

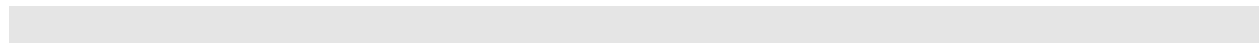
# Towards A New Hampshire Educators' Web Site

*A White Paper prepared by a working  
group of the Statewide Action Team of the  
Regional Alliance for Science, Math, and  
Technology Education Reform*

*June 9, 1998*

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## Background

Around the state of New Hampshire, there are many excellent teacher resources created for and available on the Internet.

- A media specialist in Sunapee has created a resource page for studying the American Revolution as a middle schooler ([http://www.sunapee.k12.nh.us/library/projects/col\\_rev.html](http://www.sunapee.k12.nh.us/library/projects/col_rev.html))
- a middle school class in Concord has published one of their nationally recognized successful units (<http://www.concord.k12.nh.us/schools/rundlett/heroes/0>)
- an elementary faculty has published their curricular units as a way of responding to the Frameworks (<http://www.sunapee.k12.nh.us/sces/units>)
- at Belmont High School, a tour of the solar system has been created (<http://www.shaker.k12.nh.us/high/astronomy/solarsystem/interactivetour/tourindex.htm>)
- and the New Hampshire Foundation for Teaching and Learning (working with students from Belmont High School) has accepted the responsibility of maintaining a calendar of professional development opportunities (<http://www.nhftl.org/calender.htm>).

How can they be found and shared? How do we avoid continuously recreating the same collection of resources? How can we provide a way for teachers new to the world of electronic resources to begin?

### Origin of idea

Each year, the Statewide Action Team (SwAT) of the Regional Alliance for Science, Math, and Technology Education Reform is required to choose a focus and to select projects which will advance science, math, and technology education. At last year's Region 1 meeting, and at the opening meeting of the 1997-1998 academic year, the SwAT chose technology as its focus. Recognizing that technology resources are flowing into the state in larger measure than in the past (as a consequence of local funding, GOALS 2000, Technology Literacy and Technology Innovation Challenge Funds, the Education Connection Project, and other resources) access to the Internet and other electronic media is growing far faster than ever before. Simultaneously, the New Hampshire Education Improvement and Assessment Program (NHEIAP) has led to a reexamination of curriculum across the state.

Two years ago, the SwAT was instrumental in developing the K-12 addendum to the Science Framework, and the K-12 Math Addendum - both of which have been published on the web. As schools revise their curricula to meet the proficiencies targeted in these Frameworks, new materials are needed, new lesson plans are created, and new ideas come to the fore. A need to efficiently share this information among the state's educators was identified by the SwAT as an area where they could make a difference, and the SwAT created a working group to flesh out a plan for a New Hampshire educators' web site.

### Working Group

The Statewide Action Team of the Eisenhower Regional Alliance for Science, Math and Technology Education Reform exists to facilitate the improvement of education in the state of New Hampshire. At a Region 1 Planning retreat, objectives for the 1997-1998 academic year were proposed. Among them was a state wide educators web site. At the planning meeting of the SwAT in September of 1997, it was determined that an educator's web site would be a developmental objective of the SwAT for this year. (This was one element of this year's technology focus).

A working group of SwAT members was formed and given a charge to develop a white paper fleshing out the design, content, and proposed methodology for developing and maintaining such a web site. This group then sought additional help from other organizations including NHSTE, NHATMNE, NHEMA, etc. A larger

working group was formed which focused on using the skills and experience of classroom teachers and media specialists to assure that there was a perceived need by educators at the classroom level in the first place, and then to assure that the design actually met these needs.

The group decided that it could make a difference by approaching the problem from the position of the classroom teacher outwards. It would seek to provide further definition for the implementers of the Statewide Instructional Technology Plan.

