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Live Questions During the Presentation?

<https://tinyurl.com/t2jgkrt>

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Education Coordinator
PBS Western Reserve



Invention Literacy (Makers & Makerspaces)

[#MakerSpace](#) [#MakerEd](#) [#maker](#)

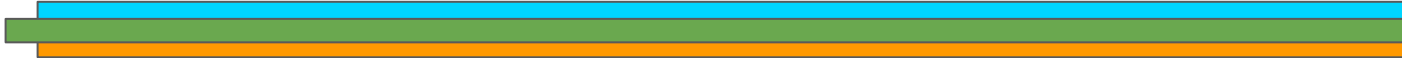


What is Invention Literacy?

Invention literacy is the ability to read and write human made stuff, from toasters to apps. People think inventors perform magic, but invention is no more magical than reading and writing a sentence.

-[Jay Silver](#)

Invention Literacy Discussion with Jay Silver



What is Invention Literacy?

Inspire ALL people to
invent,
and change the world!



Who is Jay Silver?



MaKey MaKey Front, held by Jay Silver | jayahimsa | Flickr

Jay Saul Silver is an electrical engineer and toy inventor from Cocoa Beach, Florida. Silver is **the Founder and CEO of JoyLabz/MaKey MaKey** and was the first-ever Maker Research Scientist at Intel.

In 2012, Silver founded **MaKey MaKey: An Invention Kit for Everyone** – a toy that allows users to connect everyday objects (e.g. fruit, silverware) to computer programs – through a **Kickstarter** campaign that raised over \$500,000.^[12] Following its initial funding on Kickstarter, MaKey MaKey was written about in **Mashable**, **Wired**, and **New Scientist**, among others, and was named one of **Popular Science's** 2014 “Best of Toy Fair.”^[13]

https://en.wikipedia.org/wiki/Jay_Silver



What is a Makerspace?

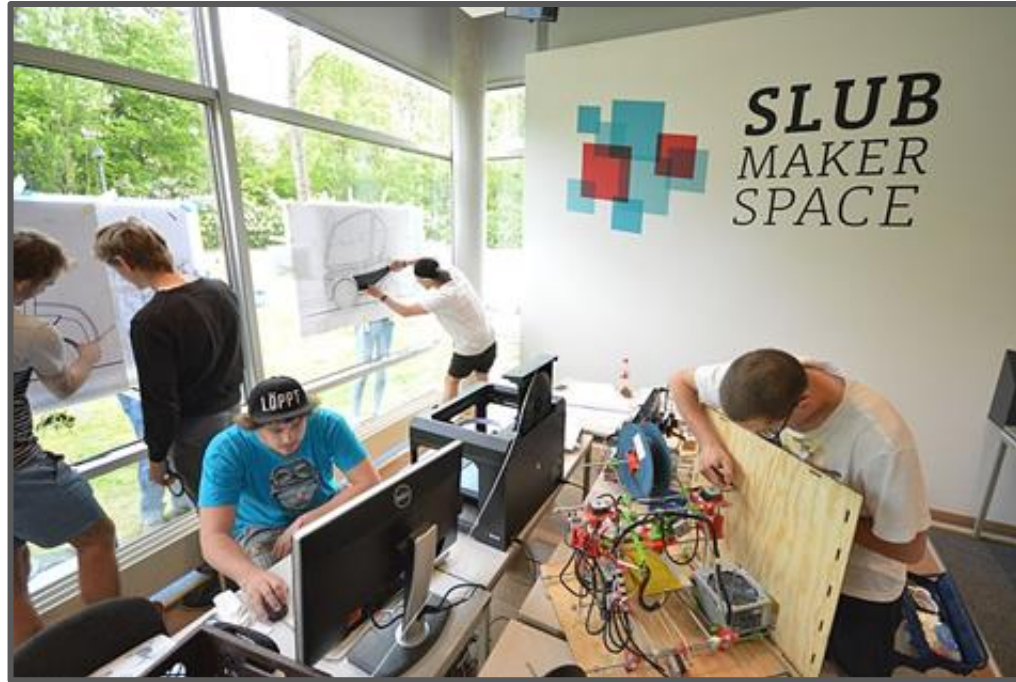
AKA: FabLab, Techshop™, Hackerspace™

A makerspace is a **collaborative work space** inside a school, library or separate public/private facility for making, learning, exploring and sharing that uses high tech to no tech tools. These spaces are open to kids, adults, and entrepreneurs and have a **variety of maker equipment** including 3D printers, laser cutters, cnc machines, soldering irons and even sewing machines. A makerspace however doesn't need to include all of these machines or even any of them to be considered a makerspace. **If you have cardboard, legos and art supplies you're in business.**

