



# Introduction to Makerspaces





# Overview

- What are makerspaces / why do they matter?
- History / federal government involvement
- Resources for library involvement





# Maker movement

- “The maker movement is a global community of inventors, designers, engineers, artists, programmers, hackers, tinkerers, craftsmen and DIY’ers.”
  - Louise Stewart,  
“Maker Movement Reinvents Education,”  
*Newsweek*  
September 8, 2014





# Why making?

- Making supports:
  - learning and curiosity
  - creativity and innovation
  - communication and collaboration
  - critical thinking and problem solving
  - economic advancement
  - strengthening communities
  - STEM, digital, and information literacies



*Adapted from Chicago Public Library's "Making to Learn" report, supported by IMLS*



# Why making?



## THE MAKER MOVEMENT ISN'T JUST A HOBBY. *It's creating real businesses.*

It contributes to *28M small businesses* in the U.S. that create

**2 OUT OF EVERY  
3 NEW JOBS.**



In 2013, VC's pumped  
**\$848 MILLION**  
*into hardware startups*—nearly twice  
the prior record of \$442 million set in 2012.

**8 MILLION  
NEW JOBS**

were created by small businesses  
since 1990. In the same time, big  
businesses eliminated 4 million jobs.



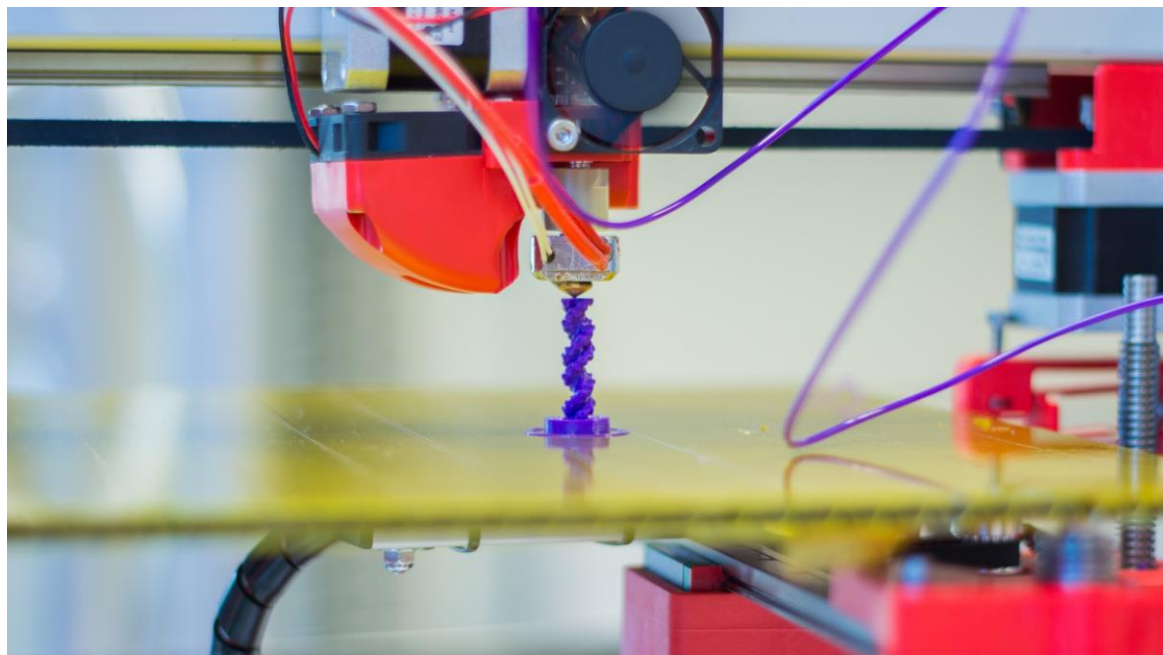


# Making might look like this...





(a closer look)



Jonathan Juursema / CC-BY-SA-3.0





It might also look like this...







...or this...





...or this...



...or this...





# Maker movement milestones

- Launch of Make: magazine in 2005
- First Maker Faire in 2006
- Affordable 3D printers in 2009





# Federal intersections

- National Science Foundation
  - Funded “Additive Manufacturing”
  - Between 1986-2002: \$200 million for 600 related grants
- Congress (and IMLS): Capitol Hill Maker Faire
  - This year’s on June 12, 2018



[http://nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=129774](http://nsf.gov/discoveries/disc_summ.jsp?cntn_id=129774)

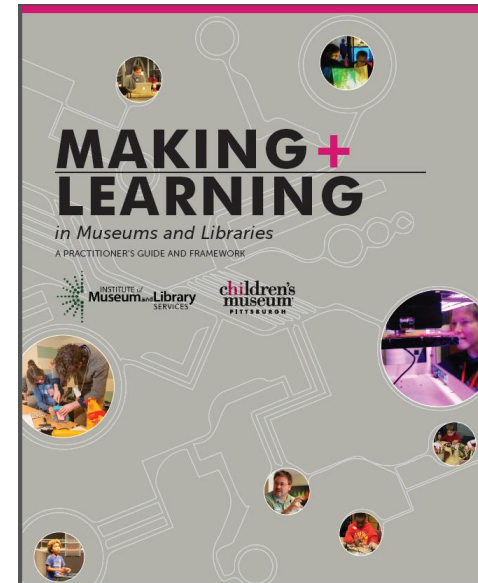


# Federal intersections: IMLS

- Over \$10 million invested in learning through making in museums and libraries (2011-2016)
- *Talking Points: Learning Through Making in Museums and Libraries*
- *Making + Learning in Museums and Libraries* with Children's Museum of Pittsburgh (Purpose, People, Pieces & Parts)

