



**INTERNATIONAL
TECHNOLOGY
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Standpoint

*A newsletter of the International Technology Education Association
and the Technology for All Americans Project*

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First Draft of Technology Education Standards Poised for Review and Discussion

The Technology for All Americans Project (TFAAP), an initiative of the International Technology Education Association (ITEA), is ready with the first draft of the *Standards for Technology Education*. The document contains the content and structure for the study of technology from kindergarten through grade 12. Its goal is to make technological literacy an essential component of educational curriculums across the United States.

Starting October 3, project staff members will present the draft standards at consensus hearings during regional and state conferences of technology, science, mathematics and engineering organizations. (See p. 4.) The first draft of the document will also be mailed to selected professionals for review.

In mid October, the standards will be available for public assessment over the World Wide Web at <http://scholar.lib.vt.edu/TAA/TAA.html>. All interested people, especially teachers and parents, are encouraged to review the standards and fill out the on-line evaluation form.



Rod Custer, center, and fellow members of the Standards Team refine draft standards during August meeting at the Xerox Document University. See story inside.

Based on input collected during consensus building, the draft standards will be revised early in 1998. Another round of discussion, review, and revision will take place in the spring of 1998, with field testing and final revision due in late 1998. The final document will be released in March 1999.

Advisory Group Embraces Standards

Leaders from the nation's top research and educational organizations have given the Technology for All Americans Project an enthusiastic go-ahead in its efforts to develop standards for technology education. The project's Advisory Group met on July 28 at the National Academy of Sciences in Washington, DC.

Representatives from the National Research Council (NRC), the American Association for the Advancement of Science (AAAS), the National Academy of Engineer-

ing (NAE), the National Science Teachers Association (NSTA), the National Council of Teachers of Mathematics (NCTM), and ITEA make up the Advisory Group. Selected members of the group convened to critique the draft standards document and to offer advice for the upcoming consensus process. Many members had been involved in helping to implement the science standards, the math standards, and the Project 2061 benchmarks.

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Patrice Legro of the NRC praised the project's efforts to involve other fields in the development process, saying that the standards would provide much needed interdisciplinary opportunities across science, math, and technology programs. "In collaboration, we can do this," she added.



Advisory Team meets with TFAAP leaders. Clockwise from left: William Wulf and Deanna Richards, NAE; William Dugger, Jr., Director of TFAAP; Patrice Legro, NRC; Jill Russell, Phi Delta Kappa evaluator; and Kendall Starkweather, Executive Director of ITEA. Other participants: James Rutherford, AAAS; Daniel Goroff, NRC; Pam Newberry, TFAAP, and Thomas Hughes, Jr., ITEA.

**We regret the loss of
Walter B. Waetjen, Ph.D.**

who passed away on August 16, 1997. Dr. Waetjen was President Emeritus of Cleveland State University. He was a National Commission member and consultant for the Technology for All Americans Project. As a courageous and recognized scholar in our emerging field, Walter Waetjen was instrumental to the success of Phase I of our project.

'Significant progress' at S

The Standards Team of the Technology for All Americans Project came away from an intense 4-day work session feeling confident they had brought the project one giant step closer to its goal of creating standards for technology education.

"We have made some significant progress," said team member Anthony Gilberti, Chair of the Department of Industrial Technology Education at Indiana State University. "I find it rewarding professionally to exchange ideas with this fine group of committed educators."

Meeting August 9-12 at Leesburg, Va., 24 members reviewed and rewrote the draft standards for each area of technology education. They tackled the task in four groups, each examining a particular knowledge or process requirement of technology education. The groups were led by Rod Custer and Franzie Loepp of Illinois State University, Jane Wheeler of Monte Vista Elementary School in Rohnert Park, Calif., and Brigitte Valesey of Walter Johnson High School, Bethesda, Md.

Special guests volunteered their advice and expertise to the groups. They were: Carl Hall, a former deputy director of the National Science Foundation, Greg Pearson of the National Academy of Engineering, and Flint Wild of the National Aeronautics and Space Administration.

The project also announced six recent additions to the Standards Team at the meeting: • Clare Benson, from the University of Central England in Birmingham, is involved in development of British standards for technology & design.



