

103<sup>D</sup> CONGRESS  
1<sup>ST</sup> SESSION

# S. 1040

To support systemic improvement of education and the development of a technologically literate citizenry and internationally competitive work force by establishing a comprehensive system through which appropriate technology-enhanced curriculum, instruction, and administrative support resources and services, that support the National Education Goals and any national education standards that may be developed, are provided to schools throughout the United States.

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## IN THE SENATE OF THE UNITED STATES

MAY 27 (legislative day, APRIL 19), 1993

Mr. BINGAMAN (for himself, Mr. KENNEDY, Mr. COCHRAN, and Mr. HARKIN) introduced the following bill; which was read twice and referred to the Committee on Labor and Human Resources

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## A BILL

To support systemic improvement of education and the development of a technologically literate citizenry and internationally competitive work force by establishing a comprehensive system through which appropriate technology-enhanced curriculum, instruction, and administrative support resources and services, that support the National Education Goals and any national education standards that may be developed, are provided to schools throughout the United States.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the  
3 “Technology for Education Act of 1993”.

4 (b) TABLE OF CONTENTS.—The table of contents of  
5 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Findings.
- Sec. 3. Statement of purpose.
- Sec. 4. Definitions.

TITLE I—LEADERSHIP FOR TECHNOLOGY IN EDUCATION

- Sec. 101. Office of Educational Technology.
- Sec. 102. National Commission on Technology in Education.

TITLE II—SCHOOL TECHNOLOGY SUPPORT

- Sec. 201. Statement of purposes.
- Sec. 202. State technology planning grants.
- Sec. 203. Elementary and secondary school library and media services.
- Sec. 204. School technology resource grants and loans.
- Sec. 205. Information dissemination.

TITLE III—INFORMATION DISSEMINATION, TECHNOLOGY  
TRAINING AND TECHNICAL ASSISTANCE

- Sec. 301. Statement of purpose.
- Sec. 302. Electronic dissemination network.
- Sec. 303. Regional implementation and assistance.
- Sec. 304. Authorization of appropriations.

TITLE IV—EDUCATIONAL TECHNOLOGY PRODUCT  
DEVELOPMENT, PRODUCTION, AND DISTRIBUTION

- Sec. 401. Statement of purpose.
- Sec. 402. Priority in federally supported education programs.
- Sec. 403. Classrooms for the future.
- Sec. 404. Instructional broadcasting and video instructional programming.
- Sec. 405. Star Schools Program.

TITLE V—EDUCATIONAL TECHNOLOGY RESEARCH,  
DEVELOPMENT AND ASSESSMENT

- Sec. 501. Purposes.
- Sec. 502. Application of advanced technologies to education.
- Sec. 503. High performance educational computing and telecommunications  
networks.
- Sec. 504. Assessment of technology in education.

TITLE VI—MISCELLANEOUS

- Sec. 601. Study of systemic funding alternatives.

Sec. 602. Participation of private school children.

1 **SEC. 2. FINDINGS.**

2 The Congress finds that with respect to the use of  
3 technology to improve education in America—

4 (1) the use of technology as a tool in the learn-  
5 ing process is essential to the development and  
6 maintenance of a technologically literate citizenry  
7 and internationally competitive work force;

8 (2) technology-enhanced curriculum, instruc-  
9 tion, and administrative support resources and serv-  
10 ices that support the National Education Goals and  
11 any national education standards that may be devel-  
12 oped are needed and can be used for the systemic  
13 improvement of all aspects of education;

14 (3) the acquisition and use of technology in  
15 education throughout the United States has been in-  
16 hibited by the absence of Federal leadership, the in-  
17 ability of many State and local educational agencies  
18 to invest in and support the needed technologies,  
19 and the limited availability of appropriate tech-  
20 nology-enhanced curriculum, instruction, teacher  
21 training, and administrative support resources and  
22 services in the educational marketplace;

23 (4) national educational technology standards  
24 and national educational technology application

1 standards should be developed for both hardware  
2 and software;

3 (5) the acquisition and use of technology-en-  
4 hanced curriculum, instruction, and administrative  
5 support resources and services by elementary and  
6 secondary schools in the United States must be sup-  
7 ported by a comprehensive system which includes—

8 (A) national leadership with respect to the  
9 need for, and the provision of, appropriate tech-  
10 nology-enhanced curriculum, instruction, and  
11 administrative programs and services for edu-  
12 cational institutions in the United States and  
13 the schools of the defense dependents' education  
14 system;

15 (B) funding mechanisms which will sup-  
16 port development interconnection, implementa-  
17 tion, improvement and maintenance of an effec-  
18 tive educational technology infrastructure for all  
19 learners in the United States;

20 (C) information dissemination networks to  
21 facilitate access to information on effective  
22 learning programs, assessment and evaluation  
23 of such programs, research findings, and sup-  
24 porting resources (including instructionally  
25 based, technology-enhanced programs, research,

1 and resources) by educators throughout the  
2 United States;

3 (D) information regarding curriculum con-  
4 tent standards, teacher performance standards,  
5 opportunity to learn standards, and assess-  
6 ments and standards for integrating technology  
7 into curriculum and instruction;

8 (E) an extensive variety of opportunities  
9 for teacher education, inservice training, and  
10 administrator training and technical assistance  
11 with respect to effective uses of technologies in  
12 education;

13 (F) consortia for the development, produc-  
14 tion, distribution, and reuse of technology-en-  
15 hanced curriculum, instruction and administra-  
16 tive support resources and services with Federal  
17 assistance;

18 (G) building upon, and not duplicating, ex-  
19 isting telecommunications infrastructure dedi-  
20 cated to educational purposes;

21 (H) development and evaluation of new  
22 and emerging educational technologies and tele-  
23 communications networks; and

24 (I) assessment data regarding state-of-the-  
25 art uses of technologies in United States edu-

1 cation upon which businesses, noncommercial  
2 telecommunications entities, and governments  
3 can rely for decisionmaking about the need for,  
4 and provision of, appropriate technologies for  
5 education in the United States;

6 (6) educational equalization concerns and school  
7 restructuring needs can be addressed through edu-  
8 cational telecommunications and technology by offer-  
9 ing universal access to high-quality teaching and  
10 programs, particularly in urban and rural areas;

11 (7) in an increasingly technological world where  
12 technology and telecommunications have become an  
13 integral part of many households, the disparity be-  
14 tween rich and poor students will become even great-  
15 er, and educational policies must address such dis-  
16 parity;

17 (8) the increasing use of new technologies and  
18 telecommunications systems in business has  
19 furthered the gap between schooling and work force  
20 preparation; and

21 (9) improved professional development for  
22 teachers requires constant access to updated re-  
23 search in teaching and learning, and telecommuni-  
24 cations can be the conduit for ongoing teacher  
25 training.

1 **SEC. 3. STATEMENT OF PURPOSE.**

2 It is the purpose of this Act—

3 (1) to develop and maintain a technologically  
4 literate citizenry and internationally competitive  
5 work force by encouraging systemic integration of  
6 technology and telecommunications in all aspects of  
7 education in the United States;

8 (2) to promote greater equality of educational  
9 opportunity and instruction among school districts  
10 through the use of technology to improve the aca-  
11 demic achievements of all students, in general, and  
12 disadvantaged, disabled, and limited-English pro-  
13 ficient students, in particular;

14 (3) to improve educational quality and oppor-  
15 tunity by expanding and improving technology in the  
16 school, classroom, library, and home;

17 (4) to develop educational and instructional  
18 programming in critical subject areas which address  
19 the National Education Goals;

20 (5) to expand teacher training opportunities for  
21 the use of such technology;

22 (6) to avoid duplication and the development of  
23 incompatible systems by strengthening and building  
24 upon existing telecommunications infrastructure  
25 dedicated to educational purposes;

1           (7) to establish a National Commission on  
2       Technology in Education to periodically assess na-  
3       tional requirements, make recommendations with re-  
4       spect to the use of technology and telecommuni-  
5       cations in public and private elementary and second-  
6       ary education throughout the United States, and ad-  
7       vise the Congress with respect to funding priorities  
8       and needed policies; and

9           (8) to establish within the Department of Edu-  
10      cation, a high level office with primary responsibility  
11      for—

12           (A) providing national leadership for uni-  
13      versal access to effective uses of telecommuni-  
14      cations and educational technologies for teach-  
15      ing and learning;

16           (B) facilitating access to a broad range of  
17      information resources for teachers, learners,  
18      and others engaged in education;

19           (C) establishing technical standards and  
20      guidelines for advanced technologies, including  
21      software as well as hardware, and instructional  
22      software as well as software for operating sys-  
23      tems and communications;

24           (D) establishing funding mechanisms  
25      which will support the development and mainte-



1 nance of an effective educational technology in-  
2 frastructure for all learners in the United  
3 States;

4 (E) providing for sustained teacher, ad-  
5 ministrator and other school personnel edu-  
6 cation and support for using technologies;

7 (F) supporting development, production,  
8 distribution, and reuse of information resources  
9 and strategies;

10 (G) promoting development and evaluation  
11 of new and emerging educational technologies;

12 (H) stimulating private and public partner-  
13 ships;

14 (I) stimulating partnerships between—

15 (i) noncommercial telecommunications  
16 entities; and

17 (ii) public schools, local educational  
18 agencies or State educational agencies;

19 (J) stimulating private sector investment  
20 in the development, production, and distribution  
21 of technology-enhanced curriculum, instruction,  
22 and administrative support resources and serv-  
23 ices; and

24 (K) developing and administering a com-  
25 prehensive system of information dissemination,

1           technical assistance, training, research, and as-  
2           essment activities which will enable all schools  
3           to effectively utilize appropriate technology-en-  
4           hanced curriculum, instruction, and administra-  
5           tive support resources and services.

6 **SEC. 4. DEFINITIONS.**

7           (a) IN GENERAL.—The terms used in this Act, unless  
8           otherwise specified, shall have the same meaning given to  
9           such terms by section 1471 of the Elementary and Sec-  
10          ondary Education Act of 1965.

11          (b) ADDITIONAL DEFINITIONS.—For the purpose of  
12          this Act—

13               (1) the term “Assistant Secretary” means the  
14               Assistant Secretary for Educational Technology;

15               (2) the term “Office” means the Office of Edu-  
16               cational Technology;

17               (3) the term “noncommercial telecommuni-  
18               cations entity” has the same meaning given to such  
19               term by section 397(7) of the Communications Act  
20               of 1934; and

21               (4) the term “technology” includes closed cir-  
22               cuit television systems, educational television and  
23               radio broadcasting, cable television, satellite, copper  
24               and fiber optic transmission, computer, video and

1 audio laser and CD ROM discs, video and audio  
 2 tapes or other technologies.

3 **TITLE I—LEADERSHIP FOR**  
 4 **TECHNOLOGY IN EDUCATION**

5 **SEC. 101. OFFICE OF EDUCATIONAL TECHNOLOGY.**

6 (a) AMENDMENT TO THE DEPARTMENT OF EDU-  
 7 CATION ORGANIZATION ACT.—

8 (1) ASSISTANT SECRETARY.—(A) Section 202  
 9 of the Department Organization Act (20 U.S.C.  
 10 3412(b)(1)) is amended—

11 (i) in subparagraph (F), by striking “and”  
 12 after the semicolon;

13 (ii) by redesignating subparagraph (G) as  
 14 subparagraph (H); and

15 (iii) by adding after subparagraph (F) the  
 16 following new subparagraph:

17 “(G) an Assistant Secretary for Edu-  
 18 cational Technology; and”.

19 (B) Section 5314 of title 5, United States Code,  
 20 is amended by adding at the end the following new  
 21 item:

22 “Assistant Secretary for Educational Technology”.

23 (2) OFFICE OF EDUCATIONAL TECHNOLOGY.—  
 24 Title II of the Department of Education Organiza-

1       tion Act (20 U.S.C. 3411 et seq.) is amended by  
2       adding at the end the following new section:

3           “OFFICE OF EDUCATIONAL TECHNOLOGY

4       “SEC. 216. (a) There shall be in the Department of  
5       Education an Office of Educational Technology, to be ad-  
6       ministered by the Assistant Secretary for Educational  
7       Technology. Such Office shall be established in accordance  
8       with section 405A of the General Education Provisions  
9       Act.

10      “(b) The Assistant Secretary for Educational Tech-  
11      nology shall have demonstrated expertise and experience  
12      in the application of a broad range of technologies for in-  
13      struction and educational management, and in planning  
14      and formulating policy pertaining to technology use, devel-  
15      opment and application at several levels in the education  
16      system but with specific emphasis on experience in the  
17      kindergarten through 12th grade.

18      “(c) There shall be in the Office of Educational Tech-  
19      nology a Division of Elementary and Secondary School Li-  
20      brary Media Services, to be administered by the Director  
21      of the Division. Such Division shall be established in ac-  
22      cordance with section 405B of the General Education Pro-  
23      visions Act.”.

24      (b) AMENDMENT TO THE GENERAL EDUCATION  
25      PROVISIONS ACT.—Part A of the General Education Pro-

visions Act (20 U.S.C. 1221e et seq.) is amended by inserting after section 405 the following new section:

**“SEC. 405A. OFFICE OF EDUCATIONAL TECHNOLOGY.**

**“(a) ESTABLISHMENT.—**

**“(1) OFFICE ESTABLISHED.—**The Secretary shall establish an Office of Educational Technology (hereafter in this section referred to as the ‘Office’) within 90 days after the date of enactment of the Technology for Education Act of 1993. The Office shall be the principal technology unit in the Department of Education and shall be responsible for assisting schools in obtaining and utilizing technology.

**“(2) PERSONNEL.—**

**“(A) IN GENERAL.—**The Assistant Secretary for Educational Technology (hereafter in this section referred to as the “Assistant Secretary”) may appoint personnel in accordance with title 5 of the United States Code, and may compensate such personnel in accordance with the General Schedule described in section 5332 of title 5, United States Code.

**“(B) EXPERTS AND CONSULTANTS.—**The Assistant Secretary may procure temporary and intermittent services under section 3019(b) of title 5, United States Code, if the individual

1 performing such services, by virtue of such indi-  
2 vidual's education or training and experience, is  
3 eminently qualified to assist the Office in per-  
4 forming the functions of the Office.

