

# Implementing an Innovation Corner in a Federal Research Library

Stacy Bruss  
Innovation Librarian  
National Institute of Standards and  
Technology (NIST) Research Library



## Innovation

The act or process of introducing new ideas, devices, or methods

Source: Merriam-Webster

## Innovation Centers as Inspiration

Innovation centers in academic libraries

IT innovation centers in Federal agencies

Potential NIST Innovation Center

## National Institute of Standards and Technology

Founded in 1901, NIST is a non-regulatory agency within the U.S. Department of Commerce.

NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.

## ISO

The Information Services Office supports and enhances research activities of the NIST scientific community through a comprehensive program of knowledge management

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Innovation centers in academic  
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Potential NIST Innovation Center

### 3D PRINTERS

Infographic detailing various 3D printer models, their capabilities, and associated costs.

### VISUALIZATION COMPUTER

Data visualization increasingly important to innovative science

Support customer and Library data needs

Infographic detailing visualization software and hardware options.

### FUTURE PROJECTS

- Microcontroller kit lending and workshops (Arduino, BeagleBone, Teensy, etc.)
- Collaborate on potential NIST Innovation Center

### Fertilizer

- Refine existing projects and develop new projects based on success and customer feedback of projects
- Stakeholder input on innovation centers from NIST future leaders team



### LESSONS LEARNED

- Library needs to think like innovators
- Start with physical technologies
- Create buzz - learn and use technology in public



With a local library innovation center, you can...

### Foundation

- Review and listserv call for information regarding innovation centers in libraries
- Informal discussions with customers

The background of the slide features a stylized illustration of tree roots in shades of brown and tan, extending from the top edge down into a light blue gradient. The roots are thick and branch out, creating a sense of depth and stability.

# Foundation

- Review and listserv call for information regarding innovation centers in libraries
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# About the Library's Innovation Corner



**VISUALIZATION  
COMPUTER**

**3D PRINTERS**

# 3D PRINTERS

## Why?

Support the research needs of customers

Enable innovative research

Create prototypes  
 Create research apparatus  
 Replicate existing parts

Support information access

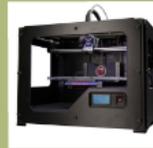
Visualize data

Library is known as a shared-use resource, open 24/7

## What?

### MakerBot Replicator 2

- consistent print output
- widespread in community
- prints in PLA



Note: The identification of any commercial product or trade name does not imply endorsement or recommendation by the National Institute of Standards and Technology.

### Afinia H-Series

- flexible, able to print many plastic types
- requires more attention to print well
- preloaded with ABS



## How? Special Considerations

Unknown Technology	Ongoing Maintenance
	Printer Workspace
Safety	24/7 Access

## Getting the Word Out

- Library's news blog
- Library's digital displays
- NIST monthly newsletter
- Orientation session in NIST training system
- Signs and users manual at the 3D printers
- 3D printing page linked from Library homepage
- Presentations at non-ISO meetings

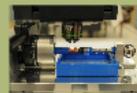
## Future Work

3D Scanners

3D Printer Users' Group

## Customer Response

Phenomenal!



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innovative  
research

Support  
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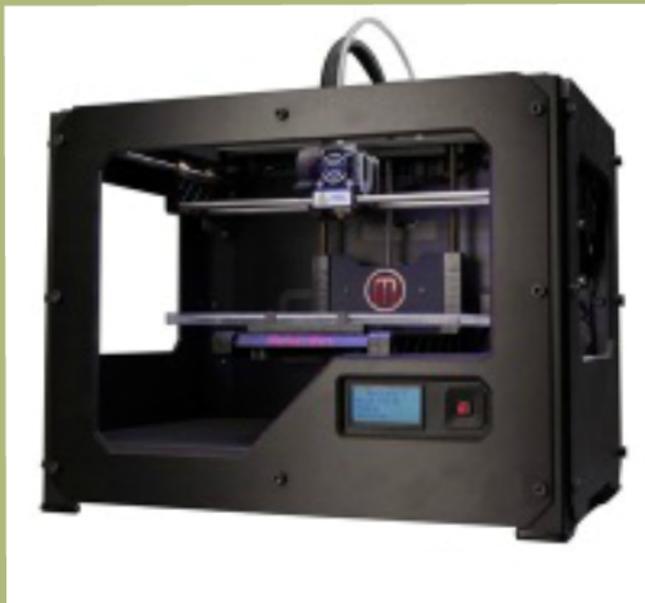
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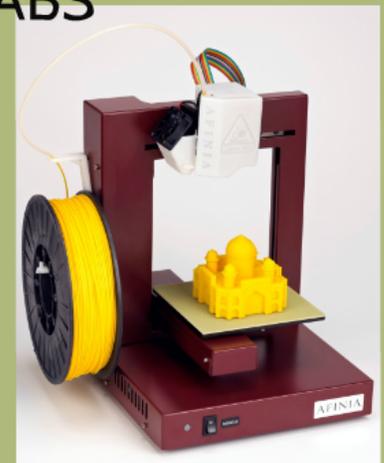
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Technology

