

Bridging the Digital Divide: My Leadership-in-Action Experience with the Timothy Smith Network

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This summer, I travelled to Boston, Massachusetts for my Leadership-in-Action project with the Timothy Smith Network (TSN), an NGO working to close the digital divide by giving young people in Boston access to technology and engineering education. Over six weeks, I worked on TSN's Tech Your Health programme, teaching CAD, 3D printing, and laser cutting to a group of interns who then designed working health-related prototypes such as an auto-dispensing medication box, a voice box for people who have undergone a laryngectomy, and a smart walking stick for blind users that reports air quality.



My SMART goals

I anchored my objectives to four UN Sustainable Development Goals most relevant to TSN's mission and my role within it:

- **SDG 4, Quality Education - Specific & Measurable:** Teach CAD, 3D printing, and laser cutting to a group of beginner interns over six weeks, measured by each intern completing a working prototype by the end of the programme.
- **SDG 10, Reduced Inequalities - Achievable & Relevant:** Use my STEM education to give interns from under-resourced Boston communities hands-on access to engineering tools and skills they would not otherwise encounter, directly addressing the access gap TSN was founded to close.
- **SDG 3, Good Health and Well-being:** Ensure the final prototypes had a real health application, so the technical skills taught fed into a tangible community health outcome

Goals and progress

Before departure, my goals were to step outside my comfort zone, to learn what it actually takes to teach well, and to use my STEM education to open opportunities for people with less access to it than I have had. Measured against these, I can say the experience delivered more than I expected, though not always in the way I planned. I underestimated, for instance, how difficult CAD is for a total beginner, and had to redesign my teaching approach mid-programme once I saw interns struggling with concepts I'd assumed were intuitive. That adjustment (building tiered activities using resources like the Onshape Learning Center so that more advanced interns could progress while others caught up) became one of the clearest markers of growth for me. It reframed "teaching well" from delivering a fixed curriculum to reading a room and adapting in real time, which is a more realistic version of the goal I set out with.



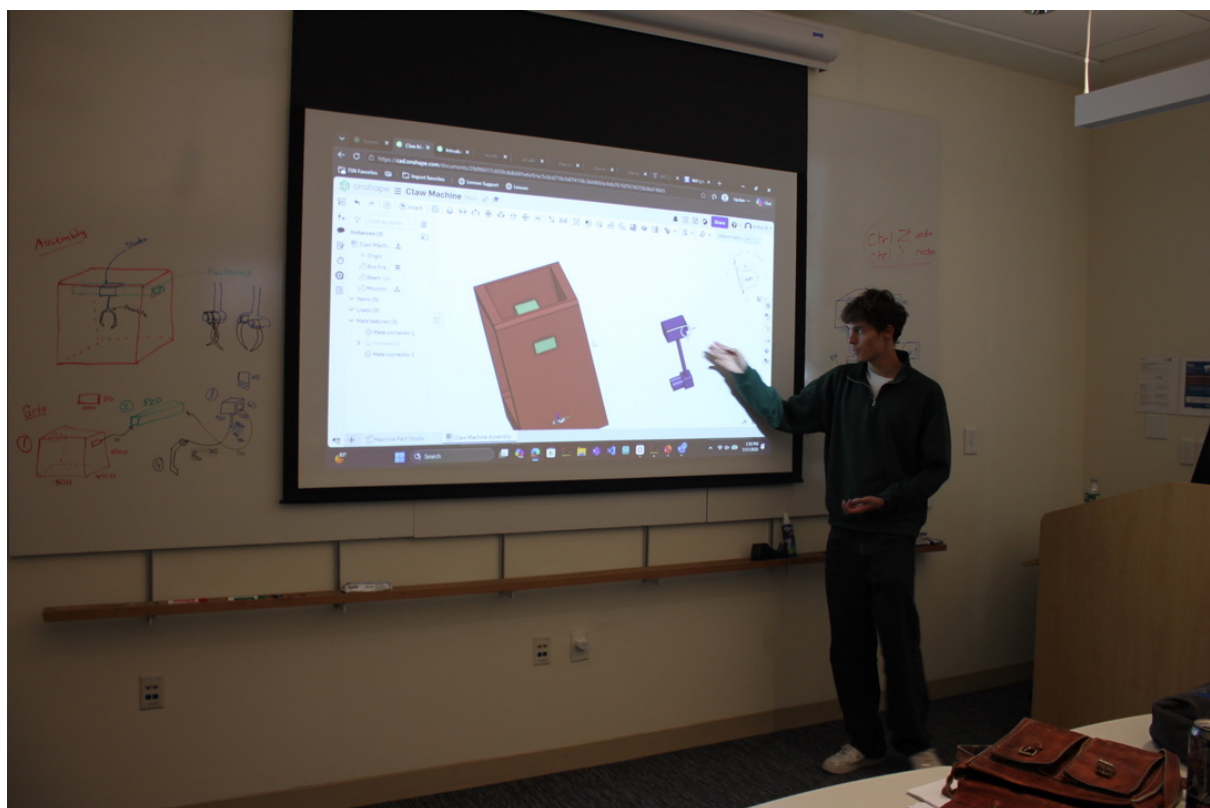
Working with the community

Going in, I hoped to give the interns genuine ownership and passion over technical skills. It was not just a summer activity, but something that showed in how proud they were of the prototypes they built. Because I grew up in Paris and now live in Lausanne, Boston itself didn't produce major culture shock, but the internship did surface real differences I hadn't anticipated: gaps in prior exposure to technology, different paces of learning, and different comfort levels with failure, which is central to prototyping. Sitting with interns who were frustrated by a failed print or a CAD error too many times taught me a lot about patience.

The clearest ethical tension I faced was around the 3D printing queue during the prototype phase. With limited printer time and every intern wanting their design finished, I had to

decide how to allocate a scarce resource fairly as a first-come-first-served penalised interns who'd spent longer refining their designs, while prioritising "readiness" risked looking like favouritism. I ended up using a transparent allocation system and explaining the reasoning to the group.

More than anything, this experience sharpened my sense of the privilege embedded in having a STEM education at all. Teaching also made me newly aware of my own assumptions about what counts as "basic" knowledge, assumptions that come directly from where and how I was educated. That awareness is close to what I'd now call cultural humility: recognising that my expertise was useful here, but that it did not make me the smartest person in the room, and that real teaching meant continually checking those assumptions against what my interns actually needed. From the first day the first thing I told the interns was that I did not want to be their teacher, and I had as much to learn from them as they did from me, a message that stuck with me until the very end of the programme.



Seeing the wider system

My project didn't happen in a vacuum. TSN exists because of a real, structural gap: many Boston schools and families often lack access to the technology education that others take for granted, and TSN's funding (a mix of partnerships, including with Tufts University) shapes what it can offer and to whom. The six-week structure of the programme was itself a resource constraint: enough time to teach fundamentals and prototype something real, but not enough to follow up on what interns did with those skills afterward, which limits how much systemic change a single summer can produce. I was also conscious of the power dynamic inherent in a Laidlaw Scholar arriving from a well-resourced European university to teach in the Boston community for six weeks. It means the most sustainable value I could add wasn't the six

weeks of direct teaching, but modelling an accessible, patient way into a field that sparked passion that I hope the interns will hold on to for a long time.

Looking back

This project shifted me from a fairly abstract goal like "use my education to help others" to a much more concrete understanding of what that requires: patience, structural awareness, and a willingness to be told my assumptions were wrong. I leave it more motivated to teach, more aware of the privilege behind my own education, and more attentive to the systems that make programmes like TSN necessary in the first place.