

# Technology Update

A publication of the Massachusetts Department of Education



## MESSAGE FROM THE COMMISSIONER



## WHAT TO DO

*5 things that every district should do to support successful implementation of educational technology:*

1. Submit a local technology plan to the DOE for approval by the June 30, 1997 deadline.
2. Make sure that all administrators either sign up for an internet account with MCET or register their account with MCET if they already have one from another source.
3. Budget sufficient resources annually for technology expenditures.
4. Place a high priority on staffing and professional development to support technology.
5. Apply for a Challenge Grant.

### Dear School Leaders, NetDay Participants, and Other Interested Parties:

In celebration of our second NetDay, I am pleased to provide you with this Spring update on educational technology initiatives across the Commonwealth. Technology has a growing role in strengthening the ability of educators to teach, and supporting the frameworks and assessment for improving student learning.

We have made substantial progress in technology over the past three years. The Educational Technology Bond Bill has been passed, we have kicked-off our five year program to identify and disseminate Lighthouse Technology Sites, and we have begun other exciting new statewide initiatives. Locally, thousands more of you are using the internet to transform the way that you communicate and districts are investing carefully in one of the premier components of a successful technology program - - quality staff and professional development. At the time of this letter, 159 districts have approved educational technology plans and an additional 43 have submitted their plans for approval. All of these accomplishments are very encouraging, but there is still much to be done.

I urge those districts that have not yet submitted their technology plans to the Department of Education to do so by July 1, 1997, to qualify for Education Technology Bond and Challenge Fund grants. Further, all districts should review their local educational technology budgets to ensure that adequate local resources are being targeted for this important initiative. Preliminary data suggests

that districts with successful plans are budgeting at least \$120 per student annually to educational technology; several districts have reported spending over \$500 per student. If you need assistance completing your plan, call Connie Louie at (617) 388-3300 extension 275 or send her an e-mail at <clouie@doe.mass.edu>.

Finally, I want to encourage everyone with an interest in educational technology to make use of the Department's web site. Our staff is committed to posting all relevant documents and data on our site as soon as they are available. Use of our web site has tripled each year for the past two years and is expected to triple again next year. Over the next couple years, in concert with the Department's new Information Management System, we will complete our transition to the web as our primary mode of two-way communication.

Thank you to NetDay participants, for your energy and activism. Thank you to legislators, and the Governor and Lieutenant Governor for their essential support; and thanks to educational leaders for your tireless work on behalf of school children.

Sincerely,

Robert V. Antonucci  
Commissioner of Education

# EDUCATION TECHNOLOGY BOND MATCHING GRANT PROGRAM: SCHOOL DISTRICTS IN THE FIRST THREE ROUNDS OF FUNDINGS



## Governor Weld Announces Third Round E.T. Funds!

On April 4, 1997, Governor Weld and Lt. Governor Cellucci announced that another \$7.6 million is being released in the third round of the Education Technology Bond Matching Grants. With this news, school districts with approved technology plans not having received matching grants in the first or second rounds may apply for these new funds. In total, 203 districts will have received \$19.5 million this year.

### First Round Districts Receive Funds

In October 1996, Governor Weld released the first round of funding to 26 first round school districts. Grants totaling \$2.7 million were appropriated for grants based on \$30 per student with a match of \$90 per student from the district.

### 2nd Round Districts Receive Funds

A second round of funding was recently released and \$9.3 million was distributed to 74 school districts. All these school districts have technology plans approved by the Department before 1997.

### July 1 Submission Deadline for all Plans

In order to be eligible for the ET Bond Matching grants, school districts must submit their plans to the Department of Education for approval before July 1, 1997. An application for the ET Bond Matching Grants is available only to a school district with an approved technology plan.