Ongoing  
Maintenance

Printer  
Workspace

Safety

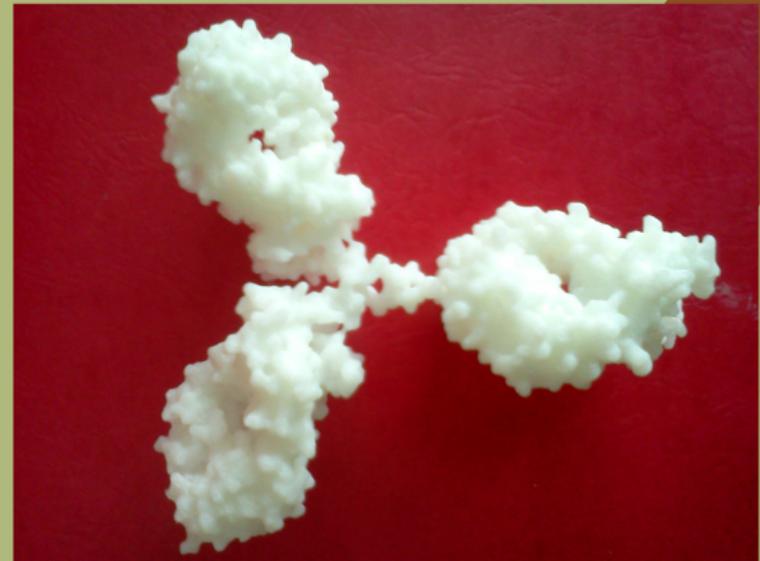
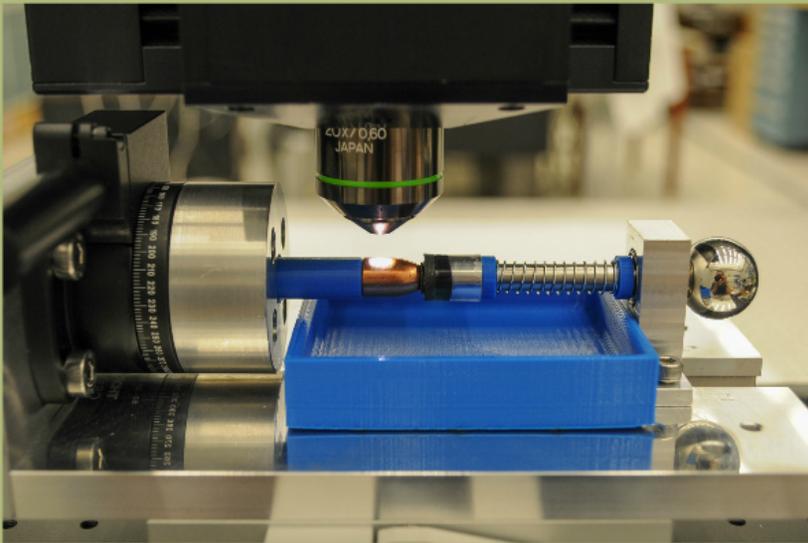
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# VISUALIZATION COMPUTER

Data visualization increasingly important to innovative science

Support customer and Library data needs

## Visualization Computer Software

### Data Analysis and Visualization

- Tableau
- Sci²
- Gephi
- Neo4J
- Anaconda

### Graphic Design

- Adobe Creative Suite

### 3D modeling software

- Autodesk Inventor
- Mathematica
- Sketchup Make
- Blender

With the assistance of funding from the National Science Foundation, the University of North Carolina at Chapel Hill is providing support for the Visualization Computer Software.

## Increasing Customer Awareness of Data Visualization

Marketing to Library customers

- Training/orientation:
- Librarians
  - Summer students
  - New employees

Panel of data visualization "power users"

