Fabrication Laboratories

Playground for Nerds or Lasting Impact?

DAAD Alumni-Sondertreffen, May 2019, Berlin | Julian Hammer

Definition: FabLabs

Bring together equipment, people and knowledge from different disciplines, to make (almost) anything, by anyone.

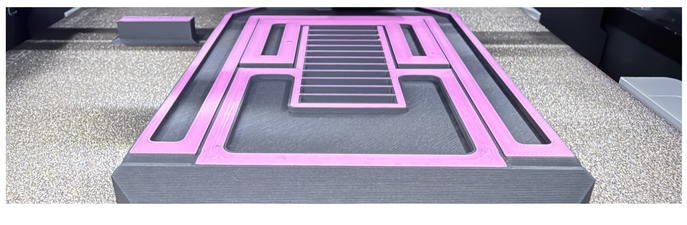
Access & Space
open to the public, 150+ sq. meters

Community
teach and learn from one another

Network
1,500+ labs world wide



Tools



Machines



Materials & Components

Example: Projects

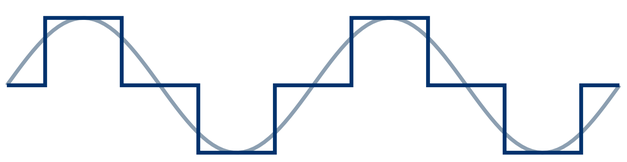
Fab Lab House
Road Bike
Touring Ski

Bike Tracker
Hexapod
Satellite Greenhouse

Citizen Sensor Network
Open Source Beehive
Hand Prosthesis

Projects are usually open source and available online for personal reproduction, as stipulated by the Fab Charter.

Vision: Digital Fabrication



Analog → Digital → Analog

☑ Communication (1938 by Shannon)
☑ Computation (1941 by Zuse)
☐ Fabrication?

Data and matter become interchangeable.

Error correction
Unlimited reproduction
No degradation

Vision: FabCities

- **Home**
- **Neighbourhood** 1 km
- **City** 10 km
- **Region** 1,000 km
- **Planet** 10,000 km

— materials stay local
— data travels globally

Global exchange of data, with local harvesting and recycling of materials.

Controversies

Waste and recyclability
Health and safety
Intellectual property
Weapons
Jobs and employment

References

https://fablabs.io/
http://fab.cba.mit.edu/about/charter/
https://zenodo.org/record/890727
https://fab.city/
http://cba.mit.edu/docs/papers/12.09.FA.pdf
http://www.fablabhouse.com/
https://library.uta.edu/fablab-prosthetic
https://www.osbeehives.com/
http://making-sense.eu/

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