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### KEYS:

01 = First Round    02 = Second Round

3a = Third Round (Approved Plan as of 4/4/97)    3s = Third Round (Submitted Plan as of 4/4/97)

#### DISTRICT & STATUS

1. Abington- 3a
2. Acton - 01
3. Acton-Boxborough- 01
4. Acushnet - 3s
5. Agawam - 3s
6. Amesbury - 3s
7. Amherst - 3s
8. Andover - 02
9. Ashburnham-Westminster - 01
10. Ashland - 3a
11. Athol-Royalston - 3a
12. Ayer - 02
13. Bedford - 02
14. Belchertown - 3a
15. Bellingham - 02
16. Belmont - 02
17. Berkley - 02
18. Billerica - 02
19. Blackstone Valley Reg. - 3a
20. Blackstone-Millville - 02
21. Boston - 02
22. Bourne - 01
23. Boxborough - 02
24. Boxford - 02
25. Braintree - 01
26. Bridgewater-Raynham - 3a
27. Brimfield - 02
28. Bristol-Plymouth V/T - 02
29. Brockton - 02
30. Brookfield - 3s
31. Brookline - 01
32. Burlington - 3a
33. Cambridge - 3a
34. Canton - 3a
35. Cape Cod Region V/T - 3a
36. Carlisle - 02
37. Central Berkshire - 3a
38. Chatham - 3a
39. Chicopee - 3a
40. Concord - 3a
41. Concord-Carlisle - 3a
42. Conway - 3a
43. Danvers - 02
44. Dartmouth - 3a
45. Dedham - 3s
46. Deerfield - 3a
47. Dennis-Yarmouth - 3a
48. Douglas - 02
49. Dover - 3s
50. Dover-Sherborn - 3s
51. Dracut - 02
52. Duxbury - 3a
53. East Longmeadow - 02
54. Easton - 3a
55. Erving - 3a
56. Essex - 02
57. Everett - 3s
58. Fairhaven - 3a
59. Fall River - 01
60. Framingham - 3a
61. Frontier - 3a
62. Gateway - 3a
63. Gloucester - 01
64. Grafton - 3a
65. Granby - 3s
66. Greater Lowell V/T - 3a
67. Greater new Bedford - 02
68. Groton-Dunstable - 3a

#### DISTRICT & STATUS

69. Halifax - 3a
70. Hamilton-Wenham - 01
71. Hampden-Wilbraham - 01
72. Hampshire - 3a
73. Hancock - 02
74. Harvard - 3a
75. Harwich - 3s
76. Haverhill - 3a
77. Hingham - 02
78. Holland - 3a
79. Holliston - 01
80. Hopkinton - 01
81. Hudson - 02
82. Ipswich - 3s
83. King Philip - 02
84. Kingston - 3a
85. Lanesborough - 02
86. Leicester - 3a
87. Lenox - 3a
88. Leominster - 3a
89. Lexington - 01
90. Littleton - 3a
91. Ludlow - 3s
92. Lunenburg - 02
93. Lynn - 02
94. Malden - 02
95. Manchester - 02
96. Mansfield - 01
97. Marblehead - 3s
98. Marion - 3a
99. Marlborough - 02
100. Marshfield - 3s
101. Mashpee - 3s
102. Mattapoisett - 3a
103. Maynard - 3s
104. Melrose - 02
105. Mendon-Upton - 3s
106. Methuen - 02
107. Middleton - 3s
108. Millford - 02
109. Millbury - 02
110. Millis - 3a
111. Minute Man V/T - 3a
112. Montachusett V/T - 3a
113. Nahant - 3s
114. Narragansett - 3s
115. Nashoba - 02
116. Needham - 3a
117. New Bedford - 02
118. Newburyport - 02
119. Newton - 01
120. Norfolk - 02
121. Norfolk County Agr. - 02
122. North Andover - 02
123. North Attleborough - 02
124. North Brookfield - 01
125. North Middlesex - 02
126. North Reading - 01
127. North Shore Reg. - 3a
128. Northboro-Southboro - 02
129. Northborough - 02
130. Norton - 02
131. Norwell - 02
132. Norwood - 3a
133. Old Colony V/T - 3a
134. Old Rochester - 3a
135. Orange - 02

