

As Tata Consultancy Services (TCS) signature community engagement program in North America for the last 10 years, goIT helps students design human-centered solutions that harness technologies for innovation. This digital innovation program blends design thinking and industry expertise to provide students with the 21st century skills necessary to create technology for social good.

Through a standards-aligned engaging curriculum, students are introduced to the innovation lifecycle, product prototyping, and industry relevant entrepreneurial skills. The program ends with a high energy, idea-pitching culmination event. TCS employees serve as role models during the program by mentoring students, providing industry context and real-world connections.

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Adam Hartley

High School Math Teacher
Perkins Local Schools
goIT: Teacher - Classroom Project Leader

The Community

Sandusky, OH is a small town in north central Ohio on the border of Lake Erie. It is most famous for housing the Cedar Point amusement park. The population is an interesting mix where tech and industry are resurfacing downtown, but ten minutes away is farm country. This presents unique challenges to teachers working to expose their students to relevant STEM learning.

Perkins Township, where Adam Hartley teaches high school math is 2/3 rural and 1/3 suburban. “It’s a great school with a diverse population and we are lucky to have an administration that supports technology, but we’re like every other school too in that we’re always trying to find out what we can do for our students beyond providing a laptop. What can we provide them to prepare them for the future?”

The Program

Finding the TCS goIT program was kind of a coincidence for Hartley, who had won entry to the NYC marathon via a TCS award for educators. The opportunity piqued his interest in TCS, so he set out to learn more about the organization and what they were about. Finding how central to the TCS mission community and education were, Hartley reached out about programming for his students and was connected with goIT.

“The curriculum is perfect in the sense that they ask teachers to guide their students to help solve a local real-life type of problem. The theme this year was inclusion. The program asks that students come up with actual challenges they see in inclusion and we work together on the solutions. Once the students started thinking about the issues, they really ran with the program.

As a math teacher, I did have to stretch a bit to make sure I incorporated our learning goals into the tech and inclusion lessons, but we found opportunities to bring the math problems in. For example, one thing my students said was a big issue was how hard it was for everyone to get from one side of the school building to the other. Can you imagine how hard it would be with a disability? Getting changed and getting out there for PE if you’re super shy? In math we’re solving for variables – if you know this distance and that distance, how can you find a shorter path? Students did graphs and rate of change. From there that blossomed into an app that they thought they could create to make a GPS hallways map – like the streets with traffic jams where you open it up and it says the quickest route.

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The Results

Although the students were shy in the beginning, once they got the ball rolling, Hartley could really see their creativity. "I've been out of college awhile – it's my 19th year. I feel like I have a little bit of a grip on what is going on; I have middle school daughters, but this has helped open my eyes to see where they're coming from and I do the same to show them what they can achieve. I can make real world meaningful connections to my students and have engaging conversations about what is important to them. In the bigger picture that's always been a goal of mine to get to know my students, and I guess motivate and inspire them. This program has helped me to do that and helped them see they have skills they didn't know about that they can actually use in future careers. That is game-changing.

I think the bigger picture is going through the design thinking and problem-solving process, which is where I really enjoy this. If I can teach students how to solve their own problems and get a little math along the way, then I'm really excited. It may not reach 100% but what they get out of it is how they can organize their thinking. How do they double check their processes and create something and if it doesn't work go back and try it again? I love this program because, yes it's tech, and they love it and they see how it's relatable to their lives. But even the bigger picture is that we're giving them independence and problem-solving skills they will take into their lives."

The Future

"What I love about TCS is that they are taking the opportunity to give back their time and their resources, which a lot of corporations probably have the ability to do but are wrapped up in other investments. I love that TCS is really taking time to give back to students who may not have these opportunities in other circumstances. Schools don't have all the resources so for TCS to help with that is awesome.

They realize if we don't prepare our youth for what is next, who is going to help us? If I'm not preparing people for the tech world when they go through college or are ready for the workforce, if they aren't prepared, who is going to fill those roles? So it's critical they are preparing our youth for those roles now so they can take over and drive change when their time comes."

Final Thoughts

"I don't think there is a school around that if a business rep knocked on their door and said, 'Hey, what can we do to help you help us prepare our students for the future?' would turn them down. It's looking at a new opportunity. I don't know if businesses are timid or shy about that but there are a lot of businesses probably doing this that we don't know about. But maybe start small and start local and say what can I do in my local community to pitch in and say this is what we see in the real world. What kind of skills can we help you develop now so they are ready?"

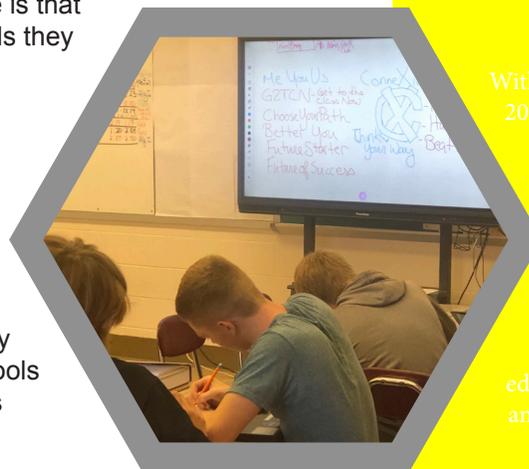
TCS wouldn't have grabbed my attention if they didn't plug it and promote it. When I was doing my research on TCS it was very easy to find on their home page what they do and their other education initiatives. And they have their Twitter accounts and Facebook pages and it's very user friendly for me to find out more information. If more companies were doing this work and promoting it and connecting to schools and teachers, we might not have so many of the talent challenges facing industry leaders today."

TATA CONSULTANCY SERVICES



goIT brings the many disciplines of IT into the classrooms of students traditionally underrepresented in STEM careers. The curriculum shows students how to use the agile methodology for rapid prototyping and implementation to design technology that bring positive change to their community. Although primarily targeted at middle school aged learners, with minor adjustments, the program can easily reach all learners from K-12.

With a proven curriculum since 2009, goIT has impacted more than 25,000+ students in metropolitan and rural communities across North America. By leveraging the train-the-trainer model and emphasizing a modular approach, goIT meets educators, schools, nonprofits, and community organizations where they're at.



To learn more about goIT and watch their new 10th anniversary program video, check out www.TCSEmpowers.org/goIT10