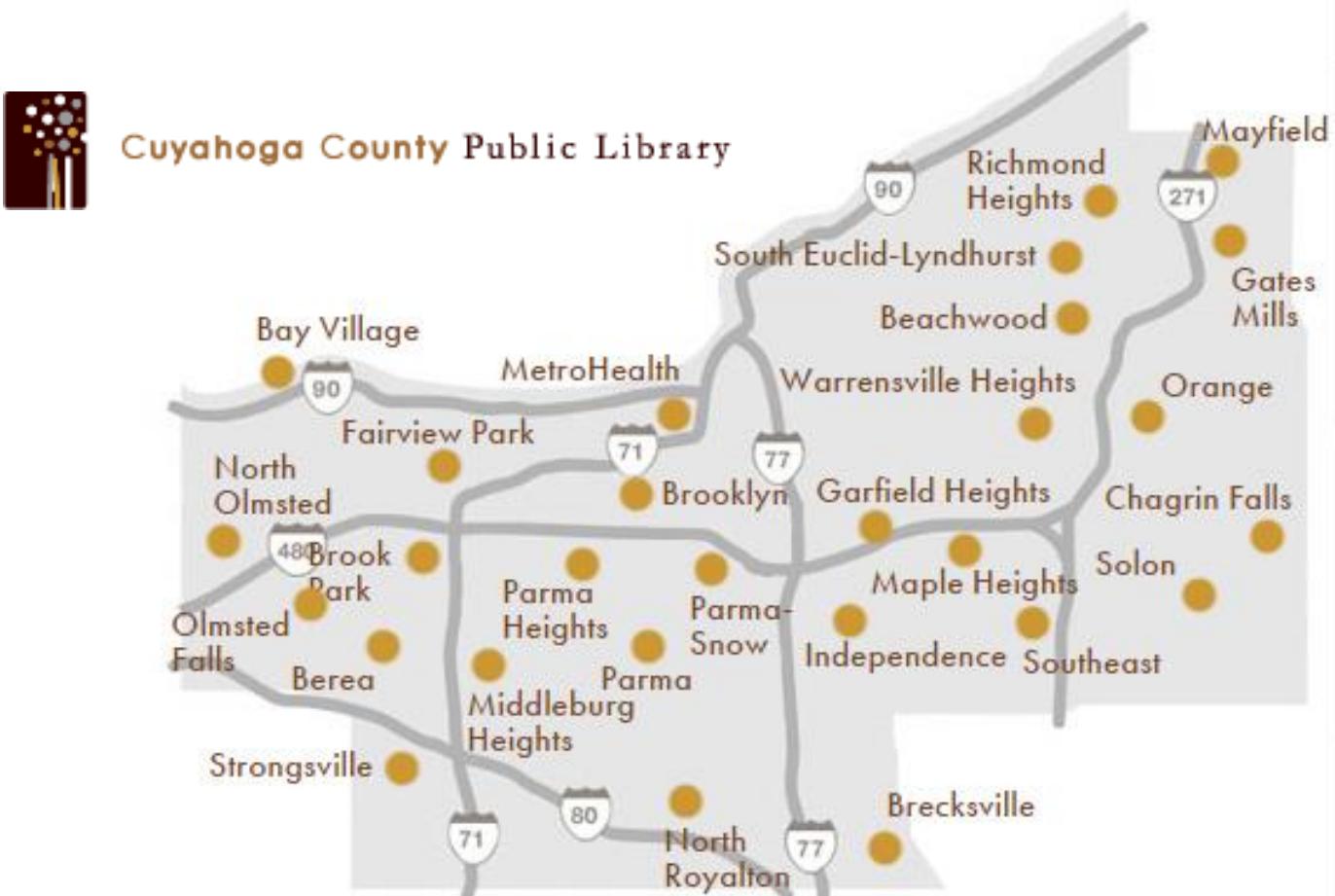


# LEVERAGING LIFELONG LEARNING OPPORTUNITIES IN STEM: PUBLIC LIBRARY SERVICES FOR PUBLIC HOUSING RESIDENTS

JULY 21, 2016

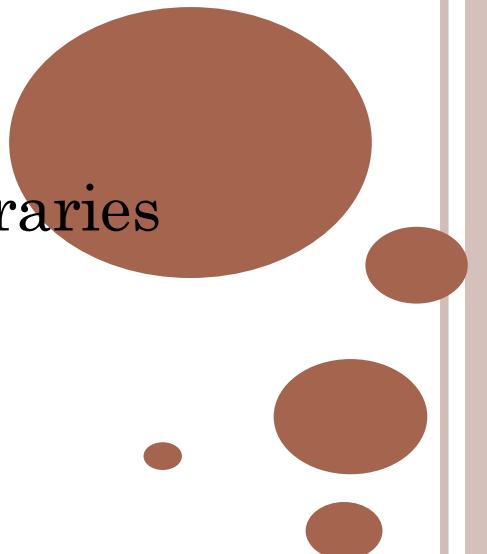
REBECCA RANALLO

# WHO WE ARE

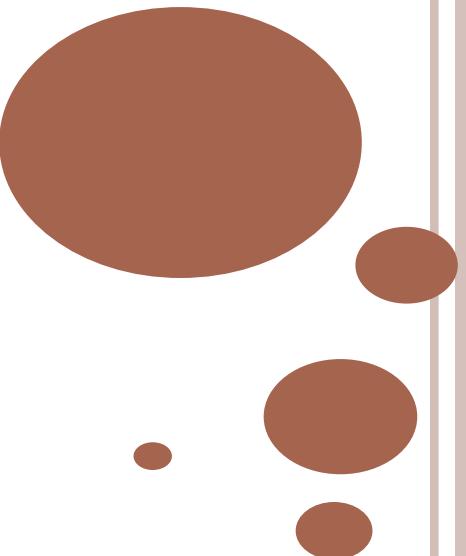


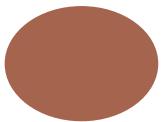
## LIBRARIES ARE TRANSFORMING

- Libraries today are less about what we have for people and more about what we do for and with people.
- Libraries play a critical role in a digital age.
- Libraries are vibrant and social spaces where communities come together.
- While increasingly the place for access to new technology, libraries remain the access point for those without other access to technology.