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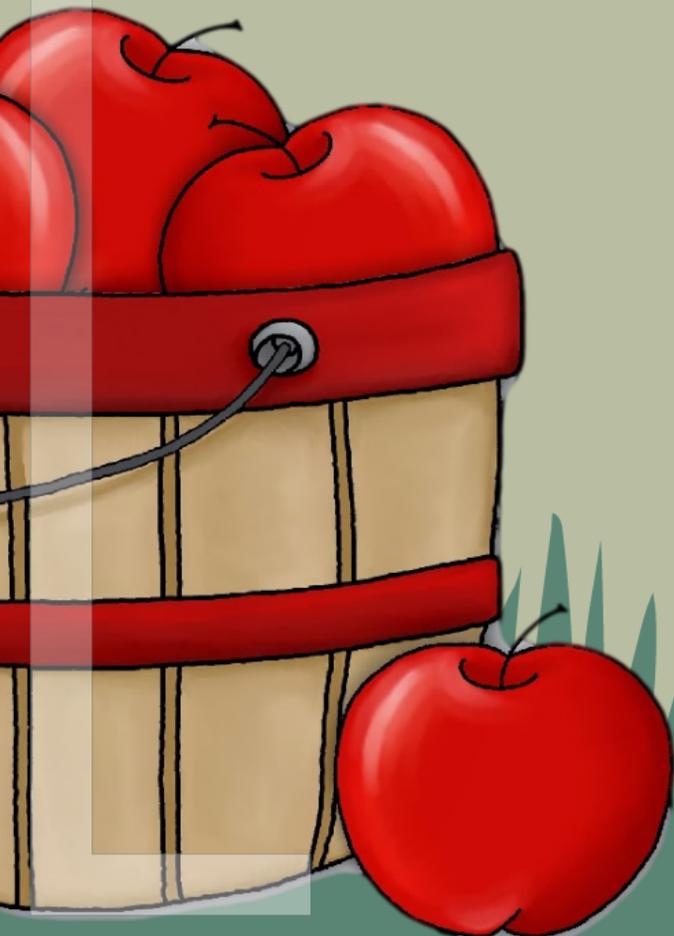
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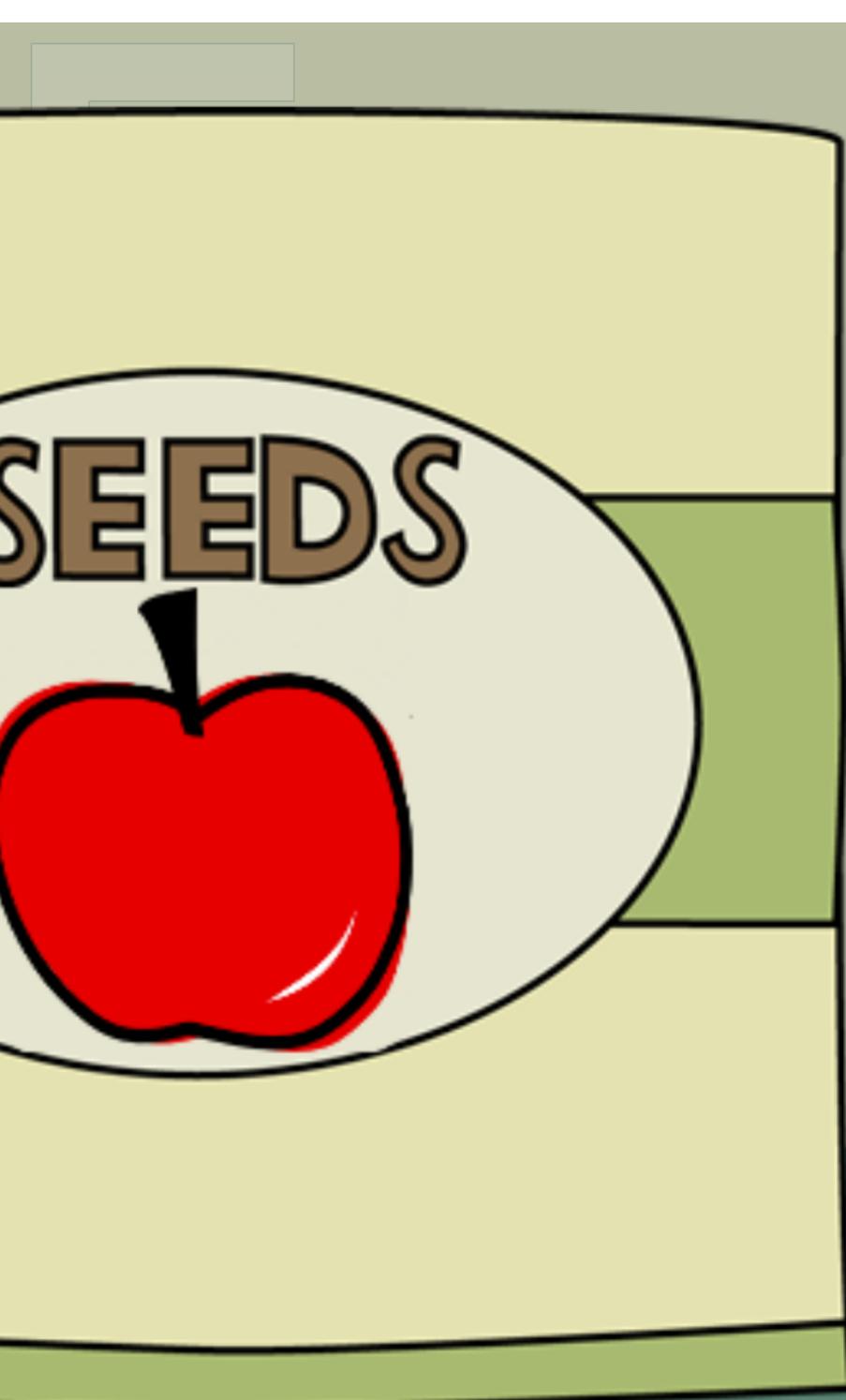
Think big, start small

Continual innovation, not  
instant perfection

Never fear to fail

Consistent investment

Be agile



SEEDS



Not a Sci/Tech library?  
Innovation tools still  
needed

Questions?



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