

Managing the Intangible: Digital Resources in School Libraries

From the days of Sumerian clay tablets till now, humans have “published” at least 32 million books, 750 million articles and essays, 25 million songs, 500 million images, 500,000 movies, 3 million videos, TV shows and short films, and 100 billion Web pages... When fully digitized the whole lot could be compressed... onto 50 petabyte hard disks. Today you need a building the size of a small-town library to house 50 petabytes. With tomorrow’s technology, it will all fit onto your iPod. When that happens, the library of all libraries will ride in your purse or wallet – if it doesn’t plug directly into your brain with thin white cords. Some people alive today are surely hoping that they die before such things happen, and others, mostly the young, want to know what’s taking so long.

“A danger of switching content providers is that you might turn some teachers off using them if the links in their lesson plans to those resources need to be changed every year.”

(Could we get it up and running by next week? They have a history project due.)

– Kevin Kelly “Scan This Book,”
New York Times, May 14, 2006

Chances are an increasing share of your library’s materials budget is shifting to digital resources every year. Popular

educational reference book publishers are publishing eBooks and online databases. If you are adding a new encyclopedia next year, you



By Doug Johnson

are likely to consider an online version. Your teachers may well be using more instructional films from a streaming video source than from your VHS/DVD collection. We know our “net gen” students prefer their information in bytes rather than pages.

Learning to intelligently manage these intangible items is increasingly important.

When we talk about the management of print and physical audiovisual resources, tasks and procedures can be organized into the following, semi-chronological, areas:

- 1) Needs assessment/collection development
- 2) Selection

- 3) Acquisition
- 4) Promotion and display
- 5) Cataloging, circulation, and control
- 6) Inventory
- 7) Evaluation

Each of these resource management tasks is applicable to digital resources. But, online resources have unique characteristics that make working with them quite different than the books, magazines, and AV materials we’ve managed in the past. And I’m sure you’ve already encountered some of those differences.

Digital Uniqueness

First, let’s identify what digital resources need to be managed. Most of today’s

school library media centers have most if not all these resources (for the purposes of this article I am listing only those items that have a purchase or subscription cost):

- Online databases such as full-text periodicals (e.g., Ebsco, ProQuest, InfoTrac, HW Wilson)
- Online reference sources (e.g., ABC-CLIO, Facts on File, HW Wilson, Worldbook Online, Encyclopedia Britannica Online, Grolier Online, Greenwood Electronic Media)
- Streaming video collections (e.g., unitedstreaming, PowerMediaPlus)
- Commercial search engines (e.g., Nettekter, C.E.R.F)
- eBooks (e.g., Thomson Gale, NetLibrary, Follett, ABC-CLIO)
- Online tutorial services (e.g., Atomic Learning)
- Software licenses for productivity and curriculum programs (e.g., Microsoft Office, Inspiration, Accelerated Reader, Reading Counts)

1) Needs Assessment/Collection Development

Unless you have an unlimited budget, your digital resources must be selected to meet the needs of your school, its curricula, and teachers. While general reference sources are still needed, the “free” Internet, interlibrary loan, and local public and academic libraries give students access to a rounded set of materials. Many states also purchase amazingly comprehensive general resources for all libraries—public, school, academic, and special—to use. Familiarity with these resources is a must for every LMS for his or her collection development process.

The LMS can concentrate on building a collection based on specific needs down to course, unit, and even project level. Just as there is little sense in acquiring

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books on a topic that is not part of a curriculum or meets a reading program goal, there is no sense in selecting a subject-specific database for a subject not researched in your school. And traditional needs assessment methods can be used to determine areas of need in your collection.

Increasingly, the question about meeting those needs centers around whether to use digital or print resources. How will your students and staff get the biggest “bang for the buck?” In making that choice, you need to ask a few questions:

- How timely does this resource need to be?
- How much access to computers or eBook readers do your users have in the LMC, in the rest of the school, in their homes, and in the community?
- What resources do your users seem to enjoy using the most? Studies of our “net generation” students indicate they have a definite preference for digital resources.
- How important is accessibility to this information from outside the school? For multiple users to have simultaneous access?

