

TECHNOLOGY AND GLOBAL EDUCATION

This edition of Issues in Global Education is devoted to the topic of Technology and Global Education. It is produced in cooperation with iEARN and with the encouragement of the White House Office of Science and Technology Policy in celebration of Global Science and Technology Week.

For the first time in history, educators have the opportunity to engage students in meaningful collaboration with anyone on the globe through the use of technology. Rather than just studying about another society and its people, students have the potential for learning with the individuals in those societies.

The issue begins with an article describing the role that global telecommunications projects can play in the classroom. This is followed by a project highlight, describing one teacher's pedagogical approach in using technology to advance her students' literacy skills as well as their understanding of environmental science. This example is followed by useful tips on how to integrate technology into the classroom. Also included are brief descriptions of global tele-collaborative projects in various curriculum areas, and a listing of organizations that support teachers engaging in cross-cultural online project work.

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Dear Friends:

Director Emeritus

My career in science has allowed me to help people communicate with each other via the power of the Internet. This has given me an extraordinary "global perspective," and I wish to recognize the American Forum for Global Education as it endeavors to globalize the perspective of American youth. For thirty years, it has helped U.S. students understand the importance of global issues in their daily lives. Now, with the unprecedented opportunity for instantaneous communication, it is imperative that today's young Internet generation understand that problems such as poverty, disease, and environmental degradation are the concerns of all people—not just Americans. Teams of international scientists are increasingly transcending national boundaries to work together, answering shared global questions through partnerships such as the Human Genome Project, the International Space Station, and the particle accelerators in Batavia, Illinois, and Geneva, Switzerland. As we become increasingly interconnected, we must make certain that American youth understand the impact of science and technology on our world, and ensure that every U.S. student receives quality math and science education.

Most Americans have confidence that scientists and engineers can cure diseases, explore space, and develop ever-faster modes of communication. However, this optimism is not coupled with general understanding of basic scientific concepts. A 1999 study revealed that only 13 percent of Americans understood the term "molecule"; less than 29 percent were able to provide a minimally acceptable definition of DNA; only 16 percent could define the term "Internet"; and, less than half of all Americans knew that the earth revolves around the sun once each year.

While math and science education has always been crucial for training America's future scientists and engineers, in the twenty-first century quality math and science education is imperative to enable students to understand and evaluate today's headlines—an essential component of responsible citizenship.

By highlighting the many ways our lives are enhanced by scientific and technological advances, educators will excite our young people about math and science, and help them to evolve into informed global citizens. I call upon you to help your students recognize that mathematics provides a universal language, and that science is our planet's common ground. I commend you for your contributions and want to thank each of you for helping prepare for a better America, and most importantly, a better world.



Sincerely,
Leon M. Lederman
Nobel Laureate, Physics 1988