Introduction

Digital audiobooks are becoming popular with library users. There are many possible reasons for this newfound popularity, which will be explored throughout this report. One possible reason is that demand for audiobooks may be part of the larger demand for content for portable media players. These devices have become amazingly widespread. Portable MP3 players, for example, were the hottest gift item during the 2005 holidays.[1] Now that tens of millions Americans have these gadgets, the scramble for compelling content is on. Digital audiobooks are part of this content rush.

The direct-to-consumer market for downloadable digital music is booming; however, in the case of digital audiobooks, it is not yet clear how many will be obtained individually and how many will be supplied by institutions. Online retail stores such as the iTunes Store and Audible sell directly to individuals. Over the next few years, libraries may emerge as major suppliers of digital audiobooks in the United States, or they may become minor niche players in the digital audiobook market.

People often listen to their favorite music repeatedly, which may be why they tend to purchase this content directly. I suspect, however, that not many people listen to more than a few favorite audiobooks more than once. Therefore, end users may turn to their libraries for digital audiobooks they will use only once, in particular because a library can offer them a broader, deeper selection of content without a direct monetary charge. Nevertheless, any library or library consortium considering launching a digital audiobook service must ask what it can give its users beyond what is available through the direct-to-consumer market. Certainly, if a library circulates digital audiobooks, users can avoid some out-of-pocket expenses, but that fact alone may not sustain such a service, especially now that an increasing number of free digital audiobooks are available legitimately on the Web.

What Are We Talking About?

This report focuses on digital audiobook systems for libraries, library consortia, and other institutional customers. It examines in some depth digital audiobook services that can be purchased or leased. It also looks briefly at a few free online digital audiobook sources.

Digital audiobooks are works of fiction, nonfiction, poetry, and drama primarily listened to, rather than read visually. They are digital files, as opposed to analog recordings. A digital audiobook may be narrated by a human reader, or it may be a synthetic text-to-speech product made via computer software. Most of the vended services mentioned in this report currently offer human-narrated digital audiobooks.

Services, such as Audible, OverDrive, and NetLibrary, that offer digital audiobooks via downloading from the Web have generated much interest from libraries, but other viable distribution models exist. Playaway, for example, delivers its digital audiobooks on preloaded, self-contained portable playback devices. TumbleTalkingBooks, on the other hand, streams its content over the Internet. Downloading, streaming, and preloaded playback devices are all viable distribution methods. Each has its strengths and weaknesses, which will be explored in this report.

Before these types of services were introduced in the past few years, audio content was delivered on distribution media (e.g., wax cylinders, LP records, eight-track tapes, audiocassettes, CDs) that required another machine, supplied either by the library or by the end user, for playback. This report does not cover audiobooks delivered via these older media.

The two largest vendors to the library market in late 2006–OverDrive and NetLibrary–offer digital audiobooks via downloading. OverDrive and NetLibrary sell only to institutions, while other companies–for example, Playaway and Audible–sell to both institutions and individuals.

The purpose of this report is not to convince librarians to implement a digital audiobook service, but to help librarians make an informed decision. Every attempt has been made to ensure that the information in this report is fair, balanced, and accurate as of late 2006, but obviously the details will quickly become dated. I hope, however, that the outline of decision points will be useful for a longer time.

Why Are Audiobooks So Popular?

An industry survey conducted by the Audio Publishers Association this past summer found sales of audiobooks in the United States reached an estimated $871 million in 2005, a 4.7 percent increase over the previous year. Downloadable digital audiobooks represented 9 percent of audiobook sales, compared to 6 percent in 2004. CDs continue to be the dominant format. According to the survey overview, "In the 2005 results, CD sales made up 74 percent of format sales (measured by dollar volume). In comparison, CDs represented 35 percent of revenue in 2002, 45 percent in 2003, and 63 percent in 2004." Audiocassette sales, which represented nearly 60 percent as recently as 2002, are in sharp decline–down to 16 percent of sales in 2005.[2] Because audiocassette sales are declining and sales of downloadable digital audiobooks are rising, it is reasonable to predict that downloading will soon surpass audiocassettes as the second-place distribution method. In fact, that may have happened in 2006. (This report was completed before 2006 sales data were available.)