<https://www.makerspaces.com/what-is-a-makerspace/>



SLUB Makerspace Dresden, Germany



Lukas Boxberger / CC
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(<https://creativecommons.org/licenses/by/4.0>)

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Spark Place, Greene County Library



<https://greenelibrary.info/makerspace/>

Makey Makey

makeymakey.com

"One of the most accessible and versatile invention literacy tools in recent years is the MakeyMakey kit, a disarmingly simple device that lends itself to myriad applications within content areas and across grade bands. **It delivers problem-solving opportunities for students to collaborate, communicate, design, make and program their own inventive solutions to everyday issues.** MakeyMakey is incredibly flexible. It's used by elementary, middle and high school teachers. The projects you're able to complete with the MakeyMakey range from simple to very complex. Leveraging design thinking, MakeyMakey offers students STEM-based engagement that is human-centered, experimental and optimistic."

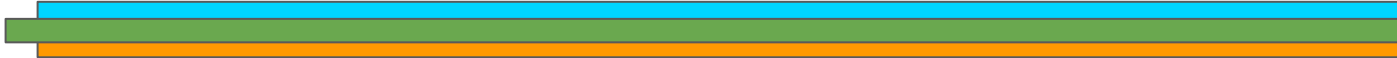
Jay Silver, MakeyMakey inventor, founder and CEO of JoyLabz, on [Invention Literacy](#).



Makey Makey



makeymakey.com



Makey Makey

[HOWTO GUIDES](#) - [REMAP PAGE](#) - [INSTRUCTABLES TEACHER HUB](#) - [FAQ](#) - [MAKEY APPS](#)



1000s of Projects & Lesson Plans





Interactive Drawing Poster



Classroom Assistant



Kid Friendly Alligator Clips



Voting Machine or Data Tracker



Two Button Challenge



Exploring Emotions with Color Mo



Collaborative Sensory Maze



Genius Hour



Plug + Play Controller



Maker Events:



28-29 FEB MakerX 2020

Sat, 10 AM – 4 PM Lausche Building, 717 E 17th Ave Columbus, OH



7 NOV Maker Faire Cleveland Cleveland, OH



1 MAY Stark Maker Faire Stark Library Canton, OH



Maker Events:

Maker Faires
are events
worth
traveling for



February 29, 2020
Cairo



March 27, 2020
Malta



March 28 & 29, 2020
Ruhr



March 28 & 29, 2020
Sachsen



April 3-5, 2020
Lille



April 18 & 19, 2020
Berlin

Makerspace EXPERTS & Their Books:



LAURA FLEMING

LFlemingEDU

worlds-of-learning.com

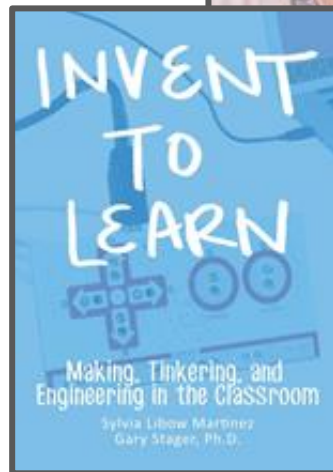


Makerspace EXPERTS & Their Books:

**SYLVIA LIBOW MARTINEZ
& GARY S. STAGER**

[@smartinez](https://twitter.com/smartinez)
[@garystager](https://twitter.com/garystager)

sylviamartinez.com
cmkfutures.com/gary/



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Makerspace EXPERTS & Their Books:

**JOHN SPENCER
& A. J. JULIANI**

www.spencerauthor.com/classroom-makerspace/

[@spencerideas](https://twitter.com/spencerideas)

ajjuliani.com

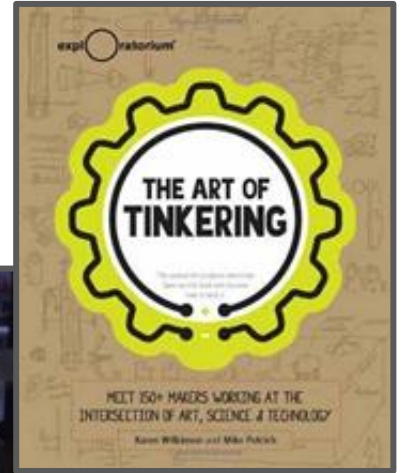


Makerspace EXPERTS & Their Books:

