

What's OpenLab's Purpose? (2)

- ↳ There are no intelligible instructions on the internet to build a lab.
- ↳ if there are, the instructions cannot be downloaded, modified, and republished.
- ↳ Everyone making labs globally are subjecting their success to one dude with one scope of skills & one budget:
 - ↳ the people "dude" has experience w/ traditional labs at best. He knows new tech is viable but must trial the tech before implementing, causing a need for a trial space, trial people, and such trial is NOT part of the budget
- ↳ A million young experts have temptation to omit the \$50K cnc mill in favor of 50 good tools to expand the possibilities. They have authority & budget but no time to develop 50 decisions. Openlab combines the decisions
- ↳ Today's matrix of success is too costly
- ↳ successes are made by genius "makers" constantly & never written down. The cost of writing is immense:
 - ↳ institutional cost: nobody gets paid to record knowledge in technical development. nobody gets budget to hire a writer.
 - ↳ personal cost: the moment of breakthrough is the highest-demand time for productivity → breakthrough entices next step. Missing next step is COSTLY

[2025.10.07 Tech] 1

What is the point of openlab? (1)

- ↳ I instruct, and I receive 10,000 questions. Answers are accumulated here, allowing me to answer across time & space
- ↳ I made huge efforts @ TAMU that were discarded in an incomplete state. To prevent this recurring ~~we must~~ I'm attempting to communicate a model, closer to a final concept than I can tell w/words
- ↳ Big institutions can't pursue big ideas except wrapped in one word w/one model - * 10m new building, one architect, one photo - the photo is believable b/c it ~~has~~ is backed by known methods - ironwork, ~~steel~~ stonework, w/ skills & trades traditionally having cross-communication. But if the architect uses two novel skills/functions to generate one new plan it looks unbelievable and never gains support.
- ↳ Build analogy to CNC mill - solve 10,000 problems w/one new ^{change}.
(costly)
big effort cost: numeric control & sensors
gain: build 3D-stored creations
openlab cost: digital backbone, digital framework
gain: build anything
- ↳ this analogy tells why, (historically) adoption of a good new thing is slow & messy

[2025.10.07] (3)

Openlab Purpose? (3)

Technical experts can't help each other presently.

Youtuber wishes to backup instruction w/documentation - How?

↳ imitate openlab as a method of distributing docs, ~~own~~ photos

Grad-level engineer publishes journal paper & wishes to instead publish highly accessible instruction with video embedded - How?

↳ imitate openlab as a method to publish

Engineer shares free & open model, extremely valuable but value cannot be captured unless it's accompanied by a new fabrication technique and documentation thereof. - How?

↳ imitate openlab as a method of documentation

Technician discovers vastly better way to do a job but has no audience or language of explaining - Do what?

↳ add comments in openlab videos, CAD posts, github repos

↳ simultaneously discover others in community to discuss & refine ideas

There is no way for me, as I help students @ university, to discover a hidden safety risk in a new tech area which I am operating and recurringly demonstrating. By publishing methods for a large audience, many brains are reviewing my work & have a pathway to communicate problems - then I can read comments, learn hidden issues, update documentation. Only possible if I publish the standard tools, methods, materials.

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