### **Educational Improvement**

As the plan was developed it was discovered that as with many ideas, it was by no means original. Other sites had been developed in other states including Pennsylvania, Utah, and North Carolina (see appendices).

#### **New Hampshire Statewide Educational Technology Plan**

It was determined that the March 1997 New Hampshire Statewide Educational Technology Plan (NHSETP) called for the development of online resource tools for educators. There is also a draft prospectus for a New Hampshire Educational Technology Resource System which called for the creation of a site meeting many of the purposes originally envisioned by the SwAT. (See appendix draft prospectus of NH Educational Technology Resource System 3/97).

The NHSETP calls for many of the resources we are proposing as part of an “Educational Technology Resource System” that would “provide a clearinghouse of information and resources related to technology integration, including materials, programs, people, research and practice knowledge, and information on initiatives,” including:

- a Resource Bank that is readily searchable;
- learning activities, New Hampshire related projects, and information on professional development opportunities;
- based on a World Wide Web site;
- that provides a communication and networking resource.

#### **New Hampshire Education Improvement and Assessment Plan (NHEIAP)**

Other significant resources for change in this area has been the framework and assessment components of the NHEIAP. They have encouraged all educators to take a new look at how effectively their curricula address all student needs.

#### **Frameworks**

The decision by the state of New Hampshire to adopt target proficiencies for all students, while not being prescriptive about delivery of instruction, requires all educators to rethink their curriculum in a larger context. Educators ask, “What proficiencies must my students develop? How does what I do effect next year’s instruction? What can I assume my incoming students already know?” As we continue the process of curriculum alignment, the ability to benefit from the shared experience of others who are traveling the same road will dramatically reduce the time it takes to accomplish the realignment we are committed to.

#### **State Assessments**

The state assessments provide a useful benchmark for determining areas of strength and weakness. They also provide a window for community accountability which has not existed before. If we are to do the best we can for all our students, wherever they are, we must be able to share our successes and our failures. The ability to seek out resources which supplement areas of weakness while offering an opportunity to share our strengths must be exploited.

## **Goal**

Upon discovering that this groundwork had already been done, and having discovered a need arising from the field, we chose to amend our plan and focus on what such a site could and should do, how it could and should be organized, and how it could be brought into being.

Recognizing the impact of all these influences, we set for ourselves the following goal; to provide a working document that outlines the content and organization of a statewide educators' resource bank (as a web site), with appropriate rationales, suggestions for organization, and means for developing criteria and contributions.

The purpose of this web site, as included in the NHSETP is to provide an ongoing resource to improve student learning in line with the NHEIAP. This resource will also provide a site for publication of best practices from throughout the state. It will include excellent lesson plans, activities and teacher created materials. Professional development opportunities would also be available.

## **Definition of Need**

The implementation of state Frameworks and state assessments has created a need for educators to revamp their curricula and teaching styles. It has become imperative for educators to have a means of learning, sharing and providing information to each other. Educators need ways of expanding and enriching the curriculum to best meet the needs of their students. To date, there is not a way for New Hampshire educators to do this through any formal statewide structure.

With technology advancing at such a rapid rate, it is difficult for teachers to stay on top of things, particularly given the vast, uncataloged array of new information resources. Educators need a way to evaluate their skills, use tutorials, and advance at their own pace. Teachers in rural areas often have a more difficult time attending workshops or classes. Advances in technology are making it possible to provide opportunities to educators and students in some of the state's more remote areas to learn whatever they want, wherever they are; if they know where to look. Unfortunately, many do not.

Not all educators have access to the same resources or know the resources that are available. Technology rich resources for teaching and learning must be accessible to educators and students statewide regardless of economic need. Now that we have statewide Frameworks, and broad access to the Internet, the most glaring problem is finding effective resources for classroom use amidst an ocean of Internet information. School districts are finding their way onto the Information Super Highway, but there are few signposts that have been left by the more experienced (unless you already know where to look). All teachers need a way to plug into each other's expertise and experience. The more technologically literate need the benefit of the lessons and experience which should be incorporated into curricular revisions, and the less technologically literate need a way to find out what is there, how to begin, and how to find and exploit best practices.

