The tech industry is facing a significant shortage of talent. With nearly 1.4 million unfilled job openings a year and millions of tech workers set to retire over the next eight years, that shortage will only grow. Now more than ever, we must attract the next generation of talent into tech occupations — but how?

The skilled labor shortage in tech and other STEM fields has garnered attention and funding from the White House to Silicon Valley to create initiatives that foster teens’ interest in STEM. The “T” in STEM, however, is struggling to gain traction among youth beyond coding or robotics.

We have the ability to inspire the tech workforce of the future, but we must go to the students. That’s why we created NextUp.

NextUp is CompTIA’s and Creating IT Futures’ new initiative to introduce teens to the many possibilities of technology careers and guide them to the tech career of their choosing. Through curricula, projects, partnerships and mentorship, we aim to spark curiosity and passion for technology. By connecting teens to the promise of technology today, we hope to build a generation of technologists for tomorrow.

NextUp will be a series of programs that are built on two main components: partnership and mentorship. Through our partners, we will provide the content and structure for engagement. Through a mentor network, we will provide support, expertise, and shared passion for technology. Through both, we will reach creatingITFutures.org
out to students in the context of their interests and foster opportunities to connect those interests with different facets of tech.

**WHAT WE WANT TO DO**

We want to create opportunities for teens, develop excitement for technology, and build a foundational awareness of tech careers in such a way that they will want to pursue a career in the tech industry.

**HOW WE ARE GOING TO DO IT**

We will accomplish this by supporting and developing grassroots-level programs that engage kids with tech in grades 6 through 9 within the context of their interests and connect them with mentors who work in the tech industry. We will establish partnerships with existing STEM organizations and recruit mentors from CompTIA’s vast network of members and tech professionals.

**WHERE THIS WILL LEAD US**

We will dramatically increase the number of students who are exposed to tech-related roles and activities. We also will create thousands of new relationships between young people and dedicated CompTIA mentors. Our hope is that after students finish middle school, their experiences and the relationships they forged through NextUp will lead them to pursue studies for a tech career.

**HOW WE GOT HERE**

In spring 2016, CompTIA partnered with global design firm IDEO to tackle the challenge of how to steer teens to pursue a career in technology. IDEO started by reviewing the 2015 “Teen Views on Tech Careers” white paper from CompTIA’s Creating IT Futures. The study surveyed low- to middle-income, urban African-American and Hispanic teens and parents to find out how they view tech jobs, college, and their future careers. The study gave IDEO a starting point for their qualitative research.

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IDEO then sent researchers to several cities to speak with kids, parents, guidance counselors, and teachers. Over the course of their interviews, researchers found trends similar to the results of Creating IT Futures’ study. We have summed them up in the following five key lessons:

1. **The college dream is powerful.** It is shared by both students and parents regardless of socioeconomic status, gender, or ethnicity.
2. **High school is viewed by most students and teachers as college prep.** College is the dream, and high school is the path to get there. As a result, programs that focus on hands-on trades or hardware-focused tech skills are being minimized or removed from high school curricula because they aren’t perceived as preparing students for college.
3. **There is no silver bullet, no single source of information, no website that will draw kids to tech.** Even if there were, it would have to compete with countless other websites and campaigns from other industries.
4. **Kids have bought into the “follow your passion” message.** They want careers that allow them to do something they love.
5. **Role models are highly persuasive.** Their ability to inspire and influence career choices down the road cannot be understated.
DREAMERS VS. REACTIVES

IDEO’s researchers identified the target audience for NextUp. They found that youth in middle school and early high school are in an aspirational phase when thinking about their futures. They have yet to consider the practicalities of a career, money, or security. Their world is open and full of possibilities. In short, they are dreamers.

Once teens reach their junior and senior years of high school, they generally enter the reality phase. They start to think more realistically and logistically about their futures and the resources available to them to achieve their goals. IDEO called this group the reactives.

While CompTIA has the ability to influence both groups, the dreamers stood out to IDEO as the opportunity for the greatest impact. Because the dreamers are still discovering the world around them, they are more likely to be active participants than passive observers.

RESEARCH CONCLUSIONS

These research discoveries are the foundation of our approach for NextUp. Rather than trying to attract the dreamers to tech through a single source of information, we will go to them. Through NextUp, the dreamers will have the chance to explore the world of technology through activities that interest them and to get to know tech professionals who love their work and want to share why they love it.

GOALS

NextUp will be a work in progress during its early stages. As we develop or enhance programs with our partners and mentors, we are guided by three primary goals:

1. Grow awareness of and engagement with technology in middle and early high school teens.
2. Create and enhance curriculum and projects that include the application of technology as an important component.
3. Provide strong tech role models who will share their knowledge and passion for technology with students.

PARTNERSHIPS

Creating IT Futures is partnering with several organizations such as FUSE, New York Academy of Sciences, and TechGirlz that already have the framework in place to engage with teens. With our partners, we hope to develop programs that will expose young people to the many aspects and applications of technology. In addition, we will work with partners who understand the power of role models and who have a proven track record of training mentors and facilitating meaningful, long-term relationships between teens and adults.

CREATING IT FUTURES

Teens not only get mentoring on what a tech career is like, but also hands-on education.
MENTORS AND ROLE MODELS

One of the keys to NextUp's success will be mentorship. CompTIA will mobilize its network of more than one million members and tech professionals to commit to regular short-term engagements with teens. For NextUp mentors, this will be an opportunity to share with kids why they love working in tech.

ENGAGING KIDS WITH TECHNOLOGY

By building relationships through exciting activities, we aim to spark teens’ interest in technology in hopes that they will eventually pursue a tech career down the road. We will not focus on highly technical tasks but instead connect applicable skills to existing passions.

METRICS FOR SUCCESS

We will continually assess our approach as we discover what works best to meet our goals and honor the interests of the teens with whom we will work. We will gauge our progress toward these goals through several of the following mechanisms:

1. Measuring teens’ awareness and interest through interviews and surveys at the beginning and end of each program.
2. Tracking demand in comparison with other engagement programs that don’t have a tech focus.
3. Monitoring mentorships through direct observation and through surveys of both mentors and mentees.
4. Tracking program success using metrics such as number of students impacted, number of program sites, number of engagements, and diversity of delivery methods (e.g., in-school, after-school, or summer programs).

Throughout this process, we will work closely with our partners to get their feedback and ensure both of our missions are advanced through these engagements. In addition, we will be looking for opportunities to engage students from diverse economic, gender and racial backgrounds.

How Can We Work Together?

While we launch various components of NextUp with our current partners, we hope to build additional partnerships with other organizations that share our mission and goals. We are looking for partners who would like to learn with us as we map out the NextUp journey. Potential partners may have:

- Successful youth programs that would like to add or enhance tech-related content,
- Successful programs that already contain tech-related content but need tech mentors,
- Tech employees who are interested in becoming NextUp mentors, and/or
- Funders interested in expanding our efforts and the work of our partners.

If you are interested in working with NextUp, contact Eric Larson, senior VP, IT Futures Labs, Creating IT Futures, at elarson@comptia.org. Together, we can inspire the next generation of technologists.