

MINUTES

ADVISORY COUNCIL ON THE DIGITAL ECONOMY

Friday, April 28, 2000
1:00 p.m.
Texas State Capitol, Senate Chamber
Austin, Texas

Pursuant to a notice posted in accordance with Senate Rules, a public hearing of the Advisory Council on the Digital Economy was held on Friday, April 28, 2000 at the Texas State Capitol in Austin, Texas.

MEMBERS PRESENT

Chairman Mike Maples
Senator Gonzalo Barrientos
Andrew Busey
Senator Rodney Ellis
Katherine Hammer
John Hime
Terrell B. Jones
Jim Lee
Dick Moeller
David G. Nance
David Sikora
James Truchard
Padmasree Warrior
Max Watson

MEMBERS ABSENT

Michael Capellas
Ken DeAngelis
Bob Fabbio
Donald Hackett
Christy Jones
John McCain
Dennis E. Murphree
Senator Steve Ogden
Kevin Rollins
Senator Florence Shapiro

The Chair called the meeting to order at 1:09 p.m. There being a quorum present, the following business was transacted.

Lt. Governor Rick Perry addressed the council, tasking them to look at ways to improve the education and skills of the Texas workforce through better use of technology in public schools and universities. He said, "Texas needs to teach young people how to adapt to an ever-changing, high-tech economy." He then reminded the Council in order to succeed in the New Economy, that "young people needed basic skills, technology, and they need to be able to adapt that technology." In other words, he said, "we must educate good thinkers."

Also, he cited statistics that show public education in Texas is improving, and implored members to investigate ways to improve higher education, especially original research. "I'd like your thoughts on how Texas can do a better job of attracting those research dollars here," Perry told the council.

The meeting was then turned back over to Chairman Maples at 1:20 p.m. where he outlined administrative details before calling the first witness.

Chairman Maples introduced Chase Untermeyer.

Chase Untermeyer is the Chair of the State Board of Education. Gov. George W. Bush appointed Untermeyer to that position in January 1999. Mr. Untermeyer represents District 6, which covers parts of Harris and Fort Bend counties. Also, he also serves as director of government affairs at Houston's Compaq Computer Corporation. Untermeyer discussed the current state of K-12 education in Texas, noting that Texas is at the forefront of education reform. His discussion included problems in K-12 education, statistics on student performance in math and science, teacher shortages, efforts to improve results in academic courses, and ways in which the high tech sector could effectuate change in K-12 education. There were no questions; Mr. Maples introduced Geoff Fletcher and Dan McCormack.

Geoff Fletcher is Executive Director of T.H.E. Institute, a division of T.H.E. Journal. T.H.E. Institute provides professional development with and about technology to educators. Mr. Fletcher opened his discussion with a fundamental question: should the state invest significant funds for new technology only to integrate it into an old, outdated system? Arguing for systemic changes, Fletcher noted progress Texas has made in educational technologies. For example, Texas was one of the first states to use satellites, a statewide network, technology-based textbooks, technology allotment, and create a funding mechanism for technology infrastructure, TIF. In addition to these investments, Fletcher also discussed the current status of technology use in teaching broadly and what schools ultimately need to make an effective use of technology, including: hardware; software; content; technical support; professional development; school Internet access; and a high level of teacher proficiency in technology. Fletcher observed that educators still do not have the proper training to effectively integrate technology. Fletcher challenged council members to share best practices with the education establishment to better incorporate technology in education. Fletcher closed by asking the technology sector to share their knowledge, to help connect homes and schools with computer access, and to create public-private initiatives.

Dan McCormack is an education technology consultant with Apple Computer Corporation. He helps coordinate strategic initiatives related to K-12 and higher education in a five-state region, including Texas. Dr. McCormack initiated his discussion of the value of technology in schools by talking about technology integration. He noted that key professional development factors were indeed necessary for causing the move from the traditional classroom model to a more integrated setting.

A discussion among the council members and presenters ensued, covering the following topics:

- How many teachers have computers?
- Are teachers utilizing the Internet to share experiences and collaborate?
- Can professional development be delivered at a lower cost?
- Are their studies reporting correlation between technology use and achievement?
- Is there a salary differentiation for math and science teachers;
- Are schools developing their own Website to distribute pertinent information to their communities?
- What level of leadership in a school district is needed to drive change?

