

George Kerscher Response to Copyright Office Questions on the Topic of Facilitating Access to Copyrighted Works for the Blind or Persons with Other Disabilities:

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The views expressed herein are my own and do not necessarily reflect the views of the organizations I am affiliated with.

A. Experiences of Persons within the United States with Respect to Accessing U.S. Works or Sharing Accessible Copies within the United States

1. Applicable Statutory or Regulatory Provisions:

How have the Chafee Amendment and related statutory and regulatory provisions worked in practice?

Comments:

Population Served: Historically the blind and visually impaired and those with physical disabilities have enjoyed benefits of the exception. However, today, there are more people who have been identified as having a print disability.

I coined the term "print disability" twenty years ago: Print disabled, noun: A person who cannot effectively read print because of a visual, physical, perceptual, developmental, cognitive, or learning disability. When used as an adjective, the word should be hyphenated, e.g. print-disabled person.

I suggest that the copyright office clarify the population that may be served under the exception. I suggest it follow the functional limitation in the spirit described above, i.e. can not effectively read print

because of a disability. I should note that a person with a disability who can struggle through print reading at a few pages an hour cannot read effectively in our demanding information society. I recall in graduate school reading with a closed circuit TV at a rate of two pages an hour, which, of course, makes it impossible to keep up. I can now read accessible digital materials (if created properly) at a rate of 30 to 40 pages an hour.

Note 1: While the term "print disabled" was coined 20 years ago, I would extend this thought to include reading off of a computer screen, which many times is just an image of the print page. I believe this is why the WBU WIPO treaty proposal uses the term reading disabilities instead of print disabilities.

Note2: Teachers should be allowed to use the materials in the preparation of lessons and in support of students with disabilities. While these teachers do not have disabilities, they should be in a position to assist their students with disabilities and be familiar with the technology.

People who may certify a disability: In the past, it was easy to identify a blind, severely visually impaired, or a physically disabled person. Different organizations have identified different authorities who may certify that a student or adult qualifies under the exception to receive services. It can be extremely costly to have a student certified as having a learning disability, dyslexia or other disabilities, if a medical doctor is required to certify the person. It should be possible to have qualified professionals, such as an IEP team or a special education teacher, certify that a student has a disability that prevents them from reading effectively. Having guidelines would be extremely helpful in the implementation of the exception.

Note: Under IDEA and NIMAS, a student must have an Individualized Education Program (IEP) to qualify to receive materials. A blind student who is doing well and is not receiving special education services would not have an IEP. This blind student only needs accessible educational materials, but he or she cannot receive them through the NIMAS process. I believe that this is an unintended oversight and should be clarified that indeed these students must be able to receive the materials through the NIMAS process.

Specialized Formats: Today, formats have been developed that are "universally designed." For example the DAISY format (officially the ANSI/NISO Z39.86 Specification for the Digital Talking Book) or the EPUB specification for eBooks are universally designed. It should be clarified that when talking about specialized formats, we mean that formats that can be effectively used by the target disability group. It is also true that these formats are equally useful by the mainstream population. It is essential that specialized formats be clarified to include those that are universally designed, because the long term goal of having publishers provide accessible content depends on both the universal design of the content and the reading systems that present the content, i.e. there is a handshake between the

content and the reading software or hardware. If either part is not accessible, it renders the system inaccessible. So the specialized, universally designed materials must be available to be used with reading systems that are fully accessible.

Note: It is still true that commercial eBook reading systems are not accessible using Assistive Technology, such as screen readers, even though the underlying EPUB content is fully accessible. There is work in the industry to resolve this problem, which involves interoperable DRM (sharing of encryption keys), but at this point commercial DRM protected EPUB books are not accessible.

DRM used by authorized entities: Looking back at the testimony from the discussions surrounding the Chafee Amendment, a 4-track tape recorder was discussed. It was noted that this "specialized format" was not used by the mainstream population. This indicated that these materials would not "bleed" into the mainstream and erode sales of commercial products. This has evolved into the use of DRM and strong encryption by authorized entities to keep the materials apart and separate from the mainstream population. However, we have learned that DRM and encryption prevents legitimate use of the materials by the target disabled population.

For example, DRM encrypted content is normally linked to specific hardware systems, such as the serial number of a computer or a hand held device. Moving content from one system to another may not be possible. Many times, students will want to use the content they have been provided with a player they have readily available, but that player does not support the encryption of the content or it has not been registered with the organization providing the content. Also, I have received DRM encrypted materials and simply upgraded my reading software and the DRM prevented me from reading the same book on the same computer with the same software, only one minor upgrade later. Imagine the difficulty a school system would have trying to keep all the software and hardware systems working with DRM encrypted materials. Remember, these are computers and hand held devices equipped with Assistive Technology, which makes them more complex; adding yet another layer of DRM complexity should be avoided.