The “right” choice will depend on your own demographics and resources. While both you and your users may prefer a digital encyclopedia, if there are only a very few workstations in your library on which one might be accessed, the print version is still a better choice.

2) Resource Selection

Just like choosing a print resource, good selection procedures need to be followed, including knowing the board selection policy and using unbiased review sources when making a selection. I believe good reviews and comparisons are more difficult to find for electronic resources than for traditional ones. Given the changeable nature of online resources, reviews may no longer reflect the actual product (a full-text periodical database may have added or dropped titles, changed years of back issues, etc.).

One method of reviewing online resources is available that is not traditionally used with print materials: the trial subscription. You and your patrons can use the product from 14 to 60 days before deciding whether to subscribe or purchase it.

Before I spend money on a database, I try to have at least one teacher use it with his or her students. If there are glitches or the instructions/process is unclear, the problem will usually show up quickly. And by using this method, we can also gauge if the literacy level/instructional level of the information is on par with the level of the students,” Gary Schwartz, LMS from Owatonna (MN) High School advises.

Another important review challenge is that many digital resources tend to be collections of materials, not distinct titles. It is one thing to purchase a DVD title, quite another to select an entire collection of educational videos. This makes a review imperative since a hands-on, eyes-on examination of every title is impractical, if not impossible. It’s also a good time to review a basic selection precept that we include materials based on their strengths rather than censor them based on a small percentage of material that *may* be objectionable. Mary Alice Anderson, LMS for Winona Schools reports:

Had an interesting experience with purchasing a health database. The LMSs previewed it and asked counselors, health teachers, and a couple others to look at it, too. People liked it. But one administrator questioned placing content like that on the Web site because there are students whose parents don’t let them attend classes in topics such as sex ed. I explained we buy databases to steer kids into good content instead of whatever they find on their own via Google. I saw that as another example of how we need to be continually educating administrators.

Additional considerations are operating system compatibility (less problematic with Web-based materials), bandwidth, and storage capacity. Some companies

(Digital Curriculum/Discovery Education, for example) will allow a school to house the product’s digital content onsite so that only wide area network or in-building network capacity is a factor, not bandwidth to the Internet itself. When the medium being accessed is comprised of large files, like video programs, this is an important factor in selecting a resource, but the server on which the material is stored may need to be very large. With the purchase of materials that are meant to be a permanent part of the collection (eBooks, perhaps), there is the question of how accessible such materials will need to be in future years as programs, operating systems, and storage media change. (Tried to read any files created on an Apple IIe lately?)

And finally, we also need to recognize that the resource interface, not just its contents, needs to be age appropriate. Happily, many companies recognize that younger users need less sophisticated search tools, larger icons, and brighter images.

3) Acquisition

Getting the resource should be as easy as entering a URL—right? Not quite.

Giving a school’s users access means working with your IT department in most cases, and selection must be done in coordination with it. One decision to be made, when the option is available, is whether to give access to an online resource by password, by IP address, or both.

If access is given by IP address, patrons at any computer within a range of IP numbers do not need a username or password to log on. The product recognizes the IP number as one in an organization that has purchased the product. This is convenient and reduces the amount of work needed to track usernames and passwords and is a fairly secure method of limiting access only to licensed users.

Access by username and password has advantages as well. Control can be given to only select users to certain materials;

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users may have access to individual areas where they can store results of searches or play lists; users can get access to the resource from computers outside the school’s IP range (without having to set up a proxy); and usage can be tracked more precisely. If access is given by individual rather than generic username and password, I would strongly suggest working with your IT department to set up a database, such as an LDAP directory, where usernames and passwords can be stored and used for authentication in multiple applications.