Teachers are pressed for time and given an opportunity to have a variety of rich resources at their fingertips they would take advantage and benefit greatly. Our technology resources will continue to be underutilized if everyone has to reinvent the work of the person who went before. We have the opportunity through information sharing to stand on each other's shoulders. Otherwise, we run the risk of perfecting one piece of curriculum fifty times while neglecting other areas entirely.

Inevitably, different schools and different districts have different resources and strengths, as do individual students. Currently the expert work performed in organizing resources by media specialists in school libraries, remains available only to their own students rather than as a resource the whole state could use. The same is true of curriculum coordinators and classroom teachers who develop exciting and instructionally powerful lesson plans and activities (linked to the proficiencies of the Frameworks) and have only limited opportunities to share them outside their own classrooms.

## Solution

After identifying these resources, and reviewing the ground that has been prepared in the State Tech Plan, we are proposing a specific model of a web site having eight basic elements. The centerpiece would be a searchable index of resources organized around the strands of the Frameworks. This would permit individuals, teams, schools, and districts to have the benefit of the work of others. They would also have the opportunity to share their best work for the benefit of others.

### Site description

It is our vision that a web site will be created. This site is not intended to be yet another list of links to links, but rather a resource whose primary function would be to provide a curriculum planning and development resource which supports the proficiencies outlined in the New Hampshire Education Improvement and Assessment Plan as documented in the Frameworks and addenda

To be effective, such a site must meet many if not all of the needs outlined above. It must provide a place for the publication and demonstration of models of best practice which meet the needs of New Hampshire educators; and provide a showcase for New Hampshire educators to share some of their models of excellence.

It must also provide a short cut to the educator's fast lane on the information superhighway. We do not have the time or the resources for everyone to realign their own curriculum and develop their own technology proficiencies in isolation. Neither do we have the time or money to develop web resources individually for every component which we would choose. Rather than reinvent existing tools, we need to provide a toolbox in which we can keep them. And we need to assure that all New Hampshire educators have the keys to the toolbox and the ability to acquire the skills to use the tools they need.

### Components of the Web Site Model

- Framework/Appendix curriculum development resources and tools
- Organized by thread in a descending hierarchy (see Yahoo for example)
- Lesson Plans
- Resources

This section is the centerpiece of the site. Each of the Framework strands provides a model for a classification system (we have done a partial sample of Physical Science Strand 5 at <http://www.nhptv.org/kn/vs/swat12.sht>). As teachers review the proficiencies which their students need to meet (through the online Frameworks they can find resources which have been identified as specifically helping to meet that proficiency. This does NOT mean that a lesson will only target one proficiency. In most cases, lessons will cover material from more than one strand. This also offers a myriad of opportunities for curriculum integration.

Other resources will include cross links to video tapes, field trips, and to other organizations with educational missions which could provide assistance in a specific area.

A submissions policy would need to be developed, as well as an organizational model which exploited the advantages of our Frameworks.

### Search

- Framework (ex. Science, Physical Science, 5d electricity & magnetism, 6th grade)
- Keyword (ex. Magnet grade 6)
- Boolean (ex magnetism & teaching)

The best route to an excellent resource is through a human produced catalog (similar to our framework proficiency hierarchy). Second choice is using keywords from a known indexed list of concepts (like the proficiencies). Third and last is Boolean searching through cyberspace.

As most librarians agree, a human reviewed classification system (for example Dewey or Library of Congress) is best, then a keyword search and only then a Boolean search. Having resources organized around the Frameworks would assure that teachers (especially those less familiar with Boolean searching) could be confident that they would be able to reach the appropriate resources.