The survey report also stated that unabridged content accounted for 54 percent of total sales, abridged content for 36 percent, and non-book content for the remaining 10 percent. Fiction garnered 58 percent of sales, compared to 32 percent for nonfiction and 10 percent for other types of content.[3]

Digital audiobooks are eminently portable, but so are printed books, especially in paperback form. Several factors contribute to the success of digital audiobooks:

- **Lifestyle fit:** Audiobooks fit well into today's busy, active lifestyles. As an avid reader, I can report that it is much easier to find situations to listen to an audiobook than to sit down and visually read a printed book. I listen to audiobooks when I walk the dog, exercise, wait in line, and relax in bed before falling asleep. In addition, many people, such as truck drivers and business people, travel extensively. While their eyes are on the road, their ears can be listening

to an audiobook. The same applies to people who have long commutes to work. The average commute length continues to increase in the United States.[4] It seems that the overall quality and variety of radio broadcasts are declining, so more people may look to digital audiobooks for a compelling, enjoyable audio experience.

- **Convenience:** More and more people are becoming comfortable with downloading content from the Internet. Users can download an audiobook and transfer it to a playback device conveniently from their homes.

- **Limited time needed for getting audiobooks:** Choosing an audiobook, downloading it from the Internet, and transferring it to a portable playback device can take from several minutes to several hours, depending on the speed of the Internet connection and the size of the audiobook. Once each phase is begun, however, the user can work on other things until that phase is completed.

- **Narration as art form:** Audiobooks add the element of performance to a book. The narrator of an audiobook plays a key role in the overall quality of the listening experience.

- **Media mix:** Audiobooks fit well with other types of cultural, educational, and entertainment content. Based on feedback from users, it seems likely that many people have both audiobooks and digital music loaded on their portable playback devices. In addition, the trend is toward adding other types of content, such as motion pictures, television shows, radio programs, and music videos, to the mix on portable devices.

- **Coolness factor:** The coolness factor of the portable playback devices may contribute to the popularity of digital audiobooks. Although a wildly success technological device often eventually recedes into the background of our collective consciousness, most MP3 players are still seen as cool. With their sleek styling and vibrant colors, the devices almost become apparel accessories.

- **Confidentiality:** When the earbuds are in, no one knows what you're listening to. It could be a classic work of literature or the latest bodice ripper. It could be classical music or funk.

- **Mastery of a slightly convoluted process:** Although downloading digital content from the Internet is becoming easier, it still has the aura of a slightly arcane, techie process. By playing digital audiobooks on a portable playback device, users convey that they have mastered that process.

- **No library visit required:** The joy of accessing library materials without physically visiting the library should not be underestimated. Libraries bring together substantial collections of content and support

services at a cost far below the go-it-alone cost for each individual. One downside has been the inconvenience of having to visit the library to retrieve the content. Patrons do not need to make that visit, however, to download digital audiobooks.

There Must Be a Downside

There are many reasons for caution as libraries begin exploring digital audiobook systems and services:

- **Miniscule master collections:** Not much content is available yet, compared to what is currently available in printed or electronic books. The master collections of most audiobook vendors that serve the institutional market contain a mixture of public domain works and frontlist bestsellers. Nonfiction in particular seems to be underrepresented in many collections. The cost of producing human-narrated audiobooks may mean that no master collection will ever include hundreds of thousands or millions of narrated digital audiobooks. Synthetic text-to-speed audio renditions of books, however, could eventually offer an acceptable, economically viable way to provide audio access to all texts.
- **What values do libraries add?** The primary competition faced by library-based digital audiobook services may be direct-to-consumer digital audiobook services. What value libraries and other institutional providers can add to the direct-to-consumer experience—other than cost-avoidance—remains an open question. Digital music services, such as the new Napster and SpiralFrog, offer such low-cost listening options that the cost-avoidance that attracts many people to libraries seems to be disappearing. Both services offer free listening options. Napster allows free listening to streaming audio, and when SpiralFrog launches this year, it will offer no-cost downloads and transfers to portable playback devices.[5]
- **Format wars**: The current format wars in the audio-content realm remind one of the words of Alexander Pope: "Fools rush in where angels fear to tread" (from Pope's "An Essay on Criticism"). MP3, MP4, WMA, Ogg Vorbis, and a host of proprietary file formats make for interesting cocktail-party chat and maddening experiences when trying to find one device that can play just about everything.
- **Portable playback devices not designed for everyone:** Although it is possible to listen to digital audiobooks on your main computer—your "mother ship" —or burn it to CDs (if allowed by the vendor you are using), the real future, I think, lies in portable playback devices. Although MP3 players are amazingly popular, the success of these devices masks a fundamental design flaw.