#### DISTRICT & STATUS

136. Oxford - 02
137. Palmer - 02
138. Pembroke - 3a
139. Pentucket - 3a
140. Plymouth - 02
141. Plympton - 3a
142. Provincetown - 3s
143. Quabbin - 3s
144. Quincy - 3s
145. Ralph C Mahar - 02
146. Randolph - 02
147. Revere - 01
148. Richmond - 02
149. Rochester - 3a
150. Rockland - 02
151. Rockport - 02
152. Saugus - 3a
153. Scituate - 02
154. Sharon - 3a
155. Shawsheen Villy - 02
156. Sherborn - 3s
157. Shirley - 01
158. Shrewsbury - 3a
159. Silver Lake - 3s
160. Somerset - 02
161. Somerville - 02
162. Southampton - 01
163. Southborough - 02
164. Southbridge - 02
165. So. Berkshire - 01
166. So.wick-Tolland - 3a
167. Springfield - 3a
168. Stoughton - 3a
169. Sturbridge - 3a
170. Sudbury - 3a
171. Sunderland - 3a
172. Swampscott - 3a
173. Swansea - 3s
174. Tantasqua - 02
175. Taunton - 02
176. Tewksbury - 02
177. Topsfield - 02
178. Tri County - 3a
179. Triton - 3a
180. Tyngsborough - 3a
181. Uxbridge - 01
182. Wachusett - 02
183. Wakefield - 02
184. Walpole - 3a
185. Waltham - 01
186. Ware - 02
187. Wareham - 01
188. Watertown - 01
189. Wayland - 3a
190. Westborough - 02
191. Westfield - 02
192. Westford - 02
193. Westhampton - 3a
194. Weston - 3a
195. Westwood - 3s
196. Weymouth - 3a
197. Whately - 3a
198. Williamsburg - 01
199. Winchester - 3s
200. Winthrop - 3s
201. Woburn - 3a
202. Worcester - 02
203. Wrentham - 02

### Evaluation of the First NetDay

Last fall nearly 400 schools participated in the first Massachusetts NetDay. Some of the schools used the event to install networks. Others conducted open houses to demonstrate the networks they had already installed. Still others began the planning process. Over 3,000 volunteers came to those schools on October 26, and about 2,000 more people came in the preceding weeks. More than \$3 million worth of products and services were contributed by the business community, and union volunteers pulled several dozen miles of wiring.

For some schools, NetDay's primary benefit was a reduction in their technology installation schedule by months or years and a reduction in their projected costs by thousands of dollars. Bob Cornacchioli from Shrewsbury said, "NetDay collapsed our Technology Plan [implementation] from 3 years to 6 months." Anthony Gasbarro, from Ashburnham/Westminster, said "NetDay provided a way to make a \$20K job into a \$5K job."

For other schools, the payoff came from finding new allies in the community. "I had about 25 volunteers I had never met before!" wrote Jean Tower, of Wayland. And almost everyone felt that NetDay gave a focus and impetus for technology efforts, raising their visibility as well as their legitimacy. Kevin Foley of Brighton said, "NetDay provided the needed impetus. We probably wouldn't have even started such a project without Mass NetDay." Ann Koufman, of Brookline, added, "the technology focus in my town moved from...[standalone] computers to the importance of being connected to the Internet for resources."

### Second NetDay

By the end of the upcoming April NetDay, nearly half the school districts of Massachusetts and over a third of the schools will have participated in some way. Businesses will have contributed over \$8 million of in-kind services, products, technical assistance, and grants.

If you are an April NetDay partner, now is the time to begin recruiting volunteers by sending notices home with students, writing letters to the editor of the local newspapers and calling local radio stations, etc. (If your school has not yet installed the electronic infrastructure for education reform, now is the time to make sure that next year's budget includes earmarked items for computer networks and professional development).

On NetDay, April 5, schools will call, e-mail, or browse in to the NetDay web site and announce their achievements. MCET's LearnPike will broadcast a series of discussions about education technology which will be of interest to all educators, even if their schools are not yet participating. The "NetDay Central" office will be operating out of Lotus Development Corporation's One Rogers St. building in Cambridge, and all are welcome to wander by. At the end of the day, from 4 to 6 p.m., there will be an informal open house at Lotus and all NetDay participants, volunteers, sponsors, and supporters are welcome.



*Students, Commissioner Antonucci, Lt. Governor Cellucci, and Governor Weld at last year's NETDAY at the Tobin School in Cambridge.*

### Next Year's NetDay

For schools that have already installed networks, it is time to focus on developing curriculum and training teachers to make maximum use of these new learning tools. Mass Networks Education Partnership, the organizer of Mass NetDay, has been working with schools to begin creating multi-district design teams which will begin creating and sharing technology-enriched curriculum activities.