It would be beneficial if guidelines were established that encourages education of the proper use of materials under the exception, administrative steps to prevent abuse, passwords for downloads, and fingerprinting and watermarking of files to control the use of the content by the target disabled population, but discourage the use of DRM and strong encryption in the distribution.

2. Private Sector Initiatives:

What are additional ways in which the private sector facilitates, or plans to facilitate, access to copyrighted works? Please identify and describe in detail any existing business models, licensing schemes, or technological innovations that are relevant, not only for books but for other copyrighted works, e.g. magazines, newspapers, motion pictures, and software

To date, what has been the result of these efforts in terms of achieving accessible content?

Do best practices exist?

Turning to the nonprofit sector, what are the activities, business models or technology platforms that have emerged and what has been the result to date?

What if any are the additional projects under consideration?

Comments:

Standards for Publishing: Two universally designed standards have emerged that are appropriate for persons with disabilities. The DAISY standard, and the EPUB standard maintained by the International Digital Publishing Forum (IDPF). Both of these standards have at their core the content encoded in XML, which is ideal for both persons with disabilities and the mainstream population. The publishing industry should be encouraged to produce materials in these formats to ensure that the content side of publishing is completely accessible.

Note: Commercial products that have proprietary formats may or may not be accessible, but it has been my experience that these systems do not take into consideration the special needs of persons with disabilities, and they build systems that are completely inaccessible. Publishers should be discouraged from delivering in only these formats and if they choose to use them, they should also publish in the universally designed accessible formats that can be used by a variety of accessible reading systems. I would consider this a best practice in the publishing arena.

Interoperability: I believe that we are finally moving to an era where a company does not think they can corner the entire market with their product. This leads to closed systems where the company wanted to keep everything to themselves. Publishers today want to sell into every market possible, so they make sure their content gets into the various products, e.g. Amazon's Kindle, Adobe's Digital Editions, etc. Of course, we want to see these products become accessible without modification and the DAISY Consortium and other groups are actively working with the companies to help them make their products accessible.

However, the interoperability of the systems should be encouraged as a best practice. Adobe's Digital Editions can now be used on the Sony e-Reader. Kindle materials now can be used on the iPhone. Products designed for persons with disabilities need to be included in the range of interoperable products. This normally surrounds the sharing of DRM keys with these companies. While these markets are small, it is essential that all distributors of content have fully accessible reading systems that work with their content. For example, Humanware's Stream can play content from Audible. It should be possible for all of these distributors of content to share the DRM keys with companies focused on building products for persons with disabilities.

Note: Recall the handshake between content and reading systems described above. If interoperability is achieved then end users can select from a variety of products to select from and use their content on their reading system(s) of choice.

3. Library Programs: Referenced are the NLS program and Bookshare.

What other sorts of libraries or library services currently facilitate access to copyrighted works?

What physical and digital delivery methods are being used?

What initiatives have libraries taken to develop new services and to respond to evolving needs and technologies?

What coordination exists among national and international library services?

Comments:

RFB&D: Of course, Recording For the Blind & Dyslexic was apparently inadvertently overlooked in the preparation of the document. RFB&D has the largest collection of educational materials in the USA. RFB&D is also one of the leading libraries working on the development of the DAISY, NIMAS, and EPUB standards.

DAISY Consortium: Libraries serving the blind and print disabled formed in 1996. The DAISY Consortium has worked on standards and on the implementation of the standards, i.e. open source software. We have also worked with the W3C's Web Access ability Initiative, and on the International Digital Publishing Forum (IDPF). The goal here is to work towards standards harmonization not only in the disability community, but also in mainstream publishing. The DAISY Consortium is leveraging the evolving technology and the growing need to include persons with disabilities in our Information Society.

DAISY Online Delivery: April 15 starts a 30 day public review period for a new specification designed to make it easy for libraries and end users to receive content. Older adults and those who do not have modern computer skills can take advantage of Internet distribution to seamlessly provide information in the DAISY and other formats. The specification will enable a very simple reading system to connect to a library and receive content automatically or through a dynamic talking menu system. This is a sophisticated system, but when implemented in a reading system is extremely simple for people to use. This will resolve the barrier that a computer presents to persons with or without disabilities.

Note: The specification could be used commercially as well. Of course, if it is DAISY it is open, royalty free, based on existing standards, and has a proven track record for accessibility.

Global Library Initiative: The DAISY Consortium in partnership with IFLA Section for persons with disabilities is exploring the concept of a Global Library. The project page can be found at: <http://www.daisy.org/projects/global-library>

There are four phases of work including: Discovery and access: end user issues, shared collection development and exchange, business model for the global library, and partnership development.

4. Standardized formats, programs and devices

Are there additional innovations in use or under development today and, if so, what is their focus?

