



Ronald C. Fortunato
United States McAuliffe Educator & NASA Space Ambassador
President, Trillium Learning

Ron Fortunato is a pioneer and innovator in the development and implementation of educational technology. He is one of the original five Christa McAuliffe Educators in the USA selected by the National Foundation for the Improvement of Education, and a NASA Space Ambassador for the United States. His understanding of teaching and learning processes, real world project-based learning and program implementation enable him to design and produce effective learning environments.

Ron is President of *Trillium Learning*, and his current activities include the development of international, collaborative, performance-based learning projects and professional development services for international K-12 and university markets. "A World Bridge" Projects provide for the design and implementation of real-time, real-world projects for school districts. Projects are designed for local, statewide, national and international collaboration, and connect students as actual participants with responsibilities in ongoing research projects. Partner organizations include NASA, NOAA, European Space Agency, U.S. Coast Guard, Alaska Aerospace Corp., Kodiak Launch Complex, Intelesense Technologies, Centre for Earth Simulation, Global Merit Group, Politecnico di Milano, Open Source Geospatial and additional institutions. Trillium's World Bridge project students won the prestigious International 2015 NASA Europa Challenge.

A World Bridge is an international infrastructure for learning, technology, 21st Century Skills, and advanced pedagogy. The projects began in Alaska, USA as the "America Bridge", where the process of developing initial models for the integration of International leadership, economic development and education occurred. This project will provide the design and implementation of real-time project-based learning into curriculum, and simultaneously develop courseware for distance learning, built from ongoing, dynamic project content for synchronous and asynchronous delivery. The planned projects utilize cooperation between state government offices, state education agencies, school boards associations including the Association of Alaska School Boards' Consortium for Digital Learning (CDL), the University of Alaska system, and business partners to develop a unique series of international models which integrate real-time economic, and educational systems, designed to accelerate both systems via international cooperation, collaboration and mutually beneficial projects.

For this project, Ron is working with NASA to design and develop highest quality educational simulations utilizing advanced NASA open-source applications and content, including a joint project between NASA Ames Research Center, University of Alaska system, Alaska Climate Center and multiple K-12 school districts throughout the USA. This program allows for the utilization and transfer of the World Wind geospatial 3D technology from NASA and software development program to educational school teams.

Ron began his teaching career for the Norfolk, Virginia Public Schools, where he designed and was project manager for the NORSTAR Project, the first student-run space flight project ever flown on a space shuttle (Discovery). The project included the definition, design, fabrication, testing, analysis, and publishing the results of an acoustical experiment for a space shuttle flight in partnership with the NASA Langley Research Center. The NORSTAR Project was the example of a partnership between a public school system and private and public agencies from the community, and was selected as the prototype program for the National Space Sciences Academy.

Ron was selected a NASA Teacher in Space Finalist from Virginia, and is currently a NASA Space Ambassador for the United States. He designed and implemented an international student space

flight project for the National Space Sciences Academy taught at Stanford University. This prototype program was a joint business and education partnership involving Stanford University, the European Space Agency, Canada, Japan, NASA Ames Research Center, NASA Headquarters, and Lockheed Missiles and Space. After his selection as a national Christa McAuliffe Educator, he co-designed and taught at the Christa McAuliffe Institute at Stanford University to establish a lead educational restructuring group for the United States. While in Norfolk, Virginia, he also developed a robotics program featuring the instruction of robotics fundamentals, computer programming, and interfacing between microcomputers and industrial robots. He then served as *Director of Instructional Technology* for the Norfolk Public Schools, where he developed district-wide strategies, funding and budgets for numerous technology integration and professional development programs.

He became a *Senior Scientist for the Educational Technologies Division of Bolt, Beranek and Newman* (the company which created and developed the *DarpaNet*, now owned by Verizon) where he helped to design and implement school-wide *Project Based Learning* programs in districts around the United States and internationally. He designed and implemented *worldwide collaborative projects* for the Department of Defense Dependent Schools to demonstrate the application of advanced high-bandwidth technologies for curriculum delivery and professional development to the staff of Vice President Gore, Secretary of Education Riley, the Office of Science and Technology Programs (White House), the Defense Modeling and Simulations Office and the Department of Defense.

Ron continued in the educational business sector, as product and project manager for The Lightspan Partnership, Inc responsible for the design and development of interactive television and Internet products for education, including the international award-winning World Concept for Timeless Math. These products won the 1996 New York Festival of Animation World Medal Award for Interactive Media; the 1997 Telly Awards Film/Video Education Award for non-network programming; the 1997 Los Angeles International Animation Competition (finalist) for Best Animation Produced for Game Platforms; and were a 1998 Telly Award Finalist in the Multimedia Category. He was also the Director of Curriculum and Implementation for School Marketing Development, managing partnerships including: United States Lieutenant Governors Association, Microsoft/Compaq's Windows School Connection, the U.S. Department of Education's Comprehensive School Reform Program, Federal Grants and Funding Initiatives, and was involved with Lightspan's research and evaluation programs. He then served as Executive Director of Special Internet Projects and also received Lightspan's President's Award.

Ron's additional work included a partnership with the Distance Learning Resource Network (U.S. Department of Education), where he designed and developed an online Star Schools Showcase integrating metadata standards with interactive database technologies to showcase Star Schools project resources. The interface allowed use of the full capacity of multimedia resources the projects have created and allows the user to interact, explore and acquire these resources. This system is built on an object-oriented database allowing DLRN to repurpose project resources coding them as learning objects.

Other Awards and Recognition

In addition to his NASA and Christa McAuliffe Educator awards, he has received recognition including:

- Selected as Distinguished Educator by the editors of Electronic Learning Magazine
- Selected as the Technology Teacher of the Year by the Consortium for Interactive Instruction

- Finalist for the Smithsonian/Computerworld Awards
- Phi Kappa Phi National Honors Society
- Excellence in Education Award, Virginia Tech

Trillium Learning Website: www.trilliumlearning.net

A World Bridge website: www.aworldbridge.com

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