They are designed primarily for lithe, nimble-fingered, eagle-eyed teenagers. If you wear bifocals, or have a touch of arthritis, or have low vision (or are legally blind), these devices are not very usable.

- **Digital rights management face-off:** Currently there is an uneasy détente between users of digital content and the rights holders, who insist on developing and deploying digital rights management (DRM) systems. The Wikipedia article on DRM defines it thus: "Digital Rights Management (generally abbreviated to DRM) is any of several technologies used by publishers (or copyright owners) to control access to and usage of digital data (such as software, music, movies) and hardware, handling usage restrictions associated with a specific instance of a digital work." The article goes on to succinctly summarize, among other things, why many individual consumers and organizations that attempt to protect consumer rights and interests are either wary of or downright hostile toward many DRM systems.[6]

The Demographics of Digital Audiobook Users

Before launching a digital audiobook service, you will want to try to understand the demographics of the current and potential users of digital audiobooks in your service population.

Patron demand for library digital audiobook services tends to be strong and immediate. When a consortium of libraries in Oregon started a digital audiobook service, the librarians were somewhat surprised by the immediately strong circulation levels.[7]

Compared to other networked initiatives, such as virtual reference, launched by libraries in the last few years, a digital audiobook service will practically sell itself through viral marketing (which in older, simpler times we called "word of mouth"). The core market for a library's new digital audiobook service—those who enjoy audiobooks, who know how to download content from the Internet, and who value portable information, communication, and entertainment appliances—will quickly discover the library's digital audiobook service. Anecdotal reports from librarians working at libraries and library consortia that have launched digital audiobook services often contain observations of quick uptake by the core market.

Compilers of a recent audiobook survey reported that nearly 1 in 4 U.S. citizens (24.6 percent) had listened to an audiobook in the past year.[8] Other findings pertinent to the demographics of digital audiobook users include the following:

- Downloads and other new media formats for audiobooks are up significantly since a similar survey was

conducted in 2001. The APA interprets this finding as an indicator the audiobook industry is attracting younger listeners.

- The typical audiobook listener seems to be younger than previously thought. The median age of audiobook listeners who participated in the survey was 44.7 years.

- "Approximately half of audiobook listeners with children between the ages of 4 and 17 indicated their children have listened to an audiobook in the last 12 months."

- The typical user lives in a slightly larger than average household (many with children) and has a higher income than has been reported in previous consumer surveys.

- Listeners to audiobooks tend to have more formal education than nonlisteners, and they tend to purchase and read more printed books than nonlisteners. Over 94 percent of people who have listened to an audiobook in the past 12 months have also visually read at least one book in the same time period, compared to less than 70 percent of nonlisteners.

- There is good gender balance among the population that listens to audiobooks.

- Of the respondents who listen to audiobooks, 34.8 percent reported that they own an portable MP3 player. "As expected, younger listeners are more likely to have an MP3 player than older listeners."

- "Of the people that own an MP3 player, 31.3% indicated they have downloaded a digital file of an audiobook for listening on their MP3 player."

- "27.2% of the respondents with an MP3 player indicated they have downloaded a podcast, a digital recording of a radio broadcast or similar program, made available on the Internet for downloading to a personal audio player."