5 “(3) ADMINISTRATIVE SUPPORT.—To the  
6 greatest extent possible, the Assistant Secretary  
7 shall utilize existing administrative support services  
8 of the Department of Education in accomplishing  
9 the functions of the Office. However, the Assistant  
10 Secretary is authorized to obtain any or all requisite  
11 administrative support services required by the Of-  
12 fice through competitive contracting with a private  
13 sector enterprise or through noncompetitive, reim-  
14 bursable service agreements with any other Federal  
15 department, agency or governmental entity. The As-  
16 sistant Secretary shall have sole responsibility for  
17 determining whether any or all of the administrative  
18 support requirements of the Office may be more effi-  
19 ciently provided by existing administrative support  
20 services within the Department of Education, by a  
21 private sector enterprise, or by a governmental en-  
22 tity outside the Department of Education.

23 “(4) REPORTING REORGANIZATIONS.—Any  
24 change in the functions or reorganization of the Of-  
25 fice as established by this Act shall be reported to

1 the Congress prior to implementation of the change  
2 or reorganization.

3 “(b) FUNCTIONS OF THE OFFICE.—The Assistant  
4 Secretary, through the Office, shall—

5 “(1) provide national leadership for policy de-  
6 velopment and coordinate technology-related edu-  
7 cation activities within the Department of Edu-  
8 cation;

9 “(2) be an advisor within the Department of  
10 Education for the design, coordination, and evalua-  
11 tion of any technology-enhanced network or system  
12 used for the transfer and dissemination of informa-  
13 tion through activities and programs such as the  
14 education resources information clearinghouses, the  
15 National Diffusion Network, the regional mathe-  
16 matics and science education consortia assisted  
17 under subpart 2 of part A of title II of the Elemen-  
18 tary and Secondary Education Act of 1965, and the  
19 National Clearinghouse for Science, Mathematics  
20 and Technology Education;

21 “(3) administer a comprehensive school tech-  
22 nology support system of grants, loans, and alter-  
23 native systemic funding sources to encourage—

24 “(A) State and local educational agency  
25 planning for the use of technology in education;

1           “(B) the acquisition and use of technology  
2           advanced information management resources by  
3           public or private elementary and secondary  
4           school library media centers, which resources  
5           shall build upon existing infrastructure; and

6           “(C) the acquisition, development and  
7           maintenance of technology-enhanced curricu-  
8           lum, instruction, and administrative support re-  
9           sources and services for school classrooms and  
10          administrative offices, which resources and  
11          services shall build upon existing infrastructure  
12          in order to avoid duplication;

13          “(4) consult, cooperate and coordinate edu-  
14          cational technology programs with analogous pro-  
15          grams of other Federal departments, agencies and  
16          other entities, including the National Science Foun-  
17          dation, the Federal Coordinating Council for Science  
18          Engineering and Technology, the Corporation for  
19          Public Broadcasting, and Public Telecommuni-  
20          cations Facilities Program and, whenever possible,  
21          initiate agreements for joint funding of such edu-  
22          cational technology and analogous programs;

23          “(5) support the research, design, development,  
24          production, distribution, reuse and evaluation by  
25          public or private agencies, nonprofit organizations,



1 colleges and universities, or individuals, or by com-  
2 binations thereof, of new technology-enhanced cur-  
3 riculum, instruction, and administrative support re-  
4 sources and services which hold promise for improv-  
5 ing the effectiveness of education in the United  
6 States;

7 “(6) make recommendations to all Federal de-  
8 partments and agencies for wider application of the  
9 use of technology in federally supported education  
10 programs within such departments and agencies;

11 “(7) support and encourage cooperative efforts  
12 to resolve issues which have served as impediments  
13 to the use of educational technologies, such as State  
14 requirements for teacher certification, incompati-  
15 bility of various technological systems, and lack of  
16 access to telecommunications linkages in the class-  
17 room;

18 “(8) establish and administer alternative mech-  
19 anisms for financing the planning, implementation,  
20 and maintenance of a telecommunications and edu-  
21 cational technology infrastructure to serve education  
22 at all levels;

23 “(9) regularly convene meetings of educators,  
24 policy makers, business leaders and telecommuni-  
25 cations and educational technology vendors, and rep-

1        representatives of noncommercial telecommunications  
2        entities and service providers in order to—

3                “(A) support appropriate public and pri-  
4                vate partnerships for more effective cooperation  
5                leading to improvements in the design and de-  
6                velopment of new technologies for application in  
7                education; and

8                “(B) benefit the effective integration of  
9                technologies to enhance and support teaching  
10              and learning;

11              “(10) support research on advanced learning  
12              technologies in cooperation with other Federal de-  
13              partments, agencies, and programs, including the  
14              Advanced Research Projects Agency (ARPA) of the  
15              Department of Defense, the Advanced Technology  
16              Program of the Department of Commerce, the Cor-  
17              poration for Public Broadcasting, the Department of  
18              Labor, the National Science Foundation, the De-  
19              partment of Energy, the National Aeronautics and  
20              Space Administration, and the Department of De-  
21              fense;

22              “(11) identify and analyze Federal and State  
23              policies’ impact on present and future uses of tech-  
24              nologies in education;

1           “(12) support and encourage cooperative efforts  
2           to develop standards and guidelines for the use of  
3           technology in Federal, State and local education pro-  
4           grams;

5           “(13) promote collaboration among government,  
6           business, educational organizations, and other non-  
7           profit organizations and noncommercial tele-  
8           communications entities, to expand and improve the  
9           use of technology in education;

10          “(14) support a variety of opportunities for  
11          teacher, librarian, administrator and other school  
12          personnel education and inservice training regarding  
13          the effective uses of educational technologies through  
14          institutions of higher education, regional educational  
15          laboratories and centers, State and local educational  
16          agencies, museums, science centers, noncommercial  
17          telecommunications entities or other institutions con-  
18          ducting training;

19          “(15) annually evaluate the level of implemen-  
20          tation of, and the impact on teaching and learning  
21          resulting from, programs, projects and activities for  
22          which the Office is responsible;

23          “(16) support inclusion of technology applica-  
24          tions, as appropriate, in the development of National

1 Education Goals, reform initiatives, and assessment  
2 systems;

3 “(17) develop criteria that identify programs,  
4 projects, and practices that effectively use tech-  
5 nologies for national dissemination;

6 “(18) develop, and update periodically, in co-  
7 operation with other Federal, State and regional  
8 agencies, and noncommercial telecommunications en-  
9 tities, as appropriate, a long-range strategic plan for  
10 implementing telecommunications and educational  
11 technologies in all schools;

12 “(19) assess and determine school technology  
13 needs such as development, training and equipment  
14 linkages;

15 “(20) review factors such as cost, dissemina-  
16 tion, audience, accessibility, and usage in determin-  
17 ing the maximum value of various technologies;

18 “(21) develop and administer special programs  
19 for students who are academically disadvantaged,  
20 impaired or limited in their use of the English lan-  
21 guage, in order to make available affordable infra-  
22 structure or appropriate methods of instruction that  
23 will improve such students’ ability to attain a high  
24 level of academic achievement;

1           “(22) coordinate Federal, State, and local tele-  
2       communications franchising authorities for purposes  
3       of favorable rate regulations governing educational  
4       uses of telecommunications;

5           “(23) provide leadership for the development of  
6       universal connections for educational and informa-  
7       tion providers to national high performance edu-  
8       cational computing and communications networks,  
9       including the National Research Education Network  
10      and Telstar 401, that will allow educational profes-  
11      sionals, students, parents, and the general public to  
12      access resources available through such networks;

13          “(24) support and coordinate the activities of  
14      the regional educational technology assistance con-  
15      sortia described in section 304 of the Technology for  
16      Education Act of 1993 to enable schools to utilize  
17      technology-enhanced curriculum, instruction, and ad-  
18      ministrative support resources and services; and

19          “(25) provide an annual report to the Secretary  
20      and the Congress, documenting progress toward im-  
21      plementing the provisions of the Technology for  
22      Education Act of 1993.

23          “(c) ADDITIONAL OFFICE ACTIVITIES.—The Assist-  
24      ant Secretary shall provide technical support related to the  
25      application of educational technologies and the use of tele-

1 communication resources to assist in the dissemination of  
 2 resources identified for dissemination by the Office of  
 3 Training Technology Transfer, the education resources in-  
 4 formation clearinghouses, the National Diffusion Net-  
 5 work, and the Assistant Secretary on behalf of the Star  
 6 Schools Program Assistance Act.

7 “(d) AUTHORIZATION OF APPROPRIATIONS.—There  
 8 are authorized to be appropriated \$3,000,000 for fiscal  
 9 year 1994, and such sums as may be necessary for each  
 10 of the fiscal years 1995 through 1998.”.

11 **SEC. 102. NATIONAL COMMISSION ON TECHNOLOGY IN**  
 12 **EDUCATION.**

13 (a) ESTABLISHMENT.—There is established a com-  
 14 mission to be known as the National Commission on Tech-  
 15 nology in Education (hereafter in this section referred to  
 16 as the “Commission”) which shall advise the President  
 17 and the Congress with respect to the need for, and the  
 18 provision of, appropriate national educational technology  
 19 standards, technology-enhanced curriculum, instruction,  
 20 and administrative resources and services for educational  
 21 institutions in the United States.

22 (b) MEMBERSHIP.—

23 (1) APPOINTMENT OF MEMBERS.—The Presi-  
 24 dent shall appoint 15 members to the Commission,  
 25 of which—

1 (A) three shall be appointed because of  
2 their expertise in State and local government;

3 (B) three shall be appointed because of  
4 their expertise in the governance or supervision  
5 of school district operations, in administering  
6 State- or district-wide educational technology  
7 programs, in administering elementary or sec-  
8 ondary schools, or in the development of tech-  
9 nology-enhanced curriculum, instruction, or ad-  
10 ministrative support programs or services;

11 (C) four shall be appointed because of  
12 their expertise in providing instructional serv-  
13 ices in university, community college, secondary  
14 school, elementary school, preschool, and adult  
15 and continuing education environments;

16 (D) two shall be—

17 (i) a parent of a school age child; or

18 (ii) a State or local school board mem-

19 ber; and

20 (E) three shall be appointed because of  
21 their expertise in the telecommunications indus-  
22 try (including noncommercial communications),  
23 the computer hardware or software industry, or  
24 the educational technology resources and serv-  
25 ices industry.

1 (2) TERMS.—

2 (A) IN GENERAL.—Except as provided in  
3 subparagraph (B), members of the Commission  
4 shall be appointed for terms of 4 years. Mem-  
5 bers of the Commission may be reappointed.

6 (B) STAGGERED TERMS.—As designated  
7 by the President at the time of initial appoint-  
8 ments under paragraph (1), the terms of 5  
9 members shall expire at the end of 3 years, the  
10 terms of 5 members shall expire at the end of  
11 4 years, and the terms of 5 members shall ex-  
12 pire at the end of 5 years.

13 (3) DATE.—The appointments of members of  
14 the Commission shall be made not later than 90  
15 days after the date of enactment of this Act.

16 (4) DIVERSITY.—The President shall make ap-  
17 pointments to the Commission by providing due con-  
18 sideration to gender and ethnicity in order to obtain  
19 members who are broadly representative of the eth-  
20 nic diversity of the United States.

21 (5) LIMITATION ON DUAL APPOINTMENTS.—A  
22 member of the Commission may not serve on any  
23 other governing or advisory board within—

24 (A) the Department of Education; or



1 (B) any other department or agency of the  
2 Federal Government.

3 (6) CONFIRMATION.—Appointments to the  
4 Commission shall be effective upon confirmation by  
5 the United States Senate.

6 (7) SELECTION OF CHAIRPERSON.—The mem-  
7 bers of the Commission shall elect a Chairperson  
8 from among their membership by majority vote of  
9 the members of the Commission. The Chairperson  
10 shall serve a term of not more than 4 years.

11 (8) COMPENSATION OF MEMBERS.—Each mem-  
12 ber of the Commission shall be compensated at a  
13 rate equal to the daily equivalent of the annual rate  
14 of pay for level IV of the Executive Schedule under  
15 section 5316 of title 5, United States Code, for each  
16 day (including traveltime) during which such mem-  
17 ber is engaged in the performance of duties of the  
18 Commission, as authorized by the Chairperson of the  
19 Commission.

20 (c) PERSONNEL.—

21 (1) ADMINISTRATIVE AND CLERICAL SUP-  
22 PORT.—The Commission shall receive administrative  
23 support services from the Office.

24 (2) EXECUTIVE SECRETARY.—The Assistant  
25 Secretary shall serve as the Executive Secretary of

1 the Commission in order to facilitate accomplish-  
2 ment of the Commission's functions.

3 (d) MEETINGS OF THE COMMISSION.—

4 (1) APPLICABILITY OF THE GOVERNMENT IN  
5 THE SUNSHINE ACT.—The provisions of the Govern-  
6 ment in the Sunshine Act (5 U.S.C. 552b) shall  
7 apply to meetings of the Commission.

8 (2) MINIMUM NUMBER OF MEETINGS; FIRST  
9 MEETING.—The Commission shall meet at least  
10 twice a year, with the first meeting being held within  
11 120 days of the date of enactment of this Act.

12 (3) FREQUENCY OF MEETINGS.—With the ap-  
13 proval of the Chairperson of the Commission and  
14 subject to the availability of funds appropriated pur-  
15 suant to the authority of subsection (f), members of  
16 the Commission may meet as often as the Commis-  
17 sion determines necessary in order to accomplish the  
18 functions of the Commission in a timely manner.

19 (4) QUORUM.—A majority of the Commission  
20 shall constitute a quorum for the purpose of con-  
21 ducting the business of the Commission.

22 (e) FUNCTIONS.—The functions of the Commission  
23 are as follows:

24 (1) IDENTIFY NATIONAL EDUCATIONAL TECH-  
25 NOLOGY REQUIREMENTS.—

1           (A) TECHNOLOGY INITIATIVES.—The  
2           Commission shall review Federal, State, and  
3           local educational technology initiatives, assess  
4           their effectiveness and potential for the im-  
5           provement of education, and make rec-  
6           ommendations to the Secretary and the Con-  
7           gress with respect to what technologies are  
8           needed and should be made available to learners  
9           in the United States.

10          (B) NEEDS.—The Commission shall review  
11          the needs of schools and educational institu-  
12          tions for technology, and make Federal policy  
13          recommendations for meeting such needs. Such  
14          review shall include factors such as equity, ac-  
15          cessibility, how many children are reached, cost,  
16          quality and demonstrated effectiveness.