Home access is an important factor we consider when our district selects a resource. The movement is toward 24/7 learning and making sure learning resources are available 24/7 is important. Online courses and hybrid classes will continue to demand access to good digital materials since students may not be near the physical library for extended periods of time.

One management/budgeting tip is to make sure your subscriptions begin and end when your school fiscal year begins and ends. Most companies will work with you to bill your district for a partial year or, more likely, a year plus the months needed to end the subscription at the end of your school year.

4) Promotion and Display

How do you educate kids (and teachers) to use authoritative online sources and not just “Google it?” How do you teach your users to see the library as a portal to trusted sources? Library orientation programs must demonstrate online resources as well as the physical ones. Introduction to online resources is best done during research units themselves—when students actually need the information. Any bibliography or Webquest prepared for a unit should reference electronic tools as well as those in print. As LMS Jaime Jeanne Meadows St. Helens (OR) High School puts it, “The piece of the puzzle that I try to add is instruction. When I get a new ‘toy,’ I like to show the staff how to use it, hopefully during an in-service day, and then if it’s a student use item,

show them how to use it on a case-by-case or class-by-class basis.”

LMC Web pages should clearly mark links to digital resources, either on the home page or on a separate page that has a clear link from the home page. A note by the link that tells the user any special instructions for accessing the resource not only helps the user, but will cut down questions. Posting a generic user name and password on a public Web site, no matter how convenient, is *not* appropriate.

Students and teachers can be subtly reminded of the schools’ online resources if guides in the form of posters are visible near workstations. These resources need to be promoted at teacher meetings and in teacher newsletters. The LMC’s Web page with links to its digital resources should be the default page when any Web browser is launched.

Just because it doesn’t fit in a display case doesn’t mean you can’t make it visible.

5) Cataloging, Circulation, and Control

Should digital resources be cataloged? Of course! Follett’s eBooks come with MARC records. Online reference materials should be found when doing a catalog search just like their print cousins. When feasible, the ability to search a digital resource using a federated search tool must be made available.

Few electronic resources circulate *per se*. Multiple users can access them simultaneously—a major advantage of these tools.

EBooks are the exception to this rule. Follett and NetLibrary allow only single users to access titles with libraries determining “circulation” length as they would with any print resource. The specific rights for eBook use vary not only from supplier to supplier, but from publisher to publisher within suppliers’ lists. This includes whether a title can be accessed by multiple users, can be downloaded and read by portable devices, and can be printed. NetLibrary suggests that most users

treat their eBooks as a reference source with an average use time of 35 minutes. Supplying digital materials like eBooks may require the circulation of portable devices on which to read the materials such as eBook readers or digital audio players. When a single digital device may hold multiple items (one eBook reader with a dozen titles on it), counting circulation will become very tricky. Good luck with that.

Regular checks to see if the right users have access are important, as is checking the resources’ links from the LMC’s Web page to make sure they are working. As Australian librarian Margaret Dennerley opines, with tongue in cheek, “One really cool thing our IT department does is change our external IP ranges without advising us and without thinking it might have an impact on our patrons being able to access those sites that are IP authenticated.”

6) Inventory

Inventorying online subscriptions is usually pretty simple since they aren’t numerous and are impossible to steal, even by ingenious eighth graders. Tracking licenses of software that is installed on computer workstations is more problematic—making sure that your school is not running more copies of an application than for which it holds a license. Our district, to help stay in compliance, runs a remote survey of all computers to get a list of licensed program files on each computer. These lists are then compared to licenses for which we hold records, and if any unlicensed software is found, our department takes action. Limiting the rights for installing software also helps keep licenses from stretching too broadly. We like purchasing site licenses for products when possible. It is not only economical, but helps save the hassle of inventorying the product on individual computers.

Do keep good records of your licenses and subscriptions. It may not be possible to totally stop software pirating, but your district needs to show it has made a good faith effort to do so.