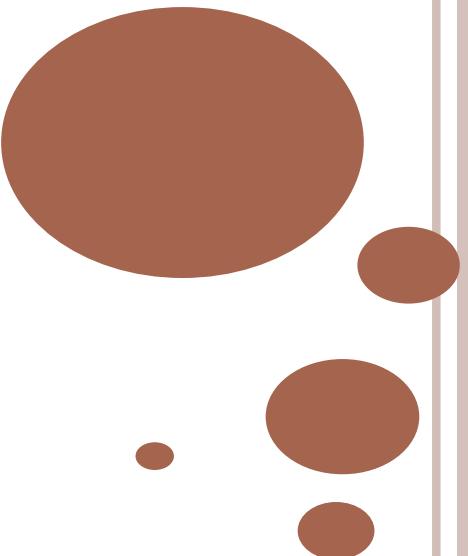
# LIBRARIES ARE VIBRANT



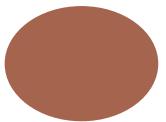




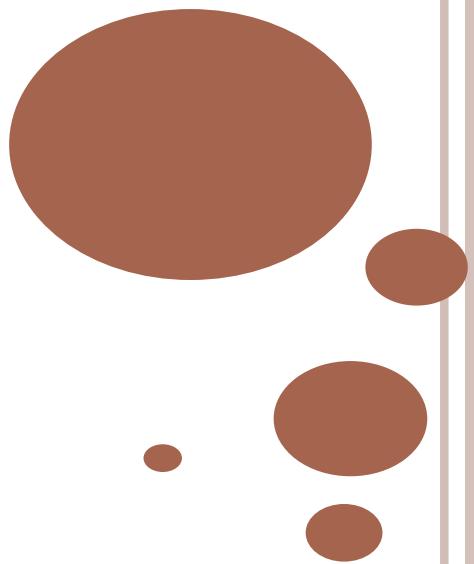
# LIBRARIES ARE SOCIAL

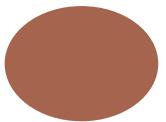


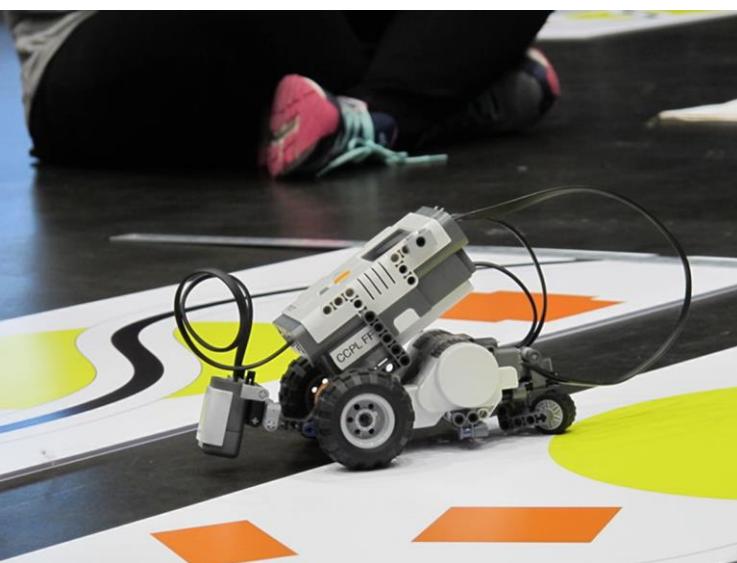
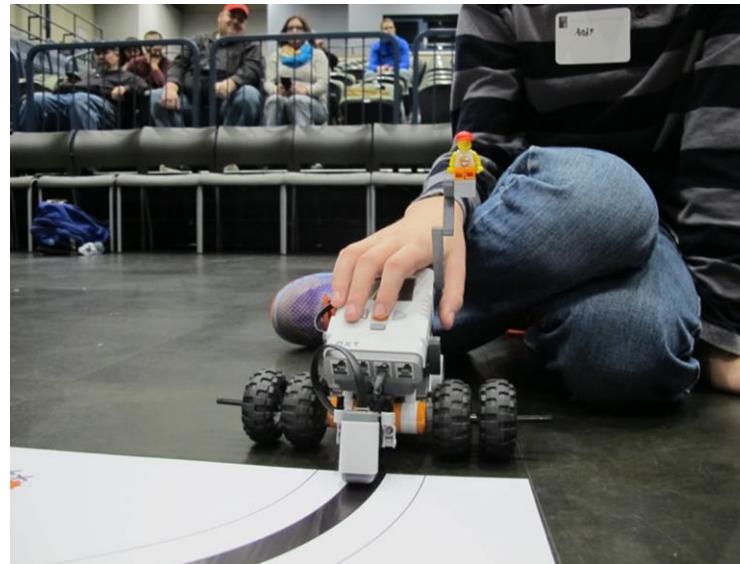