### Communication

- Teacher Exchange
- NH Teachers listserv and index to educator listservs
- Suggestion Box
- Submissions

This would exist to provide two things, New Hampshire focused listservs, and an index of educational listservs by topic.

### Self Assessment

- Levels (i.e. Mankato, Bellingham or locally generated equivalent)
- Tutorials - most as links to preexisting topical tutorials

This area would provide a self assessment instrument and a series of web based tutorials on a variety of subjects targeted for users assessments of where they stand

### Professional Development Opportunities

- An index to organizations: NHSTE, NHEMA, etc.
- A calendar of professional development opportunities

The calendar has already begun and in and of itself makes a beginning

### Hot Tips

- What's new
- Stuff that doesn't fit elsewhere

### General Resources

- e.g. Kathy Schrock, NCTM, PBS,

### Grant Resources

- Link back to DoE
- Include free opportunities – Donation Depot, etc.

## Conclusion

We are emphasizing the need for an educators web site in New Hampshire for many reasons. It would be a clearly defined model of an information resource. This site would be a way of bringing together all the resources that we have in the state that are pertinent to educators and also the expertise and knowledge that our educators have can be showcased. This resource would provide access to the NHEIAP Curriculum Frameworks, resources for meeting the proficiencies, a venue for teachers to exchange and share ideas, a tool for educators, a way of keeping updated on professional organizations and opportunities to find grant money. The vision



of this site will hopefully become reality. It can clearly take New Hampshire educators into the 21<sup>st</sup> Century and provide the students in our state with countless opportunities.

## What's next?

### Design

The members of the working group from SwAT have developed a vision for this site. This vision would provide a design for beginning the web site. We are looking at a home page that would serve as a stepping off point to many resources that would be valuable to educators. The goal is that it would take an educator no more than three links to get where they wanted and needed to go. Some of the linked sites would be original and created for this site's purpose and others would be links to established sites (i.e. <http://www.census.gov/cgi-bin/gazetteer>) geared to a specific proficiency.

In this ever-changing technological age, the site and its vision may also change. It is expected that educators will contribute to the development of this site by submitting lessons, activities and other ideas. A method of accepting these submissions would be needed and a way of updating and changing the site with some frequency will be imperative. We are looking for a group that could host this site on their server and provide the maintenance and upkeep that a frequently visited site would need.

### Implementation

We are looking for a group that already has a web site. It is hoped that this group would be able to also provide space for this educator's area. Ideally the group would be involved in some way with education so that our vision would correlate with theirs. This group will need to incorporate the extensive knowledge of the statewide educational community, and other organizations with educational missions, to provide and enrich the content. We expect that a group that is interested would be able to fund this site for a while, not just a short-term trial. We want this to be a dependable site for New Hampshire educators.

### Management

Once this site is established, word will quickly spread among educators in the State and it will surely be on everyone's Favorite list. New Hampshire educational organizations will be able to publicize this site in their works to help educators find it. The site can begin with a basic structure of ideas linked to the Frameworks as well as teacher resources and can then grow with submissions from educators around the State. It will be important then that oversight of the site occur frequently so that new ideas are added as they are reviewed and ideas that are seasonal or outdated are removed. It is hoped that the group that implements this vision will be able to provide the manpower to keep it going. The fact that a site such as this is specifically set as a criterion for successful and complete implementation of the NHSITP makes it imperative that we begin.

## Appendices

### What's in them?

As an attachment to this proposal, we are providing the reader with:

1. Membership of the SwAT working group
2. Excerpts from the New Hampshire Statewide Educational Technology Plan of March 1997
3. A draft prospectus for a New Hampshire Educational Technology Resource System of March 1997
4. Examples of comparable sites which exist in other parts of the United States & lists of resources
  - Sample sites UtahLink -
  - SwAT site at NHPTV
  - Audubon Society Site
  - NH Fish and Game Site
5. Index of affiliated professional organizations

### Why are they here?

It is expected that these resources will help to support our vision and prove that this proposal is something that the State of New Hampshire and its educators could benefit greatly from.

