

## **Polar Education | *Team Bios***

### **David Thornburg, PhD**

David is a recognized pioneer in the field of 3D printing in education. He and his wife, Norma are co-authors (with Dr. Sara Armstrong) of the first book on 3D printing in the classroom (The Invent To Learn Guide to 3D Printing in the Classroom: Recipes for Success) which has sold very well. He believes that the rise of inexpensive 3D printers signals the onset of a new industrial revolution and that students should be as familiar with these tools as they are with word processors. Aside from the practical applications of 3D printed parts, students should learn the elements of good design, just as they learn how to write compelling text in a language arts class. His work on 3D Printing is geared toward educators and focuses on a variety of design tools and projects that fit across the curriculum — from science to language arts and everything in between. His workshops have been conducted in schools and libraries and can be tailored to specific interests (student grade level, subject area, etc.) The focus is on the use of a variety of free design tools, each of which is best suited to particular kinds of projects.

### **Sara Armstrong, PhD**

Dr. Armstrong has a continuing career encompassing classroom teacher, school principal, curriculum developer, and professional development workshop leader. Helping students and teachers ask the questions they are interested in as they construct their own learning and teaching lies at the heart of her philosophy of education. She is the co-author of the internationally acclaimed first book to support 3D printing in education, The Invent to Learn Guide to 3D Printing in the Classroom: Recipes for Success.

### **Gary Carnow, PhD**

Dr. Carnow is a pioneering technology educator having served as a classroom teacher, master teacher, administrator, college professor, consultant and chief technology officer. Gary specializes in instructional program development, emerging technologies, makerspaces and 3D printing. He has consulted for major technology hardware and software companies and has assisted numerous school districts, private schools and universities in a variety of capacities. As a highly-regarded speaker, keynote presenter and workshop leader, he has shared his skills and insights at local, statewide and national conferences. He has also written extensively for educational publications and produced numerous educational products. He has recently co-authored a series of books, STEM Through the Months.

### **Warren Dale**

Warren Dale is an educational innovator who focus is the assimilation of technology into the classroom. His passion is to see classroom instruction advance at the speed of learning. He is a frequent presenter of hands-on workshops and cutting edge technology sessions at annual conferences throughout the country. Since 1981 he worked for the Los Angeles Unified School District teaching all levels of math and implementing cutting-edge instructional technology. He attributes his success as a tech facilitator and presenter to a combination of love for our youth, an undying curiosity for all things technology, and a tireless patience with teachers (and administrators!) who want to learn how those kids and that technology can work together! For the past two years Warren has been training elementary and middle

## Polar Education | *Team Bios*

teachers helping them integrate the science, math and design of 3D printing successfully into their classrooms.

### **Debby Kurti, MA**

Debby Kurti is the Disruptive Learning Strategist for Table Top Inventing and an adjunct Computer Information Systems professor at Victor Valley College. Debby earned her MA in educational technology from Pepperdine University. Debby's teaching philosophy causes students to rave about her classes and stay in contact for years after. Her twenty-year teaching career spans kindergarten to graduate students. Using technology from 3D printing to social media, she inspires students to learn.

### **Steve Kurti, PhD**

Steve Kurti is the Chief Maker at Table Top Inventing. For as long as he can remember, Steve has been making things. In his quest to spark creative thinking and problem solving through practical and exciting projects, Steve draws on his background in biomedical research, high energy fiber laser development, and 15 years of building laboratory devices. As an experimental physicist with a PhD from Case Western Reserve University, Steve has seen research and development from many angles and is now bringing that experience to middle school, high school, and college students who want to make everything from catapults to cybernetic augmentations. Much of his work is focused on the use of 3D printers in educational settings.

### **Norma Thornburg, MA**

Born in Brazil, she has been a teacher, technology coordinator, principal, and consultant. Her specialty is inquiry-driven project-based learning and she implemented a five-year interdisciplinary project that engaged around 15 thousand students throughout Brazil. On the computer side, she was an early adopter of the Logo programming language and wrote the first Logo book for educators in Brazil. She has a strong connection to the pedagogical approaches developed by MIT Professor Seymour Papert. Norma received her Masters degree in Instructional Technology from San José State University. Years before 3D printers became affordable, she envisioned that this technology would transform student projects. She is a co-author of the first book to support 3D printing in education, *The Invent to Learn Guide to 3D Printing in the Classroom: Recipes for Success*.

### **David A. Parrott, MDes**

David is a product designer, a builder and a teacher. David holds a Master's of Design from The University of Cincinnati's #1 ranked School of Design, Architecture, Art and Planning. David has over ten years of experience as a medical and consumer product designer and has designed dozens of products from laparoscopic instruments to infusion pumps. David is an avid fabricator in multiple media (e.g. woodworking, welding, additive manufacturing, et al.) and has completed several large scale projects in transportation design, including the design and development of a 3X3 human/electric hybrid vehicle for his Master's thesis, focused on sustainable transportation design. As an educator, he has taught over 25 classes at the University of Cincinnati, including those in Industrial Design and Biomedical Device Design. David serves as the Director of Product Development for Polar 3D.