



PTC Explores the Use of Augmented Reality Technology for Autism

April 24, 2018

Collaboration with Boston Children's Hospital Reaches Milestone During National Autism Awareness Month, Shows Promise of Augmented Reality in Early Intervention

NEEDHAM, Mass.--(BUSINESS WIRE)--Apr. 24, 2018-- [PTC](#) (NASDAQ: PTC) today announced its collaboration with [Boston Children's Hospital](#), the number one pediatric hospital in the United States, to explore the use of augmented reality (AR) to help children with autism and related disorders communicate and learn more effectively.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20180424005921/en/>

PTC explores the use of augmented reality in early intervention for children with autism with Dr. Ho ...

PTC explores the use of augmented reality in early intervention for children with autism with Dr. Howard Shane of Boston Children's Hospital and professor at Harvard Medical School. (Photo: Business Wire)

April is National Autism Awareness Month, which promotes autism awareness, acceptance, and inclusion for the growing number of children with autism in the United States. According to the Centers for Disease Control and Prevention (CDC), the latest estimate is that 1 in 88 children have some form of autism spectrum disorder (ASD) – a 78 percent increase in comparison to

a decade ago.

Dr. Howard Shane, the Director of the Center for Communication Enhancement at Boston Children's Hospital and Associate Professor of Otolaryngology at Harvard Medical School, is at the forefront of using technology and visual supports to improve communication and learning for children on the autism spectrum. Children with autism often have difficulty understanding written or spoken language, but are extremely interested in electronic screen media. It is hoped that augmented reality may be used to help children with autism understand tasks and the world more fully, by helping to bridge the physical and digital worlds by overlaying an image onto a physical environment. Accordingly, the visual nature of augmented reality makes it a promising breakthrough technology to aid in the treatment of autism.

"The intersection of healthcare and technology is only beginning, and we are excited that PTC, a global leader in IoT and AR technology, is working with us to explore different use cases. Augmented reality addresses two of the biggest challenges facing a child with autism: communication and attention," said Dr. Howard Shane. "With AR, a child with autism could 'see' a cup become a spaceship and engage in pretend play, or 'see' the steps to brush their teeth right in the context of their own physical environment. Simple tasks that are challenging for those with ASD can be shown and communicated with AR in a way that is more meaningful to them."

A team of PTC employees volunteered countless hours to research and understand autism and the requirements for an effective AR solution. Once the team understood how to best develop applications for an autistic child, they quickly reached a project milestone by completing a prototype solution. In the next phase, an app, created for children with autism and a developmental age of three to five years old, will be clinically tested and evaluated for continued improvement. Dr. Shane will discuss the project in more detail for media and analysts in a session at the upcoming [LiveWorx](#) conference held in Boston on June 17-20th.

"The immediate and overwhelming interest at PTC to volunteer and participate in this project shows the far-reaching impact of autism and the need to learn and do more," said Don Busiek, senior vice president, corporate strategy, PTC. "Traditionally, PTC works with manufacturers and industrial enterprise companies, but we saw a unique opportunity for AR technology to make a real difference and improve lives. This project only scratches the surface of the potential uses for AR, and we are excited to support Boston Children's Hospital in its effort to leverage technology to transform the treatment of autism spectrum disorders."

To request a media pass to LiveWorx, please contact kbrescia@ptc.com.

Additional Resources

- [Dr. Howard Shane](#)
- [Autism Spectrum Center at Boston Children's Hospital](#)
- [Autism Language Program at Boston Children's Hospital](#)
- [PTC Augmented Reality](#)
- [LiveWorx](#)
- Harvard Business Review: "[Why Every Organization Needs an AR Strategy](#)," authored by PTC CEO Jim Heppelmann and Harvard Professor Michael Porter

About Howard Shane

Dr. Shane received his PhD from Syracuse University and completed a Doctoral Fellowship at Mayo Clinic. He is the Director of the Center for Communication Enhancement and the Autism Language Program at Boston Children's Hospital. He has designed more than a dozen computer applications used widely by persons with disabilities and holds two US Patents. Dr. Shane has received Honors of the Association Distinction and is a Fellow of the American Speech and Hearing Association. He is the recipient of the Goldenson Award for Innovations in Technology from United Cerebral Palsy Association and author of numerous papers and chapters on severe speech impairment, lectured throughout the world on the topic, and produced numerous computer innovations enjoyed by persons with complex communication disorders.

About PTC (NASDAQ: PTC)

PTC helps companies around the world reinvent the way they design, manufacture, operate, and service things in and for a smart, connected world. In 1986 we revolutionized digital 3D design, and in 1998 were first to market with Internet-based product lifecycle management. Today, our leading industrial innovation platform and field-proven solutions enable you to unlock value at the convergence of the physical and digital worlds. With PTC, manufacturers and an ecosystem of partners and developers can capitalize on the promise of the Internet of Things and augmented reality technology today and drive the future of innovation.

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PTC
Kelley Brescia, 781-370-5462
Corporate Communications
kbrescia@ptc.com