



INNOVATION IN ACTION:
AI program is changing education in Memphis



A Success Story with
Granville T. Woods
Academy of Innovation (GTW)
and Stemi







ABOUT

In November 2023 together with partners from US based company Vista Data, Stemi embarked on a groundbreaking journey at Granville T. Woods Academy of Innovation (GTW) in Memphis, TN.

This initiative aimed to revolutionize STEM education by introducing project-based learning focused on Artificial Intelligence (AI). Our mission was to provide cutting-edge educational opportunities to students from underserved communities, equipping them with the skills needed for future employment in the rapidly evolving tech landscape.





PROBLEM

GTW Academy, part of the Shelby County School District, faces numerous challenges common to many schools in underserved areas. These include limited resources, a significant gap in student success rates compared to national averages, and a shortage of teachers, particularly in STEM subjects. These issues are compounded by the rapid advancement of technology, which demands that students acquire new, relevant skills to stay competitive.



One of the most pressing challenges was the lack of exposure to advanced technologies such as AI and Machine Learning. Without understanding of these technologies and developing skills involving them, students risk being left behind in an increasingly tech-driven job market.

As GTW School Director Ms. Pam Brown noted, *“We needed a way to bridge the gap between what our students are learning and what they need to know to thrive in the future job market.”*

PROBLEM





SOLUTION

To address these challenges, Stemi launched an AI-Powered School pilot program at GTW Academy. The program was designed to integrate AI into the curriculum, providing students with hands-on experience in developing AI chatbots. Central to this initiative was Martin, an AI assistant based on Large Language Model technology, named in honor of Martin Sekulic, a high school teacher of Nikola Tesla.





SOLUTION



1. AI Integration in Curriculum: Students learned the principles of AI through a structured, semester-long, project-based learning experience. This included understanding Large Language Models such as ChatGPT and Bard, and applying their knowledge to develop products, such as video games and practical chatbots.

2. Teacher Support: Martin served as an AI tutor, assisting teachers with course delivery and providing personalized feedback to students. This support was crucial in managing classrooms effectively and ensuring each student received the attention they needed while teachers saved time which they could .

3. Real-World Applications: Students were tasked with creating AI chatbots for local community organizations, such as the Greater Memphis Chamber, providing them with real-world experience and a sense of contribution to their community.



SOLUTION



4. Continuous Support and Training: Stemi provided a 2-day intensive teacher training, ongoing biweekly checkpoints, and 24/7 support through the Stemi LAB platform. This ensured that teachers could effectively implement the new curriculum and adapt to any challenges.



5. Community Engagement and Needs Analysis: As part of their project, students visited the Greater Memphis Chamber to conduct interviews with team members Diamond Young and Courtney Blanchard. The goal was to gather essential insights and perform a needs analysis for developing an AI-powered chatbot tailored for the Chamber's website. This hands-on experience was crucial as it allowed students to apply classroom learning to real-world challenges, an opportunity they would not typically have.



6. International Collaboration: An international meetup was organized, bringing together middle school students at GTW Academy and teams from Infobip, Stemi Education, and Vista Data. Students had the opportunity to meet Izabel Jelenic, CTO of Infobip, a tech unicorn and global communication leader whose platform is used by over 5 billion people worldwide. The purpose of the meeting was for students to showcase their AI assistants built on Infobip's platform Answers, which they have been developing for the Greater Memphis Chamber. The coaching and guidance provided by the tech leaders and AI engineers focused on helping the students better understand and refine the AI assistants they have created to serve these community organizations effectively. This interaction provided students with invaluable insights and motivation from leading industry professionals. At the end of the call, the students were very curious about careers in tech and the path they should follow to one day work at Infobip.



The AI-powered school pilot at GTW Academy yielded impressive results, transforming the educational landscape for its students.

RESULTS



Enhanced Learning Outcomes

Students demonstrated remarkable progress in a short period. According to Stemi CEO Marin Troselj, *"They went from zero to hero in six months. It was truly amazing to see their transformation."* The students' ability to grasp complex AI concepts and develop functional chatbots was a testament to the effectiveness of the hands-on, project-based approach.



Real-World Impact

The chatbots created by students were not just classroom projects; they were deployed by local organizations, addressing real community needs.



Community and Industry Recognition

The program attracted significant attention from community leaders and industry professionals.

Memphis Mayor Paul Young praised the initiative, stating, *"Our infrastructure should be structured for the future. And these young people are going to be the ones that take us there. It's because of initiatives like this that we're going to be able to do it."*

