

Executive Summary

New Hampshire Statewide Educational Technology Plan

October 1998

USING TECHNOLOGY FOR EDUCATIONAL IMPROVEMENT

Technology holds great potential for enhancing the efforts of students, schools, and communities to achieve high educational standards. Planning for the integration of technology into a state's educational system is essential to ensure that the potential of technology tools directly supports the efforts of schools and students to achieve high educational standards.

New Hampshire's Statewide Educational Technology Plan was developed through an extensive planning process which engaged representatives from the New Hampshire Department of Education, local school districts, professional associations, educational service organizations, public television, higher education, telecommunications providers, and the New Hampshire State Library. Also involved were representatives from the State Legislature, the State Board of Education, the Governor's office, and business and industry. As members of the Statewide Educational Technology Council (Tech Council), these representatives will continue to offer guidance for the plan's implementation.

HOW VARIOUS STAKEHOLDER GROUPS CAN USE THE PLAN

The Tech Council's goal is that this plan will help others understand and contribute to the vision of effective technology integration within all segments of New Hampshire's educational system. The plan is intended to serve as a guide for developing policy, pursuing funding opportunities, designing infrastructure, enlisting private sector support, and evaluating progress toward the vision of effective technology integration. Therefore, stakeholders are invited to use this document as a reference, as well as a basis for stimulating discussion where educational technology is being explored.

Local stakeholders include students, local educational technology planning committees, education practitioners, school boards, parents and community members, local government officials, business and industry. Paralleling the use of the plan by local-level stakeholders are many state-level entities including state-level policy makers, educational organizations and service providers, business and industry, cultural and scientific institutions, and higher education institutions.

THE VISION OF TECHNOLOGY INTEGRATION: VITAL CONTRIBUTIONS TO ALL ASPECTS OF OUR EDUCATION SYSTEM

New Hampshire schools, like schools all across the country, are undertaking major changes to align their education program with recently adopted standards. These standards, reflected in the New Hampshire Curriculum Frameworks, require a fundamental shift in focus from what is covered by teachers to what is learned by all students. Accountability for results and for continuous educational improvement is now expected and demanded.

As New Hampshire communities pursue their educational improvement goals, educational technology will make many important contributions. Properly used, technology will:

- Improve teaching and enrich learning
- Support professional development
- Increase management and administrative productivity
- Increase equity
- Strengthen adult learning
- Increase communication between schools and communities
- Provide access to vast information resources.

As federal, state, and local reform initiatives have taken hold, attention to the important roles of technology has grown. As technologies are increasingly integrated, they will make vital contributions to educational programs focused on high standards, success for all students, technology literacy, and global awareness. Achieving these goals is fundamental to ensuring an adequate and quality education for all New Hampshire children in every community.

TECHNOLOGY LITERACY: A NEW BASIC SKILL

Computers and other digital and information technologies have changed how we work, communicate, travel, access services, and learn. There is no doubt that the impact of technology on all aspects of daily life will continue to grow. Indeed, technology is transforming our society because it makes possible what was unimaginable before. Because of the unprecedented impact and potential of technology on our lives and our world, we must ensure that our young people acquire the knowledge and skills necessary to succeed in technology-based environments. There is now widespread agreement that technology literacy has become a new basic skill, and therefore a new basic for American education.

But this important new basic does not just apply to students. In order to meet the complex challenges of helping our students gain the knowledge, skills, and orientations they need, we all must become more literate with technology. Policy makers at the state and local levels, charged with making decisions about integrating technology, need to understand both the technological and educational issues involved. Taxpayers who will be asked to fund local technology implementation, and others who are committed to educational excellence in New Hampshire will also need to become technologically literate in order to make informed decisions and support implementation. Teachers and other "front line" educators need extensive training and support to gain the technology literacy and related professional development to effectively integrate technology to enhance teaching and learning.

THE ROLE OF EDUCATIONAL TECHNOLOGY IN SYSTEMIC REFORM

Virtually all other initiatives aimed at strengthening New Hampshire schools are built on the foundation of the New Hampshire Educational Improvement and Assessment Program (**NHEIAP**) and its mission of raising standards and improving schools based on sound data about educational results. References to using technology are woven throughout the *New Hampshire Curriculum Frameworks*, while many school districts have opted to develop an additional technology literacy curriculum framework of their own to explicitly define what their students should know and be able to do in the area of technology. The Technology Council is examining the possibility of a statewide computer technology framework.

The most significant education policy issue facing New Hampshire is how to provide for an adequate education for all New Hampshire children. Meeting a **Standard of Adequacy** will be greatly enhanced by the effective integration of technology within our schools and classrooms. Perhaps no other development has as great a potential for overcoming inequities of economics, geography, rural location, and cultural diversity. However, this potential has a serious downside: if technology is inequitably available, gaps in educational opportunities and technology literacy will widen, as districts, communities, and homes with computers and Internet access surpass those that do not.