What are the impediments, and possible solutions, for improving existing standardized formats, programs and devices, developing new ones, and/or facilitating their interoperability?

Comments:

NISO Revision of the DAISY Standard: The DAISY Consortium is the maintenance agency for the ANSI/NISO Z39.86 Specification for the Digital Talking Book. We conducted a call for requirements to discover what the mainstream community and the disability community wanted to see improved. This was completed in the Spring of 2008 and we started work on the revision. NISO announced the official beginning of the revision in January 2009.

The business case for the revision of the standard pointed to two major developments:

- Authoring and Interchange specification
- Distribution specification

We believe that it is most appropriate to separate the standard into these two parts. This will provide a sophisticated mechanism for the publishing community and for libraries serving persons with disabilities to deliver content using the XML processes they have currently in place.

A draft standard for test use of the Authoring and Interchange specification is expected to be launched in November 2009. The work on the Distribution portion will start in May 2009 with a draft standard for test use in the spring of 2010. Final standards for both parts are expected by the end of 2010.

One major development in the revision is the inclusion of video in the DAISY multimedia specification. Many people with disabilities need this form of communication including persons with cognitive disabilities. It is also essential that sign language be supported by video.

Revision of the EPUB Specification: The DAISY Consortium has applied to become the maintenance agency for the IDPF standards, collectively known as EPUB. There is a strong commitment to harmonize the two standards.

We believe that EPUB can evolve into the dominant standard for eBook publishing and that progression into multimedia using the DAISY standard is the natural direction for the publishing community.

Interoperable DRM: The IDPF Board has discussed the possibility of an open royalty free interoperable DRM specification. The DAISY Consortium has produced such a specification for protecting digital talking books. There was no final decision made, but there was recognition that there were insufficient resources within the IDPF to conduct this work at the current time. The DAISY Consortium was one of the proponents of this work.

5. Resources

To what degree is a lack of sufficient resources a factor in providing access to the blind or other persons with other disabilities?

What governmental, private sector, nonprofit, or philanthropic resources exist?

What types of resources are most needed?

What approaches to expanding available resources are most promising?

What objectives could be met and in what time frame if additional resources were available?

Comments:

Standards Participation: Standards are dominated by the commercial sector. Commercial companies strive to dominate with their products. They hope that their product will become the self proclaimed standard and we have many examples of where this has happened. In the standards arena, we see large companies expending enormous resources to ensure that their technology is integrated into the standards. In publishing, the DAISY Consortium, by combining the limited resources of libraries serving persons who are blind and print disabled have had a huge impact for the good of society. Still, with a overall budget of \$1.2 million USD, the impact we can have is limited. We need either greater funding to bring more experts into the standards circle, or we need other members of the non-profit sector to collaborate on the development of the standards. I believe playing a leadership role in the standards arena is the way to leverage limited resources to be most efficient. Standards should be developed for the good of society and the non-profit sector is in the best position to provide this perspective, but long-term financial resources are needed to make this real.

Open Source Software Development: Publishers and libraries producing materials all require good tools to produce conforming content. We believe that the most effective way to assist in the creation of conforming content is in the development of open source tools licensed under LGPL, which enables commercial companies to reuse the software in their products.

Validation Tools: In DAISY and now in EPUB, validation has been a core concept. If there is to be interoperability, the content must conform to the specifications. The only way to ensure this is to develop validation tools that test as much as is technologically possible, and to make sure the specifications require the delivery of valid content. The DAISY Consortium has championed this approach in the IDPF and it is proving to be extremely successful. Yet, there is much to do in this arena and if DAISY is confirmed as the lead of the maintenance working group, we will strive to make sure the validation is excellent.

Training: Producing published materials using XML is a major shift in the publishing industry. Publishers and libraries producing materials need to receive training on the production, use, and reuse of semantically rich XML. For far too long the publishing industry has focused on visual presentation to convey semantics. Now, with XML, this visual information can be simultaneously communicated to persons with disabilities, i.e. this is a heading, and this is a footnote reference, etc. However, because the publishing industry is in transition, more resources are needed to produce training materials and set up webinars and workshops.

B. Experiences of Persons within the United States with respect to accessing foreign works or sharing accessible copies of U.S. works with foreign persons

1. What kinds of specific policies, practices and projects exist or are emerging in the education, library and business sectors?

Comments:

Within the DAISY Consortium we are beginning to see language groups share content between countries. This is most prevalent in Scandinavia where the languages are similar enough for titles that are published in one country to be used in other countries. In addition the organizations serving persons with disabilities have been able to share works produced by one library with other libraries. However, this is only possible because there are liberal laws in Scandinavia that support this activity.