### Comparable Sites

Other states have begun similar projects. A major emphasis on these sites is to provide teachers, students, and the general public with technology based access to the variety of educational opportunities that are available. These states' sites are rich in instructional content that relates to their curriculum guidelines and are easy to navigate. The sites not only provide resources, but also allow their states' teachers a forum for sharing ideas and lessons that are practical and relate directly to state curriculum objectives.

The Utah Education Network has developed Utahlink <http://www.uen.org/utahlink>, which provides a site rich in resources for and by teachers within the state of Utah. Sites range from lesson plans, which correlate with the state's core curriculum to an area that focuses on educators and schools within the state.

North Carolina's Department of Public Instruction provides Teachers Connect <http://www.ofps.dpi.state.nc.us/OFPS/tc/> which originally began as a site to fill the gaps that were seen in providing resources to North Carolina educators. It has evolved into a site providing numerous opportunities for their teachers to develop and improve their teaching.

Teachers in both states contribute lessons and activities that undergo a submission policy. By allowing teachers to play an active role in the development of the sites, the teachers are being validated as playing important roles in their educational system.

## Appendix 1 List of SwAT Web Work Group Members

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## **Appendix 2 Excerpts from the New Hampshire Statewide Educational Technology Plan**

*In order to further reinforce the connections between our recommendations and the existing Statewide Educational Technology Plan we will excerpt extensively. The following sections are quotations from the plan which are particularly relevant to this proposal. All section headings are as they appear in the document. The complete document can be found at <http://www.state.nh.us/...>*

### **How Various Stakeholder Groups Can Use the Plan**

#### **Local Educational Technology Planning Committees**

- 3) Identify the questions and issues to be addressed
- 5) Communicate about educational technology to community stakeholders

#### **Educational Organizations and Service Providers.**

- 1) Increase their understanding of technology's role in educating children and adults
- 2) Align their programs and technology use with the statewide goals for technology integration
- 3) Learn about strategies, issues and resources for integrating technology

#### **Higher Education Institutions**

- 2) Learn about the numerous initiatives that they can access (and contribute to) to achieve common goals
- 3) Enhance course content to incorporate key information about technology's role in teaching and learning and continuous school improvement

### **EDUCATIONAL TECHNOLOGY AND SYSTEMIC REFORM**

#### **Technology Literacy: A New Basic for Education**

Strong collaborative structures, based on a clear vision and a common knowledge base about the best ways to meet our educational goals, are needed, and several have emerged. These collaborative efforts are built on the solid foundation of New Hampshire's statewide reform initiative, the New Hampshire Educational Improvement and Assessment Program (NHEIAP).

#### **NHEIAP and the National Movement toward Standards-Based Education Reform**

NHEIAP has become the substantive foundation for educational reform and accountability in New Hampshire. Support for NHEIAP has grown and is now widespread among educators, local school boards, business groups, and legislators.

...Increasingly, these initiatives have strong education technology components, an example of which is shown in the following excerpt from the New Hampshire Consolidated Application Plan on the Focus Area of Technology:

*The Department's goals in the area of technology are (1) to improve instruction and student learning through the effective and efficient use of technologies and technological resources and*

*services and (2) to utilize technology effectively in the gathering, management, and publishing of information for educational decision making and school improvement...*

### The Contribution of Technology to Education Reform

Technology is bridging the inequities of distance, remoteness and resources. And, there is mounting evidence confirming that, properly use, educational technology can make a significant contribution to student learning

### **A VISION OF TECHNOLOGY INTEGRATION TO SUPPORT EDUCATIONAL EXCELLENCE**

#### Technology's Vital Contributions to All Aspects of the Education System

**Improving Teaching:** Teachers use technology to access lesson plans and instructional resources, examine research and practice findings, integrate subject areas, communicate with colleagues and experts, and learn new skills

**Increasing Equity:** Technology can overcome geographic isolation and limited local resources (e.g., libraries, textbooks, learning opportunities) and provide all students with opportunities to develop core knowledge and skills, including technology literacy.