- The need for entertaining listening during an upcoming long trip was the most common reason given for trying an audiobook for the first time. Other common reasons included a recommendation from a friend, an activity to do while commuting, and an activity to do while doing other tasks, such as exercising.

- "Audiobook listeners listen to books an average of 4.9 hours per week."

- "Respondents indicated 51.8% of audiobooks that are listened to are borrowed from the library, as compared to 38% in 2001."

- When audiobook listeners are searching for their next "listen," they use a variety of information sources, such as Web sites, bestseller lists, and recommendations from friends and from librarians. Audiobook listeners who listen to only one audiobook a year are more likely to seek the advice of a librarian, as are voracious listeners (i.e., those who listen to ten or more audiobooks per year).

Specific key demographic groups for digital audiobooks include people who are blind, have low vision, or are otherwise print impaired; English-language learners and slow and reluctant readers; the "soiled hands crowd"; the "busy hands are happy hands crowd"; and voracious listeners.

Blind, Low-Vision, and the Print Impaired in General

Blind, low-vision, and print-impaired patrons can be very heavy users of digital audiobooks. This group includes both people with visual impairments and people with other physical limitations. To read visually, a person needs a book, a light source, and the opportunity to concentrate visual attention on the book. Another important, but often overlooked, requirement is the ability to hold the text. For many readers, holding a book is a major impediment to visual reading. People with arthritis and other dexterity and strength issues in their hands, wrists, and arms often find it uncomfortable or impossible to hold a physical object (hardback, paperback, or e-book device) for the extended periods that visual reading requires.

National Library Service for the Blind and Physically Handicapped
www.loc.gov/nls

Bookshare
www.bookshare.org

There is a nationwide network of libraries that serve this specific subpopulation. The National Library Service for the Blind and Physically Handicapped, or NLS (www.loc.gov/nls), a division of the Library of Congress, creates and participates in the distribution of many of the recreational audiobooks used by blind people. NLS, however, will not begin its digital audiobook service until 2008. The program will be rolled out over several years because NLS has designed its own user-friendly portable playback device.[9] As a result, many blind, low-vision, and print-impaired users are looking for other sources of digital audiobooks. Many of these users have developed a personal list of sources, which may include a local library, a library consortium, a regional library system, a state library, Bookshare.org, and other sources.

Based on anecdotal feedback from dozens of blind and low-vision users in the past three years, this population seems to prefer unabridged digital audiobooks with a minimum of nonvoice embellishments, such as background noises (e.g., a slamming door, a gunshot) and music. In addition, individual users often have favorite narrators.

Second-Language Learners, Slow Readers, and Reluctant Readers

Digital audiobooks can be a boon for second-language learners. They can watch the electronic text as they listen to the pronunciation. They can easily pause and resume the text.

Slow and reluctant readers of all ages can also benefit from digital audiobooks. Lynne Webb and Nadean Meyer, in their October 2006 presentation at Internet@Schools West, reported on how e-books and audiobooks can be used together or separately to encourage slow and reluctant readers in grades K–12.[10] One example is *The Diary of Opal Whiteley* found online at The Intersect Digital Library, a project of the University of Oregon (http://intersect.uoregon.edu). It includes a learning module built around this public domain e-book that can be easily integrated and used by K–12 teachers.

> *The Intersect Digital Library*
> http://intersect.uoregon.edu
>
> *Califone Web site*
> www.califone.com/research.php

Webb and Meyer shared anecdotal evidence that the reluctant readers responded better to the public-domain audiobooks than they did to public-domain e-books. The audio generated more student motivation to get a printed copy of the book for further reading.

Webb and Meyer concluded that, although reading experts have long advocated using audiobooks in tandem with visual reading, many experts now advocate solo listening to audiobooks (i.e., with no printed book or e-book nearby) as a way to motivate reluctant readers to read visually. The Califone Web site contains summary statements from research conducted over the past few decades. This research supports the general thesis that listening to an audiobook assists overall student literacy and learning.[11]

The Soiled Hands Crowd: Farmers, Gardeners, Auto Mechanics, Bakers, etc.

