

## Dr. Bers Partners with UIT To Develop Zora

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*- Dr. Marina Bers*



It's been noted that many of the social, scientific, and technological leaps of the last 50 years were driven by visionaries who abandoned the traditional boundaries of their academic disciplines and embraced a multi-disciplinary approach to their research. So it came as no surprise to those who are familiar with the work of Dr. Marina Bers when she was recently awarded the 2005 Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor a researcher can receive from the U.S. government while still in the early stages of their investigation. At Tufts since 2001, Dr. Bers is an assistant professor at the Eliot-Pearson Department of Child Development, the director of early childhood educational research at Tufts' Center for Educational Engineering Outreach (CEEEO), an adjunct professor in the Computer Science Department, and a scientific research associate at Boston Children's Hospital. The award was, in part, due to her work with the 3-D virtual environment program Zora, which she developed while doing doctoral work at the MIT Media Lab. With the help of UIT Academic Technology, and using the same conceptual design principles of the original Zora, the most recent version of the application has been re-implemented using the ActiveWorlds virtual reality building platform.

Zora has been described as a 3-D game, an interactive web site, and an instant messaging tool all rolled into one. But the application that allows users to create virtual reality 3-D environments and communicate with other participants is so much more than the sum of its parts. It allows young people the opportunity to explore, learn and express identity at critical passages in their lives. Examples of users include such diverse groups as young transplant patients, a multicultural group of teens, and freshman students at Tufts University.

Several years ago, Dr. Bers set out to develop the next-generation version of Zora. For help, she turned to her team of students in the DevTech research group and to UIT's Academic Technology developers Matt McVey, Steve McDonald, and David Grogan. Matt worked closely with ActiveWorlds' creators to modify their platform so that AT's developers could build a Zora environment that more closely matches the intent of Dr. Bers research and academic goals. Matt, Steve, and David architected, developed, and delivered a solution that Marina and her students are actively using today in their teaching, learning, and research.

Of her partnering with UIT for some aspects of the application development, Dr. Bers said, "Working with UIT was fundamental to the development of my research project on Zora, but also to my growth as a faculty member in an interdisciplinary field at Tufts. I am in the department of child development, but my work involves the design and study of new technologies for children. While I was at MIT, I had many technical resources around me, but in the child development department that

was not the case. So, partnering with UIT allowed me to continue a line of work that I am truly passionate about."

Although both Matt and Steve are Learning Technology Developers, working on the customization of a 3-D platform required some creative adaptation of their roles, skills, and experiences. Matt's primary responsibilities within Academic Technology include the support-oriented roles of systems and applications administration, but his work on Zora required him to delve deeper into collaborative software design and development. "I depended heavily on the breadth of my experience with technology, my general background in computer science (Tufts, LA01), and my peers on the project team. Together we had to apply everything I've learned at Tufts: that when we listen carefully and well to one another, when we draw upon our strengths and our experience in tackling new problems, and when we work across boundaries toward common goals, we do our most effective and satisfying work." Steve, who in the past has worked on military simulation and training projects, found the project tasks to be a slightly closer fit, saying, "I've spent a lot of time working on both research projects and product development. I use a wide variety of technologies to create and support products used by members of the university community. Mostly, this involves web-centric solutions using new, interesting approaches."

To learn more about Zora or the Tufts University Eliot-Pearson Department of Child Development's Virtual Communities of Learning and Care research project, go to <http://www.ase.tufts.edu/devtech/vclc/index.htm>.

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