Flint Wild, of NASA's Teaching From Space Program, offers input.

The *Technology for All Americans Project* is a project of the International Technology Education Association (ITEA) and funded by the National Science Foundation (NSF) and the National Aeronautics and Space Administration (NASA). All inquiries should be addressed to:



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Standards Team Meeting

• Kathy Thornton, a former astronaut, directs the Center for Science, Mathematics & Engineering at the University of Virginia. • Norman Hackerman, President Emeritus of Rice University and the University of Texas, is chairman of the Scientific Advisory Board of the Robert A. Welch Foundation in Houston. • Linda Hallenbeck is an elementary teacher from Hudson, Ohio, and winner of the 1993 Presidential Award for Excellence in Science & Mathematics Teaching. • Denise Denton is Dean of the College of Engineering at the University of Washington. • Leon Trilling serves on the faculty of the Massachusetts Institute of Technology.

At the close of the meeting, ITEA Executive Director Kendall Starkweather told attendees, "We think this is the most significant effort on behalf of our profession in the last 50 years. These standards are the building blocks for technology education to gain credibility in our schools."



Tonia Schofield, an Atlanta middle school teacher, during a group session.



Pamela B. Newberry explains the upcoming consensus process to members of the Standards Team.

Help Build Consensus

Review the draft standards on the World Wide Web from late October until mid-November 1997

URL: <http://scholar.lib.vt.edu/TAA/TAA.html>

Becoming an Ambassador for Technology Education

Frequently Asked Questions

As the standards enter a period of public comment, you might find yourself in the position of promoting technology education to parents and civic groups. One useful resource is our new brochure about the standards, which you should have received in the mail. It describes technology education and promotes the need for standards. A limited number of single copies are available from TFAAP. You might also start assembling a list of frequently asked questions, along with prepared responses, such as:

What's the difference between technology education and educational technology? The first is a subject, the second, a tool. Technology education is a school subject designed to develop technological literacy—the ability to use, manage and understand technology. Educational technology is another phrase for instructional technology—using computers, audiovisual equipment, and mass media to enhance teaching and learning.

What do I say to my colleagues who think technological literacy means knowing about computers?

Technological literacy is much more than knowledge of computers and their application. It involves a vision where each citizen has a level and ability to use, manage, and understand technology.

Doesn't technological literacy develop naturally, just by living in a technological world?

Technological processes and systems have become so complex that the ad hoc approach has clearly failed for most Americans. Most do not even begin to comprehend the basic concepts of today's technological society. Few know how to decide what, how, and when to develop or use various technological systems. Such decision making depends upon all citizens acquiring a basic level of technological literacy.

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Have you encountered a frequently asked question or misconception relating to technology education? Send it to Editor, *StandPoint*, in care of TFAAP. If you have a good response, please send that along, too.



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**Standards for Technology Education
1997 Consensus Hearings**

October 3-4
Southeastern Technology Education Conference
Hotel Roanoke
Roanoke, Virginia

October 9-11
American Society for Engineering Education
North Midwest Section Conference
University of Iowa
Iowa City, Iowa

October 10-11
Learning Institute of Technology Education
Conference
Eastern Michigan University
Ypsilanti, Michigan

October 17-19
National Council of Teachers of Mathematics
Regional Conference
Anchorage Hilton
Anchorage, Alaska

October 31-November 1
National Science Teachers Association
Eastern Area Convention
DoubleTree Hotel
Pittsburgh, Pennsylvania

November 3-4
Work Now and in the Future Conference
Oregon Convention Center
Portland, Oregon

November 6-7
Rocky Mountain Technology Education Conference
Sheraton Hotel
Colorado Springs, Colorado

November 6-8
Mississippi Valley Technology Teacher
Education Conference
DoubleTree Hotel
Nashville, Tennessee

November 6-8
New England Technology Education Conference
DoubleTree Islander Hotel
Newport, Rhode Island

November 20-21
Four State Technology Education Conference
Campus Technology Center
Pittsburg State University
Pittsburg, Kansas

December 4-6 (Presentation)
National Science Teachers Association
Southern Area Convention
Opryland Hotel
Nashville, Tennessee

December 11-14
American Vocational Association Convention
Las Vegas Convention Center
Las Vegas, Nevada