<https://www.imls.gov/sites/default/files/publications/documents/makinglearning-museumslibraries-practitionersguideframework.pdf>

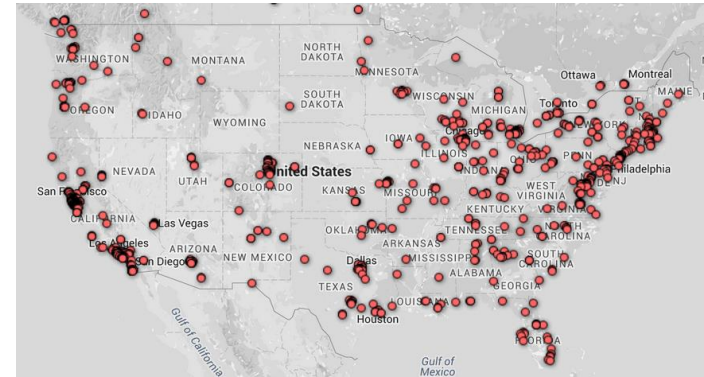
<https://www.imls.gov/sites/default/files/publications/documents/makerspace Talking Points final.pdf>





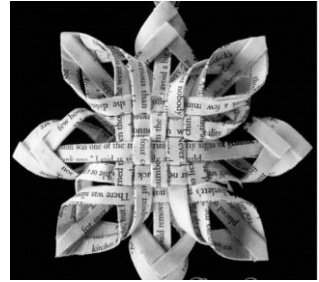
# Resources: maps

- Find existing makerspaces / faires:
  - <http://atlasofinnovation.com/map/>
  - <http://themakermap.com/>
  - [https://wiki.hackerspaces.org/List\\_of\\_Hacker\\_Spaces](https://wiki.hackerspaces.org/List_of_Hacker_Spaces)
  - <http://makerfaire.com/map/>

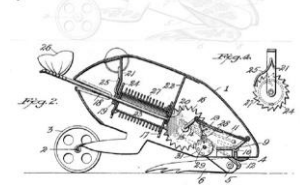


# Resources: ideas

- Host maker activities / brownbags
  - Up-cycled library materials
  - De-stress (adult coloring, etc.)
    - <https://www.pinterest.com/LibraryCongress/coloring-books/>
    - <https://aotus.blogs.archives.gov/2016/02/04/colorourcollections/>
    - [http://library.si.edu/sites/default/files/color\\_in\\_a\\_new\\_light\\_coloring\\_pages\\_0.pdf](http://library.si.edu/sites/default/files/color_in_a_new_light_coloring_pages_0.pdf)
  - Maker Ed's Resource Library
    - <http://makered.org/resources/>



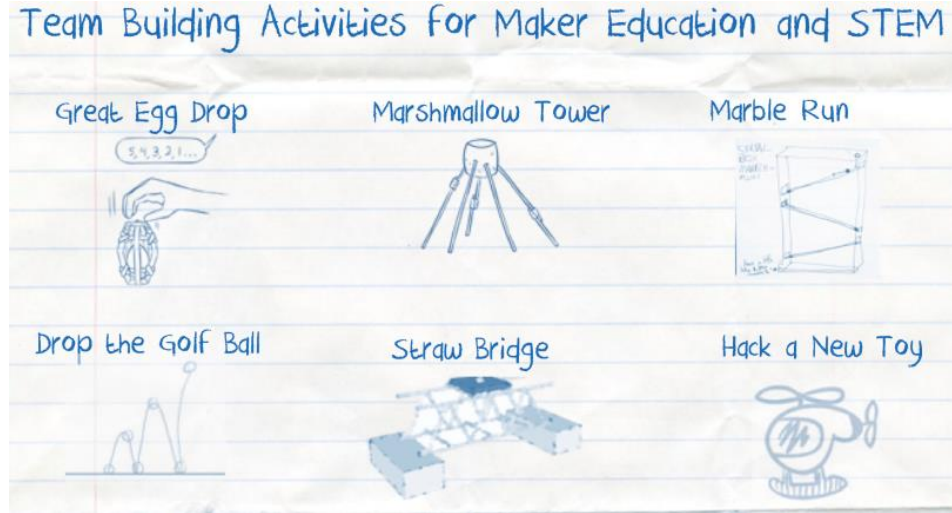
COLORING BOOK  
of PATENTS 2016



# Resources: teams

- Team building “maker” activities

- <https://usergeneratededucation.wordpress.com/2015/08/14/team-building-activities-that-support-maker-education-stem-and-steam/>



# Questions