However, many schools have not yet begun to build networks to all their classrooms. A first step is to install at least one Internet-connected computer in every school library. But ultimately, that is not enough. Therefore, a number of Massachusetts schools used the current school year to lay the groundwork for including networking in their 1997-98 budget requests. Mass Networks Education Partnership hopes to continue its work so it can help the next round of schools move forward as cost-efficiently as those who have come before.

A NetDay application is being prepared for submission to the Technology Literacy Challenge grant program for activities with statewide impact. If approved, Mass Networks will sponsor at least one, and perhaps two more, NetDays during the coming school year.

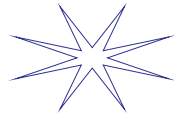
**Mass NetDay is April 5th.** If you are already moving ahead with your networking plans, take full advantage of the day to reach out to your community, get people involved, and let community members know about your progress. If your school hasn't yet started, it is not too late to lay the foundation for future success. If you have any questions, please contact MassNetworks. We'd be happy to help.

TELEPHONE:	888-NET-1997
EMAIL:	netday@mtpc.org
WEB SITE:	www.massnetworks.org



# INFORMATION MANAGEMENT SYSTEM

*"In terms of comprehensiveness of approach and use of state-of-the-art technology, you would have to say that Massachusetts is in a class by itself."*



---- Glynn Ligon, national educational data expert at the January 31 New England IMS Conference

Massachusetts has embarked on an ambitious five year plan to harness new information management technologies to transform the way schools, school districts, and the state do business. Within 18 months, all major components will be in place to replace the existing 250,000 pieces of paper currently exchanged between the Department and school districts with a state-of-the-art, World Wide Web-based information management system (DOE IMS).

The Department's project management team has worked with Digital Equipment Corporation/Communica (DEC/C) to agree on a ground breaking new contract and an ambitious Project Plan for the IMS. With these in place, all cylinders are now firing with the 28 full-time members of the five DEC/C teams working on IMS. Copies of the contract, Project Plan, and all other documents related to the project are posted on the Department's web site <[www.mass.edu/edtech/](http://www.mass.edu/edtech/)>.

## What all districts will need to do

There are two requirements that every district will need to meet to participate in the DOE IMS:

1. All districts must maintain a central database with a record for every student.
2. Every district staff person who does business with the Department must have access to a computer that can connect to the World Wide Web.

Later this spring, the Department will provide data standards specifying what types of student information will need to be kept and submitted to the Department.

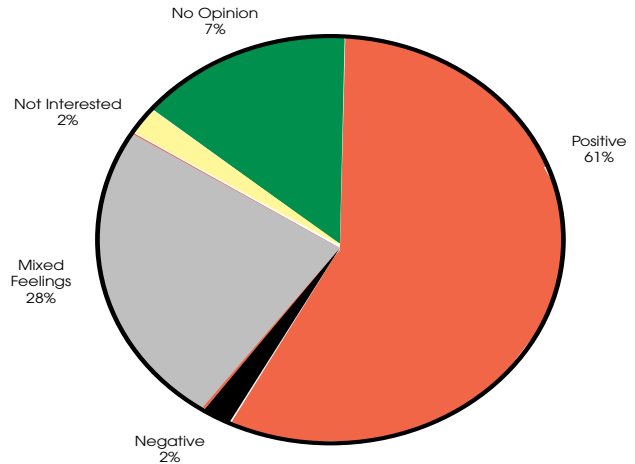
A data-standards working group has been appointed to determine the data elements and address critical issues of privacy, confidentiality, and security that will arise as the system is put into place. Individuals who are interested in learning about these issues or wish to participate may contact Sabine Hedberg <[sabine@world.std.com](mailto:sabine@world.std.com)> (508) 461-0302.

## When will things start happening?

They already have started. Every district has been contacted by DEC/C field staff to ensure that they received their district technology profile worksheets. Initial indications from these first conversations are that districts are overwhelmingly supportive of the DOE IMS.

This Spring, DEC/C will begin conducting site visits in districts needing assistance completing their worksheets. If your district would like to schedule a site visit, contact the field staff at <[ims@doe.mass.edu](mailto:ims@doe.mass.edu)> or (888) 363-3360.

## DISTRICTS' ATTITUDE TOWARD IMS PROJECT



During the summer, DEC/C will visit each district to evaluate the district's IMS readiness and to schedule the initial roll-out. Installations will begin in September.

