

Technological illiteracy: 'benign neglect'

"For the last 20 years, the leaders of academic science and engineering have treated the problem of technological illiteracy with what amounts to benign neglect."

So stated Professor Eren Pugh of Pennsylvania State University in a recent issue of Technology Review.

Secondary schools, colleges and universities are unable to bring to bear the discoveries of science and technology on their students.

A major reason is the lack of qualified teachers in the public schools. Of 17,000 school districts in this country, more than half have inadequate teach-

ing staff to cover math, science and technology courses.

CRITICS OF American education love to point out the differences between our system and that of other countries, particularly in Western Europe or more recently, Japan.

I too believe this is a useful technique to bring home the fact dramatically about the poor state of American public education when compared with other countries. It is more than interesting that the Soviet Union has 133,000 physics teachers, and the United States has 10,000.



high tech
Ronald R. Watcke

This startling fact becomes even more frightening when we consider the importance of the basic concepts in physics and how they apply to the high-tech fields of electronics, optics, lasers, robotics, energy, space technology and other emerging fields.

THOSE CLOSEST to the problem—secondary school science teachers—have pointed to one solution. In 1982, the national association representing this group claimed that the biggest gap in high school science education was not in physics, biology, or even computer science, but in the relationship of science and technology to society.

Science, technology and society (STS) courses and programs of study exist in a number of colleges and universities. These programs, though limited when considering the entire student population in higher education, take a variety of forms.

Some are taught as single courses, others are interdisciplinary in structure, pooling staff and resources from several departments. A few colleges have departments dedicated to the study of science, technology and society. Students at two colleges, Vassar and Connecticut Wesleyan can even major in STS.

THE CONTENT of these various courses may be somewhat different, but in all cases it is the study of the relationship between technology and some aspect of society.
It may be the consequences of genet-

ic engineering, or the effect of computer automation on jobs. It may be the issue of ethics and nuclear war and nuclear power.

What ever the issue, it is crucial that the faculty be truly interdisciplinary. Such status must include engineers and scientists, philosophers and blockbusters, political scientists and physicists—all working together.

A new commitment must be made by all educators and public policy makers. Without this vision, and accompanying focus, the country is destined to continue in a state of semi-technological illiteracy.

Oakland recruiting in Europe

Detroit and Oakland County will join hands during a European trip designed to attract foreign firms to southeastern Michigan.

Heading the second Greater Detroit Business Attraction and Expansion Council's (BAEC) trade mission to Europe will be Oakland County Executive Daniel Murphy and Detroit Mayor Coleman Young.

This is the first time Oakland County will take part in the trade mission. The 19 participants will visit major industrial cities in Germany, France, England and Switzerland May 5-18.

SPONSORED BY the BAEC and Greater Detroit Chamber of Commerce, the trip is designed to be a fact-finding mission with participants collecting data about foreign firms which already have small operations in southeast Michigan.

The group will concentrate on firms dealing in automotive-parts manufacture, petrochemicals and robotics.

Charlotte Doud, executive director of the BAEC, said representation by both Murphy and Young will allow Michigan to present a "very united front."

"It's important that both city and suburbs will be represented. After all, we are there selling the region," explained Doud, who is also vice president for economic development of the Detroit Chamber of Commerce.

ALSO ON THE trip, which will cost each participant \$4,000-\$5,000, will be representatives of the Washtenaw Development Council, Toche-Ross, the Construction Association of Michigan, Detroit Economic Growth Corporation, National Bank of Detroit, Detroit Edison Co. and the Detroit law firm of Pepper, Hamilton, Shoen.

Michigan's Department of Commerce will be represented by its Brussels office. While in France, Murphy will be keynote speaker at a chamber of commerce seminar on "Investment Opportunities in Michigan." He will address a group of French industrialists about southeast Michigan's present status and its future trends.

The program is aimed at attracting investors to southeast Michigan and increasing trade between Michigan and the Rhone-Alps region.