**Strengthen Adult Learning and Professional Development:** teachers and others can take courses through distance learning, participate in on-line seminars, access professional literature, participate in networks, communicate with experts, and observe colleagues.

### **FOCUS AREA 1: BUILDING THE EDUCATIONAL TECHNOLOGY INFRASTRUCTURE FOR REFORM**

As previously indicated, the New Hampshire Consolidated State Plan includes technology as one of its focus areas. Within this area strategies include:

- 3) Infuse effective use of technology for teaching, learning, and communication in professional development plans, teacher preservice programs, and inservice programs;
- 8) Continue to develop the NH Educational Technology Resource System and seek funding for a statewide coordinated effort;

The Technology Committee adopted the four national goals for technology and added two others -

Goal 3: Effective and engaging software and on-line resources will be an integral part of every school's curriculum

#### **Strategies for Pursuing Goal 3:**

Technical assistance will be provided to districts in evaluating educational software and web sites, and links to effective web sites will be added to the Department's page and those of partner organizations (NHPTV, SERESC, CRM, etc.)

The Educational Technology Council will partner with NHEMA and NHSTE to support teachers in identifying excellent software.

The Educational Technology Resource System will include resources related to educational software and online resources.

Goal 4: All teachers will have the training and support they need to help all students learn through computers, the information superhighway, and other technologies.

**Strategies for Pursuing Goal 4:**

The Educational Technology Resource System, and in particular its Resource Bank, will provide a clearinghouse of information and resources related to technology integration, including materials, programs, people, research and practice knowledge, and information on initiatives.

Members of the Education Technology Council, working with the professional development committees of statewide associations, will explore how their offerings can help address the technology-related needs of their members, and strategies for enabling more people to access these opportunities

The web sites maintained by the Department and several education technology groups will post information, resources, opportunities, and funding sources for professional development

Effective use of technology will be modeled in all professional development that the Department conducts.

The Department will connect districts who have effective staff development strategies with others who need help.

Goal 5: All school districts will develop an educational technology plan that addresses the educational improvement goals stated in their local Educational Improvement Plan

**Strategies for Pursuing Goal 5:**

Establish a **Statewide Resource System** for supporting districts as they plan, implement, and evaluate technology integration. A draft *Prospectus for a New Hampshire Educational Technology Resource System* was developed by the Educational Technology Council to outline the types of resources and supports that will be needed by school districts and others. The components of the proposed Resource System include:

b. A **Resource Bank** of relevant items cataloged in a searchable database. [Note: the intent is not to create a “repository” of all of these items, but to locate and reference them for broad access and continuous updating.] The types of items in the resource bank would include:

Descriptions of Learning Activities that Illustrate the Effective Use of Technology in Schools

Descriptions of New Hampshire Technology-Related Projects

Sample Learning Activities and Resources

Networks and Newsgroups

Information on Organizations and Associations: Resource/Clearinghouses, Professional Groups, Agencies, etc.

d. A **World Wide Web Site** that will be the primary access point for users. The Web site will allow extensive linking to the resources of many types of organizations, including schools and classrooms around the world. A search tool will be placed on the site to allow users to search the collection. Documents can be downloaded or printed from the Web, and if users do not have easy access, they can receive material from one of the system partners.

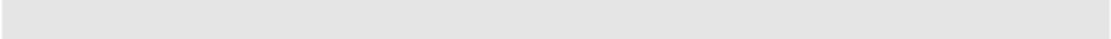
- e. A **Communication and Networking System** to allow all users to connect to others with similar needs and interests, and to link those with knowledge to those seeking it. Email links, newsgroups and listservs will be the primary communication vehicles, and stakeholder organizations will be enlisted to disseminate information on the system to their members.