17          (2) PROVIDE RECOMMENDATIONS WITH RE-  
18          SPECT TO DEPARTMENTAL TECHNOLOGY IN EDU-  
19          CATION PROGRAMS.—The Commission shall review  
20          and make recommendations to the Secretary and the  
21          Assistant Secretary with respect to the need for, op-  
22          eration of, effectiveness of, and support and re-  
23          sources available for, educational technology pro-  
24          grams and policies throughout the Department of  
25          Education and within the Office.

1           (3) INDUSTRY, TECHNOLOGY AND EDU-  
2           CATIONAL CONSORTIA.—The Commission shall en-  
3           courage the development of consortia consisting of a  
4           representative of the telecommunications and tech-  
5           nology industries, and the education community, in  
6           order to promote the collaborative development and  
7           implementation of educational technologies, projects,  
8           and practices that allow for the sharing of public  
9           and private resources to enhance school achievement.

10          (4) MAKE RECOMMENDATIONS WITH RESPECT  
11          TO THE COORDINATION OF FEDERAL PROGRAMS.—  
12          The Commission shall review support and resources  
13          available for educational technologies used in Fed-  
14          eral programs operating on the date of enactment of  
15          this Act and make recommendations to the Sec-  
16          retary and the Congress with respect to the coordi-  
17          nation and resource level required to achieve the  
18          most effective Federal support for educational tech-  
19          nology needs.

20          (5) DEVELOP POLICY RECOMMENDATIONS.—  
21          The Commission shall consult with persons having  
22          an interest in the uses of technology to support  
23          teaching and learning in order to ensure that the in-  
24          terests and concerns of all citizens are represented  
25          in national policies for the development, implementa-

1       tion and evaluation of the educational technology in-  
2       frastructure of the United States.

3           (6) COMMITTEE OF EXPERTS.—The Commis-  
4       sion shall appoint a committee of experts represent-  
5       ing the telecommunication, computer hardware and  
6       software industries, educational software developers,  
7       noncommercial telecommunications entities, and the  
8       elementary and secondary education community to  
9       explore the feasibility and desirability of national  
10      education guidelines or standards for educational  
11      hardware and software. Such committee shall  
12      produce a report which, at a minimum, examines—

13           (A) standards to ensure that software can  
14           be used on the variety of hardware likely to be  
15           available in schools;

16           (B) multimedia standards to allow for the  
17           integration of video and audio recordings with  
18           text and computer graphics;

19           (C) user interface standards so that teach-  
20           ers and students will not have to learn totally  
21           new techniques for using new software pack-  
22           ages;

23           (D) database interface standards so that  
24           students can integrate information from na-  
25           tional databases into their work;

1 (E) communication standards such as  
2 those for information exchange and video com-  
3 pression;

4 (F) interface standards so that educational  
5 software and other technology may be inte-  
6 grated together in a way that is easy to use and  
7 maintain; and

8 (G) standards for collecting data about  
9 student performance and achievement to guide  
10 individual instructional paths and the refine-  
11 ment of curriculum.

12 (6) REPORT.—

13 (A) IN GENERAL.—The Commission shall  
14 prepare and submit to the President, the Sec-  
15 retary and the Congress a report every 2 years  
16 on the need for the development and implemen-  
17 tation of instructionally based technologies in  
18 educational curriculum throughout the United  
19 States. At a minimum, the Commission's report  
20 shall include recommendations with respect to  
21 the status of the implementation of the provi-  
22 sions of this Act.

23 (B) SUBMISSION.—The report described in  
24 subparagraph (A) shall be submitted in accord-  
25 ance with such subparagraph within 2 years of

1 the date of enactment of this Act and every 2  
2 years thereafter.

3 (f) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) SALARIES AND EXPENSES.—There are au-  
5 thorized to be appropriated \$1,500,000 for each of  
6 the fiscal years 1994 through 1998 for the salaries  
7 and expenses of the Commission.

8 (2) FUNCTIONS.—There are authorized to be  
9 appropriated \$1,000,000 for fiscal year 1994, and  
10 such sums as may be necessary for each of the fiscal  
11 years 1995 through 1998, to carry out this section.

## 12 **TITLE II—SCHOOL TECHNOLOGY** 13 **SUPPORT**

### 14 **SEC. 201. STATEMENT OF PURPOSES.**

15 It is the purpose of this title to provide Federal as-  
16 sistance in the form of loans, grants, and systemic funding  
17 alternatives to support the acquisition, training, use and  
18 maintenance in elementary and secondary schools of tech-  
19 nology-enhanced curriculum, instruction, and school ad-  
20 ministration.

### 21 **SEC. 202. STATE TECHNOLOGY PLANNING GRANTS.**

22 (a) PURPOSE.—It is the purpose of this section to  
23 ensure that all States have effective plans for the provision  
24 of technology in all schools throughout the State.

25 (b) GRANTS AUTHORIZED.—

1           (1) IN GENERAL.—The Assistant Secretary  
2       shall award grants to State educational agencies,  
3       who in consultation with the Governor and other ap-  
4       propriate State agencies, shall develop a systemic  
5       statewide plan to infuse modern technologies into an  
6       educational program to enhance student learning  
7       and staff development in support of the National  
8       Education Goals and State academic standards.

9           (2) REQUIREMENTS.—Such plan shall—

10           (A) develop and implement a high speed,  
11           statewide, interoperable, wide area communica-  
12           tion educational technology infrastructure for  
13           all elementary and secondary education institu-  
14           tions within the State; and

15           (B) emphasize the participation of schools  
16           with a high percentage of disadvantaged stu-  
17           dents.

18       (c) CONTENT OF PLANS.—At a minimum, each sys-  
19       temic statewide plan described in subsection (b) that is  
20       developed in whole or in part, with grant funds under this  
21       section, shall—

22           (1) be developed in collaboration with the Gov-  
23       ernor, representative of the State legislature, State  
24       school boards, other appropriate State agencies, and  
25       noncommercial telecommunication entities through a



1       representational process involving input from com-  
2       munities throughout the State;

3           (2) identify requirements for infusing modern  
4       technologies into the classroom to enhance edu-  
5       cational curricula;

6           (3) describe how the application of tele-  
7       communications, computer networks, and related ad-  
8       vanced technologies in the schools will enhance the  
9       curriculum, provide greater access and equity for  
10      more students, and help achieve the National Edu-  
11      cation Goals;

12          (4) provide for the ongoing training of edu-  
13      cational personnel to integrate educational tech-  
14      nologies in the classroom and other applications of  
15      technology in education;

16          (5) establish a mechanism for statewide dis-  
17      semination of exemplary programs and practices;

18          (6) include an estimate of the funding and re-  
19      sources needed to develop and maintain the requisite  
20      educational technology infrastructure identified in  
21      the plan, including the appropriate use of other Fed-  
22      eral education funds available to the State or local  
23      educational agency;

1           (7) establish a schedule for the development  
2           and implementation of the planned educational tech-  
3           nology infrastructure;

4           (8) develop a plan for the coordination and dis-  
5           tribution of grants under this section, section 204,  
6           and section 405B(b)(1)(B) of the General Education  
7           Provisions Act;

8           (9) describe how the State educational agency  
9           will utilize the services and resources of the regional  
10          educational technology assistance consortia;

11          (10) distribute guidelines to all elementary and  
12          secondary schools and educational agencies in the  
13          State related to the various programs and initiatives  
14          assisted under this Act;

15          (11) describe how the State will assess the level  
16          of—

17                (A) the statewide implementation of such  
18          plan;

19                (B) the increased access by the elementary  
20          and secondary schools to technology-enhanced  
21          resources assisted under this section; and

22                (C) the impact of such plan on school  
23          achievement;

24          (12) describe how State and local educational  
25          agencies will coordinate and cooperate with business

1 and industry, as well as noncommercial tele-  
2 communications entities to implement standards to  
3 meet work force training needs;

4 (13) describe how the State educational agency  
5 will promote the purchase of equipment by local  
6 school districts and schools that, when placed in op-  
7 eration, will meet the highest level of interoperability  
8 and open system design among—

9 (A) technology hardware and software, ei-  
10 ther when used on a stand-alone basis or when  
11 connected together within a local area network  
12 or a wide area network; and

13 (B) schools within the State;

14 (14) will utilize existing telecommunications in-  
15 frastructure and technology resources; and

16 (15) create a planning process through which  
17 such plan is reviewed and updated periodically.

18 (d) AMOUNT OF GRANTS.—

19 (1) IN GENERAL.—Except as provided in para-  
20 graph (2), the Assistant Secretary shall award  
21 grants under this section to each State, in each fis-  
22 cal year, in an amount which bears the same rela-  
23 tionship to the amount appropriated pursuant to the  
24 authority of subsection (e) as the amount such State  
25 received under chapter 1 of title I of the Elementary

1 and Secondary Education Act of 1965 in such year  
2 bears to the amount received under such chapter by  
3 all States in such year.

4 (2) MINIMUM.—No State shall receive a grant  
5 under subsection (b) in an amount which is less than  
6 \$100,000.

7 (3) STATE MATCHING.—

8 (A) STATE.—Each State receiving a grant  
9 under this section shall provide matching funds  
10 in an amount equal to 20 percent of such grant  
11 funds.

12 (B) WAIVER.—The Secretary may waive  
13 the State matching requirement described in  
14 subparagraph (A) for good cause, as deter-  
15 mined by the Secretary.

16 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
17 are authorized to be appropriated \$10,000,000 for the fis-  
18 cal year 1994, and such sums as may be necessary for  
19 each of the 4 succeeding fiscal years, to carry out this  
20 section.

21 **SEC. 203. ELEMENTARY AND SECONDARY SCHOOL LIBRARY**  
22 **AND MEDIA SERVICES.**

23 Title IV of the General Education Provisions Act (20  
24 U.S.C. 1221 et seq.) is further amended by adding after

1 section 405A (as added by section 101(b)) the following  
2 new section:

3 **“SEC. 405B. ELEMENTARY AND SECONDARY SCHOOL LI-**  
4 **BRARY AND MEDIA SERVICES.**

5       “(a) ESTABLISHMENT.—The Assistant Secretary  
6 shall establish a Division of Elementary and Secondary  
7 School Library Media Services (hereafter in this section  
8 referred to as the ‘Division’) within the Office of Edu-  
9 cational Technology within 90 days of enactment of the  
10 Technology for Education Act of 1993. Such division shall  
11 consist of a Director, who shall have primary responsibility  
12 for the daily operation of the Division, and of such staff  
13 as may be needed to carry out the functions described in  
14 subsection (b).

15       “(b) FUNCTIONS.—

16               “(1) IN GENERAL.—The Division shall—

17                       “(A) provide information and leadership to  
18 elementary and secondary school library media  
19 specialists, teachers, and school administrators  
20 with respect to—

21                               “(i) the effective operation of library  
22 media resources;

23                               “(ii) methods of improving edu-  
24 cational programs;

1 “(iii) training of library media person-  
2 nel; and

3 “(iv) the development of library media  
4 resources, including resources that will en-  
5 courage students to acquire skills in other  
6 languages; and

7 “(B) develop, implement and administer  
8 grant programs, on a competitive basis, for—

9 “(i) elementary and secondary school  
10 library media center resource development,  
11 including projects that—

12 “(I) enable school library media  
13 centers to acquire technologically ad-  
14 vanced information management re-  
15 sources;

16 “(II) provide increased student  
17 access to library media center re-  
18 sources through the use of modern in-  
19 formation resource technologies; and

20 “(III) assist in the implementa-  
21 tion of distance learning via satellite,  
22 microwave, fiber, picture telephones  
23 and other visual media;

24 “(ii) elementary and secondary school  
25 library media specialist and teacher part-

nership for innovative education projects  
that—

“(I) encourage collaboration between elementary and secondary school library media specialists and teachers in order to develop units of instruction that enable students to use a variety of technologically advanced information resources; and

“(II) expand students’ information-gathering abilities and cognitive skills of selection, analysis, evaluation, and application; and

“(iii) technology in the classroom projects that are linked to a library media center in order to—

“(I) expand the use of computers and computer networks in the curriculum;

“(II) enable elementary and secondary school library media centers to access information from computerized databases and other technologically advanced methods of access to information; and

1                   “(III) assist in the implementa-  
2                   tion of distance learning via satellite,  
3                   microwave, fiber, picture telephones  
4                   and other visual media.

5           “(2) SPECIAL RULE.—In awarding grants  
6   under paragraph (1)(B) the Assistant Secretary  
7   shall—

8                   “(A) award grants to schools with the  
9                   greatest need for library materials and services;  
10                  and

11                  “(B) ensure that such grants are awarded  
12                  on an equitable geographic basis.

13           “(c) COOPERATIVE AGREEMENTS.—The Director of  
14 the Division is authorized to enter into such cooperative  
15 agreements with the Department of Education, the Na-  
16 tional Science Foundation, other Federal departments or  
17 agencies, noncommercial telecommunications entities, or  
18 nonprofit organizations, as the Director determines is nec-  
19 essary to carry out the provisions of this section.

20           “(d) CONSTRUCTION.—Nothing in this section shall  
21 be construed to interfere with State and local initiative  
22 and responsibility in the conduct and support of school  
23 library media services, the administration of school library  
24 media centers, or the selection of personnel or library  
25 books and resources.



1       “(e) SUPPLEMENTATION.—Funds provided under  
 2 this section shall be used so as to supplement and not to  
 3 supplant other Federal, State, or local funds available to  
 4 carry out the activities and services assisted under this  
 5 section, including funds made available to elementary and  
 6 secondary school library media centers under the Tech-  
 7 nology for Education Act of 1993.

8       “(f) AUTHORIZATION OF APPROPRIATIONS.—There  
 9 are authorized to be appropriated \$45,000,000 for fiscal  
 10 year 1994, and such sums as may be necessary in each  
 11 succeeding fiscal year, to carry out this section, of which—

12               “(1) \$15,000,000 shall be available in each  
 13 such fiscal year to carry out subsection (b)(2)(A);

14               “(2) \$15,000,000 shall be available in each  
 15 such fiscal year to carry out subsection (b)(2)(B);  
 16 and

17               “(3) \$15,000,000 shall be available in each  
 18 such fiscal year to carry out subsection (b)(2)(C).”.

