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Ivo D. Dinov* (dinov@stat.ucla.edu), SOCR Resource, UCLA Statistics, 8125 Math Sciences Bldg, Los Angeles, CA 90095, and **Nicolas Christou**. *Integrated, Multidisciplinary and Technology-Enhanced Science Education: The Next Frontier*.

Contemporary STEM education at all levels presents several critical pedagogical and social challenges to educators and learners alike. Among these challenges are the widening Intergenerational Information Technology divide and the need for a comprehensive and balanced multidisciplinary training. The Intergenerational IT divide reflects a different growing misalignment between providers and recipients of the science and technology educational content in terms of the expected vs. supplied, needed vs. perceived and contextual vs. abstract specialized learning. The transfer and blending of data, research challenges and methodologies between diverse areas of science is critical in motivating wider spectra of students, demonstrating cross-disciplinary methodological concepts and synergies, as well as for engaging students in research projects. This paper will illustrate a technology integrated approach to multidisciplinary STEM education and will suggest techniques for resolving these two challenges. (Received June 09, 2008)