If you try to visually read a book while engaged in some activity that leaves your hands dirty or greasy, you will soil the book. Anyone who does "soiled hands" work—such as farmers, gardeners, auto mechanics, and bakers—and wants to read at the same time will find audiobooks attractive.

The "Busy Hands Are Happy Hands" Crowd: Knitters, Crocheters, Tatters, etc.

It is much easier to use one's hands for other tasks when listening to a digital audiobook than when reading visually. This fact makes audiobooks appealing to the "busy hands

are happy hands" crowd—knitters, crocheters, tatters, and others. If the audiobook playback device is well designed, they do not even need a light source, although knitting in the dark may lead to multiple dropped stitches.

Voracious Listeners

Some users of digital audiobook services are intensive users. For example, I looked at the typical usage of the Unabridged digital audiobook service (which I coordinate) that serves blind and low-vision users in nine states (California, Colorado, Delaware, Illinois, Massachusetts, New Hampshire, Ohio, Oregon, and Texas). For active users (those who checked out at least one title during the month), the average number of digital audiobooks checked out per month for the first nine months of 2006 ranged between 3.32 and 3.90. Assuming that most users download and listen to the audiobooks they check out, and assuming the average length of an audiobook is about ten hours, that means that the average active user spends between 33 and 39 hours each month listening to digital audiobooks.

Major Vendors of Audiobooks for Libraries

Libraries and other institutions—such as corporations, the military, and penal institutions—that purchase or lease digital audiobooks have a wide variety of sources of content. They can purchase or lease directly from publishers or from business-to-business content aggregators. This report, however, focuses primarily on the five companies that seem to have been the major suppliers of digital audiobooks to libraries and library consortia in 2006. Some of these suppliers deal exclusively with the library market, while others also sell or lease digital audiobooks to other institutions or directly to individuals.

> *Audible*
> www.audible.com
>
> *NetLibrary*
> www.oclc.org/audiobooks

Audible

The Web site of Audible proudly proclaims that Audible is "the leading provider of spoken entertainment and information on the Internet."[12] Audible sells and leases spoken digital audio content primarily to individuals, but it has also been selling to libraries and library-related organizations for years. Its master collection of digital audiobooks contains more than fourteen thousand titles, making it the largest of the five providers that are the focus of this report.[13]

Audible offers a relatively simple and affordable audiobook service to libraries. The library or consortium simply purchases copies of titles of interest. Audible does not offer a model that allows library patrons to download content and transfer it onto portable playback devices, so the library must purchase playback devices in order to circulate the audiobooks purchased from Audible.

NetLibrary

NetLibrary emerged in the late 1990s as a start-up e-book company. It ran into financial difficulties soon after the turn of the century, and it was acquired by the Online Computer Library Center (OCLC). In early 2005, NetLibrary launched a downloadable digital audiobook service. During the first two years of the service, Recorded Books has been its major supplier of content, but other content suppliers are being added to the stream.

OverDrive
www.overdrive.com/audiobooks

Playaway
www.playawaydigital.com

TumbleTalkingBooks and Tumble Read-Alongs
www.tumblebooks.com/talkingbooks

OverDrive

OverDrive also began as an e-book company and has since branched out into other types of content and media. In November 2004, it launched its downloadable digital audiobook service.

Playaway

Of the major suppliers of audiobook content to the North American library market, Playaway is conceptually the most retro. It cut through the hassles of downloading and transferring content by preloading the digital audiobook onto a portable playback device. In this sense, the Playaway sales and distribution model is similar to that of a print-on-paper publisher: inject the content into the container and sell the complete package.

TumbleTalkingBooks and Tumble Read-Alongs

TumbleBooks.com offers two digital audiobook services. TumbleTalkingBooks is a streaming audiobook service geared primarily for public and school libraries. It has a collection of approximately five hundred audiobooks streamed to the reader/listener using Flash technology. The collection is primarily in English, but it does contain approximately fifty Spanish-language books. Including books in other languages is being considered.