Chairman Maples introduced Pam Tackett at 2:20 p.m.

Pam Tackett is the Executive Director of the Texas State Board for Educator Certification (SBEC). Ms. Tackett helped develop the first certification tests for Texas educators. In her current role as Executive Director, Ms. Tackett works to implement to ensure the highest level of educator preparation and practice to achieve student excellence. Ms. Tackett outlined current certification requirements and the need to encourage the private sector to help address the teacher shortage by encouraging their employees with expertise in science and math to become involved in schools. She noted that 58 percent of teachers have little or no training in their field. Tackett also mentioned ways to encourage alternative certification and to bring some of the recent retirees from the engineering field into the classrooms. As an example, she described initiatives with the University of Texas at Austin and Texas A&M. In sum, Tackett concluded there are a variety of ways to certify potential teachers, and she urged the Council to encourage their employees to become certified to teach and/or to help train teachers in some technical areas; encourage

their retirees to work with public schools, and consider creating math and science academies in conjunction with their business.

Chairman Maples introduced Carole Ann Bonds and her two students from Rogers ISD at 2:52 p.m.

Carol Ann Bonds is Superintendent of Rogers Independent School District in Rogers, Texas. Dr. Bonds discussed progress her community has made integrating technology in education technology using federal, state, and foundation grant funds to help fund technology in each classroom, the new school/community library, the school-based health center, and connections for children to senior citizens. Bonds brought two Rogers' High School sophomores, Allen Burggman and Dustin Prater, to present their research. Allen and Dustin are the top academic sophomores at Rogers High School. They have presented their research in Washington, D.C. for the U.S. Department of Commerce and at the University of Tennessee in Chattanooga. Bonds, Burggman, and Prater illustrated how successful programs using technology could improve learning while building partnerships in communities to help foster marketable skills.

Chairman Maples introduced Jim Wells and Tim Stephenson from Project EAST in Paragould, Arkansas.

Tim Stephenson is the co-founder and Director of the nationally recognized Environmental and Spatial Technology (EAST) Program. Mr. Stephenson established and implemented the successful pilot project that has resulted in a generation of academic partnerships with business, academia and educational institutions. EAST has become one of the primary educational technology initiatives in Arkansas, and has now been introduced to 5 additional states. This program has been successfully shared with 93 school districts with high performance results in each case.

Jim Wells is the Vice President of Wellsco Graphic Solutions (WGS) originated and developed the EAST program. Mr. Wells is also a co-founder of the EAST initiative and currently serves as the lead Private Sector Partner. Stephenson and Wells discussed the future of education and the ways in which it is being redefined by collaboration, effective and appropriate use of technology as a tool, performance, teamwork, and new skill sets. Project EAST is a performance-based learning environment that has been developed to integrate technology into the equation of problem solving. The EAST model helps educators recognize, create, and maintain a learning environment; requires students to think, evaluate and produce measurable results; and together, they are building partnerships with business and industry.

Chairman Maples introduced Deborah Jolly at 3:28 p.m.

Deborah Jolly is a Research Scientist at Texas A&M University in the College of Education Office of the Dean where she directs special projects, including technology infusion issues, program evaluation (technology), research initiatives in technology, and funding. Jolly addressed issues relating to technology and teacher preparation. She described current practices and future needs to increase teacher proficiency in technology. According to her research, there is a lack of funding, equipment, and teacher training and technical support. She also noted that technology was not being adopted in higher education as quickly as it was being integrated in K-12 public schools. Jolly described successful partnerships underway at Texas A&M, such as GTE's Distance Learning Center and Intel's "Teach to the Future" program. Benefits from these programs include free software, training more teachers, and teaching master teachers.

Chairman Maples introduced Rey Garcia with the Texas Association of Community Colleges, William Wenrich, the Chancellor of Dallas County Community College System, and Richard Fonte with Austin Community College at 3:56 p.m.