## Status of Partner District Selection

72 districts completed their technology profiles by 1/31 and applied to become partner districts. Partner districts will participate in piloting components of the system this Spring. The following eleven were selected based on geographic diversity and technology readiness:

- |                   |                    |
|-------------------|--------------------|
| 1. Boston         | 7. North Middlesex |
| 2. City-on-a-Hill | 8. Dennis-Yarmouth |
| 3. Brockton       | 9. Hancock         |
| 4. Shawsheen      | 10. Wellesley      |
| 5. N. Reading     | 11. Westfield      |
| 6. Millis         |                    |

Sixty-one other districts that applied will be acknowledged as associate districts and will receive additional information, briefings, and early opportunities to participate. A copy of the partner district selection report has been mailed to each partner and associate district. Additional copies can be downloaded from the Department's web site or requested from (888) 363-3360.

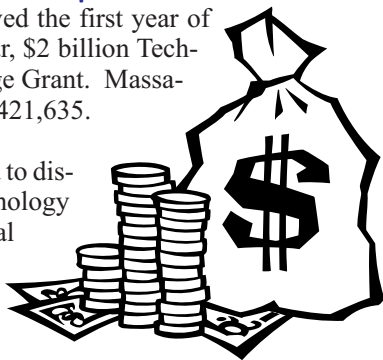


# CHALLENGE GRANT APPLICATIONS ANNOUNCED

## Federal Program Description

In 1996 Congress approved the first year of President Clinton's 5-year, \$2 billion Technology Literacy Challenge Grant. Massachusetts has received \$3,421,635.

Massachusetts is required to distribute 95% of the Technology Challenge Funds to Local Education Agencies (LEAs) through a competitive process. The federal guidelines state that the funds must give priority to districts with the greatest need and that they must be part of a comprehensive statewide educational technology plan that fulfills the President's four National Goals for Technology in Schools:



- (1) all teachers will have the training and support they need to help all students learn through computers and through the information superhighway;
- (2) all teachers and students will have modern computers in their classrooms;
- (3) every classroom will be connected to the information superhighway, and
- (4) effective and engaging software and on-line resources will be an integral part of every school curriculum.

## The Massachusetts Technology Challenge Fund Plan

On March 3, Massachusetts received approval to use Challenge Grant funds to support its existing statewide educational technology plan. Federal evaluators noted that the Massachusetts plan, which was submitted in a hypertext web format instead of the traditional paper plan, was creative and innovative and targeted the needs of Massachusetts students and educators.

The Massachusetts plan incorporates its educational technology plan with the Five Year Master Plan for Education Reform and key aspects of Goals 2000.

Massachusetts school districts are currently spending an estimated \$60 million annually on educational technology, and will need to double their educational technology expenditures within two years and double again within the next five. From this context the \$3.4 million Challenge Fund can not be seen as a primary funding source. Instead, the Massachusetts Challenge Fund plan leverages over \$2.1 billion in increased state aid provided so far through the Education Reform Act of 1993 and the expected \$50 million each year that will soon be available to Massachusetts schools through the FCC's Universal Service Fund.

The leverage of the Education Reform Act funds enables Massachusetts to focus its Challenge Funds on the Massachusetts

initiatives. It does this by establishing two grant opportunities of which the first has three components:

### GRANT 1 PART A:

#### Need-Based Professional Development (\$1.2m)

The need-based professional development grants use the biggest single component of the Massachusetts grant to provide professional development funds for districts with the greatest need. Need is calculated through an index that takes into account student poverty, district resources, and district expenditures on technology. **All districts are encouraged to apply.**

### GRANT 1 PART B:

#### Lighthouse Technology Sites (\$1,150,000)

The first round (\$390,000) of 13 lighthouse districts were selected from 25 districts included in the first round of Educational Technology Bond matching grants. The second round (\$760,000) will encourage all districts to compete for recognition as Lighthouse districts, schools, and classrooms. In addition to small (\$10 - \$30,000) grants to compensate districts for their dissemination efforts, lighthouse sites will receive substantial additional resources and attention from private and public entities. For example, Apple Computer has committed to provide all Lighthouse classroom teachers with Internet staff developments tools and training. Each year, a new group of sites will be selected and highlighted through this program.

### GRANT 1 PART C:

#### Technology Leader Sabbaticals (\$150,000)

Two educators will be selected for full or partial sabbaticals to work on statewide issues. Districts where these educators are employed will receive compensation for their time.

