

Linking up

New high-speed network good for research, Ohio economy

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Thousands of miles of fiber-optic cables are being laid all over the country, as several regions race to give their universities and researchers a lightning-speed, long-distance computer network.

Ohioans can be proud to have one of the first and, hands down, the most advanced. Gov. Bob Taft officially "lit" the 1,600-mile Third Frontier Network on Nov. 30. The state spent millions of dollars on fiber-optic cable and other equipment, but the investment will reap many returns.

This network has 16 times the data transmission capacity of Ohio's copper-wire network, with the potential to expand to 2,084 times the capacity. As a Dec. 1 Dispatch article reported, the cables could transmit the contents of the Library of Congress in 2.5 seconds.

More than 90 universities, two-year colleges and private research centers will link up over the coming year.

Ohio State University scientists could consult via video with their colleagues in Cleveland with high-definition images and in real time. Already, Case Western Reserve University in Cleveland and Stark State College in North Canton plan to collaborate on the network to develop hydrogen fuel cells.

Sharing sensitive research instruments between universities is possible with the increased bandwidth. OSU Medical Center has the world's most powerful magnetic-resonance-imaging device for viewing the inside of the body; for researchers to share that data, they need about eight times the bandwidth that is currently available.

Best of all, the expected life span of the equipment is 20 years, which is an eon in the world of computers. No method of long-distance data transmission rivals the reliability and quality of fiber optics.

Putting that many brilliant heads together speeds innovation. Having technology that is unavailable elsewhere draws talented people. Partnerships between private industry and universities are more productive, and they create high-tech jobs, which Ohio desperately needs.

Ohio has given itself a boost by making this investment.