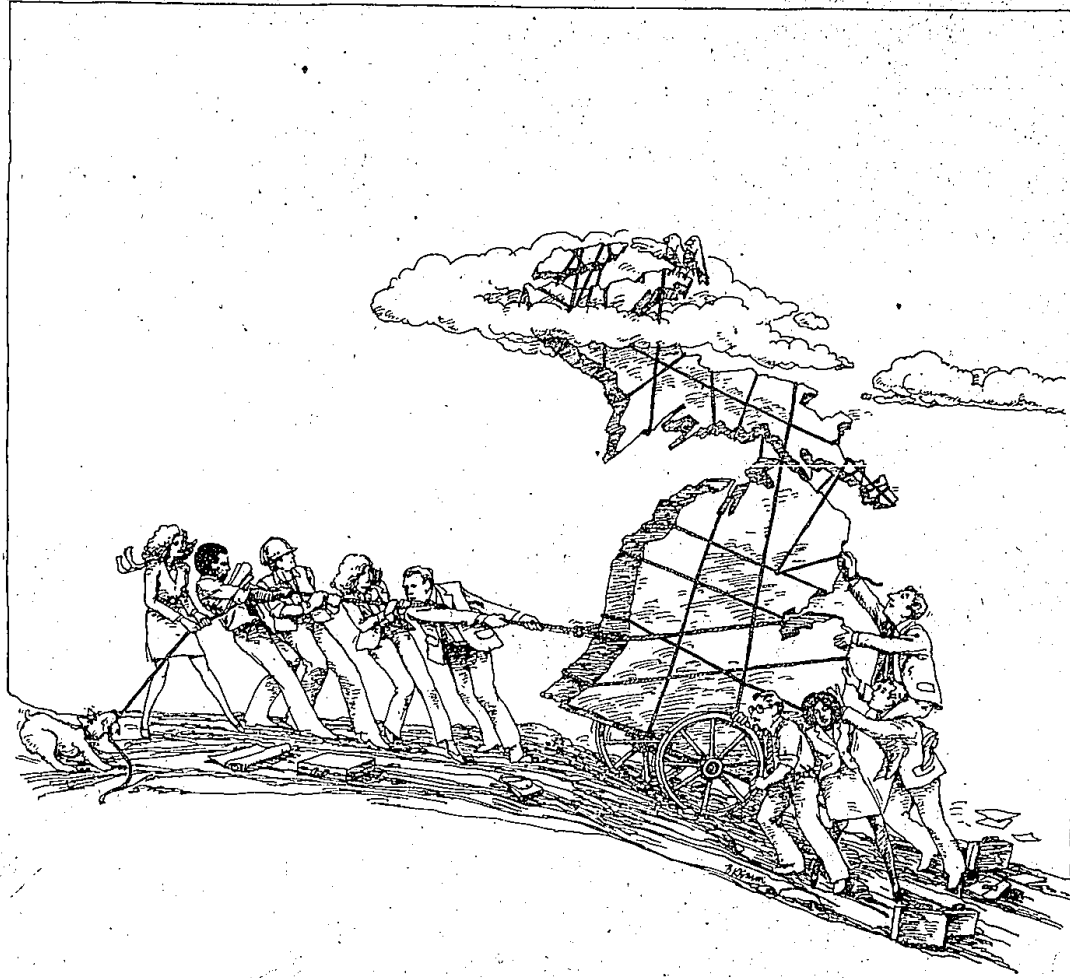
MURPHY SAID he is honored that BAEC asked him to represent the region on the mission. The participants will meet with industrialists, labor members and governmental leaders in five major European cities.

Many foreign firms already have start-up offices in Oakland County.

"We will be looking at the development of these foreign industries, their practices and problems and exploring management and labor of existing high-tech industries," he added.

"We want to see what expansion of these firms in southeast Michigan will mean in terms of overall services which eventually may be needed."

More than half of all foreign firms in metropolitan Detroit are in Oakland County. Employing 4,000 workers, they produce chemicals, automotive products, computers, machine tools, electronic parts, marine equipment, heavy machinery, office equipment and industrial robots.



Controversial land uses are probed at OU

"Controversial Land Uses: In Search of Solutions" will be sponsored Wednesday, May 16, by the Oakland University Division of Continuing Education.

Local elected officials, planners, concerned citizens and decision-makers will consider issues in the siting of four controversial land uses — mobile homes, foster care, mining activities and solid waste facilities.

Registration for the one day conference is Friday, May 11, with enrollment limited to 150. For information on the \$45 conference, call the Continuing Education office at 477-1310.

Oakland schools in Science Olympics

Students from 11 area high schools will be among 1,500 Michigan high school juniors and seniors taking part in the Saturday, May 13, Michigan Science Olympiad at Oakland University near Rochester.

They will take part in 18 competitions in which they will demonstrate skills in chemistry, biology, earth science and mathematics. Prizes will be awarded to individuals and teams by the sponsors: OU and the intermediate school districts of Mason, Oakland and Wayne counties.

Awards teams will come from these high schools: Adams and Rochester, Rochester, Cranbrook and Andover, Bloomfield Hills, Harrison, Farmington Hills, Farmington, Southfield and Detroit, Grosse Pointe, Birmingham, Southfield, Livonia and Troy.
Based on a successful program in Delaware, the Michigan Science Olympiad was begun in 1982 at Lawrence Institute of Technology, Southfield.

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