## **FOCUS AREA 2: STATE PLANS FOR FINANCING EDUCATIONAL TECHNOLOGY**

### **Strategies for Financing Educational Technology**

Promote the unifying focus of NHEIAP and its emphasis on modernizing schools to meet the challenges of the 21<sup>st</sup> century

Produce educational results that demonstrate the value of technology itself



## Appendix 3 Draft Prospectus for a New Hampshire Educational Technology Resource System of March 1997

PROSPECTUS

DRAFT  
- FOR DISCUSSION ONLY -

# NEW HAMPSHIRE EDUCATIONAL TECHNOLOGY RESOURCE SYSTEM

### **Background and Rationale**

Over the past several months, the Technology Team convened by the New Hampshire Department of Education has been exploring strategies for providing resources and information support to school districts related to several aspects of technology. These include the development of local technology plans, awareness of the roles of technology in education, issues and approaches that enhance educational quality and results, and resources available on the wide range of topics encompassed in the broad educational technology arena. An important consideration in any development effort is how it will support and connect to Local Education Improvement Plans and the New Hampshire Education Improvement and Assessment Program.

The Committee gave strong consideration to developing a Technology Planning and Implementation Guide to achieve the above purposes. As the topics and contents of such a guide were identified, however, it became clear that one document could not serve these broad purposes adequately. Furthermore, written guides tend to be static and inert rather than dynamic and responsive. Committee members who met as a sub-group to further the discussion also realized that current technology, primarily the Internet, provides a very powerful vehicle for finding and accessing resources, and the pool of resources available is growing exponentially.

For example, a school district may want to review several technology plans from other districts. A guide might contain a few of those that were available when the guide was produced. We wanted to create a vehicle that would allow local educators and others to select resources from a wide pool that is expanded with new resources as they become available.

These discussions led us to conceive of a "system" containing several components. The *New Hampshire Educational Technology Resource System* would not only include resources, but a variety of access options, communication methods, and support services.

### **Components of the System**

Possible components of the proposed system include:

A *Vision Statement* on the role of technology in education, in the context of current local, state, and national reform initiatives aimed at helping all students achieve at high levels. The document will provide a vision for educational change that is impacted by evolving information technologies, and will provide local educators and others with a clearly articulated rationale and



explanation for the role of technology in education and examples of technology applications that support improved teaching and learning.

A *Resource* of relevant items cataloged in a searchable database. [Note: the intent is not to create a 'repository' of all of these items, but to locate and reference them for broad access and continuous updating. The types of items in the resource bank would include:

- Local Technology Plans
- State Technology Plans
- Guides and Reference Manuals
- Descriptions of Learning Activities that Illustrate the Effective Use of Technology
- Technology Tools (e.g., the NHEMA/NHSTE Tool Kit)
- Videotapes
- Catalogs of Educational Technology Products
- Names and Descriptions of Presenters, Consultants and Technical Support Providers
- Sample Policies (e.g., Acceptable Use)
- Project Descriptions
- Learning Activities and Resources
- Networks and Newsgroups
- Information on Organizations and Associations: Resource/Clearinghouses, Professional Groups, Agencies, etc.

A *Process Guide* to help districts engage educators, parents, school board members, and community members in learning about and considering the role and potential of technology in their educational system. It will also address the many issues and considerations related to implementing the types of changes that will be required to integrate technology effectively in the educational process.

A *World Wide Web Site* that will be the primary access point for users. The format and function of the Internet allows broad access and many options for locating, reviewing, and obtaining information and resources. The Web Site will allow extensive linking to the resources of many types of organizations, including schools and classrooms around the world. A search tool will be placed on the Web Site to allow users to search the collection. Documents can be downloaded or printed from the Web, so if users do not have easy access, they can receive materials from one of the system partners. [See the section on Access below.]

