

Field Notes on Digital Inclusion | Part 4 | Quantum for All

[Originally published October 9, 2025 on LinkedIn](#)

Illinois is entering the quantum era with enormous excitement. The Illinois Quantum Microelectronics Park (IQMP) is rising from plans into place, promising new industries, new jobs, new discovery. Everywhere, the message is clear: *we must fill the quantum talent gap.*

It sounds urgent and hopeful, and familiar.

When the nation faced a “coding gap,” we were told that learning to code would change everything. Bootcamps multiplied overnight. Billboards promised, “*Learn Python in 30 Days — Earn \$65K!*” Communities that had long been left out of opportunity were suddenly invited in, but mostly as consumers of training, not co-designers of systems.

Few of those programs asked whether participants had broadband at home, a working laptop, or the literacy supports needed to thrive. Many did not. The reality soon surfaced that credentials alone couldn’t overcome the deeper barriers of access to broadband, career navigation, and employer readiness for inclusive hiring. And even when the training was complete, many participants still faced the quiet exclusion of being unseen; entering employment spaces that had long been shaped by faces and networks unlike their own.

The Rush to Skill

Today’s rush toward quantum feels familiar. National headlines warn of a looming shortage of quantum-ready workers, and companies are racing to prepare the next wave of technicians and engineers. But the focus is almost entirely on supply — on producing more people to meet an undefined demand.

That’s dangerous territory. Without reflection, we risk recreating the same inequities that coding bootcamps did: a market built on aspiration without infrastructure.

Quantum computing will one day need technicians, assemblers, and system integrators. Those roles could indeed offer pathways for workers without advanced degrees. But if we repeat the “train fast, place fast” model, we will miss the deeper work: preparing ecosystems, not just individuals.

Beyond the Talent Gap

What if we slowed down the race to fill and instead focused on the work to build?

Building means ensuring that every community around IQMP has the broadband, devices, and confidence required to even see these opportunities. Building means creating trusted intermediaries — libraries, community colleges, neighborhood hubs — that translate complex science into accessible curiosity.

It means measuring success not by how many certificates are granted, but by how many residents feel empowered to imagine themselves in the story.

Because the real “gap” is not just talent. It’s trust. It’s time. It’s the distance between how quickly technology evolves and how slowly equity is funded.

Designing for Belonging

Digital equity teaches us that access alone does not equal inclusion. The same must be true for quantum.

If we want an inclusive workforce, we must start by designing inclusive learning experiences:

- **Start early.** Introduce quantum concepts through play and storytelling in K–12 classrooms.
- **Start local.** Offer community-based learning cohorts where adults can explore technology without fear of failure.
- **Start honest.** Tell the truth about the kinds of jobs available, the skills required, and the time it takes to grow into them.

Let residents *co-author* the pathways. Let workforce programs reflect the realities of childcare, transportation, and digital access. Let quantum training include not only the hard skills of computing but the soft skills of communication, collaboration, and confidence.

Inclusion isn’t a prerequisite; it’s the practice.

A Slower, Wiser Innovation

There is wisdom in the pause. Illinois has a chance to build the quantum economy differently and to make reflection part of innovation.

Imagine if every new lab, training center, or curriculum had to answer three simple questions:

1. Who is this opportunity designed for?
2. Who might be unintentionally excluded?
3. What supports are in place to make participation possible?

That pause could change everything. It could turn the IQMP from a site of elite discovery into a living laboratory for equitable design and one that learns from the past instead of repeating it.

Reflection

I believe in the promise of quantum technology. But I also believe in the people who stand at its edges like the learners, the librarians, the neighborhood mentors, the parents translating possibilities for their children.

The future does not belong only to those who master algorithms. It belongs to those who master empathy, patience, and the courage to ask harder questions about progress.

We do not need another race to skill. We need a movement to build belonging.

Because when we prepare people for the future *and* prepare the future for the people, everyone wins.

Kyla Williams Tate - ***Thought Leader, Advocate, and Storyteller***