2. How do existing laws create incentives or constrain efforts?

Comments:

The lack of an international treaty that supports the copyright exception to export and the import of titles developed by libraries serving persons with disabilities has meant that it is impossible for organizations working under the Chafee amendment to move titles across the national boundary. Additionally, it has been impossible to use titles developed in other countries in the USA. I use the example of the last Harry Potter book, which was produced by most libraries serving persons with disabilities. This is a huge duplication of effort. With only approximately 5% of titles ever being made accessible to persons with disabilities, having to produce the same book in different jurisdictions is most frustrating.

3. Please describe the ways in which technology has influenced or could assist in providing access to foreign works or the sharing of accessible copies.

Comments:

The DAISY Standard has emphasized interoperability and is completely internationalized. This means that a title produced in one country will work perfectly well in a reading system or player in any other country.

The DAISY and IFLA's Global Library project is exploring the concept of a federated search across libraries that participate. This will enable the discovery and interchange of content.

The ability to move digital content through the Internet also facilitates the sharing of content between libraries serving persons with disabilities. Once relationships have been established and the terms and conditions of use are understood, it should be a simple automated process for a title that exist in one library to be shared internationally through another library using that libraries legal channel.

4. What are the legal or practical impediments to transnational access and how are they interrelated?

Comments:

In the USA there is no copyright exception that gives a Chafee entity the explicit right to export a title outside the USA. For example, Canada uses many titles that are first published in the USA. Recording For the Blind & Dyslexic does not share their DAISY books with similar organizations, such as the Canadian National Institute for the Blind (CNIB). Both organizations would gladly share content produced by their organizations, but without a legal right to do so, this activity has not taken place.

Having an exception that we could use internationally would eliminate the duplication of effort and increase the number of titles available to blind and print disabled people among nations that conform to the criteria of the exception.

C. Other Comments on Facilitating and Enhancing Access to Copyrighted Works

1. Please comment on the likely success of measures identified above under the subsection entitled "Possible Actions" under Supplementary Information.

Comments:

The DAISY Consortium is a standards organization that also works on the implementation. As such, we strongly support the use of standards to facilitate accessibility. Of special interest is the revision of the DAISY/NISO standard, which has the possibility of resolving the apparent conflict of many different XML vocabularies in use today. The leaders of this activity do not believe that a single XML vocabulary will ever become the norm; instead a robust standards approach to interchange is the key to success. This is not disability specific, but an excellent design for all of publishing. This approach is based on existing work within the W3C and the DAISY Consortium is using this existing modular framework technology.

DAISY Consortium libraries could make up the backbone of a trusted intermediary network. The libraries are eager to share content, work with publishers, and develop solutions that provide a win-win situation for everybody. In the best of all worlds (which we are working towards) libraries would purchase accessible versions from publishers.

As stated above, training is essential on how to use the standards.

Many organizations envision a partnership with publishers who do not have the expertise to produce accessible versions. So the market solution is a highly desirable goal to work towards.

An international copyright exception, similar to that proposed by the WBU is essential now and will probably be needed for many years to come. It is unlikely that mainstream publishers will ever cater to the very special needs of some disability groups. Tactile graphics and braille are examples of where libraries will continue to need an exception to provide materials in support of the mainstream version of the book purchased.

For example, let us suppose that we are wildly successful at making all of publishing accessible through XML technology. Still, the highly graphical content in many books will not be accessible unless there are libraries producing very specialized materials that can supplement the base book, which is fundamentally accessible. Imagine a kind of overlay to an existing eBook. The overlay would provide

description of graphics, explain drawings and spatial relationships. Links could be provided to raised line tactile graphics that could be printed on embossers and on swelling paper. These materials will require a copyright exception for international use well into the future.

However, right now, the exception is needed to bring more titles to the blind and print disabled students and adults we serve. I do not believe that the libraries would abuse a copyright exception; the libraries are Eager to purchase accessible content that their patrons can use effectively. Why would a library produce a title if they could just buy it; that does not make economic sense?

2. How might the measures best be leveraged, alone, or in combination, to enhance access for the blind or other persons with disabilities?

Comments:

First, the establishment of the international copyright exception would open up the existing collections from the libraries to share. Coordination of titles to produce through the Global Library initiative would bring more titles into the participating countries.

Publishers who embrace accessibly designed standards for their new digital products will find markets in the disability community. Publishers who produce and market their products as accessible will have a market advantage. Libraries and companies who have expertise in accessible publishing can assist publishers in producing this new universally designed product and all will benefit.

3. Are there additional governmental or private sector actions that might serve the objective of enhancing access to copyrighted works for the blind or persons with other disabilities?

Comments:

Government could assist in bringing the key accessibility groups providing content and the publishers together. This is a new area for both these groups, who have traditionally worked in separate arenas. Best practices and the establishment of relationships could be very helpful.

Promoting a national standards initiative in the publishing arena, contributions to open source projects, and establishment of training programs would benefit the publishing industry in its struggle to digitize itself.