TumbleBooks.com also offers the Tumble Read-Alongs collection. These books present the written text along with audio narration. The reader/listener can decide whether to use just the written text, just the audio, or both. Furthermore, the reader/listener can change the font size on the fly. In a telephone conversation with the author on August 7, 2006, Ron Zevy from TumbleBooks reported that Tumble Read-Alongs are popular in libraries that serve a large English-as-a-second-language population. Approximately 65 titles are currently available in the Read-Alongs collection.[14] They come bundled with a subscription to the TumbleTalkingBooks service.

Other Vendors

In addition to these five major vendors of digital audiobooks for libraries, there are many smaller vendors, as well as dozens of free Web sites.

Free Sources of Digital Audiobooks

Although this report focuses on digital audiobook systems and services that libraries and library consortia may purchase or lease, there are also many free online sources of digital audiobooks. A few of these sources are listed below. Integrating these free resources and services into a library's organizational mission is challenging and may prove to be more labor-intensive than a purchase or lease system. Most of the available titles in these master collections are older works in the public domain in the United States. Each library needs to assess its user community to determine the probable demand for these services.

LibriVox
www.librivox.org

The Internet Archive
www.archive.org

ibiblio
www.ibiblio.org

LibriVox

This not-for-profit, distributed-volunteer effort is dedicated, as its organizational slogan attests, to the "acoustical liberation of books in the public domain." LibriVox describes itself as a completely volunteer-driven organization dedicated to providing open source, ad-free, free-of-charge public-domain audiobooks.[15]

As of early November 2006, LibriVox had a catalog of 342 completed audio recordings. Because that catalog includes two or more recordings of several titles (e.g., *The Velveteen Rabbit, The Wind in the Willows*), the number

of unique titles is a little smaller. Some of the audio recordings are solo efforts, while others are duets or group narrations. Most of the audiobooks are offered in both MP3 and Ogg Vorbis formats.[16]

Different volunteers perform different tasks. Volunteer readers read chapters of books, poems, or short works. Book coordinators organize a group of readers to complete a book. Moderators help the readers and book coordinators complete a project. The volunteers who catalog completed LibriVox works are called metadata coordinators. There are also some volunteer administrators to keep the entire project moving forward. Last but not least, volunteer listeners "proof listen" a completed book to provide some quality assurance. The Internet Archive (www.archive.org/index.php) and ibiblio (www.ibiblio.org) host the files.[17]

Podiobooks.com

Podiobooks.com offers serialized audiobooks as podcasts free of charge. The master collection of approximately seventy-five titles is comprised of audiobooks that have been donated by the authors.[18] Podiobooks.com encourages listeners to give donations in response to this content, and it promises to share half of the gross donations with the authors.

These digital audiobooks are doled out one chapter at a time, but each listener can determine the frequency of the dole—one chapter per day, one chapter per week, and so on. This distribution method harkens back to the Victorian publishing practice of releasing books initially as serials—"by the numbers," as the wily Victorians said. The FAQ page on the Podiobooks Web site offers this rationale, "Many folks (well, at least two besides me) have found that this delivery method makes podiobooks much easier to read than a print book, e-book or even audiobook. You never have to remember where you were, or to take your book with you. It shows up, you listen, and all is right with your world."[19] Although the emphasis of this service is on getting narrated audio content onto portable MP3 players, there is no prohibition against listening to these chapters and episodes on your main computer or even burning them to a CD.

Project Gutenberg's Audio Books Project

Project Gutenberg, the grandfather of e-books, also has a small but growing collection of audiobooks. It offers approximately eighty human-narrated audiobooks and hundreds of computer-generated audiobooks.[20] All of these works are in the public domain in the United States. Most are in English, but there is a smattering of other languages.

The Spoken Alexandria Project

The Spoken Alexandria Project is affiliated with Telltale Weekly, which, according to Telltale's Web site, provides "unabridged and DRM-free MP3, AAC, and Ogg Vorbis au-

dio book downloads, starting at 25 cents each via PayPal or Bitpass."[21] The purpose of the project, articulated on its Web site, is thus stated, "The Spoken Alexandria Project is creating a free library of spoken word recordings, consisting of classics in the public domain and modern works (with permission). AAC, Ogg Vorbis, and MP3 audiobooks [are] available for free download and redistribution."[22] Some of the audiobooks available on this site can be downloaded free of charge, but some must be purchased for a few dollars.

