MILWAUKEE MIXERS -

A MOBILE MAKERSPACE FOR MILWAUKEE COUNTY

A **shared**, **mobile** makerspace that allows Milwaukee County public libraries to host maker programming **without a large investment of resources.**

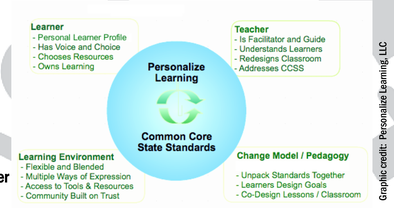
- Not a defined space in the traditional sense
- A library of tools and program plans
- MCFLS librarians can use it to "make" their own makerspace in their own libraries

MCFLS's mission includes: "assisting member libraries in the utilization of current and evolving technologies." The mobile makerspace will be a tool to help MCFLS meet this mission.
Member libraries all state a mission to provide access to a wide variety of resources, for informational and inspirational needs of their communities; cost-effective access to makerspace resources/ programming helps all libraries achieve this.

As K-12 curriculum moves towards Common Core State Standards, **personalized learning experiences** will become crucial.

Makerspaces, whether mobile or fixed, provide opportunities for students to personalize their learning by:

- Exposing students to electronics and technology
- Working through **STEM challenges** when solving problems
- Stimulating **creative expression**
- Providing **access** to tools and expertise to **discover** interests



Graphic credit: Personalize Learning, LLC

21st Century Skills, as outlined by the Institute of Museum and Library Services (IMLS) and the Parternship for 21st Century Learning (P21) include:

- Learning & innovation skills like creation, **experimentation** and problem solving
- Information, Media & Technology skills including the ability to use a wide variety of **media** and **technology**
- Life & Career skills including **self-directed** learning

WHY IS A MOBILE MAKERSPACE IMPORTANT?

- Supports mission statements of system and member libraries
- Meets needs of stakeholders in library communities
- Supports evolving K-12 curriculum
- Supports 21st century job skill development
- Mobile, shared resource is fiscally responsible for all stakeholders

43 MCFLS library staff who are responsible for programming for children, teens and adults, shared their thoughts on maker programming via a survey we created.

They indicated programs they'd love to share with their patrons, but haven't: coding, LEGO robotics, conductive sewing, photo editing & more. **So what is stopping them?**

68% of respondents indicated lack of **money**
52% of respondents indicated lack of **time**
47% of respondents indicated lack of **knowledge**
36% of respondents indicated lack of **space**

It is not realistic for every library in Milwaukee County to overcome deficits in money, staffing (lack of time), staff knowledge (also related to time/staffing) and space.

- MCFLS already has a robust resource delivery network that gets items between system libraries **quickly** and **easily!**
- MCFLS libraries already share costs of a variety of resources, and understand the **benefits** of doing so: shared resources promote the model of **same service** - access to all system patrons regardless of their zip code.

WHAT WILL THE MOBILE MAKERSPACE ALLOW PEOPLE TO DO?

EXAMPLES OF PROGRAMS/TOOLKITS TO BE INCLUDED IN THE MKE MIXERS MOBILE MAKERSPACE

YOUTH

Tween Electronics Club: Introduction to engineering & physics of electricity with LittleBits (magnetic circuits, no soldering).

Robot Making: Using Lego Mindstorm (create and bring to life a robot) and the expertise of your local high school's robotics team.

Class visit to the Library for STEM Day: Using Lego WeDo (Programmable Lego models that allow users to explore STEM and other themes that support the K-12 curriculum) and your youth librarian's collaboration with elementary, middle and/or high school teachers.

Cardboard Challenge: Try to build the highest tower that would hold a golf ball; this could be modified to be any number of problem-solving challenges.

Fake Fun Holidays: Use green screen technology and digital editing skills to create a funny holiday card; practical techniques with a twist to encourage teens to explore what they can do on their own to enhance their school work and just for fun.

Treasure Hunt: Use kinetic sand to create a fun "treasure hunt in a box". Tie it into themes from a storytime for extra fun. Kinetic sand is an excellent activity for sensory play, as well as building fine and gross motor skills.

ADULT

DIY with Wood: Class on basic woodworking/carpentry skills for teens and adults, for fun and to provide skills needed to undertake DIY work at home to save money.

We Can Pickle That!: Introductory class on cooking/pickling techniques, for fun and to provide skills that allow people to go green and save money.

Baby Book: Make a padded, quilted, and hand-embroidered book for children or grandchildren, such as an alphabet book or an animal book, or a book with different textures for tactile response (like Pat the Bunny).

Jewelry-Making and Glass Fusing: Make fun jewelry and learn to fuse glass with jewelry- making tools and Fuseworks Beginner's Fusing Kit.

ANY AGE

Learn Stop-Motion Animation: Use Raspberry Pis to learn basic video production and animation.

You're the Next Ira Glass: Use computers and audio recording/editing tools and software, plus writing exercises, to learn how to create a podcast.

Your Story Here: Use free online and paid software to learn basic digital recording and editing to create scrapbooks, photo albums, and personalized items to preserve memories.

Pop Culture Cross Stitch: Learn the basics of hand embroidery and how to plan and design a pattern based on your favorite TV show, movie, musical artist, book, etc.

Crafternoon Program: Use the Cricut Explore Air and host make-and-take craft programs such as creating your own seasonal decorations, making one-of-a-kind t-shirt designs, decorating your own tumbler, and much more.

Team MKE Mixers is:

Beth Henika, West Allis Public Library - Krista Hutley, Whitefish Bay Public Library - Jennifer Loeffel, Franklin Public Library - Emily Passey, Shorewood Public Library - Sandra Speare, Greendale Middle School

ILEAD - USA WI 2015