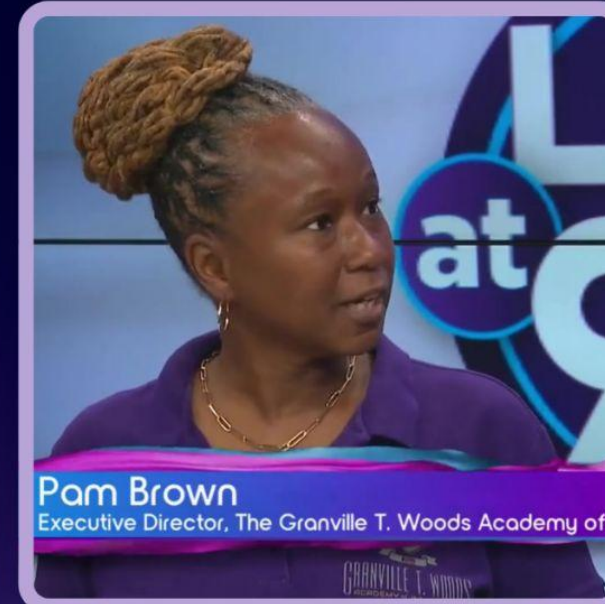


RESULTS



Media Coverage and Publicity

The success of the program was even highlighted on local television. Executive Director Pam Brown and her middle school students showcased their AI assistant/chatbot prototype for the Greater Memphis Chamber on WREG's Live at 9 with Kontji Anthony. This media exposure underscored the innovative work being done at GTW Academy and brought wider recognition to the students' achievements.



RESULTS



Long-Term Vision

Stemi's initiative has set a foundation for long-term impact. By equipping students with AI skills, we are preparing them for future employment opportunities and fostering a culture of innovation.

As Ms. Pam Brown highlighted, "AI is that additional help that our students will need. When you look at a teacher shortage and not having a teacher assistant in every room, AI is that teacher assistant."



Student Empowerment

The program not only provided technical skills but also inspired confidence and ambition among students.

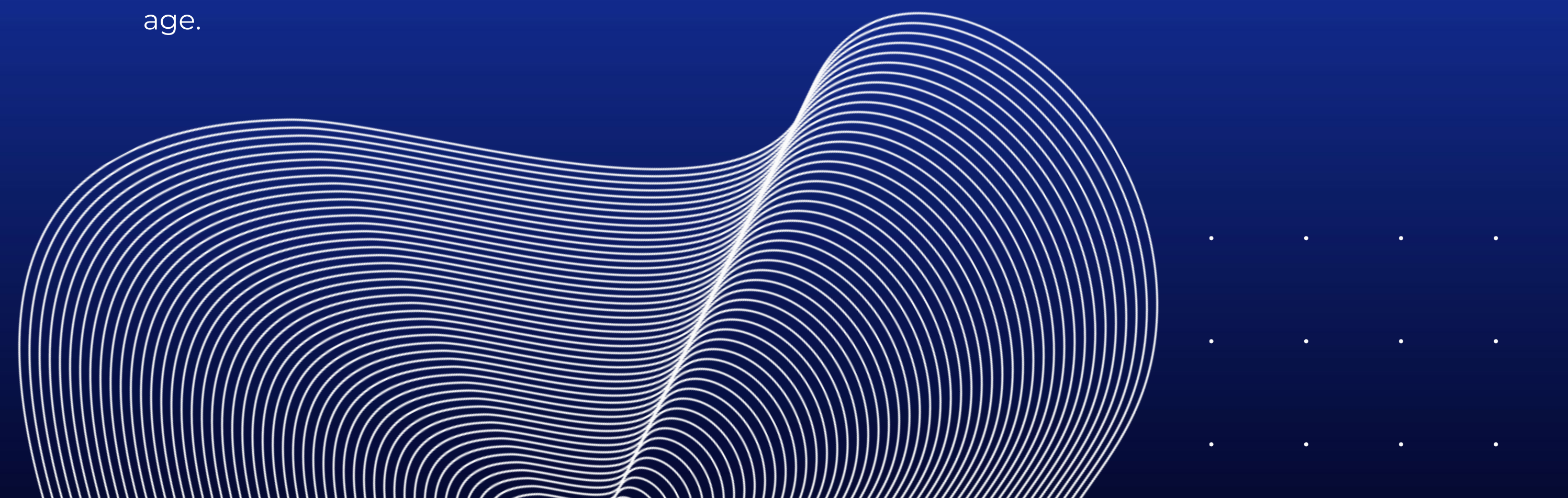
Tiana Carr, another participant, shared her newfound passion for AI: *"I didn't know I would actually be into this—like can we do it every day?"*






CONCLUSION

The AI-powered school pilot at Granville T. Woods Academy of Innovation is a success story of how innovative educational solutions can transform underserved communities. By bridging the gap between industry and education, Stemi has provided students with the skills and confidence needed to succeed in the future job market. This initiative serves as a model for integrating cutting-edge technology into education, ensuring that all students, regardless of their background, have the opportunity to thrive in the digital age.





Nancy DiBuono, Principal,
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"Stemi is unquestionably the 'Company of the Year' in EdTech. Their innovation in project based learning through Stemi LAB has reshaped the way we provide education. Their global reach and diverse course offerings ensure access to quality education for all. Through extensive professional development by their partners Milestone C, they demonstrate serious dedication to teacher and students' success. Stemi's programs and projects open doors to numerous job opportunities, making a tangible impact on students and education as a whole. Their consistent recognition from educational institutions and industry associations highlight their unwavering commitment to excellence. Stemi is the pinnacle of EdTech innovation and accessibility, deserving of the highest accolades."