### GRANT 2:

#### Projects With Statewide Impact (750,000)

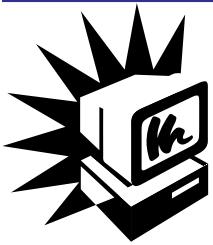
Three projects will be selected for statewide impact. While the actual projects are yet to be developed, ideas for projects such as an on-line curriculum warehouse, a statewide system of technology professional development providers, and curriculum integration have been suggested.

Districts may submit applications for any of these programs only if they submit local technology plans to the Department for approval. These plans will also determine eligibility for state Educational Technology Bond Matching Grants.

## Grant Application Available On-Line

This grant package, administered by the Department of Education, is being distributed first, and in its entirety, in electronic form. A copy of the grant application is available at the DOE website: <http://www.doe.mass.edu>. **The application, however, must be submitted by mail or hand delivered.**

## EDUCATIONAL TELECOMMUNICATIONS



- ▲ \$25 Toll-Free, Educator Accounts
- ▲ Universal Service Fund
- ▲ High-Speed Lines to Schools

The Department of Education is working closely with the Governor's office to make good on the Governor's commitment at the October NetDay event to provide every K-12 educator in Massachusetts with a toll-free internet account at a minimal annual cost (\$25). A request for information has been released which is expected to lead to a competitive procurement later this spring.

This procurement will replace MCET's MEOL-LN network with a new statewide network. All efforts will be made to ensure continuity of services and to preserve educators' MEOL-LN e-mail addresses during the transition.

### Universal Service Fund

Reed Hundt, Chairman of the FCC, has reiterated the Clinton Administration's commitment to earmarking an annual \$2.2 billion from the Universal Service Fund to educational telecommunications and networking. While many substantive details remain to be resolved between now and the May 8th final FCC ruling on the matter, the prospects appear excellent for a major influx of funding for discount telecommunications, internet service, and internal wiring and network administration.

### High-Speed Lines to Schools

One of the first areas to benefit immediately from the Universal Service Fund is schools. They will have access to high-speed, dedicated internet lines to schools. The request for information described above also explores the feasibility of providing school districts with high-speed telecommunications services at a free or greatly reduced price.

## OTHER ISSUES

### DOE Spring Technology Conferences

The third and final component of the Department's 1996-97 Educational Technology Conferences will be held on the dates:

- May 8 in Pittsfield (location to be announced soon!)**
- May 15 @ the Holiday Inn in Mansfield**
- May 21 @ the Holiday Inn in Worcester**

The focus of the spring sessions will be on the use of technology to support student assessment. MCET-MEC will work with the Department to make these sessions an exciting opportunity for educators.

### ET Advisory Committee

The Department's open meetings at the end of each month are very popular. Participants are educators and technology specialists from school districts and professional organizations. At the meetings, the Department shares and updates information with participants and solicits feedback from them. It has been a very fruitful dialogue between the Department and schools. Very often, the Department takes the recommendations of the participants and changes the process of a program.

*Dates of ET Advisory Committee Meeting  
for the rest of the school year:*  
**April 30, 1997, May 28, 1997, June 18, 1997**

*If you want to participate, please send an e-mail message to [clouie@doe.mass.edu](mailto:clouie@doe.mass.edu).*



### Statewide ET Professional Development & Training



In January 1997, the Commonwealth embarked on a new direction for educational technology professional development and training with the award of a multi-year contract to MCET and MEC. The MCET/MEC partnership is charged with the design and development of a statewide system to coordinate the provision of professional development and training for educational technology.

The objective of the contract is to establish a single, on-line system for information, registration, and evaluation of technology offerings, and a consortium of regional entities to help connect districts' needs and providers' offerings.

An initial presentation was made to the February ET Advisory Committee meeting, and work is underway to develop a detailed design and implementation plan for the system. An initial draft of the design and plan will be posted on the DOE web site in April.