State-level leadership, planning, and coordination of effort is critical to achieving the vision of effective technology integration in schools. Technology integration in schools is a priority of the Governor, the State Board of Education, the NH Department of Education (NHDOE), and the Legislature. If the role of educational technology in systemic reform is to be successfully developed, it will be due to effective coordination of efforts between all of these governmental entities.

GOALS AND OBJECTIVES

The plan's goals and objectives are focused on building the educational technology infrastructure at the local, regional, and state level. The accompanying Implementation Timeline indicates the timeline associated with each goal and objective. The QED 1997 Technology Survey data serves as a baseline for much of the 1998 current status of these objectives. An annual technology survey, along with other appropriate methods, will be used to determine progress toward achieving our objectives.

APPENDICES

The appendices contain brief information about organizations, programs, initiatives, and resources related to the goals of this plan. The NH Department of Education will continue to expand and revise these pages over time. The appendices currently includes:

- Resources for Training & Technical Assistance for Educators
- New Hampshire Distance Learning Commission
- New Hampshire Public Television Knowledge Network
- New Hampshire Society for Technology in Education (NHSTE)
- Governor's Computers in the Schools Program
- Education Connection Project
- Destek Networking Group, Inc
- Year 2000 Problem (Y2K): Resources to Address the Problem
- New Hampshire Legislative Committees associated with technology
- List of Business & Industry Donations
- New Hampshire Educational Resource System
- New Hampshire Educators' Web Site
- Cooperative Extension, University of New Hampshire

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IMPLEMENTATION TIMELINE

	Dec 1998	Jun 1999	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001
<u>GOAL 1: SCHOOL CAPACITY BUILDING</u>							
Objective 1.1: Local Educational Technology Planning							
1.1.a Tech Plan Approval Rubric disseminated	⇒⇒						
1.1.b Planning toolkit completed	⇒⇒						
1.1.c Planning toolkit disseminated	⇒⇒						
1.1.d Approved tech plans in all districts	⇒⇒	⇒⇒					
Objective 1.2: Modern technology for classrooms							
1.2.a At least one modern computer for >80% classrooms	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒		
1.2.b 10:1 ratio for all NH schools	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒		
1.2.c 1000+ computers to schools (CITS Program)	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒		
Objective 1.3: Internet access for classrooms							
1.3.a 20% increase in schools/classrooms connected	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	
1.3.b Internet access for all NH schools	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒		
1.3.c 50% classrooms/school w/ access	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
1.3.d 100% NH schools have 56K or higher	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
Objective 1.4: Effective & engaging software/resources							
1.4.a Increased classroom tech use	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
1.4.b NH Educators' Web Site fully operational	⇒⇒	⇒⇒					
1.4.c 50% or more of NH schools report increased regular use of software and online resources	⇒⇒	⇒⇒	⇒⇒				
Objective 1.5: Training & support for teachers							
1.5.a 25% increase in PD participation	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
1.5.b Ed tech competencies within all teacher cert. areas	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
1.5.c Computer Technology Educator certification established	⇒⇒	⇒⇒					
<u>GOAL 2: STATEWIDE CAPACITY BUILDING</u>							
Objective 2.1: Statewide leadership structure							
2.1.a Tech Council responsibility recognized	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
2.1.b Tech Council advise NHDOE staff regarding Essential educational technology matters	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
2.1.c Retain active representation on Tech Council from key stakeholders	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
Objective 2.2: Ed Technology Resource System							
2.2.a NHEWS (web site) launched	⇒⇒						
2.2b 200+ lesson plans submitted	⇒⇒	⇒⇒	⇒⇒				
2.2c Tech Plan Toolkit & rubric available	⇒⇒						
2.2d Possible expansion of Ed Tech Resource System evaluated by Tech Council	⇒⇒	⇒⇒					
Objective 2.3: Technical Assistance							
2.3.a Year 2000 (Y2K) resource materials to schools	⇒⇒						
2.3.b Updated NHDOE regional team members regarding educational technology needs in their districts	⇒⇒						
2.3.c Begin regular Ed Tech email distribution to all NH school tech contacts	⇒⇒						
Objective 2.4: Long term Ed Tech financing							
2.4.a Increased commitment from all major stakeholders	⇒⇒	⇒⇒	⇒⇒	⇒⇒			
2.4.b Finance subcommittee formed	⇒⇒						
Objective 2.5: Promote distance learning							
2.5.a Increase in DL programs offered	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
2.5.b Increase in DL sites in NH	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒
2.5.c DLC and Tech Council coordination	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒	⇒⇒