19 **SEC. 204. SCHOOL TECHNOLOGY RESOURCE GRANTS AND**  
 20 **LOANS.**

21       (a) IN GENERAL.—

22               (1) IN GENERAL.—The Assistant Secretary  
 23 shall award grants to State educational agencies  
 24 having a plan approved under section 202 in order  
 25 to enable such agencies to provide assistance to local

1 educational agencies and schools having highest per-  
2 centages of children in poverty and showing the  
3 greatest need for technology to enable such local  
4 educational agencies and schools to purchase quality  
5 technology related equipment, technology-enhanced  
6 curriculum, instruction, and administrative support  
7 resources and services that improve the instructional  
8 programs in schools.

9 (2) AMOUNT.—(A) Except as provided in sub-  
10 paragraph (B), the Secretary shall award grants  
11 under this section to each State educational agency  
12 in an amount which bears the same relationship to  
13 the amount appropriated pursuant to the authority  
14 of subsection (b) as the amount such State received  
15 under chapter 1 of title I of the Elementary and  
16 Secondary Education Act of 1965 bears to the  
17 amount received under such chapter by all States.

18 (B) No State educational agency shall receive a  
19 grant pursuant to subparagraph (A) in an amount  
20 which is less than \$100,000.

21 (3) LIMITATION ON STATE COSTS.—Not more  
22 than 5 percent of grant funds awarded to a State  
23 educational agency under this section may be used  
24 by the State or State educational agency for admin-  
25 istrative costs or technical assistance.

1       (b) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated \$100,000,000 for fiscal  
3 year 1994, and such sums as may be necessary in each  
4 succeeding fiscal year, to carry out this section.

5       (c) LOCAL USES OF GRANT FUNDS.—Each local edu-  
6 cational agency or school receiving assistance under this  
7 section may use such assistance—

8           (1) to acquire technology-enhanced education  
9 resources and services, such as computer hardware,  
10 software, and telecommunications services, for use  
11 by teachers and students in the classroom in order  
12 to support the instructional program offered by  
13 schools to assure that students in such schools will  
14 have meaningful access on a regular basis to such  
15 resources and services;

16           (2) for staff development in the integration of  
17 quality instructional educational technologies into  
18 school curriculum and long-term planning for imple-  
19 menting educational technologies;

20           (3) to acquire connectivity with wide area net-  
21 works, such as the INTERNET, for purposes of  
22 accessing information and educational programming  
23 sources outside the local educational agency or  
24 school;

1           (4) for necessary site preparation for the instal-  
2           lation of technology-enhanced curriculum, instruc-  
3           tion, and administrative support resources and serv-  
4           ices, except that such acquisitions may not exceed 25  
5           percent of the amount of the assistance provided  
6           under this section;

7           (5) for ongoing technology training and staff  
8           development services, resources, or programs that  
9           instruct teachers and administrators in the effective  
10          integration of technology in the classroom through  
11          ongoing, onsite consultation; and

12          (6) to establish partnerships consisting of a rep-  
13          resentative of a local educational agency, a college or  
14          university, and any other agency the Assistant Sec-  
15          retary deems appropriate, for development and im-  
16          plementation of preservice education programs to  
17          train teachers in the application of instructional-  
18          based technologies in the curriculum.

19          (d) SCHOOL PLANS.—Each local educational agency  
20          or school desiring assistance under this section shall sub-  
21          mit a plan to the State educational agency at such time  
22          and in such manner as such agency may prescribe. Such  
23          plan shall—

24                (1) include a strategic, long-range (3- to 5-  
25                year), outcome-based plan that includes—

1 (A) a process for the ongoing evaluation of  
2 how technologies acquired under this section—

3 (i) are being implemented into the  
4 school curriculum; and

5 (ii) are impacting student achieve-  
6 ment; and

7 (B) a description of how the local edu-  
8 cational agency or school has involved parents,  
9 business leaders and community leaders in the  
10 development of such plan;

11 (2) describe how the assistance will be used to  
12 further access for both teachers and students to best  
13 teaching practices and best curriculum resources  
14 that are aligned with any national educational stand-  
15 ards that may be developed;

16 (3) describe the type of technologies to be ac-  
17 quired, including specific provisions for interoper-  
18 ability among components of such technologies;

19 (4) include the projected cost of technologies to  
20 be acquired and related expenses needed to imple-  
21 ment the plan;

22 (5) include the projected timetable for imple-  
23 menting the technologies in schools;

24 (6) include an explanation of how the acquired  
25 technologies will be integrated into the curriculum to

1 help the local educational agency or school enhance  
2 teaching, training, and student achievement;

3 (7) describe how the acquired instructionally  
4 based technologies will help the local educational  
5 agency or school achieve equity in curricular offer-  
6 ings;

7 (8) describe the supporting resources such as  
8 services, software and print resources, which will be  
9 acquired to ensure successful and effective use of  
10 technologies acquired under this section;

11 (9) describe how the instructionally based tech-  
12 nologies and resources will support any State and  
13 national content and teaching educational standards  
14 that may be developed;

15 (10) describe how the local educational agency  
16 or school will ensure ongoing, sustained staff devel-  
17 opment for teachers and administrators in the local  
18 educational agency or school regarding the use of  
19 technology in the classroom, and contain a list of the  
20 source or sources of ongoing training available to  
21 such teachers and administrators, such as State  
22 technology offices, intermediate educational support  
23 units, regional educational laboratories, or institu-  
24 tions of higher education;

1           (11) describe identifiable, measurable outcome-  
2           based levels of achievement in the implementation of  
3           the plan that can be used to determine progress and  
4           to support decisions to provide additional funds; and

5           (12) describe how the local educational agency  
6           or school will promote the sharing, distribution, and  
7           reuse of applications of educational technology that  
8           are determined by such agency to be effective in in-  
9           dividual schools.

10          (e) TECHNOLOGY LOANS.—Subsection (a) of section  
11 751 of the Higher Education Act of 1965 (20 U.S.C.  
12 1132f(a)) is amended—

13           (1) in paragraph (2), by striking “and” after  
14           the semicolon;

15           (2) by redesignating paragraph (3) as para-  
16           graph (4);

17           (3) by adding after paragraph (2) the following  
18           new paragraph:

19           “(3) guarantee, insure or reinsure low-interest,  
20           long-term loans to State educational agencies and  
21           local educational agencies in order to enable such  
22           agencies to obtain resources for distance learning,  
23           computer networks and other technology-enhanced  
24           curriculum, instruction, and administrative support

1 resources and services that are used in the education  
 2 process; and”; and

3 (4) in paragraph (4) (as redesignated by para-  
 4 graph (2)), by striking “and (2)” and inserting “,  
 5 (2) and (3)”.

6 **SEC. 205. INFORMATION DISSEMINATION.**

7 The Assistant Secretary and National Commission on  
 8 Technology in Education shall compile and disseminate in-  
 9 formation on various successful models of integrating  
 10 technology into education to assist State or local edu-  
 11 cational agencies, and schools in the development of sys-  
 12 temic reform initiatives.

13 **TITLE III—INFORMATION DIS-**  
 14 **SEMINATION, TECHNOLOGY**  
 15 **TRAINING AND TECHNICAL**  
 16 **ASSISTANCE**

17 **SEC. 301. STATEMENT OF PURPOSE.**

18 It is the purpose of this title to ensure that schools  
 19 have access to all the resources necessary for effectively  
 20 utilizing technology in the classroom by—

21 (1) supporting identification and dissemination  
 22 of information on effective educational programs, re-  
 23 sources and services throughout the United States,  
 24 and, more specifically, to promote information dis-  
 25 semination through electronic means; and



1           (2) developing a coordinated network of edu-  
2       cational technology assistance and training provid-  
3       ers, such as universities, regional technology centers,  
4       museums, science centers, laboratories supported by  
5       the Department of Energy, noncommercial tele-  
6       communications entities, other nonprofit organiza-  
7       tions, and State and local educational agencies to  
8       ensure effective utilization of technology-enhanced  
9       curriculum, instruction and educational administra-  
10      tive support resources and services to improve the  
11      instructional programs in schools consistent with ef-  
12      forts to achieve the National Education Goals and  
13      State academic standards.

14   **SEC. 302. ELECTRONIC DISSEMINATION NETWORK.**

15       The Assistant Secretary, in cooperation with the Fed-  
16      eral Communications Commission, the National Science  
17      Foundation, the Department of Defense, or any other de-  
18      partment or agency of Federal, State and local govern-  
19      ments that the Assistant Secretary deems appropriate,  
20      shall establish an electronic network for the dissemination  
21      of educational information throughout the United States,  
22      including information about effective technology-enhanced  
23      programs, resources, and services to the extent reasonably  
24      possible, the electronic dissemination network should make

1 use of existing networks and networks to be built for other  
2 purposes. The electronic dissemination network shall—

3 (1) provide sufficient staffing and other re-  
4 sources as may be necessary to ensure the effective  
5 operation of the Electronic Dissemination Network;  
6 and

7 (2) consult with educators, State and local edu-  
8 cational agencies, telecommunications providers, and  
9 other stakeholders in the education process through-  
10 out the United States to determine information re-  
11 quirements and policies for the effective operation of  
12 the Electronic Dissemination Network.

13 **SEC. 303. REGIONAL IMPLEMENTATION AND ASSISTANCE.**

14 (a) **PURPOSE.**—It is the purpose of this section to  
15 establish regional educational technology assistance con-  
16 sortia to facilitate information dissemination, planning, re-  
17 source development, implementation, and evaluation of  
18 educational technology applications by States, regional  
19 educational organizations, local educational agencies and  
20 schools.

21 (b) **GRANTS AUTHORIZED.**—

22 (1) **AUTHORITY.**—The Assistant Secretary shall  
23 make grants, on a competitive basis, to regional edu-  
24 cational technology assistance consortia in accord-  
25 ance with the provisions of this section.

1           (2) REQUIREMENTS.—Each consortium receiv-  
2           ing a grant under this section shall—

3                   (A) serve 1 of the 10 regions of the United  
4           States served by a regional educational labora-  
5           tory supported pursuant to section  
6           405(d)(4)(A)(i) of the General Education Provi-  
7           sions Act;

8                   (B) consist of a consortium of State edu-  
9           cational agencies, nonprofit organizations, or a  
10          combination thereof; and

11                  (C) in cooperation with State and local  
12          education programs, develop a regional plan  
13          that addresses staff development, technical as-  
14          sistance, information resource dissemination,  
15          and program evaluation and reporting needs of  
16          the region regarding educational technology.

17          (3) SPECIAL RULE.—Each consortium receiving  
18          a grant under this section shall use not less than 80  
19          percent of the grant funds to carry out paragraph  
20          (3) of subsection (c).

21          (c) FUNCTIONS.—

22                  (1) TECHNICAL ASSISTANCE.—Each consortium  
23          receiving a grant under this section shall—

24                          (A) collaborate with State and local edu-  
25          cation programs in the development of State

1           technology plans and in particular in the devel-  
2           opment of strategies for reaching those schools  
3           with highest percentages of disadvantaged stu-  
4           dents with little or no access to technology in  
5           the classroom;

6           (B) provide information to States, local  
7           educational agencies, and schools on the types  
8           and features of various educational technology  
9           equipment and software available, evaluate and  
10          make recommendations on equipment and soft-  
11          ware that is suited for a program's particular  
12          needs, and compile and share information on  
13          creative applications of technology in the class-  
14          room;

15          (C) collaborate with State educational  
16          agencies, local educational agencies, or schools  
17          in the tailoring of software programs and other  
18          supporting materials to meet State curriculum  
19          standards and individual needs of schools and  
20          students; and

21          (D) provide technical assistance to facili-  
22          tate use of the electronic dissemination network  
23          by State and local educational agencies and  
24          schools throughout the region;

1           (2) INFORMATION RESOURCE MANAGEMENT.—

2       Each consortium receiving a grant under this section  
3       shall—

4           (A) assist the Office in the collection and  
5           access of information resources produced by the  
6           National Clearinghouse for Mathematics and  
7           Science Education, the regional mathematics  
8           and science consortia, the National Diffusion  
9           Network, and other educational organizations  
10          that the Assistant Secretary deems appropriate;

11          (B) assist in the review and documentation  
12          of effective educational programs, resources,  
13          and services created or utilized within the  
14          region;

15          (C) facilitate coordination and implementa-  
16          tion of an electronic dissemination network and  
17          the distance learning described in section  
18          907(a)(4)(B)(ii) of the Star Schools Program  
19          Assistance Act;

20          (D) assist the Office in designing and im-  
21          plementing an interactive telecommunications  
22          network to link educational agencies within and  
23          among consortia for the purpose of transferring  
24          educational information resources, including re-  
25          sources that utilize voice, video, data, and re-

1 sources that are transmitted over satellite,  
2 microwave, cable, fiber, and other means; and

3 (E) establish a coordinated system of dis-  
4 tance education involving microwave technology  
5 combined with other technology, as appropriate,  
6 that can serve to disseminate information and  
7 provide interactive staff development related to  
8 new research findings, national educational ini-  
9 tiatives, funding and program resources, and  
10 educational technology developments and re-  
11 sources appropriate to teaching and learning.

12 (3) STAFF DEVELOPMENT.—Each consortium  
13 receiving a grant under this section shall—

14 (A) develop and implement, in collabora-  
15 tion with State educational agencies, training  
16 and technology assistance training that can be  
17 offered through site-based intensive summer  
18 and school year workshops that utilize the  
19 teachers-training-teachers model or accessed  
20 through existing and emerging distance edu-  
21 cational resources, including—

22 (i) interactive satellite training  
23 telecourses using researchers, educators,  
24 and telecommunications personnel who  
25 have experience in developing, implement-

ing, or operating educational and instructional technology as a learning tool;

(ii) onsite courses teaching teachers to use educational and instructional technology and to develop their own instructional materials for effectively incorporating technology and programming in their own classrooms;

(iii) methods for successful integration of instructional technology into the curriculum; and

(iv) video conferences and seminars which offer professional development through peer interaction with experts as well as other teachers using technologies in their classrooms;

(B) develop training resources that are—

(i) relevant to the needs of the region and schools within the region; and

(ii) aligned with the needs of educators and administrators in the region, including educators and administrators from public and private schools;

(C) establish a repository of staff development and technical assistance resources;

1 (D) work with existing agencies in the re-  
2 gion to identify and link technical assistance  
3 providers to educational agencies, as needed;

4 (E) provide followup to ensure that train-  
5 ing, staff development, and technical assistance  
6 meets the needs of educators served by the re-  
7 gion; and

8 (F) assist colleges and universities within  
9 the region to develop and apply for funding to  
10 implement preservice training programs for stu-  
11 dents enrolled in teacher education programs.

12 (3) RESOURCE DEVELOPMENT.—Each consor-  
13 tium receiving a grant under this section shall—

14 (A) assist educational agencies in the iden-  
15 tification and procurement of financial, techno-  
16 logical and human resources needed to imple-  
17 ment technology plans;

18 (B) work with the local educational agen-  
19 cies to assist in the development and validation  
20 of instructionally based technology education re-  
21 sources;

22 (C) identify and provide or broker, as ap-  
23 propriate, human and technical resources to as-  
24 sist schools in the application of the resources  
25 assisted under this section; and



1           (D) coordinate activities and establish  
2           partnerships with national and State nonprofit  
3           professional educational organizations that rep-  
4           resent the interests of the region as such inter-  
5           ests pertain to the application of technology in  
6           teaching, learning, instructional management,  
7           dissemination, collection and distribution of  
8           educational statistics, and the transfer of stu-  
9           dent information.

10 **SEC. 304. AUTHORIZATION OF APPROPRIATIONS.**

11       There are authorized to be appropriated \$41,000,000  
12 for the fiscal year 1994, and such sums as may be nec-  
13 essary for each of the 4 succeeding fiscal years, to carry  
14 out this title, of which—

15           (1) \$5,000,000 shall be available for the elec-  
16           tronic dissemination network described in section  
17           302; and

18           (2) \$50,000,000 shall be available to support  
19           the regional educational technology assistance con-  
20           sortia described in section 303.

1 **TITLE IV—EDUCATIONAL TECH-**  
2 **NOLOGY PRODUCT DEVELOP-**  
3 **MENT, PRODUCTION, AND**  
4 **DISTRIBUTION**

5 **SEC. 401. STATEMENT OF PURPOSE.**

6 It is the purpose of this title to support development,  
7 production, and distribution of technology-enhanced cur-  
8 riculum, and instruction and administrative support re-  
9 sources and services, by—

10 (1) establishing as a priority for federally sup-  
11 ported education technology programs the develop-  
12 ment (as opposed to research) of such programs;

13 (2) authorizing the Assistant Secretary to sup-  
14 port the development, production and distribution of  
15 technology-enhanced instructional resources and  
16 services under this title;

17 (3) providing Federal funding for the joint de-  
18 velopment, production, and distribution of resources  
19 and services by consortia of businesses and edu-  
20 cational institutions; and

21 (4) providing direction for the development of  
22 the Ready To Learn Act and the Star Schools Pro-  
23 gram Assistance Act.

1 **SEC. 402. PRIORITY IN FEDERALLY SUPPORTED EDU-**  
2 **CATION PROGRAMS.**

3 Notwithstanding any other provision of law, in  
4 awarding funds pursuant to any competitively awarded  
5 Federal education program administered by the Secretary,  
6 the Secretary shall ensure that a high priority is placed  
7 on funding projects that utilize technology-enhanced cur-  
8 riculum, instruction and administrative support resources  
9 and services.

10 **SEC. 403. CLASSROOMS FOR THE FUTURE.**

11 (a) **SHORT TITLE.**—This section may be cited as the  
12 “Technology for the Classroom Act of 1993”.

13 (b) **PURPOSE.**—It is the purpose of this section to  
14 establish a program to develop and expand the use of high  
15 quality computer curriculum-based learning resources  
16 using state-of-the-art technologies and techniques which  
17 are or can be designed to increase the achievement levels  
18 of students in subject areas including mathematics,  
19 science, geography, history and language arts.

20 (c) **ACHIEVEMENT GRANTS.**—

21 (1) **COMPETITIVE GRANTS.**—

22 (A) **IN GENERAL.**—The Assistant Sec-  
23 retary shall award grants, on a competitive  
24 basis, to eligible consortia to enable such eligi-  
25 ble consortia to develop computer-based instruc-  
26 tional programs or technology-enhanced systems

1 for complete courses or units of study for a spe-  
2 cific subject and grade level, if such programs  
3 or systems are commercially unavailable in the  
4 local area served by such eligible consortia.

5 (B) ELIGIBLE CONSORTIUM.—For the pur-  
6 pose of this subsection the term “eligible con-  
7 sortium” means a consortium—

8 (i) that shall include—

9 (I) a State or local educational  
10 agency; and

11 (II) a business or industry; and

12 (ii) that may include—

13 (I) a public or private nonprofit  
14 organization; or

15 (II) a postsecondary institution.

16 (2) PRIORITY.—In awarding grants under this  
17 subsection, the Assistant Secretary shall give prior-  
18 ity to applications describing programs or systems  
19 that are developed—

20 (A) so that the program or system may be  
21 adapted and applied nationally at a reasonable  
22 cost;

23 (B) to raise the achievement levels of stu-  
24 dents, particularly disadvantaged students who  
25 are not realizing their potential; and

1 (C) in consultation with classroom teach-  
2 ers.

3 (3) DURATION AND AMOUNT.—Each grant  
4 made under this subsection shall be awarded for a  
5 period not to exceed 3 years and in an amount not  
6 to exceed \$3,000,000.

7 (4) MATCHING REQUIREMENT.—The Assistant  
8 Secretary shall not make a grant to an eligible con-  
9 sortium under paragraph (1) unless the eligible con-  
10 sortium agrees that, with respect to the costs to be  
11 incurred by the eligible consortium in carrying out  
12 the program or system for which the grant was  
13 awarded, the eligible consortium will make available  
14 non-Federal contributions in an amount equal to not  
15 less than 25 percent of the Federal funds provided  
16 under the grant.

17 (5) APPLICATION.—

18 (A) IN GENERAL.—Each eligible consor-  
19 tium desiring a grant under this subsection  
20 shall submit an application to the Assistant  
21 Secretary at such time, in such manner, and ac-  
22 companied by such information as the Assistant  
23 Secretary may prescribe.

24 (B) CONTENTS.—Each application submit-  
25 ted pursuant to paragraph (1) shall include—

1 (i) a description of how the program  
2 or system shall improve the achievement  
3 levels of students;

4 (ii) a description of how teachers asso-  
5 ciated with the program or system will be  
6 trained to integrate technology into the  
7 classroom;

8 (iii) an assurance that the program or  
9 system shall effectively serve a large num-  
10 ber or percentage of economically dis-  
11 advantaged students; and

12 (iv) plans for dissemination to a wide  
13 audience of learners.

14 (6) CRITERIA FOR AWARDING GRANTS.—In  
15 awarding a grant under this subsection to develop a  
16 program or system, the Assistant Secretary shall  
17 consider the appropriateness and quality of the fol-  
18 lowing elements of the program or system:

19 (A) Identification of specific learning ob-  
20 jectives and strategies of the proposed course or  
21 unit of study, that take into consideration any  
22 national education standards that may be devel-  
23 oped for various disciplines.

24 (B) Incorporation in creative ways of a va-  
25 riety of technology-enhanced learning resources,

1       such as computer software, databases, films,  
2       transparencies, video and audio discs, tele-  
3       communications (including educational radio  
4       and television), with print resources.

5       (C) Design that allows tailoring of the pro-  
6       gram or system to meet individual needs of stu-  
7       dents, particularly students at greatest risk of  
8       not reaching their educational potential.

9       (D) Flexibility of use by teachers or local  
10      schools.

11      (E) Methods for updating or revising infor-  
12      mation and resources.

13      (F) Programs or resources to train and  
14      guide teachers.

15      (G) Coordination with teacher training  
16      programs.

17      (H) Explanatory resources for students  
18      and parents.

19      (I) Field testing and evaluation in terms of  
20      stated learning objectives.

21      (J) Plans for pricing technology-enhanced  
22      resources that are affordable for schools and  
23      agencies.

24      (K) Plans for distribution that ensure ac-  
25      cess for the poorest schools and school districts.

1                   (L) Demonstration of cost-effectiveness in  
2                   relation to existing programs and to achieving  
3                   stated learning objectives.

4           (d) FEDERAL INTERAGENCY COORDINATION.—The  
5 Assistant Secretary shall coordinate and share informa-  
6 tion regarding curriculum-based educational technology  
7 programs assisted under this section with other Federal  
8 agencies which administer programs that support the de-  
9 velopment of such programs, including the National  
10 Science Foundation, the Department of Defense, the Of-  
11 fice of Technology Assessment, the Corporation for Public  
12 Broadcasting, the Department of Energy, and the Depart-  
13 ment of Agriculture.

14          (e) CONSUMER REPORT.—The Assistant Secretary  
15 shall collect information about products developed pursu-  
16 ant to provisions of this section and the evaluation of such  
17 products, and shall disseminate such information in regu-  
18 lar reports to State and local educational agencies, and  
19 other organizations or individuals that the Assistant Sec-  
20 retary determines to be appropriate.

21          (f) ROYALTIES.—Notwithstanding any other provi-  
22 sion of law, any royalties paid to any State or local edu-  
23 cational agency as a result of assistance provided under  
24 this section shall be used by such agency for further devel-



1 opment of curriculum-based learning resources authorized  
2 by this section.

3 (g) CLOSED CAPTIONING.—Each eligible consortium  
4 receiving a grant under this section shall provide closed  
5 captioning, where appropriate.

6 (h) AUTHORIZATION OF FUNDS.—For the purpose of  
7 carrying out this section, there are authorized to be appro-  
8 priated \$45,000,000 for the fiscal year 1994 and such  
9 sums as may be necessary for each of the 4 succeeding  
10 fiscal years.

11 **SEC. 404. INSTRUCTIONAL BROADCASTING AND VIDEO IN-**  
12 **STRUCTIONAL PROGRAMMING.**

13 (a) STATEMENT OF PURPOSE.—It is the purpose of  
14 this section to support the development of long-term com-  
15 prehensive instructional programming and associated sup-  
16 port resources for elementary and secondary grade core  
17 curricula outlined in the National Education Goals so that  
18 such resources are distributed electronically to the broad-  
19 est possible segments of education in the United States  
20 and are stored in archival formats that assure maximum  
21 access by all educational institutions.

22 (b) PROGRAM AUTHORIZED.—

23 (1) IN GENERAL.—(A) The Assistant Secretary  
24 is authorized to award grants to or enter into con-  
25 tracts or cooperative agreements with eligible edu-

1 cational telecommunications partnerships to pay the  
2 Federal share of the cost of the research, produc-  
3 tion, and distribution of instructional programming  
4 for students, and staff development programming  
5 for teachers.

6 (B) For the purpose of this section the term  
7 “programming” means the full range of audio and  
8 video text and graphics used for education and in-  
9 struction which can be distributed through inter-  
10 active, command and control or passive methods.

11 (2) DURATION.—The Assistant Secretary shall  
12 award grants and enter into contracts or cooperative  
13 agreements pursuant to paragraph (1) for a period  
14 of not more than 5 years.

15 (3) LIMITATION.—An eligible educational tele-  
16 communications partnership may not receive assist-  
17 ance under this section unless such entity has cer-  
18 tified that all educational programming prepared  
19 and distributed by such partnership, where appro-  
20 priate, contains closed captioning of the verbal con-  
21 tent of such program to be broadcast by way of line  
22 21 of the vertical blanking interval, or by way of  
23 comparable successor technologies, unless the provi-  
24 sion of closed captioned broadcasting would cause  
25 undue administrative or financial burden.

1           (4) RENEWALS.—Grants awarded and contracts  
2           or cooperative agreements entered into pursuant to  
3           paragraph (1) may be renewed to update and ex-  
4           pand such resources.

5           (5) COLLABORATION.—Each eligible edu-  
6           cational telecommunications partnership receiving  
7           assistance under this section shall collaborate and  
8           consult with appropriate education entities in design-  
9           ing the instructional components of programming to  
10          ensure that such components are relevant to na-  
11          tional and State curriculum frameworks.

12         (c) AUTHORIZATION OF APPROPRIATIONS.—

13           (1) IN GENERAL.—There are authorized to be  
14           appropriated \$15,000,000 for fiscal year 1994, and  
15           such sums as may be necessary for each succeeding  
16           fiscal year, to carry out this section.

17           (2) AVAILABILITY.—Funds appropriated pursu-  
18           ant to the authority of paragraph (1) shall remain  
19           available until expended.

20         (d) FEDERAL SHARE.—The Federal share of a grant,  
21         contract or cooperative agreement under this section in  
22         any fiscal year shall not exceed 75 percent.

23         (e) COORDINATION.—The Department of Education,  
24         the National Science Foundation, the Department of En-  
25         ergy, the Department of Agriculture, the Department of

1 Commerce, the Corporation for Public Broadcasting, the  
2 public broadcasting services, and any other Federal agen-  
3 cy funding educational programming for children may co-  
4 ordinate with and jointly fund activities assisted under  
5 this section.

6 (f) ELIGIBLE EDUCATION TELECOMMUNICATIONS  
7 PARTNERSHIPS.—For the purpose of this section, the  
8 term “eligible educational telecommunications partner-  
9 ship” means a partnership consisting of the following enti-  
10 ties:

11 (1) A noncommercial telecommunications entity  
12 with a demonstrated record of the production of  
13 high quality educational video programming.

14 (2) A recognized organization knowledgeable  
15 about the requirements of implementing within or  
16 across a content area a curriculum compatible with  
17 proposed or established voluntary national content  
18 standards, such as an institution of higher edu-  
19 cation, national professional organizations, or a sci-  
20 entific laboratory.

21 (3) An instructional design institution that can  
22 integrate student and teacher print resources, relat-  
23 ed computer resources, interactive multimedia and  
24 programming series into a coordinated whole.

1           (4) A marketing entity capable of distributing  
2           all aspects of the products developed under this sec-  
3           tion.

4           (g) APPLICATIONS.—

5           (1) APPLICATION REQUIRED.—Each eligible  
6           educational telecommunications partnership which  
7           desires to receive a grant or enter into a contract or  
8           cooperative agreement under this section shall sub-  
9           mit an application to the Assistant Secretary, at  
10          such time, in such manner, and containing or ac-  
11          companied by such information as the Assistant Sec-  
12          retary may reasonably require.

13          (2) CONTENTS OF THE APPLICATION.—Each  
14          application submitted under paragraph (1) shall—

15                (A) describe the programming and such  
16                programming's relevance to the core curricula  
17                outlined in the National Education Goals;

18                (B) describe the professional capabilities  
19                for which assistance is sought, including—

20                      (i) the research, design, piloting, pro-  
21                      duction, field testing, and distribution of  
22                      the products developed under this section;  
23                      and

24                      (ii) the technical facilities available for  
25                      developing the programming; and

1 (C) describe the piloting, teacher training  
2 and testing of the programming, print, com-  
3 puter, television, radio and interactive media  
4 products.

5 (h) PROGRAMS RELATED OPERATING FUNDS FOR  
6 INSTRUCTIONAL TEACHER TRAINING (PROFIT).—The As-  
7 sistant Secretary shall allow the eligible educational tele-  
8 communications partnership to receive a financial benefit  
9 from the distribution of programming assisted under this  
10 section. Such benefit shall be used by the eligible edu-  
11 cational telecommunications partnership to support more  
12 development of curriculum specific programming and to  
13 provide greater access to a wider audience of educational  
14 programming.

15 **SEC. 405. STAR SCHOOLS PROGRAM.**

16 The Star Schools Program Assistance Act (20 U.S.C.  
17 4081 et seq.) is amended to read as follows:

18 **“SEC. 901. PURPOSE.**

19 “It is the purpose of this title to encourage improved  
20 instruction in mathematics, science, and foreign languages  
21 as well as other subjects, such as literacy skills and voca-  
22 tional education, and to serve underserved populations, in-  
23 cluding the disadvantaged, illiterate, limited-English pro-  
24 ficient, and disabled, through a star schools program

1 under which grants are made to eligible telecommuni-  
2 cation partnerships to enable such partnerships to—

3 “(1) develop, construct, acquire, maintain and  
4 operate telecommunications audio and visual facili-  
5 ties and equipment;

6 “(2) develop and acquire educational and in-  
7 structional programming; and

8 “(3) obtain technical assistance for the use of  
9 such facilities and instructional programming.

10 **“SEC. 902. GRANTS AUTHORIZED.**

11 “(a) IN GENERAL.—The Assistant Secretary is au-  
12 thorized, in accordance with the provisions of this title,  
13 to make grants to eligible telecommunications partner-  
14 ships to pay the Federal share of the cost of—

15 “(1) the development, construction, acquisition,  
16 maintenance and operation of telecommunications  
17 facilities and equipment;

18 “(2) the development and acquisition of live,  
19 interactive instructional programming;

20 “(3) the development and acquisition of  
21 preservice and inservice teacher training programs  
22 based on established research regarding teacher-to-  
23 teacher mentoring, effective skill transfer, and ongoing,  
24 in-class instruction;

1           “(4) the establishment of teleconferencing facili-  
2           ties and resources for broadcasting interactive train-  
3           ing to teachers;

4           “(5) obtaining technical assistance; and

5           “(6) the coordination of the design and  
6           connectivity of telecommunications networks to  
7           reach greater numbers of schools.

8           “(b) DURATION.—

9           “(1) IN GENERAL.—The Assistant Secretary  
10          shall award grants pursuant to subsection (a) for a  
11          period of 5 years.

12          “(2) RENEWAL.—Grants awarded pursuant to  
13          subsection (a) may be renewed for 1 additional 5-  
14          year period.

15          “(c) AUTHORIZATION OF APPROPRIATIONS.—

16          “(1) IN GENERAL.—There are authorized to be  
17          appropriated \$35,000,000 for fiscal year 1994 and  
18          such sums as may be necessary for each succeeding  
19          fiscal year, to carry out this title.

20          “(2) AVAILABILITY.—Funds appropriated pur-  
21          suant to the authority of subsection (a) shall remain  
22          available until expended.

23          “(d) LIMITATIONS.—



1           “(1) AMOUNT.—A grant made to an eligible  
2 telecommunications partnership under this title shall  
3 not exceed \$4,000,000 in any 1 fiscal year.

4           “(2) RESERVATIONS.—

5                 “(A) FACILITIES AND EQUIPMENT.—Not  
6 less than 25 percent of the funds available to  
7 the Assistant Secretary in any fiscal year under  
8 this title shall be used for telecommunications  
9 facilities and equipment.

10                “(B) CERTAIN LOCAL EDUCATIONAL AGEN-  
11 CIES.—Not less than 25 percent of the funds  
12 available to the Assistant Secretary in any fis-  
13 cal year under this title shall be used for the  
14 cost of facilities, equipment, teacher training or  
15 retaining, technical assistance, or programming,  
16 for local educational agencies which are eligible  
17 to receive assistance under chapter 1 of title I  
18 of the Elementary and Secondary Education  
19 Act of 1965.

20           “(e) FEDERAL SHARE.—

21                 “(1) IN GENERAL.—The Federal share for any  
22 fiscal year shall be not more than 75 percent.

23                 “(2) WAIVER.—The Assistant Secretary may  
24 reduce or waive the requirements of the non-Federal

1 share required under subparagraph (A) for good  
2 cause, as determined by the Assistant Secretary.

3 “(f) COORDINATION.—The Department of Edu-  
4 cation, the National Science Foundation, the Department  
5 of Agriculture, and any other Federal department or agen-  
6 cy operating a telecommunications network for edu-  
7 cational purposes, shall coordinate the activities assisted  
8 under this title with the activities of such department or  
9 agency relating to a telecommunications network for edu-  
10 cational purposes.

11 “(g) CLOSED CAPTIONING.—Each entity receiving  
12 funds under this title are encouraged to provide closed  
13 captioning of the verbal content of such program, where  
14 appropriate, to be broadcast by way of line 21 of the verti-  
15 cal blanking interval, or by way of comparable successor  
16 technologies.

17 **“SEC. 903. ELIGIBLE TELECOMMUNICATIONS PARTNER-**  
18 **SHIPS.**

19 “(a) IN GENERAL.—In order to be eligible for a grant  
20 under this title, an eligible telecommunications partner-  
21 ship shall consist of—

22 “(1) a public agency or corporation established  
23 for the purposes of developing and operating tele-  
24 communications networks to enhance educational op-  
25 portunities provided by educational institutions,

1 teacher training centers, and other entities, except  
2 that any such agency or corporation shall represent  
3 the interest of elementary and secondary schools  
4 which are eligible for assistance under chapter 1 of  
5 title I of the Elementary and Secondary Education  
6 Act of 1965; or

7 “(2) a partnership that will provide a tele-  
8 communications network and which includes 3 or  
9 more of the following entities, at least 1 of which  
10 shall be an agency described in subparagraph (A) or  
11 (B):

12 “(A) a local educational agency serving a  
13 significant number of elementary and secondary  
14 schools that are eligible for assistance under  
15 chapter 1 of title 1 of the Elementary and Sec-  
16 ondary Education Act of 1965 or elementary  
17 and secondary schools operated for Indian chil-  
18 dren by the Department of Interior under sec-  
19 tion 1005(d) of such Act;

20 “(B) a State educational agency;

21 “(C) an institution of higher education or  
22 a State higher education agency;

23 “(D) a teacher training center or academy  
24 which—

1 “(i) provides teacher preservice and  
2 inservice training; and

3 “(ii) receives Federal financial assist-  
4 ance or has been approved by a State  
5 agency; or

6 “(E)(i) a public or private entity with ex-  
7 perience and expertise in the planning and op-  
8 eration of a telecommunications network, in-  
9 cluding entities involved in telecommunications  
10 through satellite, cable, telephone or computers;  
11 or

12 “(ii) a public broadcasting entity with such  
13 experience.

14 “(b) SPECIAL RULE.—An eligible telecommuni-  
15 cations partnership shall be organized on a statewide or  
16 multistate basis.

17 **“SEC. 904. APPLICATIONS.**

18 “(a) APPLICATIONS REQUIRED.—

19 “(1) IN GENERAL.—Each eligible telecommuni-  
20 cations partnership which desires to receive a grant  
21 under section 902 shall submit an application to the  
22 Assistant Secretary, at such time, in such manner,  
23 and containing or accompanied by such information  
24 as the Assistant Secretary may reasonably require.

1           “(2) SPECIAL RULE.—The Assistant Secretary  
2       shall permit applicants for assistance under this Act  
3       and applicants for assistance under any other Fed-  
4       eral program providing educational technology in the  
5       classroom to submit a single application for assist-  
6       ance.

7           “(b) CONTENTS OF THE APPLICATION.—Each appli-  
8       cation submitted pursuant to subsection (a) shall—

9           “(1) describe the telecommunications facilities  
10      and equipment and technical assistance for which  
11      assistance is sought, which may include—

12           “(A) the design, development, construction,  
13      acquisition, maintenance and operation of State  
14      or multistate educational telecommunications  
15      networks and technology resource centers;

16           “(B) microwave, fiber optics, cable, and  
17      satellite transmission equipment or any com-  
18      bination thereof;

19           “(C) reception facilities;

20           “(D) satellite time;

21           “(E) production facilities;

22           “(F) other telecommunications equipment  
23      capable of serving a wide geographic area;

24           “(G) the provision of training services to  
25      instructors who will be using the facilities and

1 equipment for which assistance is sought, in-  
2 cluding training in using such facilities and  
3 equipment and training in integrating programs  
4 into the classroom curriculum; and

5 “(H) the development of educational pro-  
6 gramming for use on a telecommunications net-  
7 work;

8 “(2) in the case of an application for assistance  
9 for instructional programming, describe the types of  
10 programming which will be developed to enhance in-  
11 struction and training and provide assurances that  
12 such programming will be designed in consultation  
13 with professionals who are experts in the applicable  
14 subject matter and grade level;

15 “(3) demonstrate that the eligible telecommuni-  
16 cations partnership has engaged in sufficient survey  
17 and analysis of the area to be served to ensure that  
18 the services offered by the eligible telecommuni-  
19 cations partnership will increase the availability of  
20 courses of instruction in mathematics, science, and  
21 foreign languages, as well as other subjects to be of-  
22 fered;

23 “(4) describe the training policies for teachers  
24 and other school personnel to be implemented to en-

1       sure the effective use of telecommunications facilities  
2       and equipment for which assistance is sought;

3           “(5) provide assurances that the financial inter-  
4       est of the United States in the telecommunications  
5       facilities and equipment will be protected for the  
6       useful life of such facilities and equipment;

7           “(6) provide assurances that a significant por-  
8       tion of any facilities and equipment, technical assist-  
9       ance, and programming for which assistance is  
10      sought for elementary and secondary schools will be  
11      made available to schools of local educational agen-  
12      cies which have a high percentage of children eligible  
13      to be counted under chapter 1 of title I of the Ele-  
14      mentary and Secondary Education Act of 1965;

15          “(7) describe the manner in which traditionally  
16      underserved students, such as students who are dis-  
17      advantaged, limited-English proficient, disabled, or  
18      illiterate will participate in the benefits of the tele-  
19      communications facilities, equipment, technical as-  
20      sistance, and programming assisted under this title;

21          “(8) provide assurances that the applicant will  
22      use the funds provided under this title to supple-  
23      ment and not supplant funds otherwise available for  
24      the purposes of this title;

1           “(9) if the applicant is submitting an applica-  
2           tion for assistance under title II of the Technology  
3           for Education Act of 1993, describe how funds re-  
4           ceived under this title will be coordinated with funds  
5           received for educational technology in the classroom  
6           under title II of such Act;

7           “(10) describe the activities or services for  
8           which assistance is sought, including activities and  
9           services such as—

10                 “(A) providing facilities, equipment, train-  
11                 ing, services, and technical assistance described  
12                 in paragraphs (1), (2), (4) and (7);

13                 “(B) making programs accessible to indi-  
14                 viduals with disabilities through mechanisms  
15                 such as closed captioning and descriptive video  
16                 services;

17                 “(C) linking networks together, for exam-  
18                 ple, around an issue of national importance,  
19                 such as national elections;

20                 “(D) sharing curriculum resources between  
21                 networks and development of program guides  
22                 which demonstrate cooperative, cross-network  
23                 listing of programs for specific curriculum  
24                 areas;



1           “(E) providing teacher and student sup-  
2 port services including classroom and training  
3 support materials which permit student and  
4 teacher involvement in the live interactive dis-  
5 tance learning telecasts;

6           “(F) incorporating community resources,  
7 such as libraries and museums, into instruc-  
8 tional programs;

9           “(G) providing teacher training to early  
10 childhood development and Head Start teachers  
11 and staff;

12           “(H) providing teacher training to voca-  
13 tional education teachers and staff;

14           “(I) providing teacher training on proposed  
15 or established voluntary national content stand-  
16 ards in mathematics and science and other dis-  
17 ciplines as such standards are developed;

18           “(J) providing programs for adults at  
19 times other than the regular school day in order  
20 to maximize the use of telecommunications fa-  
21 cilities and equipment; and

22           “(K) providing parent education programs  
23 during and after the regular school day which  
24 reinforce the student’s course of study and ac-

1           tively involve parents in the learning process;  
2           and

3           “(11) include such additional assurances as the  
4       Secretary may reasonably require.

5       “(c) APPROVAL OF APPLICATION; PRIORITY.—The  
6       Assistant Secretary, in approving applications under this  
7       title, shall give priority to applications which demonstrate  
8       that—

9           “(1) a concentration and quality of mathe-  
10       matics, science, and foreign languages resources  
11       which, by their distribution through the eligible tele-  
12       communications partnership, will offer significant  
13       new educational opportunities to network partici-  
14       pants, particularly to traditionally underserved popu-  
15       lations and areas with scarce resources and limited  
16       access to courses in mathematics, science, and for-  
17       eign languages;

18          “(2) the eligible telecommunications partnership  
19       has secured the direct cooperation and involvement  
20       of public and private educational institutions, State  
21       and local government, and industry in planning the  
22       network;

23          “(3) the eligible telecommunications partnership  
24       will serve the broadest range of institutions, includ-  
25       ing in the case of elementary and secondary schools,

1       those elementary and secondary schools having a  
2       significant number of students eligible to be counted  
3       under chapter 1 of title I of the Elementary and  
4       Secondary Education Act of 1965, programs provid-  
5       ing instruction outside of the school setting, institu-  
6       tions of higher education, teacher training centers,  
7       research institutes, and private industry;

8               “(4) a significant number of educational insti-  
9       tutions have agreed to participate or will participate  
10      in the use of the telecommunications system for  
11      which assistance is sought;

12              “(5) the eligible telecommunications partnership  
13      will have substantial academic and teaching capabili-  
14      ties, including the capability of training, retraining,  
15      and service upgrading of teaching skills and the ca-  
16      pability to provide professional development leading  
17      to comprehensive effective instructional strategies,  
18      outcomes-based curriculum and parenting practices;

19              “(6) the eligible telecommunications partnership  
20      will—

21                      “(A) provide a comprehensive range of  
22                      courses for educators with different skill levels  
23                      to teach instructional strategies for students  
24                      with different skill levels;

1           “(B) provide training to participating edu-  
2           cators in ways to integrate telecommunications  
3           courses into existing school curriculum; and

4           “(C) include instruction for students,  
5           teachers, and parents;

6           “(7) the eligible telecommunications partnership  
7           will serve a multistate area;

8           “(8) a telecommunications entity (such as a  
9           satellite, cable, telephone, computer, or public or pri-  
10          vate television stations) will participate in the part-  
11          nership and will donate equipment or in kind serv-  
12          ices for telecommunications linkages; and

13          “(9) the eligible telecommunications partnership  
14          will, in providing services with assistance under this  
15          title, meet the needs of groups of individuals tradi-  
16          tionally excluded from careers in mathematics and  
17          science because of discrimination, inaccessibility, or  
18          economically disadvantaged backgrounds.

19          “(d) GEOGRAPHIC DISTRIBUTION.—In approving ap-  
20          plications under this title, the Assistant Secretary shall  
21          assure an equitable geographic distribution of grants  
22          under this title.

1   **“SEC. 905. DISSEMINATION OF COURSES AND RESOURCES**  
2                   **UNDER THE STAR SCHOOLS PROGRAM.**

3       “(a) REPORT.—Each eligible telecommunications  
4 partnership awarded a grant under this title shall report  
5 to the Assistant Secretary a listing and description of  
6 available courses of instruction and resources to be offered  
7 by educational institutions and teacher training centers  
8 which will be transmitted over satellite, specifying the sat-  
9 ellite on which such transmission will occur and the time  
10 of such transmission.

11       “(b) DISSEMINATION OF COURSES OF INSTRU-  
12 TION.—The Assistant Secretary shall compile and prepare  
13 for dissemination a listing and description of available  
14 courses of instruction and resources to be offered by edu-  
15 cational institutions and teacher training centers equipped  
16 with satellite transmission capabilities as reported to the  
17 Assistant Secretary under subsection (a).

18       “(c) DISSEMINATION TO STATE EDUCATIONAL  
19 AGENCIES.—The Assistant Secretary shall distribute the  
20 list required by subsection (b) to all State educational  
21 agencies.

22   **“SEC. 906. ADMINISTRATIVE PROVISIONS.**

23       “(a) CONTINUING ELIGIBILITY.—

24           “(1) IN GENERAL.—In order to be eligible to  
25 receive a grant under this title in any fiscal year  
26 after the first fiscal year in which an eligible tele-

1       communications partnership receives a grant under  
2       this title, such partnership shall demonstrate in the  
3       application submitted pursuant to section 904 that  
4       such partnership will—

5               “(A) continue to provide services in the  
6               subject areas and geographic areas assisted  
7               with funds received under this title in the pre-  
8               vious fiscal year; and

9               “(B) use all such grant funds to provide  
10              expanded services by—

11               “(i) increasing the number of stu-  
12               dents, schools or school districts served by  
13               the courses of instruction assisted under  
14               this title in the previous fiscal year;

15               “(ii) providing new courses of instruc-  
16               tion; and

17               “(iii) serving new populations of un-  
18               derserved individuals, such as children or  
19               adults who are disadvantaged, have lim-  
20               ited-English proficiency, are disabled, are  
21               illiterate, or lack high school diplomas or  
22               their equivalent.

23               “(2) SPECIAL RULES.—Grant funds received  
24               pursuant to the application of paragraph (1) shall be  
25               used to supplement and not supplant services pro-

1 vided by the recipient under this title in the previous  
2 fiscal year.

3 “(b) EVALUATION.—

4 “(1) IN GENERAL.—From amounts appro-  
5 priated pursuant to the authority of subsection (b),  
6 the Secretary shall reserve not more than \$500,000  
7 or 5 percent of such appropriations, whichever is  
8 less, to conduct an independent evaluation by grant,  
9 contract, or cooperative agreement, of the program  
10 assisted under this title.

11 “(2) SUBMISSION.—The evaluation required  
12 under paragraph (1) shall be submitted to the Con-  
13 gress and the Assistant Secretary not later than  
14 June 1, 1995.

15 “(3) CONTENTS.—The evaluation described in  
16 paragraph (1) shall include—

17 “(A) a review of the effectiveness of eligi-  
18 ble telecommunications partnerships and pro-  
19 grams assisted under this title after Federal  
20 funding under this title ceases;

21 “(B) an analysis of the effectiveness of  
22 non-Federal funds provided under this title, in-  
23 cluding funds leveraged under this title and the  
24 permanency of such funding;

1           “(C) an analysis of how grant recipients  
2           under this title spend funds appropriated to  
3           carry out this title;

4           “(D) a review of the subject matter and  
5           success of distance learning through programs  
6           assisted under this title;

7           “(E) a comprehensive review of inservice  
8           teacher training programs assisted under this  
9           title, including the number of teachers trained,  
10          time spent in training programs, and a com-  
11          parison of the effectiveness of such training and  
12          conventional teacher training programs;

13          “(F) an analysis of programs assisted  
14          under this title that focus on teacher certifi-  
15          cation and other requirements and the resulting  
16          effect on the delivery of instructional program-  
17          ming;

18          “(G) the effects of distance learning on  
19          curriculum and staffing patterns at participat-  
20          ing schools;

21          “(H) an analysis of the socioeconomic  
22          characteristics of students participating in pro-  
23          grams assisted under this title, including a re-  
24          view of the differences and effectiveness of pro-



1           gramming and services provided to economically  
2           disadvantaged and minority students;

3           “(I) an analysis of the socioeconomic and  
4           geographic characteristics of schools participat-  
5           ing in programs assisted under this title, in-  
6           cluding a review of the variety of programming  
7           provided to different schools; and

8           “(J) the impact of dissemination grants  
9           under section 907(a) on the use of technology-  
10          enhanced programs in local educational agen-  
11          cies.

12          “(c) FEDERAL ACTIVITIES.—The Assistant Secretary  
13          may assist grant recipients under this title in acquiring  
14          satellite time, where appropriate, as economically as  
15          possible.

16          **“SEC. 907. OTHER ASSISTANCE.**

17          “(a) DISSEMINATION GRANTS.—

18                  “(1) IN GENERAL.—The Assistant Secretary  
19          shall make grants under this subsection to eligible  
20          telecommunications partnerships assisted under this  
21          title and to eligible entities that enter into an agree-  
22          ment with the Assistant Secretary to provide dis-  
23          semination and technical assistance to State and  
24          local educational agencies not served under this title.

1           “(2) DEFINITION.—For the purposes of this  
2 subsection, the term ‘eligible entity’ means an orga-  
3 nization or institution of higher education that has  
4 demonstrated expertise in educational applications of  
5 technology and provides comprehensive technical as-  
6 sistance to educators and policymakers at the local  
7 level.

8           “(3) RESERVATION.—The Assistant Secretary  
9 shall reserve not less than 5 percent and not more  
10 than 10 percent of the amount appropriated pursu-  
11 ant to the authority of subsection (c) in each fiscal  
12 year to award grants under this subsection.

13           “(4) APPLICATIONS.—

14           “(A) IN GENERAL.—Each eligible tele-  
15 communications partnership and eligible entity  
16 that desires to receive a grant under this sub-  
17 section shall submit an application to the Sec-  
18 retary, at such time, in such manner, and con-  
19 taining or accompanied by such information, as  
20 the Assistant Secretary may reasonably require.

21           “(B) CONTENTS.—Each applicant de-  
22 scribed in paragraph (2) shall contain assur-  
23 ances that the eligible telecommunications part-  
24 nership or eligible entity shall provide technical  
25 assistance to State and local educational agen-

1           cies in order to enable such agencies to plan  
2           and implement technology-enhanced systems,  
3           including—

4                   “(i) information regarding successful  
5                   distance learning resources for States, local  
6                   educational agencies, and schools;

7                   “(ii) assistance in connecting users of  
8                   distance learning, regional educational  
9                   services centers, colleges and universities,  
10                  the private sector, and other relevant enti-  
11                  ties;

12                  “(iii) assistance and advice in the de-  
13                  sign and implementation of systems, in-  
14                  cluding needs assessment and technology  
15                  design; and

16                  “(iv) support for the identification of  
17                  possible connections, and cost-sharing ar-  
18                  rangements for users of such systems.

19       “(b) SPECIAL STATEWIDE NETWORK.—

20               “(1) IN GENERAL.—The Assistant Secretary  
21               may provide assistance to a statewide telecommuni-  
22               cations network under this subsection if such net-  
23               work—

24                   “(A) provides 2-way interactive video and  
25                   audio communications;

1           “(B) links together public colleges and uni-  
 2           versities and secondary schools throughout the  
 3           State; and

4           “(C) meets any other requirements deter-  
 5           mined appropriate by the Secretary.

6           “(2) STATE CONTRIBUTION.—A statewide tele-  
 7           communications network assisted under paragraph  
 8           (1) shall contribute, either directly or through pri-  
 9           vate contributions, non-Federal funds equal to not  
 10          less than 50 percent of the cost of such network.

11          “(c) SPECIAL LOCAL NETWORK.—

12           “(1) IN GENERAL.—The Assistant Secretary  
 13           may provide assistance to a local educational agency  
 14           or consortium thereof to enable such agency or con-  
 15           sortium to establish a high technology demonstration  
 16           program.

17           “(2) PROGRAM REQUIREMENTS.—A high tech-  
 18           nology demonstration program assisted under para-  
 19           graph (1) shall—

20           “(A) include 2-way full motion interactive  
 21           video, audio and text communications;

22           “(B) link together elementary and second-  
 23           ary schools, colleges, and universities;

24           “(C) provide parent participation and fam-  
 25           ily programs;

1           “(D) include a staff development program;  
2           and

3           “(E) have a significant contribution and  
4           participation from business and industry.

5           “(3) SPECIAL RULE.—Each high technology  
6           demonstration program assisted under paragraph  
7           (1) shall be of sufficient size and scope to have an  
8           effect on meeting the National Education Goals.

9           “(4) MATCHING REQUIREMENT.—A local edu-  
10          cational agency or consortium receiving a grant  
11          under paragraph (1) shall provide, either directly or  
12          through private contributions, non-Federal matching  
13          funds equal to not less than 50 percent of the  
14          amount of the grant.

15       **“SEC. 908. DEFINITIONS.**

16          “As used in this title—

17               “(1) the term ‘educational institution’ means an  
18               institution of higher education, a local educational  
19               agency, or a State educational agency;

20               “(2) the term ‘institution of higher education’  
21               has the same meaning given that term by section  
22               1201(a) of the Higher Education Act of 1965;

23               “(3) the term ‘local educational agency’ has the  
24               same meaning given that term by section 1471(12)

1 of the Elementary and Secondary Education Act of  
2 1965;

3 “(4) the term ‘instructional programming’  
4 means courses of instruction, training courses, and  
5 resources used in such instruction and training,  
6 which have been prepared in audio and visual form  
7 on tape, disc, film, live, and presented by means of  
8 telecommunications devices;

9 “(5) the term ‘public broadcasting entity’ has  
10 the same meaning given that term by section 397 of  
11 the Communications Act of 1934;

12 “(6) the term ‘Assistant Secretary’ means the  
13 Assistant Secretary for Educational Technology;

14 “(7) the term ‘State educational agency’ has  
15 the same meaning given that term under section  
16 1471(23) of the Elementary and Secondary Edu-  
17 cation Act of 1965; and

18 “(8) the term ‘State’ means each of the several  
19 States, the District of Columbia, the Commonwealth  
20 of Puerto Rico, Guam, American Samoa, the Virgin  
21 Islands, the Republic of the Marshall Islands, the  
22 Federated States of Micronesia, the Republic of  
23 Palau, and the Commonwealth of the Northern Mar-  
24 iana Islands.”.

1 **TITLE V—EDUCATIONAL TECH-**  
2 **NOLOGY RESEARCH, DEVEL-**  
3 **OPMENT AND ASSESSMENT**

4 **SEC. 501. PURPOSES.**

5 It is the purpose of this title—

6 (1) to provide direction and support for the  
7 conduct of developmental research on advanced edu-  
8 cational technologies;

9 (2) to support the design and development of  
10 educational access to high performance communica-  
11 tions and computing services;

12 (3) to assess the effectiveness of technology in  
13 education programs; and

14 (4) to make an annual status report available  
15 to the public regarding the state-of-the-art uses of  
16 technology in United States education which private  
17 businesses and governments can rely upon for deci-  
18 sionmaking about the need for, and provision of, ap-  
19 propriate technologies for education in the United  
20 States.

21 **SEC. 502. APPLICATION OF ADVANCED TECHNOLOGIES TO**  
22 **EDUCATION.**

23 (a) STATEMENT OF PURPOSE.—It is the purpose of  
24 this section to provide support for the design and develop-  
25 ment of long-term comprehensive educational applications

1 of advanced high performance computer and communica-  
2 tion technologies and video technologies in support of the  
3 core subjects of the National Education Goals. Such ad-  
4 vanced technologies include systems identified as inter-  
5 active multimedia, super computing, virtual reality, ad-  
6 vanced digital television, telecomputing, and the networks  
7 associated with such systems, including video dial tone  
8 access.

9       (b) GENERAL AUTHORITY.—The Assistant Sec-  
10 retary, in cooperation with other Federal departments and  
11 agencies (including the Advanced Research Projects Agen-  
12 cy (ARPA) of the Department of Defense, the Advanced  
13 Technology Program of the Department of Commerce, the  
14 National Science Foundation, all laboratories supported  
15 by the Department of Energy, the National Aeronautics  
16 and Space Administration, and the Department of De-  
17 fense) is authorized to support research on advanced  
18 learning technologies.

19       (c) PRIORITIES.—In awarding assistance under this  
20 section, the Assistant Secretary shall give the highest pri-  
21 ority to research projects which are intended to develop  
22 educational applications using advanced technologies  
23 which have been used effectively by the Federal Govern-  
24 ment, or business and industry.



1 (d) ELIGIBLE APPLICANTS.—Any single developer or  
2 partnership that can demonstrate both the technological  
3 expertise and educational content and instructional design  
4 expertise is eligible to apply for assistance under sub-  
5 section (b).

6 (e) APPLICATION REQUIREMENTS.—Each eligible ap-  
7 plicant desiring assistance under this section shall submit  
8 an application to the Assistant Secretary at such time, in  
9 such manner, and accompanied by such information, as  
10 the Assistant Secretary may reasonably require. Each  
11 such application shall—

12 (1) define clearly the scope and content of the  
13 subject matter of the research and the relevance of  
14 the advanced technology to such content;

15 (2) describe the potential market for both the  
16 hardware and software developed under this section;

17 (3) assess and test the applications of the ad-  
18 vanced technology in a way that will validate the  
19 technology and content usage by the proposed stu-  
20 dents;

21 (4) develop products that are usable by all stu-  
22 dents, including disabled, limited-English speaking,  
23 gifted and talented, and disadvantaged students; and

24 (5) develop a marketing plan for the transfer of  
25 prototype development into mass distribution or

1 marketing that may be used in homes, schools, or  
2 workplaces.

3 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
4 are authorized to be appropriated \$20,000,000 for fiscal  
5 year 1994, and such sums as may be necessary for each  
6 succeeding fiscal year, to carry out this section.

7 **SEC. 503. HIGH PERFORMANCE EDUCATIONAL COMPUTING**  
8 **AND TELECOMMUNICATIONS NETWORKS.**

9 (a) FINDINGS; STATEMENT OF PURPOSE.—

10 (1) FINDINGS.—The Congress finds that—

11 (A) throughout the United States various  
12 public and private sector groups are developing  
13 high performance computing and telecommuni-  
14 cations networks;

15 (B) by the year 2000, such efforts should  
16 result in public access to a variety of informa-  
17 tion resources;

18 (C) there needs to be more direct coordina-  
19 tion among such efforts and a more explicit  
20 consideration of the needs of education in the  
21 designs of such efforts; and

22 (D) support and resources are required to  
23 permit schools and libraries to take advantage  
24 of the explosive growth in communication capa-

1           bilities and information access that technology  
2           provides.

3           (2) STATEMENT OF PURPOSE.—It is the pur-  
4           pose of this section to ensure that such high per-  
5           formance computing and telecommunications net-  
6           works (often identified as “information highways”)  
7           are developed with due consideration to the needs of  
8           elementary and secondary education and that such  
9           networks have explicit provisions which facilitate  
10          educational uses in order to ensure that the class-  
11          rooms and libraries in the Nation’s elementary and  
12          secondary schools have adequate access to the  
13          emerging “information highways”.

14          (b) AUTHORITY.—The Assistant Secretary is author-  
15          ized to—

16               (1) identify educational high performance com-  
17               puting and telecommunications network require-  
18               ments;

19               (2) develop specifications for the implementa-  
20               tion of such requirements within any national tele-  
21               communications network;

22               (3) establish prototype operations on existing  
23               networks to validate and further develop the edu-  
24               cational specifications which will facilitate the use of  
25               such networks by kindergarten through twelfth

1 grade students, teachers, administrators, and par-  
2 ents;

3 (4) represent the needs and interests of elemen-  
4 tary and secondary schools in the Federal planning  
5 and development of a national information infra-  
6 structure; and

7 (5) identify policy issues, such as communica-  
8 tion rate structures and intellectual property rights,  
9 that impact upon the ability of the public schools to  
10 make effective use of the emerging information high-  
11 ways and make recommendations to the Secretary  
12 and the Congress.

13 (c) TYPES OF GRANTS.—The Assistant Secretary  
14 shall award the following types of grants:

15 (1) REQUIREMENTS GRANTS.—The Assistant  
16 Secretary shall solicit proposals for and award  
17 grants to 1 or more entities for the identification of  
18 educational high performance computing and tele-  
19 communications network requirements. The solicita-  
20 tion shall request proposals which—

21 (A) identify and describe existing and  
22 planned educational high performance comput-  
23 ing and telecommunications network efforts;

1 (B) identify and describe current uses of  
2 such networks in kindergarten through twelfth  
3 grade education throughout the United States;

4 (C) identify potential uses of such net-  
5 works in kindergarten through twelfth grade  
6 education by schools throughout the United  
7 States;

8 (D) assess impediments to the development  
9 of such networks in kindergarten through  
10 twelfth grade education (such as technological  
11 impediments, availability of technology-en-  
12 hanced curriculum, instruction, and administra-  
13 tive support resources and services in local  
14 schools; and parent, student, teacher and ad-  
15 ministrator attitudes toward technology-en-  
16 hanced education);

17 (E) assess the anticipated costs and bene-  
18 fits to be derived from such network access in  
19 kindergarten through twelfth grade education;  
20 and

21 (F) recommend priorities for development  
22 of educational access to such networks based on  
23 the anticipated cost benefit analysis.

24 (2) SPECIFICATIONS GRANTS.—The Assistant  
25 Secretary shall solicit proposals for and award

1 grants to 1 or more entities for the design and de-  
2 velopment of educational specifications which may be  
3 used to ensure educational access to any national  
4 educational high performance computing and tele-  
5 communications network. The solicitation shall re-  
6 quest proposals which—

7 (A) incorporate—

8 (i) the findings of the grant recipients  
9 under paragraph (1); and

10 (ii) the priorities recommended for  
11 such networks by the Assistant Secretary  
12 with the advice of the National Commis-  
13 sion on Technology in Education;

14 (B) provide for the development of several  
15 distinct design alternatives, each with internal  
16 design options based on uses of alternative  
17 technologies and costs;

18 (C) provide for the development of speci-  
19 fications for selected design alternatives or of  
20 specifications for a composite design;

21 (D) address technological issues, includ-  
22 ing—

23 (i) linkage of schools and communities  
24 with each other, with central resource cen-  
25 ters, and with Federal and State agencies

1 over existing or planned telecommuni-  
2 cations networks, such as INTERNET,  
3 the National Research Education Network,  
4 and Telstar 401;

5 (ii) uses of alternative connectivity  
6 modes, such as fiber optics, satellites, and  
7 land-based broadcasting;

8 (iii) integrated uses of two-way inter-  
9 active voice, video, and data communica-  
10 tions;

11 (iv) uses of interactive multimedia;

12 (v) system capacity, such as maximum  
13 telecommunications traffic in a variety of  
14 use modes;

15 (vi) availability of needed technologies;

16 (vii) availability of support services;

17 and

18 (viii) assessment of the impact of pro-  
19 posed educational access specifications on  
20 existing or planned telecommunications  
21 network; and

22 (E) provide comprehensive specifications  
23 which will ensure educational access to any na-  
24 tional educational high performance computing  
25 and telecommunications network as the primary

1 deliverable product of the specifications grants  
2 described in paragraph (1).

3 (3) PROTOTYPE DEVELOPMENT GRANTS.—The  
4 Assistant Secretary shall solicit proposals for and  
5 award grants to 1 or more entities for prototype op-  
6 erations on existing networks in order to validate  
7 and further develop the educational specifications  
8 which will facilitate use of existing or planned edu-  
9 cational high performance communicating and tele-  
10 communications networks by kindergarten through  
11 twelfth grade students, teachers, administrators, and  
12 parents. The solicitation shall request proposals  
13 which—

14 (A) incorporate the design limits of the  
15 comprehensive educational high performance  
16 computing and telecommunications network  
17 specifications developed by grant recipients  
18 under paragraph (2);

19 (B) support prototype operations for at  
20 least 1 year in a minimum of 5 test sites which  
21 are selected to represent a variety of economic,  
22 social, urban and rural settings;

23 (C) provide for inservice training and tech-  
24 nical assistance during the period of prototype  
25 operations;



1 (D) provide provisions for the identifica-  
2 tion and correction of operational problems dur-  
3 ing the period of prototype operations (includ-  
4 ing design flaws);

5 (E) include a comprehensive evaluation of  
6 all aspects of the prototype, including—

7 (i) design flaws;

8 (ii) training requirements, including  
9 resources and strategies for initial and on-  
10 going training;

11 (iii) technical support requirements;

12 (iv) financing constraints;

13 (v) availability and utility of informa-  
14 tion resources and services accessed during  
15 the prototype operations period;

16 (vi) factors which enhanced or im-  
17 peded prototype operations; and

18 (vii) an overall assessment of the im-  
19 pact of such technology on the educational  
20 process; and

21 (F) provide recommended revisions of the  
22 Assistant Secretary's educational high perform-  
23 ance computing and telecommunications net-  
24 work specifications based on findings of the

1 comprehensive evaluation of prototype oper-  
2 ations.

3 (d) **TIMELINE.**—The Assistant Secretary shall award  
4 grants under this section in accordance with the following:

5 (1) **REQUIREMENT GRANTS.**—The Assistant  
6 Secretary shall award requirement grants under sub-  
7 section (c)(1) by January 1, 1995.

8 (2) **DEVELOPMENT OF DESIGN SPECIFICA-**  
9 **TIONS.**—The Assistant Secretary shall award grants  
10 under subsection (c)(2) by January 1, 1996.

11 (3) **PROTOTYPE OPERATIONS.**—The Assistant  
12 Secretary shall award grants under subsection (c)(3)  
13 by July 1, 1997.

14 (e) **AUTHORIZATION OF APPROPRIATIONS.**—There  
15 are authorized to be appropriated \$2,500,000 for fiscal  
16 year 1994, \$2,500,000 for fiscal year 1995, and  
17 \$10,000,000 for fiscal year 1996, to carry out this section.

18 **SEC. 504. ASSESSMENT OF TECHNOLOGY IN EDUCATION.**

19 (a) **PURPOSES.**—It is the purpose of this section—

20 (1) to make an annual status report available  
21 to the Congress and the public regarding the state-  
22 of-the-art uses of technology in State and local edu-  
23 cational programs throughout the United States;  
24 and

25 (2) to support research regarding—

1 (A) the effectiveness of technology-en-  
2 hanced curriculum instruction;

3 (B) administrative support resources and  
4 services in improving education in the United  
5 States; and

6 (C) school library media center techno-  
7 logical support.

8 (b) AUTHORITY.—The Assistant Secretary, through  
9 the Office, shall—

10 (1) conduct an annual assessment of the uses  
11 of technology in State and local educational pro-  
12 grams; and

13 (2) award grants to support research on the ef-  
14 fectiveness of technology-enhanced education pro-  
15 grams.

16 (c) ANNUAL ASSESSMENT.—The Assistant Secretary  
17 shall conduct the annual assessment described in sub-  
18 section (b)(1) by obtaining input from a variety of sources,  
19 including State and local educational agencies, regional  
20 technology centers, university preservice and inservice  
21 technology training providers, national survey bureaus,  
22 and other departments and agencies of the Federal  
23 Government.

24 (1) TIMING OF THE ASSESSMENTS.—Each as-  
25 sessment shall be conducted during the normal

1 school year at such a time that the data collection  
2 will coincide with other data collections and facilitate  
3 data interpretation in reference to other routinely  
4 collected educational performance data, such as stu-  
5 dent enrollment and teacher preparation statistics.

6 (2) INTERAGENCY COOPERATION.—The head of  
7 each Federal department or agency that supports an  
8 education program shall cooperate with the Assist-  
9 ant Secretary's efforts to assess and report on the  
10 utilization of technology-enhanced curriculum, in-  
11 struction, and administrative support resources and  
12 services in federally supported education programs.

13 (3) USE OF GOVERNMENT RESOURCES; CON-  
14 TRACTED SERVICES.—The Assistant Secretary shall  
15 conduct the assessments using the resources of the  
16 Office or the resources of any other Federal depart-  
17 ment or agency made available to the Assistant Sec-  
18 retary, and by contracting for services from the pub-  
19 lic, private, or nonprofit sectors.

20 (4) SUBMISSION.—The Assistant Secretary's  
21 annual assessment shall be submitted to the Con-  
22 gress in the fall of each year.

23 (d) EFFECTIVENESS RESEARCH.—The Assistant  
24 Secretary is authorized to provide grants to public or pri-  
25 vate, nonprofit organizations or institutions for the con-

duct and dissemination of research on the effectiveness of new technologies for the improvement of education in the United States. In awarding such grants, the Assistant Secretary shall give priority to research projects which focus on—

(1) teaching and learning in the kindergarten through twelfth grade environment;

(2) technology-enhanced curriculum, instruction, and administrative support resources and services developed in whole or in part with Federal funding; or

(3) operational needs of elementary or secondary schools involved in implementing technology-enhanced curriculum, instruction, and administrative support resources and services to achieve the National Education Goals.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$5,000,000 for fiscal year 1994, and such sums as may be necessary in each succeeding fiscal year, to carry out this section.

## **TITLE VI—MISCELLANEOUS**

### **SEC. 601. STUDY OF SYSTEMIC FUNDING ALTERNATIVES.**

(a) IN GENERAL.—The Assistant Secretary shall conduct a study to evaluate, and report to the Congress on, the feasibility of several alternative models for providing

1 systematic funding for schools throughout the United  
2 States so that such schools are able to acquire and main-  
3 tain technology-enhanced curriculum, instruction, and ad-  
4 ministrative support resources and services.

5 (b) REPORT.—The report described in subsection (a)  
6 shall be presented to the Congress not later than August  
7 1, 1995.

8 **SEC. 602. PARTICIPATION OF PRIVATE SCHOOL CHILDREN.**

9 (a) PARTICIPATION OF PRIVATE SCHOOL CHIL-  
10 DREN.—To the extent consistent with the number of chil-  
11 dren who are enrolled in private nonprofit elementary or  
12 secondary schools served by an entity receiving assistance  
13 under this Act, such entity shall, after consultation with  
14 appropriate private school representatives, make provision  
15 for including services and arrangements for the benefit of  
16 such children as will assure the equitable participation of  
17 such children in the purposes and benefits of this Act.

18 (b) WAIVER.—If by reason of any provision of State  
19 law an entity receiving assistance under this Act is prohib-  
20 ited from providing for the participation of children from  
21 private nonprofit schools as required by subsection (a), or  
22 if the Secretary determines that such entity has substan-  
23 tially failed or is unwilling to provide for such participa-  
24 tion on an equitable basis, the Secretary shall waive such

1 requirements and shall arrange for the provision of serv-  
 2 ices to such children.

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