KAREN WILKINSON
& MIKE PETRICH

www.exploratorium.edu (KW)

www.exploratorium.edu (MP)

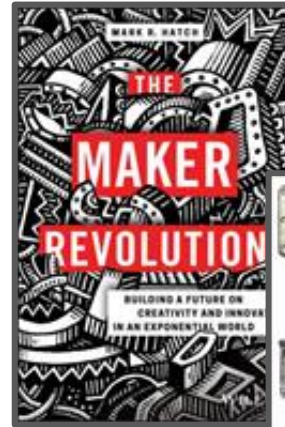


Makerspace EXPERTS & Their Books:

MARK HATCH

[@MarkHatch](https://twitter.com/MarkHatch)

markhatch.com



Makerspace EXPERTS & Their Books:

SCOTT DOORLEY

[@scottdoorley](https://twitter.com/scottdoorley)

scottdoorley.com



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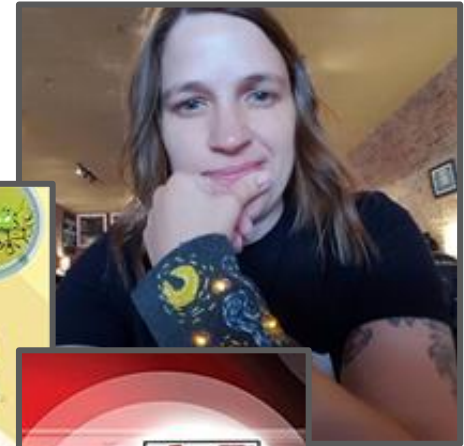
Makerspace EXPERTS & Their Books:

COLLEEN & AARON
GRAVES

[@gravescolleen](https://twitter.com/gravescolleen)

[@gravesdotaaron](https://twitter.com/gravesdotaaron)

colleengraves.org



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Makerspace EXPERTS

COLLEEN GRAVES

Starting a School Makerspace from Scratch

Successfully launching a school makerspace includes community buy-in, generating a student buzz, finding cheap or free resources, and building maker activities into the curriculum.

By [Colleen Graves](#)

Step 1: Immerse Yourself in Maker Education

Step 2: Get Others Involved

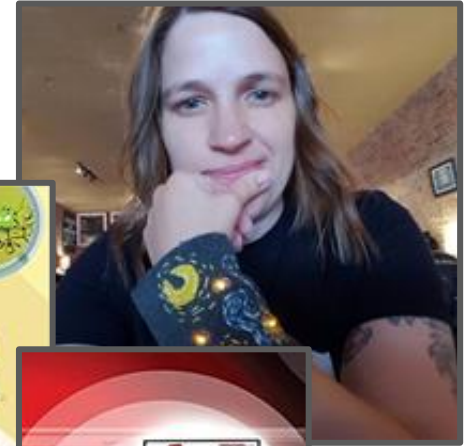
Step 3: Purchasing Makerspace Resources

Step 4: Building a Community of Makers

Step 5: Hosting Workshops and/or Design Challenges

Step 6: Integrating Maker Education Into the Curriculum

edutropia



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Starting a Makerspace?

Materials Lists & Helpful Advice

- **Makerspaces.com**
 - 100+ Makerspace Materials and Supplies (PDF) located on the [Makerspace](#) website:
 - <https://www.makerspaces.com/makerspace-materials-supply-list/>
- **Fractus Learning**
 - Top ten list of elementary makerspace must-have material located on the [Fractus Learning](#) website:
 - <https://www.fractuslearning.com/makerspace-materials-elementary-school/>
- **Edutopia**
 - [Starting a School Makerspace from Scratch](#) By [Colleen Graves](#)
 - <https://www.edutopia.org/blog/starting-school-makerspace-from-scratch-colleen-graves>
- **EdTech**
 - [FAQ 5: What to Ask Before Starting Your Classroom Redesign](#) by [Jennifer Brown](#)
 - <https://edtechmagazine.com/k12/article/2019/06/faq-5-what-ask-starting-your-classroom-redesign>
- **The Nerdy Teacher**
 - [Your Starter Guide to Makerspaces](#) by Nicholas Provenzano



Thank You!

Link to Q&A Document

<https://tinyurl.com/t2jgkrt>

OR

<https://docs.google.com/document/d/1uwygHN8BXdNkO6XAzqPfo-N3mZ2atnUTqfCpguLwsjQ/edit?usp=sharing>

Certificate Code

Note: ALL CAPS required

LTY14