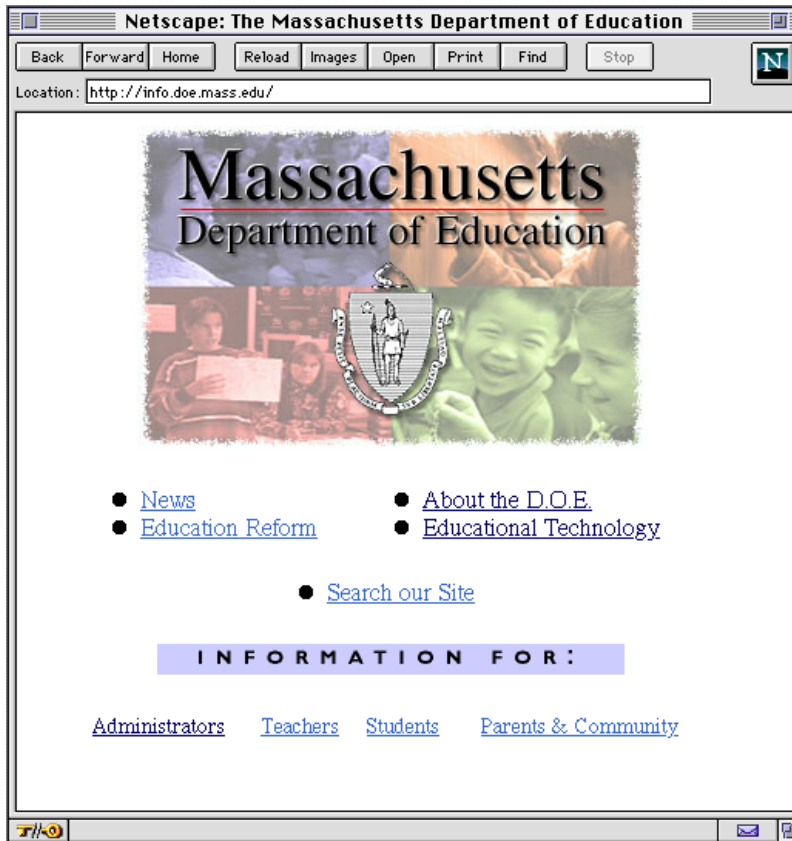
### Job posting

Lighthouse coordinator. The Department has posted a job offering for a full-time consultant to lead the Lighthouse Technology Site program. The selected individual will be in charge of recommending Lighthouse districts, schools, and classrooms, working with the sites to disseminate their best practices, and connecting interested vendors with these sites. Prospective candidates should have a strong understanding of Massachusetts educational technology issues and excellent community organizing skills.

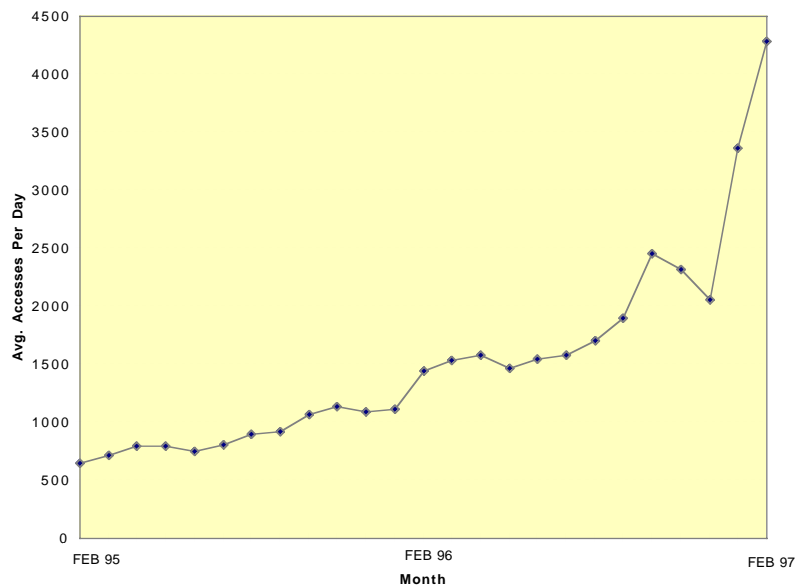
If you are interested in the position please contact Connie Louie.

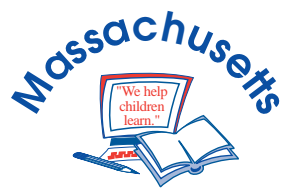
# VISIT OUR HOME PAGE ON THE WEB!

<http://info.doe.mass.edu/>



This chart shows the sharp increase of hits on our web site!





Department of  
Education

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350 Main Street  
Malden, MA 02148

**TO:**