A *Communication and Networking System* to allow all users to connect to others with similar needs and interests, and to link those with knowledge to those seeking it. Email links, newsgroups and list serve will be the primary communication vehicles, and stakeholder organizations will be enlisted to disseminate information on the system to their members.

### **Access to Resources and Information**

Access to the resources and information is key to the system's success. We believe that the Internet, in its present form and as it is evolving, will be the most effective "infrastructure" for universal access. However, not all intended users have access to the Internet. Therefore, it will be important to provide intermediate access points and providers that can easily be contacted by telephone, visit, or mail. Several New Hampshire projects and educational service organizations will be enlisted, as will regional support systems such as NetTech and the Regional Lab. Schools, including the ELN Demonstration Schools, will be invited to serve as local access points. The State Library already serves this purpose, as do colleges and universities. In some communities, local businesses that have Internet access could be enlisted to help. In the future, a voice mail system, such as those used by bank customers to obtain their balance and other information, could be established.

While no dissemination and access system can ensure immediate and ready access to every individual who wants it, we believe the approach described above will result in the greatest access possible within the resources of the system.

### **Expected Outcomes**

The expected outcomes of these efforts will be evident at the local level by the following types of examples:

The public will develop an understanding of the need and will advocate for technology in schools.

Districts will understand the relationship between their local education improvement plans and their technology plans, and will have integrated the two.

Districts will understand and use technology to help in attaining their district goals.

Districts will understand the need for a student management system to facilitate learning, target improvements, and assist staff in meeting student needs.

Teachers and students will access a broader range of knowledge resources to support teaching and learning.

Teachers will understand the need for technology training for certification.

Students will have greater opportunities to become "technologically literate" and competent, and thus better prepared to meet the challenges of higher education and work.

School districts will be able to generate data and reports in an efficient and timely manner.

### **Next Steps**

The Technology Team will review this Prospectus prior to the meeting on September 24, where it will be discussed. Over the next several months, members of the Committee and other resource groups (e.g., NetTech, the NH Electronic Learning Network) and stakeholders (e.g., statewide associations) will assist in further defining and developing the components of the system. Within the Department, efforts will be made to integrate this system with the larger Support Services System being developed.

Although the proposed system components span a wide range of topics and types of resources, it should be noted that the task will be one of locating and assembling information and resources, rather than developing them. There are numerous examples of each type of resource and product readily available through the Internet and other sources. Furthermore, we envision the development of the system being ongoing, with resources posted and available as they are identified. Consideration will also be given to seeking outside funding to support the development and operation of the system.

## Appendix 4 Additional Resources

### Draft Home Page:

<http://www.sunapee.k12.nh.us/swat/>

This page is currently maintained purely as an unlinked sample of how such a page could function. Obviously, it could stand some graphic improvements.

### Sample from the Resource Bank:

<http://www.nhptv.org/kn/vs/swat12.sht>

This continues the prior demonstration in a fashion such as might be used for one strand. We chose Science 5d. Other examples can be seen at <http://www.nhptv.org/kn/vs/swat1.sht> and sequels. Resources used to generate this document can also be found there.

### Other State Sites:

<http://www.uen.org/cgi-bin/websql/utahlink/lesson.htm>

This site is maintained cooperatively by the Utah Department of Education and the Utah College and University system.

<http://www.ofps.dpi.state.nc.us/OFPS/tc/>

Teachers Connect -- This site is maintained by the North Carolina Department of Public Instruction.

## Appendix 5 Index of Organizations with Educational Missions

This list is included only as a sample and is by no means complete

NHSTE New Hampshire Society for Technology in Education - affiliate of the International Society for Technology in Education <http://www.nhste.org>

NHEMA New Hampshire Educational Media Association <http://www.nhema.org>

New Hampshire ATMNE - Association of Teachers of Mathematics in New England  
<http://www.keene.edu/RESOURCES/ATMNE/>

New Hampshire Department of Fish & Game

New Hampshire Historical Society

Audobon Society