MIT Idea Fair 2018
Safety, Hazards, and Challenges

Andrew Anselmo

Talking about Makerspaces (as a member and observer)
What is a Makerspace?

In a nutshell: “Community centers with tools.”

The one I belong to: Artisan’s Asylum
40,000 square feet of awesome
Somerville, MA
Over 7 years old
Visited a few – various layouts

San Antonio, TX - 10bitworks
Troy, NY – Tech Valley Center of Gravity
Worcester, MA - Technocopia
Lowell, MA - LowellMakes
Providence, RI – AS220
St. Louis, MO – ArchReactor
What is done there?

- Electronics and Robotics
- Jewelry
- Bike modification (SCUL)
- Woodworking
- CNC Machining
- Welding
- Old school machining
- Cosplay
- Laser cutting
- Biohacking
- Auto mechanics
- Fiber arts
- Screenprinting
- Hydroponics
- Sculpture
- Live model drawing
- Boat building
- Individual shop spaces
General Awesomeness

- Robot fights
- Stompy – huge hexapod
- Electric Porsches
- Ray Activation and many other Burning Man projects
- Some very successful Kickstarters (3Doodler, Geo Orbital)
- Many small businesses in engineering, arts, architecture, design, fabrication
General Awesomeness 2

- Personal workspaces
- Lots of crossover
- Community of makers
- Lots of synergy
- Continual learning
- Excellent chances you will find an expert on anything
How they work

Various models of operation

- Private, members-only
- For profit (TechShop, R.I.P.)
- Mostly non-profit
- Open to the public (public classes)
- Associated/affiliated with high schools, libraries, colleges, universities
- Tool libraries
- Mostly volunteer run, with some paid staff
How it sometimes doesn’t work

Somebody brought a giant bag of fireworks.

Let’s start a compost pile!

https://runningahackerspace.tumblr.com/
Safety and Hazards – Lots and lots of them

**Physical Safety/Hazards**
- Physical plant security
- Dangerous machines
- Dangerous materials

**Sociological Safety/Hazards**
- Volunteer burnout
- Homelessness
- Politics
- Finances
Safety and Hazards – Possible solutions

**Physical Safety/Hazards**
Physical plant security – fobs, keys, a front desk, cameras  
(privacy issues; Murphy’s Law)  
Dangerous machines – training, lockouts (hacked!)  
Dangerous materials – fire cabinets (what is dangerous?)

*Culture of Security and Safety*

**Sociological Safety/Hazards**
Volunteer burnout – events for volunteers, gifts  
Homelessness – strict policies, no showers?  
Politics – getting off of mailing lists  
Finances – having strict guidelines

*Culture of Community*
Other Challenges

• Solving the physical and safety hazards – *in a cost effective manner* (“Better, cheaper, faster, pick only two.”)
• Growing the space or organization (physically or otherwise)
• Big and cool projects
• Big and cool events