# 2014 DLF Forum

**Perspectives on Supporting and Administering Maker Culture and Programs in Libraries**
Wednesday, October 29, 10:15-11:45am
Salons 4,5,6, Georgia Tech Hotel and Conference Center

## Session Leaders



Dale Askey, McMaster University
Jason Griffey, Evenly Distributed
Michael Holt, Valdosta State
Tara Radniecki, University of Nevada, Reno

## Slides

http://www.slideshare.net/TaraRadniecki/making-a-new-type-of-librarian-because-we-want-a-new-type-of-student

## Notes

Creative Chaos: making as a disruptive presence

Two countries, four “states”, brought show and tell maker space stuff.

### Dale Askey: McMaster University

“We all agree failure is okay but we need to create a place where it can happen.”

Jason Griffey: Independent Consultant

Tara Radniecki: Univ of NV, Reno
Michael Holt:  Valdosta State

Failure is awesome, it's okay and needs to happen.  We need create spaces where failure can happen.  Many of the tasks we do in libraries do not allow for failure, particularly re: IT.
Having a 3D printer is a great way to catch eyeballs and interest -- how do we move people past the printers and on to other technologies.  Hack Fests are a great way to include people at all levels, as a group.
Exploding doorbells are an indicator of productive failure.  Don't worry about breaking, worry about growing.

3D printers are not that expensive, less than a good printer/PC.  Circuits, wires, tech toys, bits and pieces of hardware are not that pricey. $2,000 is an amazing investment.  We have conversations, growth, outreach.  It is easier to ask forgiveness than permission -- Be careful but don't be trapped by rules and regulations.

Research is about experimentation and making a mess.
Undergraduates crave opportunities to play with these materials.
Engineering departments may have 3d printers, etc., but they may only be available to engineering students (who tend to be overwhelmingly men).
"the language of hte 21st century is data: statistics, coding, and modeling are the digital equivalent of nouns, verbs, and adjectives." Greg Putnam

"The language of the 21st century is data: Statistics, coding, and modeling are the digital equivalent of nouns, verbs, and adjectives... Whether they are looking for a job, a great internship, or a top grad school, the ability to produce relevant 21st century content is often the difference in getting that first break." - Greg Putnam

Makerspaces are creative messes

Vis wall you can't hack/interact with is "Times Square inside the library"

## Tara Radniecki: University of Nevada, Reno

UNR doesn't use the term "makerspace" they use innovative lab.
Laser cutter is a fantastic tool, eyes pop out of student's head.  3D printers are old news.
PCD Milling machine (?) Public is allowed in.
Button maker is the best $200 dollars ever spent.
DeLaMare Library is known as the place that values creativity and entrepreneurship.
Lock picking kit, lots of fun stuff.  "Locks are like noses, you only pick your own."
Why do they do this? Because it supports their mission. Knowledge, making connections, multidisciplinary literacies.

Literacies beyond information
Digital /media literacy
computational literacy
Tactile literacy

I don't know about you, but I want students who become innovative and passionate leaders. We don't want to graduate students just capable of getting a job.
Wanting a new type of student means that we need to be a different type of librarian.
Librarians:
Less of an instructor or information guide, more of a coach, mentor, co-captain
The coach is never as good as the players. It is our job to push them over the edge.

New Librarian Skills

- Mentoring
- Connector
- Being "on" all of the time, beyond the 9-5
- Learn to be energized by chaos
- Being an active participant
- Making friends with IT
    - you may get pushback from them, but remember they believe in education too and are probably makers themselves
    - when you need their help installing specialized stuff, send them pics of happy students using it!
- Get comfortable with tech
    - "I think I broke the laser cutter…" "Oh, splendid! Now you'll learn how to fix it!"

Get input from students. They can give excellent feedback on what they need to be creative.
9/10 of education is encouragement.

Makerspaces have a reputation of being white/male places. By having many representative types of people working in the engineering library/lab makes the space same and open to many.

"I never teach my pupils. I only attempt to provide the conditions in which they can learn." - Albert Einstein

"Nine tenths of education is encouragement." - Anatole France

Collaborate - this doesn't all have to come out of your budget!

- psych department helped with handheld 3d scanners - they needed it anyway for their research, so now it's in the library where everyone can use it
- 31 faculty across campus worked on the makerspace proposal
- Engineering department - second 3d printer, laser cutter
- collaborations beyond the university - local schools, makerspaces, etc.

This equipment brings faculty back into the library.
- chem professors modeling molecules
- biochem professors modeling organs

Awesomeness in Process: Please DO TOUCH

### Michael Holt: Valdosta State University

Makerspaces in academic library: Providing the connection for collaboration

Perspective from a small, liberal arts library -- what to do when you don't have a lot of resources or space

Mike was friends with Head of Special Collections. He heard that SC was to spend $20,000 on a digital camera. He designed and built a large book scanner, inspired by http://www.diybookscanner.org. An affordable solution for much less money than the commercial options. He worked with campus connections to build the wood cradle.

The art dept is a strong partner. There is a major in jewelry making, by partnering with library & 3D printer, they were able to model designs.

Students make Iron Man (out of aluminum). The applied math major got into the art show with his helmet.

3D printers have allowed for pieces that won in the art show.
Why collaborate? If people don't know what you're going they won't come to the library.
Important to note the number of people you've impacted.

### Jason Griffey: Founder and Principal Consultant, Evenly Distributed

SSID: Library Box http://librarybox.us
Univ. of Tennessee @ Chattanooga. New library to open, Jason spent 6-years planning the library. Including a space called "The Studio" Not huge, but a dedicated space.

Making knowledge work: we organize, share, but we don't often build things.
Making is powerful. Having an object you create is a powerful form of learning.

Open Source software is a library way of building. Open Source hardware is another side of how we can build.

The cost of open source hardware is dropping.  Therefore, the cost of this hardware will only get cheaper as time passes.  EX: http://lilypadarduino.org/

Building your own hardware:  (the library will not be beholden to the “thing” we buy)
Patron Counters -- Build one yourself for $70 vs. the $300 from a vendor
Temperature/Humidity Loggers for Archives  -- Build one for $85 vs. $1,200+
RFID readers, barcode scanners, seat usage detectors(!), more. . .

“The street finds its own uses for things” - William Gibson
EX: EBOX 360 Kinect can be used as a digital scanner

Overall message: Make the Things that Measure the Future
Free orange, 3D printed skulls!