Rey Garcia is Executive Director of the Texas Association of Community Colleges. As part of his duties with TACC, Dr. Garcia oversees the Virtual College of Texas and STARLINK. Garcia presented an overview of community colleges, including scope, structure, and demographics and funding.

William Wenrich is the top administrator for the Dallas County Community College District - a seven-college operation that enrolls nearly 50,000 credit students each semester and is recognized nationally as one of the leading two-year systems in the country. Mr. Wenrich discussed public/private partnerships that have been a success at DCCC, and encouraged council members to create more partnerships. Wenrich also described a program his institution created to help deter ninth grade high school students from dropping out by offering incentives to attend community college, such as college transfer credit and scholarship funds.

Richard Fonte is President of Austin Community College (ACC), which serves the capital area of Texas, including Bastrop, Blanco, Burnet, Caldwell, Gillespie, Hays, Travis and Williamson counties. Dr. Fonte informed the council about existing ACC partnerships including the Greater at Work Alliance, Tech Prep, and the Semiconductor Manufacturing Technology program. According to Fonte, successful programs incorporated free equipment that matched workforce needs, scholarships and internships, and local private partnerships with technology-based companies.

Chairman Maples introduced the technology transfer panel at 5:40 p.m.

David Nance is President and CEO, Introgen Therapeutics, Inc. Nance is an investor, entrepreneur and technology executive with particular expertise in technology transfer, new venture organization and management of early-stage companies. Since 1984, he has been active in identifying, licensing and commercially developing products or services based on academic research. Mr. Nance addressed strategies to move technology from universities into the biotech field to create jobs. He testified that Texas public universities still are not as competitive as other universities like Stanford to invest in such areas. Nance continued by discussing potential barriers to technology transfer initiatives. One, Texas is not as competitive as other states, and in such a growing economy there are many companies competing for funds. Nance concluded, remarking that funds are not the most important aspect of technology transfer, and further implored universities like UT to undertake a new advisory role by creating a chancellor for technology development.

Terry A. Young is the Assistant Vice Chancellor for Technology Transfer and Executive Director for the Technology Licensing Office with The Texas A&M University System. After presenting an overview of the university-industry technology process, Mr. Young addressed the academic missions incorporated with technology transfer, mechanisms needed for it to work effectively, and legislative history surrounding technology transfer in the US. In closing, Young reiterated the importance of funding levels and university-based start-up companies, but noted Texas was lagging behind the other two technopoleis of California and Massachusetts.

John Sibley Butler is Chair of the Management Department at University of Texas at Austin. He works in conjunction with IC2 and other small business and entrepreneurship endeavors at UT. Mr. Butler outlined his view that technology transfer initiatives in Texas will thrive once they have a strong commitment from higher education and if the state maintains a strong entrepreneurial spirit. Butler addressed issues of job creation, wealth creation and the ways in which they are both tied to technology transfer. He described similarities between Route 128, Silicon Valley and Austin - the existence of major research universities where knowledge prevails and seed money is in abundance. Butler compared mature technopoleis with developing and emerging high tech centers. Butler summarized the three panelists' remarks by addressing the importance of creating a capital network that involves support groups, education, large companies, local, state and federal government, and emergent companies.

Chairman Maples called on task force chairs for progress reports. Kay Hammer, chair of the Electronic Government Task Force reported they were working with other state agencies to make recommendations to find solutions to improve efficiency, incorporate best practices, and to overcome existing barriers to technology deployments. James Truchard, the chair of the Internet Taxation Task Force reported his efforts to survey task force members to establish a consensus position within the task force before turning their recommendations over to the entire council to consider. Dick Moeller, chair of the Regional Clustering Task Force reported their work investigating ways clustering could foster innovative economic activity by

using networks to accelerate job creation, innovation, and efficiency. Their recommendations included maintaining a strong business climate, talent pool, and livable regions.

Chairman Maples then requested volunteers to serve on one of the three new task forces to more deeply examine the issues raised in today's meeting: K-12 Education Reform, Community Colleges, or Technology Transfer.

There being no further business, at 5:45 p.m. Chairman Maples moved that the Council stand adjourned. Without objection, it was so ordered.