Podiobooks.com
www.podiobooks.com

Project Gutenberg's Audio Books Project
www.gutenberg.org/audio

Tiflolibros

The Tiflolibros master collection of approximately 9,000 titles contains both e-books and digital audiobooks (in MP3 format). Most of the offerings are in Spanish, but Tiflolibros has small collections of content in English and other languages, such as Portuguese, Italian, and French.[23] The service is designed for blind and low-vision users. The site contains both public domain works and works still protected by copyright in the United States.

The Spoken Alexandria Project
www.spokenalex.org

Tiflolibros
www.tiflolibros.com.ar/mp3/mp3.htm

Is Listening to an Audiobook Reading?

As you consider a digital audiobook service, it may be beneficial for librarians and other library staff members to discuss how users will interact with the content. How are we to understand the interaction between a user and an audiobook? Do users "listen" to audiobooks, or are they "reading" the book?

This is not a merely semantic question. How your librarians answer may reveal the value they place on using audiobooks. Is it a "fluff" activity that helps commuters and shut-ins while away the hours, or is it a vital, vibrant information-transfer activity? There are strong arguments on both sides, across and beyond librarianship.

Visual reading has been in the ascendant for so long that auditory reading gets no respect. Part of the problem

is that the process of looking at a page is very different from the process of listening to text being read—beyond the obvious difference that the two processes involve different senses. Reading a printed page does not involve a stately march of the eye across the print. The eye dances a jitterbug across the page, jumping back and forth, up and down. The mind makes sense of the printed words on the page by a rapid succession of split-second iterations of looking.

The ear, on the other hand, has to grab the auditory brass ring as it comes by. There is no opportunity for the ear to go back even a fraction of a second and take in a word again. As I listen to an audiobook, I can wonder if I just heard "school" or "screw," and the context may help, but I cannot quickly "glance back" with my ear to confirm my suspicion.

Because of this difference between how the eye and the ear take in sensory information, many digital audiobook systems provide a feature that allows the reader/listener to jump back fifteen seconds and listen to a passage again. Although this is a nice feature, I doubt it is used with great frequency—certainly not as often as the eye jumps back and forth and up and down across the printed page.

Another part of this problem is that the formal educational system spends much more time teaching visual reading than auditory reading. Although the success with which most school systems impart the three Rs to their charges remains a constant source of concern for teachers, parents, future employers, and society as a whole, at least most schools still purport to teach the three Rs. I have never heard of a school that also claimed to emphasize the two Ls—listening and locution. Listening may be a long-lost art that is staging a "quiet" comeback in the age of portable MP3 players and audiobooks. It takes time and practice to develop the ability to engage in active listening as one interacts with a deep, highly structured information object. Unfortunately, during the last half of the 20th century, listening took a back seat. Music became background music. For many people, music was within earshot, but they did not listen actively to the musical composition. The same situation applies to the way many people interact with television. It is a type of background noise, but most of the time the viewer is not actively listening to the program.

For the purposes of this report, I shall assume that visual reading and auditory reading are both valid forms of reading. I also shall assume that, although the two experiences are distinct and have many differences, in some fundamental ways both types of reading are created equal.

The iPod Impasse

In the best of all possible worlds, any digital audiobook in any file format and with any DRM scheme—including no DRM at all, of course—would be playable on any playback device, regardless of the manufacturer, world zone, or operating system. Unfortunately, the current situation is nowhere near this ideal. A wide variety of file formats and DRM schemes are in use, and there is a plethora of playback devices.

