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With a plethora of digital resources literally at our fingertips, as well as those of our teachers and students, we continue to face other, older problems, such as the violation of intellectual property rights.

Just Because You Can Doesn’t Mean You Should — pg 34

Correction: Marney Welmers’s name was misspelled in the awards insert in the Sept/Oct 2016 issue of Knowledge Quest. We apologize for the error.
This issue of Knowledge Quest will arrive in your mailboxes in late fall. Many of us will be invigorated by the crispness in the air, and the school year will be well under way. As school librarians we know that we are first and foremost teachers. We teach children to think, create, share, and grow. We teach them to “inquire, think critically, and gain knowledge; draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge; share knowledge and participate ethically and productively as members of a democratic society; and pursue personal and aesthetic growth” (AASL 2007, 3). In today’s digital environment, information is ubiquitous. In varied formats—audio, video, image, and printed word—information surrounds us, and students must learn to access, evaluate, and use it if they are to be successful in college, career, and community.

Extending this line of thought just a bit, if children are to participate ethically and productively as members of our democratic society, they must understand the concept of intellectual property. We begin by teaching them that if they borrow something from someone else, they should have permission to do so. If they use something that belongs to someone else, they should give credit for that use. Instruction begins early with our primary-grade students who indicate that they used information from that nonfiction library book on the planets to write their science report. Do we require a citation in MLA or APA format? No, we require that they, in simple form, give credit where credit is due.

As students advance through their school years, we model and scaffold; we teach them to synthesize the information they find in multiple sources; and we continue to emphasize the concept of intellectual property. At a certain point students realize that, in today’s digital environment, they are not only consumers but also producers of intellectual property. The concept of ownership of intellectual property becomes more personal. As school librarians, we help students consider not only fair and appropriate use of others’ work but also ethical, responsible behavior in the creation and dissemination of their own intellectual property.

Empowering Learners (AASL 2009) identifies our mission to empower students to become “critical thinkers, enthusiastic readers, skillful researchers, and ethical users of information” (AASL 2009, 8). To be a skillful researcher in today’s world, students must be proficient in digital literacy skills, and to be an ethical user of information, students must practice solid digital citizenship skills. The American Library Association Digital Literacy Taskforce (2011) defines digital literacy as “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.” In our school libraries...
on a daily basis we teach students to use information and communication technologies—think of the instruction we provide in using subscription databases and Web 2.0 presentation tools. We teach digital literacy skills, and we help students become good digital citizens. We are instructional leaders in our schools as we help students become effective and ethical users and producers of ideas and information.

Communicating the School Library’s Impact
By the time you read this, almost a year will have passed since President Obama signed the Every Student Succeeds Act of 2015 into law. As I write this, states are working to develop ESSA implementation plans, and local school districts, termed local educational agencies (LEAs) in ESSA, will soon follow. ESSA acknowledges that school librarians play a key role in helping every student succeed, stating that effective school library programs “provide students an opportunity to develop digital literacy skills and improve academic achievement” (U.S. Dept. of Ed. n.d.). As we work with students every day in our schools, we are teachers, instructional partners, and information specialists, but we are also instructional leaders, and the time to step up to the plate is now. We must be visible and vocal about the important work that we do.

AASL’s position statement “Definition for Effective School Library Program” states that “the effective school library program is adequately staffed, including a state-certified school librarian who is an instructional leader and teacher [and who] supports the development of digital learning, participatory learning, inquiry learning, technology literacies, and information literacy” (2016). It is in our libraries that students actively participate in learning, practice inquiry, explore resources, develop digital literacy skills, and create new knowledge. Are your teachers aware of this? Does your principal understand the critical learning that takes place in the library? How about your students’ parents and other members of the community? And your local school board? Do they know what you do? The time to spread the word about your school library program is now as ESSA implementation unfolds. School librarians transform student learning, and we must say this repeatedly, loudly, and proudly.

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Works Cited:

At a certain point students realize that, in today’s digital environment, they are not only consumers but also producers of intellectual property. The concept of ownership of intellectual property becomes more personal. As school librarians, we help students consider not only fair and appropriate use of others’ work but also ethical, responsible behavior in the creation and dissemination of their own intellectual property.
When asked if I would be willing to guest edit a special edition of *Knowledge Quest* focusing on copyright and school libraries, I jumped at the chance. Copyright can be a contentious and nebulous issue, especially in today’s digital age. As the copying and sampling of materials, especially via the World Wide Web, becomes easier and easier, school librarians find themselves wearing yet another hat: that of digital copyright guru.

Over the past twenty years, I have written four books and numerous articles on copyright and librarians, including a column for *Knowledge Quest* that ran from 2000 to 2008. During this same time period and up into the present I have offered university classes, professional presentations (including at ALA and AASL conferences), workshops, websites, and more on this subject. Library and education professionals realize the complexity and importance of copyright to themselves and their patrons, and usually come with a myriad of questions.

In 2016 I see what I have seen in the past—that copyright affects us all in our work and personal lives. It cannot be dismissed or put aside with remarks such as “well, everybody copies” or “no one will ever know.” Indeed, as our digital age speeds along, it may become not only simpler than ever before to “borrow” another’s intellectual property, but also less complicated to discover who has done so. Thus, as school librarians, we must consider not only our users but also the owners and creators of original works.

The special issue, *Copyright and School Libraries in the Digital Age*, features four articles with copyright information for school librarians.

In my feature, “Copyright Basics and Review: Scenarios for the Practicing School Librarian,” I have focused on a series of subjects of significance to school librarians, including fair use, public domain, permissions, copyright policies and compliancy, and how a user can employ copyright law to his/her advantage.

Indeed, as our digital age speeds along, it may become not only simpler than ever before to “borrow” another’s intellectual property, but also less complicated to discover who has done so.
In “Copyright Resources for School Librarians” Yvonne M. Johnson and Nicole M. Johnson have gathered information about copyright-related resources of interest to K–12 educators and librarians. Their collection of URLs, supplemented by notes about the websites, is particularly useful as librarians are faced with the plethora of information on copyright law available online. However, not all websites have agency; thus, the user must consider which sites truly present copyright, which are written by those with a specific agenda, and which contain erroneous information. Yvonne and Nicole have done some of this filtering for KQ readers.

Wendell G. Johnson’s article, “Copyright Updates for K–12 Librarians,” covers pending legislation, a court case, and regulatory information of interest to school librarians. Media and copyright are ever-evolving, and we must remain current. Wendell identifies two websites librarians can monitor to keep up with copyright legislation.

In “Just Because You Can Doesn’t Mean You Should,” Barbara Fiehn looks at professional organizations’ standards addressing copyright and ways ethical use of digital resources can affect instruction in K–12 schools. Some of the subjects in this feature include file sharing, video streaming, digital photography, webpages, and mashups.

Last but not least, please be aware that this issue’s special edition authors are librarians, educators, and writers; none are copyright lawyers. Thus, the information in this issue does not constitute legal advice; for that, please consult an attorney.

Rebecca P. