

Submission to the Inquiry into the Education of Students with Disabilities by the National Information and Library Service

Summary

The objectives of this submission are to:

1. Provide an overview of the issues associated with the production of alternative format materials for students with a print disability
2. Describe the purpose and goals of a national framework that could eliminate duplication and waste of resources while enhancing the availability of alternative format materials for students with a print disability
3. Seek the establishment of a Federal Government-sponsored working party to design the national framework and supporting funding program.

The submission addresses, in particular, items v) and vi) of the Terms of Reference, viz:

v) access to and adequacy of funding and support in both public and private sectors

vi) the nature, extent and funding of programs that provide for full or partial learning opportunities with mainstream students.

There are a number of alternative format producers in Australia of various sizes and capabilities. They all operate independently, producing a range of alternative formats to varying standards of production using a wide range of equipment.

There is no national framework within which these organisations can operate resulting in the fragmented nature of the 'industry'. This fragmentation leads to duplication of effort, waste of scarce resources and an inability to optimise the new technologies that could now assist with reducing the cost and time required to produce materials for students.

Producers have been unable to meet the growing demand for alternative format materials. The consequences for students with a print disability in mainstream learning have been significant. Students have suffered because materials have been delivered after the semester has closed and the subject completed. Students have had to defer studies because of being so far behind, or have given up

altogether because accessible materials were impossible to obtain. Now, in the post-secondary sector, universities and colleges are seeking to limit their costs by not providing materials or providing materials in inappropriate formats. Again, it appears that students with a print disability are being disadvantaged.

It is proposed that a national framework be developed, as a funded program of the Department of Education, Science and Technology, which can provide authority and guidance to alternative format producers. The program will aim at developing a recognised system in the education infrastructure in which alternative format producers can operate; funding the production of materials for students with a print disability and requiring acquittal of that funding in volume, quality and ongoing availability of the materials produced. The specific goals proposed for a national framework are:

- Seeking economies in production of alternative format materials by limiting the range of formats appropriate for the study environment and establishing these formats as the national standard
- Developing standards for recruitment of transcribers, and the training and ongoing development of their skills in the production of these formats
- Reviewing and updating the Round Table Guidelines on the presentation of information in alternative formats
- Developing standards for digital production hardware and software required to produce the agreed formats and providing funding incentives for producers to migrate to this platform as soon as possible
- Developing standards for adaptive technologies (hardware and software) to be made available to students with a print disability in educational institutions
- Developing and funding a training infrastructure in this equipment for students with a print disability.

The ultimate goal of a national framework should be the enactment of legislation similar to the Instructional Materials Accessibility Act 2001 drafted in the United States. The legislation should facilitate the production of material in accessible formats by original publishers, the storage of that material in an accessible site and the provision of the necessary support and training for end users to access this material directly. Ultimately, alternative format producers should not be needed if students are able to access the material they require themselves without the need of an intermediary.

Submission to the Inquiry into the Education of Students with Disabilities by the National Information and Library Service

Background

The National Information and Library Service (NILS) is a joint venture between the Royal Blind Society of New South Wales and the Royal Victorian Institute for the Blind. NILS has been formed from the amalgamation of the library and materials production services of both agencies. Currently, discussions are underway with Vision Australia Foundation about combining their library operations with those of NILS.

NILS has as its Vision, *To enable unhindered access to knowledge, information and recreational reading for people who have a print disability.* NILS' Mission is that it will provide *a recognised gateway through which people who have a print disability access dynamic information and recreational reading.*

NILS has adopted as its definition of print disability the definition in Schedule 6, Subsection 10(1) of the Copyright Amendment Bill 1997, which states that a person with a print disability is:

- a person without sight
- a person whose sight is severely impaired
- a person unable to hold or manipulate books or to focus or move his or her eyes; or
- a person with a perceptual disability

Through its Materials Production services located in Melbourne and Sydney, NILS provides production of alternative formats for educational institutions at primary, secondary and post secondary levels. Typically, NILS produces material for about 100 students in the tertiary level and 150 students in secondary and primary levels of education. To support this production capability NILS allocates some \$2,000,000, of which approximately \$593,000 is offset by the Print Disability Program administered by the Department of Family and Community Services. This funding is not specifically for the production of educational materials, and no funding is received from the Department of Education, Science and Technology.

In June 2000 the Department of Family and Community Services initiated a review of the Print Disability Services Program. An initial report was prepared in August 2000 for comment. It is understood that a final report has recently been completed and awaits consideration by the Review Reference Group; the recommendations of the Review have not been released.

From January 2002, NILS introduced 'full cost recovery' fees for the production of alternative format materials undertaken, on contract, on behalf of Universities and Colleges. This was a significant step in shifting the cost burden from a not-for-profit organization to those that are funded and have the responsibility to produce this material for their students.

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3. Seek the establishment of a Federal Government-sponsored working party to design the national framework and supporting funding program.

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v) access to and adequacy of funding and support in both public and private sectors

vi) the nature, extent and funding of programs that provide for full or partial learning opportunities with mainstream students.

Issues associated with the production of Alternative Format materials

Outside of State Government producers, NILS is the largest not-for-profit producer of alternative formats for students with print disabilities. Table 1 provides a summary of the formats produced by NILS. NILS is a significant, but not the only, producer in this market. While the total allocation for all production of alternative format materials in Australia is not known, it can be said with certainty that this is now a multi million dollar business. Recognising this, producers strive to present a professional image and output, but are often hampered by the unaware and unthinking, somewhat amateur approach of their customers, the educational institutions.

Despite this unrecognised contribution to the education of students with disabilities, many of the producers operate almost as 'cottage industries' heavily dependant on volunteer support and charitable donations to sustain their operations. There is no national framework within which these organisations can operate resulting in the fragmented nature of the 'industry'. This fragmentation leads to duplication of effort, waste of scarce resources and an inability to optimise the new technologies that could now assist with reducing the cost and time required to produce materials for students.

Demand outstripping Supply

In NILS' experience the demand for materials in alternative formats has exceeded supply for several years. There has been a 30.5% increase in the production of Braille in the last three years in Victoria and an increase in the order of 20% nationally in the last 10 years. While this production represents both education and leisure 'markets', the education market is clearly the most significant. Producers have been unable to meet this growing demand. NILS has responded by seeking to manage demand by shifting the cost burden of production of materials for post secondary educational institutions to those institutions, as well as seeking off-shore, less expensive production facilities.

The consequences for students with a print disability in mainstream learning have been significant. In the past, students have suffered because materials have been delivered after the semester has closed and the subject completed. Students have had to defer studies because of being so far behind, or have given up altogether because accessible materials were impossible to obtain. Now, in the post secondary sector, universities and colleges are seeking to limit their costs by not providing materials or providing materials in inappropriate formats. Again, it appears that students with a print disability are being disadvantaged.

High Level Overview

The following sections provide an overview of the process of producing materials in alternative formats covering inputs to the process, the production process and the outputs and delivery of finished materials.

Alternative formats can include:

- Braille – a code of raised dots representing letters, numbers and symbols that can be embossed onto paper or provided as an electronic file which can be 'read' via a PC or Notebook using a refreshable Braille display.
- Tactual Graphics – raised line drawings embossed onto paper representing graphics, diagrams, anatomical or architectural drawings, photographs etc

- Audio – human voice recording of a text, including description of graphics, photographs, tables etc produced as an analog cassette in four track or two track format. Four track cassettes require a specially designed playback machine to be accessed. Two-track format can be played back on any mainstream cassette playback device.
- Large Print – computer enlarged or photo enlarged presentations of text, numbers and graphics
- E-Text – electronic files, that can be in standard word processing format, or marked up in HTML or other mark up languages suitable for 'reading' by PC based synthetic voice software, such as JAWS.

Material for students can be produced in any of these formats. With the exception of e-text material, which is delivered via CD, floppy disk or e-mail, all the other formats are typically delivered in a hard copy format that requires binding, (or audio duplication), labelling and mailing.

Inputs

Inputs to the process can be in a wide variety of forms: a print book bought by the student, an electronic file provided by a publisher, a photocopy of a text, reading notes, extracts, articles etc., black and white photocopies of colour diagrams, designs, maps etc.

The variety of the source material is as wide as the variety of choice in presentations available to the sighted student. The immense changes in the complexity of published materials, the greater use of graphics, multi media productions, the diversity of technology to present content, as well as providing the delivery channel have all created enormous skill, cost and time challenges for not-for-profit producers.

Often the material provided is poor in quality. For example: photocopies that have been poorly organised so that essential text on the margin is not included or pages are missing; photocopies in black and white of coloured graphs and maps or anatomical drawing where the colour coded legend is rendered useless.

There can be reluctance by publishers to provide electronic files of a text because of copyright considerations. This is particularly the case if the text is produced by a United States' publisher limited by that country's restrictive copyright laws.

In many instances publishers do not have electronic files that can be readily translated into a format with which producers can work. Files may be provided but producers do not have the specific software required to open them.

There can be duplication of costs. A student with a print disability may be forced to buy a print copy of the text book to provide to a producer for transcription. The producer will remove the spine to scan the book, thus destroying its utility as a print book.

When a print book cannot be scanned because of the complexity of the material it will be necessary for the producer to originate its own electronic file for transcription to Braille or mark up for e-text.

Many of the smaller producers do not enter the material they have produced in alternative formats onto the national bibliographic data base administered by the National Library of Australia. Thus, other producers seeking to determine if a master in an alternative format exists will be unsatisfied in their search and will produce the material again.

The Production Process

It is not the intention of this submission to describe in detail the production processes required for every format. Rather, it will highlight the issues of concern that have a bearing on the cost of and time required for production of alternative format materials.

From the perspective of students with a print disability there are two major concerns. That their alternative format materials are available at the same time as sighted students in the class obtain the print material – receiving the material at the end of the semester is not acceptable. And, that the material is in a format that is accessible in the study environment, ie: is portable, and can be searched for specific sections of text quickly and easily.

Complexity of Formats

As most producers are not-for-profit organizations they have limited resources to produce the range of materials required. In NILS braille transcribers must also turn their hands to the production of tactual graphics, large print and e-text. With audio, volunteers are used for the initial recording but the post-production and duplication work is carried out by specialist staff. There is the constant challenge of balancing available, limited resources and demand across all the formats.

Limiting the range of alternative formats in the study environment to Braille, tactual graphics and e-text will assist in ensuring a more timely production of materials.

Demands on Skills

There are very limited training environments where people can be trained in the skills required to produce Braille, large print and e-text. Typically, training is done on the job. The Australian Braille Association provides a course in Braille with a final demanding assessment for accreditation in Braille skills. However, not all Braille transcribers have this qualification.

While standard Braille production is supported by a specific software application that can 'transcribe' ordinary text to the Braille code this cannot be used for maths, physics, chemistry, languages other than English and music. Each of these requires in depth knowledge of the Braille codes for maths, physics, chemistry and music and languages other than English. In NILS' experience, when producing materials for post secondary students, Braille transcribers also have to have post secondary level exposure to the subject matter in order that they can understand the text they are dealing with and transcribe it, drawing on a knowledge base.

As new technologies, software applications and mark up languages are developed there is limited scope for producers to maintain and develop the skill levels of their staff. Resources can be insufficient to acquire the new software or equipment (eg: volume scanners) and in many cases the vendors do not provide training in the software.

Recruitment of staff with the appropriate qualifications and potential to develop the various production skills is difficult as many not-for-profit organizations are not competitive in what they can offer as salaries.

Producers have varying levels of resources available for training with the outcome that skill levels vary across organizations. The Round Table on Information Access for People with Print Disabilities has developed guidelines for producers on how to present information in an accessible way for Braille, tactual graphics, large print, e-text and audio. These guidelines seek to ensure a quality level in the materials produced for students with a print disability.

Standardising the range of formats will allow focus on those formats for skill development.

Diversity of Equipment

Equipment used in the production process can range from a desktop PC with Duxbury Braille transcription software, to OCR scanners, to embossers, to fully equipped digital recording studios. Much of this equipment is expensive and out of reach of many smaller producers. The age and capability of the equipment can limit the speed, quality and complexity of what can be produced in an alternative format.

There are no standards in what is required of software and equipment used to produce alternative formats and there are no standards in what software and equipment should be used. This results in differences in the way material is produced that can directly impact a student's ability to access the material.

Transition to the Digital Age

Until now human voice recordings of material have been produced in an analog audio format. Analog is old technology. The reel-to-reel master tapes have increased in price by 15% and are becoming difficult to obtain; spare parts for the cassette duplicating machines are no longer being made. There is an urgent need for alternative format producers to move to digital audio production.

There have been significant developments in the application of technology to the production of material in alternative formats. DAISY (Digital Accessible Information System) production software provides a digital talking book with the same flexibility when accessing the text as a fully sighted person has when accessing a print book. This means fast, random access to any part of the sound recording based on links between the text and corresponding points in the recording. DAISY digital talking books offer immediate access to chapters, sections or individual pages.

The full text element of a DAISY book, marked up in XML, can provide a single source file for transcription to Braille, large print or e-text.

DAISY offers an ideal format for the study environment because of its navigability. However, alternative format producers are not using this technology because of the costs involved in production. Digital recording equipment is required; new skills are required in structuring the audio .WAV file which are limited worldwide; and the playback machines required to access the material are expensive – about AUD\$1,000.

The digital world is not limited to audio. The convergence of content, medium and delivery channel presents exciting opportunities for greatly improving access to published material for students with a print disability. However, the costs in moving to digital production is extremely high, eg: the cost of building digital recording studios can range from \$100,000 to \$500,000, depending on structural and software requirements, and is out of reach of many producers. If organizations are not able to make the transition alternative format production facilities may be severely reduced.

Duplication of Work

There is no coordinated approach to production across all alternative format producers. Not all material is being placed on the national bibliographic database of materials, so the potential to duplicate the production of a work in an alternative format is high. A recent forum sponsored by the National Library of Australia agreed that the Library should do more to promote records being placed on the database. Unnecessary reproduction material already in an alternative format is a waste of scarce resources.

Outputs

In recent history alternative format producers have provided materials in hard copy formats, eg: bound, embossed Braille volumes, cassette tapes, large print volumes. Time and effort, and therefore cost, are put into embossing, labelling and mailing of completed material. These tasks could become redundant if the material could be sent electronically for reproduction at the users end of the supply chain.

As stated previously, the convergence of content, medium and delivery channel presents exciting opportunities for greatly improving access to published material for students with a print disability. However, these opportunities are rendered impotent if students are not able to access the electronic representation of the material. To do so requires that adaptive equipment, such as refreshable Braille displays or synthesised voice screen readers, be available in educational institutions in adequate numbers, or students have access to the means of subsidised equipment for their own use, and that students know how to use this equipment.

Producers are limited in the development of converging content, medium and delivery channel because too often students do not have the equipment, or have access to the equipment but don't know how to use it. Because there is no standard approach to equipment or software across educational institutions materials have to be tailor made for individual students, increasing both time for and costs of production.

Because of the paucity of training in the use of adaptive technology available at all levels of education students with a print disability often do not have the opportunity to become familiar with technologies that can enhance their access to materials. Increased funding to support appropriate training programs is required.

National Framework

There are a number of alternative format producers in Australia of various sizes and capabilities. They all operate independently, producing a range of alternative formats to varying standards of production using a wide range of equipment. As a

result, on a national basis, there is potential for considerable waste of scarce resources and duplication of effort.

None of these, except State Department of Education, and individual educational institution facilities, is recognised as part of the education infrastructure in Australia. The producers have no 'voice' and no mechanism sufficiently robust to attempt to design a holistic systems approach or to coordinate all the components in the system.

It is proposed that a national framework be developed, as a funded program of the Department of Education, Science and Technology, which can provide authority and guidance to alternative format producers. The program will aim at developing a recognised system in the education infrastructure in which alternative format producers can operate; funding the production of materials for students with a print disability and requiring acquittal of that funding in volume, quality and ongoing availability of the materials produced.

The purpose of the framework will be to encourage and facilitate an approach to achieving these goals:

- Seeking economies in production of alternative format materials by limiting the range of formats appropriate for the study environment and establishing these formats as the national standard

For example, this could take into account the recently approved NISO standard Z39.86 for Digital Talking Books (DTB). The DTB is a collection of electronic files arranged to present information via alternative media. These media can include: human and synthetic speech, refreshable Braille, or visual display, eg large print. When these files are created and assembled into a DTB a wide range of features can be offered:

- Rapid flexible navigation around the book
- Bookmarking and highlighting
- Keyword searching
- Spelling of words on demand
- User control over the presentation of selected items, eg: footnotes and page numbers

The standard focuses on an XML source file which can be applied to DAISY book production

- Developing standards for recruitment of transcribers, and the training and ongoing development of their skills in the production of these formats
- Reviewing and updating the Round Table Guidelines on the presentation of information in alternative formats

- Developing standards for digital production hardware and software required to produce the agreed formats and providing funding incentives for producers to migrate to this platform as soon as possible
- Developing standards for adaptive technologies (hardware and software) to be made available to students with a print disability in educational institutions
- Developing and funding a training infrastructure in this equipment for students with a print disability.

As an initial step it is proposed that the Department of Education, Science and Technology sponsor and fund the establishment of a working party to assemble and analyse the data on alternative format production for students with a print disability in Australia. This data to then be used to inform the development of the national framework outlined above.

Overseas Experience

Alternative format producers overseas are facing similar problems. In the United States of America the American Foundation for the Blind established the 'Textbooks and Instructional Materials Solutions Forum.'

The following is an extract from the AFB web site:

(http://www.afb.org/info_document_view.asp?documentid=1331).

"The AFB Solutions Forum is a collaborative national effort of agencies and organizations involved in the production and distribution of textbooks and instructional materials. Textbook publishers, producers of specialized media, assistive technology specialists, educators, Instructional Materials Resource Centers, parents, consumers, and others are examining the multifaceted process of producing and delivering educational materials in accessible media to students who are blind or visually impaired. The AFB Solutions Forum is a direct result of issues identified in Goal #7 of the National Agenda for the Education of Children and Youths with Visual Impairments, Including Those With Multiple Disabilities.

"The goal of the AFB Solutions Forum is to develop a coordinated action plan for assuring equality of access to instructional materials for students who are blind or visually impaired. Five work groups have taken the initiative to improve the delivery of textbooks in the appropriate media. Information posted on the AFB Solutions Forum Web Page highlights the activities of the following five work groups: Electronic Files and Research and Development, Legislative and Policy Making, Production Process, Training and Other Needs, and Communication and Collaboration.

"The AFB Solutions Forum will address the:

- Lack of standardization of electronic file formats provided by textbook publishers.
- Inaccessibility of multimedia textbooks, especially those delivered via the Internet and CD-ROM.
- Variation in state textbook regulations regarding accessible instructional materials.
- Expense of producing specialized materials and lack of fiscal incentives to develop new technologies.
- Shortage of qualified braille transcribers and production resources.
- Barriers to communication and collaboration, including duplication of efforts."

An outcome of the Forum's work is draft legislation known as the Instructional Materials Accessibility Act 2001. A copy of the draft is attached. Sponsorship for the legislation is being sought now in the USA. The work and goals of the Forum provides a useful model for Australia.

Conclusion

Students with a print disability attending mainstream educational institutions are inadequately serviced by the production, availability and accessibility of the course texts and other material. Alternative format producers operate independently, largely without the benefit of national standards, are grossly under resourced and are unable to meet the current demands. The complexity of the production process, the range of formats offered, the range of hardware and software required both for production, delivery and access leads to unnecessary duplication and waste of scarce resources. The establishment of a national framework for the production of alternative format materials for students with a print disability will facilitate agreement on a range of standards for producers that will lead to economies in production as well as more timely delivery of material to students.

The ultimate goal of a national framework should be the enactment of legislation similar to the Instructional Materials Accessibility Act 2001 drafted in the United States. The legislation should facilitate the production of material in accessible formats by original publishers, the storage of that material in an accessible site and the provision of the necessary support and training for end users to access this material directly. Ultimately, alternative format producers should not be needed if students are able to access the material they require themselves without the need of an intermediary.

Table 1**ALTERNATIVE FORMAT MATERIALS PRODUCTION, NILS 1996 - 2001****MASTERS**

Financial Year	Braille Masters	Large Print Masters	Disk Masters	Audio Masters
	(Braille Pages)	(Large Print Pages)	(Print Pages)	(Hours)
1996/1997	119,238	86,349	21,426	18,869
1997/1998	149,738	55,326	13,869	17,292
1998/1999	162,373	74,455	16,926	17,008
1999/2000	169,762	74,482	22,875	14,815
2000/2001	188,413	65,356	25,002	13,925

COPIES

Financial Year	Braille Copies	Large Print Copies	Disk Copies	Audio Copies
	(Braille Pages)	(Large Print Pages)	(Print Pages)	(CASSETTES)
1996/1997	234,436	95,044	Disk stats kept were # of disks copied, not # of print pages	394,630
1997/1998	270,375	60,552		461,349
1998/1999	336,454	82,788		389,961
1999/2000	373,307	122,584	75,764	367,850
2000/2001	421,782	100,924	47,095	275,688

Attachment 1

INSTRUCTIONAL MATERIALS ACCESSIBILITY ACT OF 2001

SEC. 1. SHORT TITLE.

This Act may be cited as the "Instructional Materials Accessibility Act of 2001."

SEC. 2. PURPOSE, DEFINITIONS.

(a) PURPOSE--The purpose of this Act is to improve access to printed instructional materials used by blind or other persons with print disabilities in elementary and secondary schools through the creation of a coordinated and efficient system for acquisition and distribution of such materials in the form of electronic files suitable for conversion into a variety of specialized formats.

(b) DEFINITIONS--As used in this Act the term(s)

(1) "Authorized entities" has the meaning given such term under Section 121 of Title 17, U.S. Code.

(2) "Individuals", "students", or "teachers" "with print disabilities," means individuals who are eligible or who may qualify in accordance with the Act entitled "An Act to provide books for the adult blind", approved March 3, 1931 (2 U.S.C. 135a; 46 Stat. 1487) (as amended) to receive books and other publications produced in specialized formats;

(3) "Instructional materials" means printed basal textbooks and related core materials that are written and published primarily for use in elementary and secondary school instruction and are required by a state or local educational agency for use in the classroom, including specifically-requested teachers' editions of such materials.

(4) "National electronic file format" means a well-organized, structured, and marked-up electronic file which is suitable for efficient conversion into specialized formats and which is in conformance with the technical standards to be issued pursuant to section 5 of this Act.

(5) "Secretary" means the Secretary of the United States Department of Education.

(6) "Specialized formats" means Braille, synthesized speech, digital text, digital audio, or large print.

SEC. 3. NATIONAL INSTRUCTIONAL MATERIALS ACCESS CENTER.

(a) ESTABLISHMENT--Within 18 months of the date of enactment, the Secretary shall establish a center, to be known as the "National Instructional Materials Access Center," which shall coordinate the acquisition and distribution of instructional materials in the form of electronic files in the national electronic file format specified pursuant to Section 5 of this Act.

(b) OPERATION--To implement the provisions of subsection (a), the Secretary shall award, on a competitive basis, a renewable contract with a nonprofit organization, or consortium of such organizations, determined by the Secretary to be best qualified to carry out the responsibilities described in subsection (c). Such contract awardee shall report directly to the Assistant Secretary for Special Education and Rehabilitative Services of the United States Department of Education.

(c) RESPONSIBILITIES--In carrying out its responsibilities under this Act the Center shall:

(1) establish and publish terms and procedures for approval of, and access by, authorized entities registering with the Center;

(2) receive instructional materials in the form of electronic files transmitted in accordance with section 4(b) of this Act and provide authorized entities with access to such files free of charge;

(3) monitor the needs of state and local educational agencies for instructional materials in specialized formats and take appropriate steps to assist such agencies in ensuring that instructional materials in the form of electronic files are submitted by publishers to the Center in accordance with this Act;

(4) issue and publish policies and guidelines which the Center will use for the submission, cataloging, retrieval, and distribution of instructional materials in the form of electronic files;

(5) verify the receipt and compliance of the files with the national file format;

(6) organize the files into an online database for access by authorized entities and coordinate as appropriate with other programs providing access to instructional materials in specialized formats;

(7) promptly forward, to the appropriate publisher of instructional materials, requests received pursuant to section 4(b)(3) of this Act;

(8) develop procedures to protect against copyright infringement and otherwise to assure compliance with Title 17, United States Code with respect to such files; and

(9) take such administrative steps needed to coordinate the efficient acquisition and distribution of such files.

(d) AUTHORIZATION OF APPROPRIATIONS--There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out the purposes of this section.

SEC. 4. OBLIGATIONS OF PUBLIC EDUCATIONAL AGENCIES AND PUBLISHERS OF INSTRUCTIONAL MATERIALS.

(a) STATE AND LOCAL EDUCATIONAL AGENCY OBLIGATIONS--

(1) No later than 18 months from the date of enactment of this Act, any state educational agency receiving federal financial assistance shall develop and implement a written state-wide plan designed to ensure that instructional materials required for classroom use in elementary and secondary schools within the state are, to the maximum extent possible, {REQUESTED FOR AVAILABILITY AND} made available in specialized formats to individuals who are blind and others with print disabilities at the same time such materials are provided to individuals without such disabilities; (2) A copy of the plan developed pursuant to paragraph (1) shall be submitted to the Secretary at such time, in such manner, and accompanied by such ancillary information as the Secretary may require, and shall be available for public inspection.

(b) PUBLISHERS' OBLIGATIONS

(1) AGREEMENT FOR STANDARDIZED FILES--In addition to the requirements of subsection (a), any state or local educational agency receiving federal financial assistance shall, as part of any instructional materials adoption process, procurement contract, or other practice or instrument used for the purchase of instructional materials, obtain a written agreement from the publisher of such materials requiring such publisher to prepare electronic files containing the content of instructional materials (obtained pursuant to the agreement) in the national electronic file format established under section 5 of this Act.

(2) PUPILS' EDITIONS, TRANSMISSION OF FILES--The agreement specified in paragraph (1) shall further provide that:

(A) within 30 days of the date of ratification of the agreement, the publisher shall transmit to the Center (established pursuant to section 3) files prepared in the national electronic file format which correspond to the most current pupil edition of such instructional materials in print on the date of ratification along with a print copy of the corresponding book; and

(B) if the most current pupil edition of such instructional materials in print on the date of ratification is, or will be, altered prior to the use of such materials in the classroom, the publisher shall, by a date certain specified in the agreement, transmit to the Center:

(i) electronic files containing a complete record of corrections and changes made to such instructional materials; or

(ii) electronic files prepared in the national electronic file format which correspond to the pupil edition of such instructional materials to be used in the classroom.

(3) TEACHERS' EDITIONS--The agreement specified in paragraph (1) shall provide that, within 30 days of the receipt of a certified request from the Center (established pursuant to section 3), the publisher shall transmit to the Center electronic files prepared in the national electronic file format corresponding to the teachers' edition of any instructional materials (obtained pursuant to the agreement) when such request includes:

(A) the specific instructional materials needed by such teacher (including ISBN numbers); and

(B) certification that the teacher is an individual with a print disability.

(c) IMPLEMENTATION SCHEDULE AND PREEMPTION OF STATE AND LOCAL REQUIREMENTS--The provisions of subsection (b) shall:

(1) be in effect two years from the date of publication in the Federal Register of the technical standards to be issued pursuant to section 5 of this Act; and

(2) except as provided in subsection (d), supercede any requirements in the laws or regulations of any state or local government with respect to publishers providing instructional materials in the form of electronic files intended for conversion into specialized formats to be used by blind or other persons with print disabilities.

(d) RIGHT OF CONTRACT--Notwithstanding the requirements of subsection (c)(2) of this section, nothing in this Act shall be construed to impair the right of any state or local educational agency to enter into contract with any publisher of instructional materials for the purpose of directly obtaining from such publisher copies of electronic files prepared and transmitted in accordance with subsection (b).

SEC. 5. TECHNICAL STANDARDS.

(a) **STANDARDS**--No later than one year after the date of enactment of this Act, the National Institute of Standards and Technology shall issue and publish in the Federal Register technical standards, to be known as the "Instructional Materials Accessibility Standards." Such standards shall define the specific technical parameters of the national electronic file format to be used by publishers of instructional materials in the preparation of electronic files suitable for efficient conversion into specialized formats. The standards shall be consistent with and based upon existing and emerging standards relating to electronic publishing and translation technology used to produce specialized formats.

(b) **ADVISORY COMMITTEE**--In developing the standards pursuant to subsection (a), the National Institute of Standards and Technology shall, no later than 3 months from the date of enactment of this Act, establish an advisory committee, to be known as the "National Instructional Materials Accessibility Advisory Committee." Such committee shall provide the Institute with technical expertise and guidance and shall consist of no more than two (2) individuals each representing publishers of instructional materials, producers of adaptive technology, producers of materials in specialized formats, blind consumer organizations, special education programs, developers of accessibility and publishing software and supporting technologies, information technology standards organizations, instructional materials resource centers with substantial experience in file format preparation and automated conversion technology, and other organizations and interests that the Institute determines to be appropriate.

(c) **REVIEW AND AMENDMENT**--The National Institute of Standards and Technology, with the assistance of the National Instructional Materials Accessibility Advisory Committee, shall periodically review and, as appropriate, amend the technical standards issued under this section to reflect technological advances or changes.

SEC. 6. GRANTS FOR CAPACITY BUILDING.**(a) AUTHORITY TO AWARD GRANTS**

(1) **IN GENERAL**--The Secretary shall award grants to agencies described in paragraph (2), including consortia of such agencies, to provide such agencies with the capacity to prepare instructional materials in specialized formats or to improve such capacity.

(2) ELIGIBLE AGENCIES--Agencies eligible to receive grants described in paragraph (1) shall include state, regional, or local educational agencies or nonprofit organizations with a primary mission to provide specialized services relating to training, education, or adaptive reading or the information access needs of blind or other persons with print disabilities.

(3) PROCESS--The Secretary shall establish a process for awarding grants under paragraph (1) that furthers the purposes of this Act.

(b) APPLICATION

(1) IN GENERAL--An eligible agency, as described in subsection (a)(2) of this section, desiring to receive a grant under this section shall submit an application to the Secretary at such time, in such manner, and, subject to paragraph (2), containing such information as the Secretary may require.

(2) REQUIRED INFORMATION--An agency desiring to receive a grant under this section shall include in the application the following:

(A) a description of the agency's current capacity to prepare instructional materials in specialized formats;

(B) the agency's assessment of needs to be met within the geographic area to be served;

(C) a plan for working with other similar agencies in order to ensure a coordinated approach in meeting such needs;

(D) a description of proposed training of transcribers and others who prepare instructional materials in specialized formats and, if appropriate, specification of the technology to be obtained and used in the program.

(E) certification that such agency is, and shall remain, in compliance with the provisions of Section 121 of Title 17, United States Code, regarding the reproduction and distribution of copyrighted instructional materials in specialized formats.

(c) AUTHORIZATION OF APPROPRIATIONS--For the purpose of carrying out this section, there are authorized to be appropriated to the Secretary such sums as may be necessary to carry out the purposes of this section for fiscal years 2001 through 2005.

SEC. 7. ENFORCEMENT.

(a) The rights, remedies and procedures available to children and parents pursuant to section 615(b)(6), 615 (e), (f), and (g) of the Individuals with Disabilities Education Act (as amended), or section 504 of the Rehabilitation Act of 1973 (as

amended), shall be the rights, remedies and procedures available under this Act to children and parents aggrieved by violations of this Act by any state or local educational agency.

(b) This Act shall not be construed to limit any right, remedy, or procedure otherwise available under any other provision of Federal law that provides greater or equal protection for the rights of blind or other persons with print disabilities.

SEC. 8. RELATIONSHIP TO SECTION 121 OF THE COPYRIGHT ACT.

A publisher that provides instructional materials to a state or local educational agency in the form of electronic files prepared in accordance with this Act, shall, for such purposes, be considered an "authorized entity" within the meaning of Section 121 of Title 17, U.S. Code.

SEC. 9. EFFECTIVE DATE.

This Act shall take effect upon enactment and shall apply to instructional materials published and copyrighted after the technical standards are published in the Federal Register.