The various Microsoft Windows operating system flavors are loaded onto approximately 97.5 percent of the personal computers currently in use worldwide.[24] The Apple iPod line of portable playback devices currently has approximately 87.3 percent of U.S. sales for what are commonly called portable MP3 players.[25] Herein lies the corporate rub: because most current downloadable digital audiobook services (both direct-to-consumer and institutional, including Audible, OverDrive, and NetLibrary) rely on users' first downloading audiobook files to a personal computer running a full operating system, then transferring the content to a portable playback device, and because both Apple and Microsoft are competitive and do not wish to give their competition an edge, it is very difficult or impossible to download content from certain audiobook sources to personal computers running certain operating systems and transfer the content to certain playback devices.

To be specific, protected WMA (Windows Media Audio) content, used by both OverDrive and NetLibrary, downloads easily to personal computers running the Windows operating system but does not transfer easily to Apple iPod devices for playback. In a sense, the digital audiobook market is being held hostage to the much larger and more lucrative digital music market. Individual owners of portable playback devices are innocent bystanders in a war being waged between competing file formats and DRM schemes—and between the corporations that stand to gain or lose lots of money if one particular file format/DRM scheme gains significant market share over the others.

Who Is Responsible for the iPod Impasse?

The iPod impasse is caused in part by competition between Apple and Microsoft. Microsoft developed the WMA file format. It has gained a reputation in the digital content industry of being fairly effective in preventing unauthorized use, which may be one reason why both OverDrive and NetLibrary use this format for their downloadable digital audiobook services. To launch a service of this type, they had to reassure their content suppliers the content would not be ridiculously easy to hack and share.

Another cause of the iPod impasse is Apple's long-held business strategy of being the sole distributor of its wares. From the early days of the Apple IIc, it has been reluctant to allow hardware and software knockoffs that

will compete with its own brands. In the language of the industrial age, Apple seems to be striving for a vertical monopoly in the direct-to-consumer downloadable audio-content business. People go to the iTunes Store to purchase iTunes content, then download it and play it on their iPod devices. As a business strategy, it has been very successful, at least in the short term. It was a successful short-term strategy with Apple's line of computers, too, but today the Apple operating system flavors have only approximately a 5 percent share worldwide of the personal computer operating system market.[26]

Both OverDrive and NetLibrary decided to use protected WMA files, knowing that iPods would not play those files and that iPods were the most popular portable playback device. OverDrive and NetLibrary probably were strongly encouraged by publishers and content vendors to use protected WMA files because the threat of wide-scale loss and theft would be lessened. To garner an acceptable amount of compelling digital audiobook content, and to be able to launch an audiobook service while the format and DRM wars are still raging, both OverDrive and NetLibrary made the business decision to use protected WMA files.

Although the current situation is lamentable, librarians and end users can do nothing to rectify it other than vote with their pocketbooks. Refusing to develop and launch a digital audiobook service would send a message to Apple, Microsoft, and other corporations that the current situation is unacceptable. The digital audiobook market, however, is miniscule compared to the digital music market, and the library portion of the digital audiobook market is not huge. As a result, the nonparticipation of libraries may be ignored by the big decision makers in the huge and rapidly growing digital media market (music, books, movies, TV shows, etc.). Even if a message did get through, the concern of libraries might not have a significant salutary effect on decisions about the interoperability of this market.

There is clearly a demand among the user populations of many libraries for digital audiobooks. Some libraries, however, may decide to serve the greater long-term good by boycotting digital audiobooks and accepting the frustration from segments of their user populations—not to mention the vociferous feedback they may receive—as the price that must be paid for progress on the iPod impasse front.

There have been some recent developments in the digital music business, however, that provide some hope. Apple has dominated the downloadable digital music sector, but the competition finally may be marshalling its forces to break that virtual monopoly. For instance, SpiralFrog is a new service that competes directly with Apple's iTunes Store. Though, with the name of "SpiralFrog," it sounds like a start-up company co-founded by a couple of twenty-somethings, in fact, it has the backing of some of the major music companies in the world, such as the Universal Music Group. SpiralFrog will deliver its content in pro-

tected WMA file format. According to SpiralFrog's Web site (www.spiralfrog.com/about), the service is currently in beta and will debut in the first quarter of 2007.

If SpiralFrog and other competitors to the iTunes Store prove successful, they may break the current logjam called the iPod impasse.

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