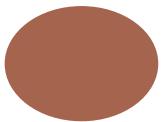


# LIBRARIES ARE FOR STEM & STEAM LEARNING





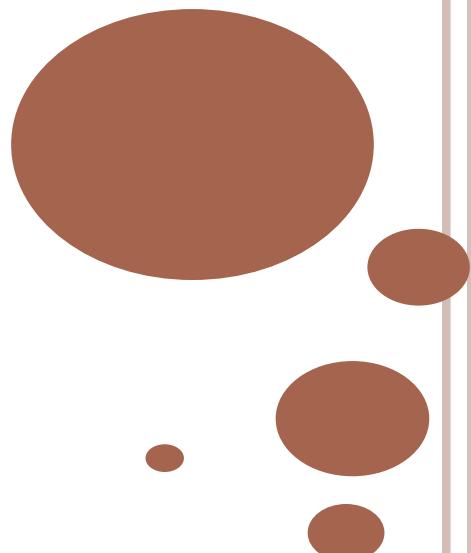
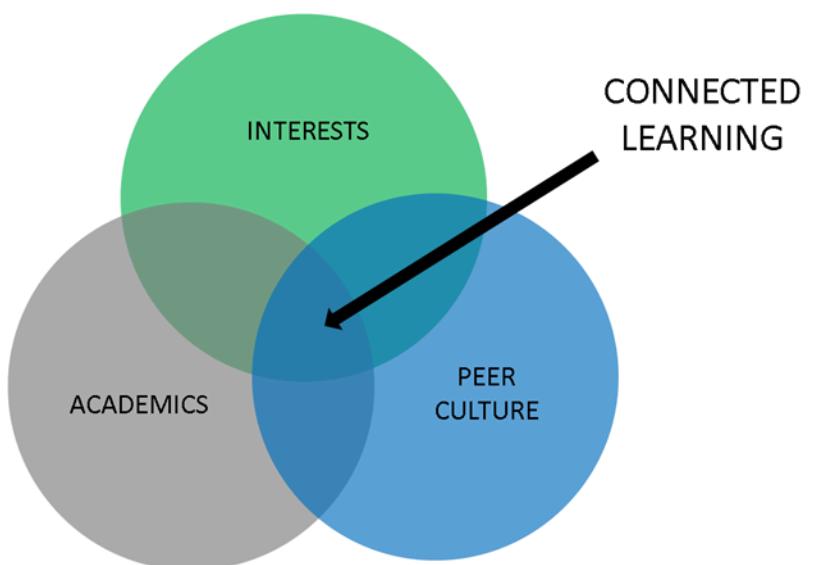


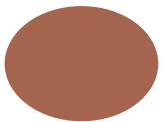


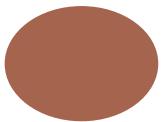
# LIBRARIES ARE FOR CONNECTED LEARNING

Based on the principle that learning happens best when it is:

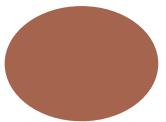
- interest-driven**
- peer-supported**
- academically oriented**

