

**Maine School Administrative District #75
Innovative Delivery Strategies**

“ . . . a description of how the applicant will encourage the development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance-learning technologies, particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources.”

Introduction. This document serves as an outline of the District Technology Department is taking for developing and supporting innovative delivery strategies. Technology must be delivered in a variety of ways to meet the needs of all users and differentiate instruction. The following are hardware and software tools used to enhance curriculum and aid administration; as well as specific projects that serve as examples of innovative delivery strategies.

1. Hardware

- 1) **Mobile Carts** - The use of mobile carts and wireless network connectivity has taken technology out of the fixed lab and brought it to the classrooms. This is important for two reasons: It lets instruction occur in a setting where teachers are in their own surroundings. They're more comfortable in their own classrooms because all their other resources are at their disposal. Additionally, Mobile carts mean that fixed labs have more availability.
- 2) **PDA's for Administration** - PDA's (Personal Digital Assistants) loaded with data from the student information system give administrators the freedom to access student records from anywhere in the school.
- 3) **Alpha-Smart** - Alpha-Smart is an inexpensive word processing tool that doesn't require a computer. Users can carry the units anywhere to type and save documents, then print when they have access to a printer.
- 4) **Digital Cameras and Camcorders** - Cameras and Camcorders are simply more tools that can be used to gather and deliver information. They give students the opportunity to complete projects in different ways; and they give teachers more options for delivering curriculum
- 5) **ATM Distance Learning Studio** - The ATM studio provides a statewide link between more than 80 schools. With this technology, classes held in the studio can be shared real time with schools all over the state. It can also be used in meetings, similar to teleconferencing, for both school personnel and community members/groups.
- 6) **Multi-Media Projectors** - Multi-media projectors allow teachers to share their computer work with the entire class. This is especially helpful if a teacher wants to use a single computer to show Power point presentations, Internet sites or other visuals.
- 7) **CD/RW's and CD Burners** - With CD burners and write-able media, teachers can produce CDs with curriculum material for all students to use anywhere they have access to a computer.

2. Software

- a. **Internet Resources** - Various Internet resources, such as online searches, curriculum related websites or web-based curriculum applications, can be used to enhance or deliver curriculum.
- b. **Library Subscription Databases** - Subscription databases are valuable research tools. Taking the place of many printed periodicals and journals, they give users easy access to reference articles from multiple sources over the Internet. Unlike routine web searches, these databases are scholastic in nature; so the results will focus on appropriate student research material. Because they are online, these databases are especially useful in schools that may not have a variety of other library resources
- c. **Apple iMovie, Windows Moviemaker** - Digital editing software lets users assemble and present information on video; a process that combines several disciplines into one activity. The preparation of an outline for video, combined with writing of subject matter and the editing process gives teachers and students many opportunities in one project.
- d. **Kurzweil** - Kurzweil 3000 is a language software package that provides aid to students having trouble with regular instruction. It combines text-to-speech functionality with online word highlighting to help students improve reading skills at their own pace. Additionally, it provides high quality OCR text scanning so students can convert printed writing assignments and tests to a digital format and work further on the computer.
- e. **Citrix ICA Client** - Citrix Thin-Client technology delivers identical workstation desktop environments to client terminals over a network. These clients can be older workstations that no longer function as stand-alone desktops. This gives technology staff the opportunity to make computers last longer in a given environment, reducing replacement costs and potentially lowering the ratio of students to computers.

3. Special Projects

- a. **Bowdoin Central School** - Bowdoin Central School has four 11 unit mobile laptop labs located in each of the two fifth grade and two fourth grade classrooms. These classrooms are providing extensive use of integrated activities by utilizing resources such as the Internet, digital camcorders for movie production and math investigations using Marco Polo sites. These activities let students look at subjects from various perspectives, giving them greater opportunities for learning.
- b. **Aiming For Excellence (AFE)** - The AFE staff has developed a proposal to support the curriculum in grades 5 through 8 by purchasing writing assistance and timeline software. Having these tools available will help teachers support the different levels of students in their classes. (See [Appendix "Timelines and Writing Process"](#))
- c. **Alternative Education** - The Alternative Education department has used the ATM distance-learning classroom to have students attend online fieldtrips, most recently to Brazil. These events are fully interactive and in real time. They give students the opportunity to see locations and experience cultures that traditional field trips could never reach. (See [Appendix "Alternative Education Program"](#))
- d. **High School Mobile Labs** - The Math and Science departments at Mount Ararat High School have recently used grant money to purchase mobile laptop carts to

implement new units of instruction aligned with the Maine Learning Results. Math's laptop cart is used primarily to deliver CD-based applets that step students through various aspects of problem solving. Science uses their cart to, among other things, deliver a freshmen weather unit. Students gather local weather data to learn about graphing and trend analysis.

- e. **Middle School 6th Grade Labs** - The Middle School 6th graders have multiple labs available to them: a fixed-lab of 24 computers, and a wireless mobile lab that can accommodate 24 students. There is also a computer lab that will support 8 students in the library. Students have access to a wide range of software and tools that they use on a limited basis. They have the ability to save any work to the file server, and to put it into a common folder for teacher access.

- f. **Middle School Maine Learning Technology Initiative (MLTI)** - The State MLTI project puts a wireless laptop device in the hands of every 7th and 8th grade student and teacher at the Middle School. Having a one-to-one technology tool allows innovative teaching, learning and educational experiences, engaging everyone at a new level. Students and teachers have countless applications at their disposal, from word processing to digital media authoring. The wireless connection to the Internet facilitates research, information gathering, and timeliness. The laptops have been instrumental at self-paced learning, allowing students to push forward instead of waiting for everyone to catch up. They have engaged and involved students who normally wouldn't participate in the classroom, allowing them to be a resource to their peers and teachers while building their self-confidence and self-esteem. Students also have the option to take the laptops home to share with their family, bringing technology and learning into homes that might not have had that capacity before. (See appendices [“MLTI Laptop Policy”](#), [“MLTI Middle School iBook Procedure”](#), and [“Apple iBook Signout”](#))

- g. **Middle School Technology Education Exploratory** - The computer is another tool to utilize in order to solve a particular problem. Computers play a vital role in almost every activity including:
 - a. **Grade 8 Yellow Brick Logo** - During this activity, students brainstorm, design, build and program creations made from legos. Each creation must operate realistically upon completion. Students program the operation of their creations using a logo-based software, Microworlds Yellow Brick Logo. Students are challenged to be creative and must think logically in order for their solution to solve the problem.
 - b. **Grade 7 Microworlds** - During this activity, students learn the basics of computer programming using the logo-based software Microworlds. Each student has to create an original animation that tells a story. Students are challenged to be creative and must problem solve, as they use computer language to express their ideas. (See [Appendix “Technology Education Curriculum at Mt. Ararat Middle School”](#), <http://www.elm.maine.edu/assessments/teacher/bridge/>, and <http://www.elm.maine.edu/assessments/teacher/rube/>)