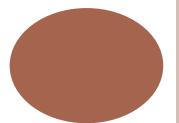


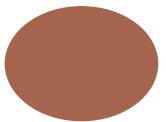






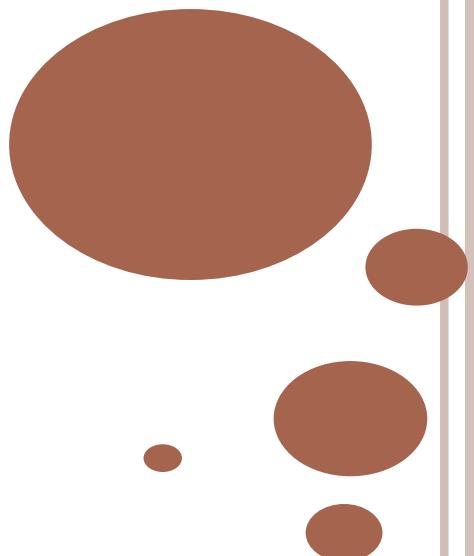




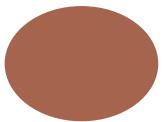
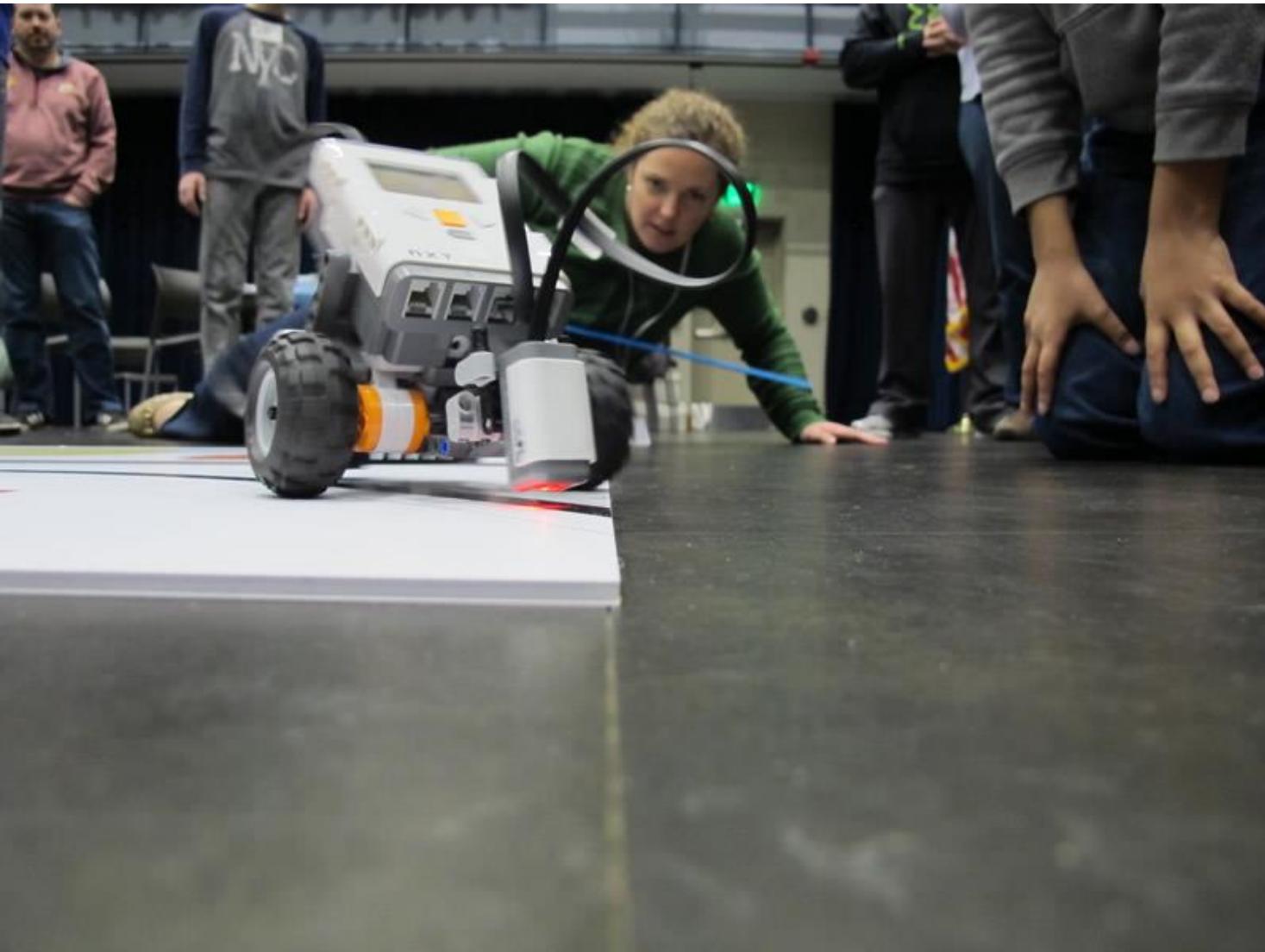




# LIBRARIES ARE FOR LEARNING







# Final Thought and Questions

- “A library outranks any other one thing a community can do to benefit its people. It is a never failing spring in the desert.”

- *Andrew Carnegie*

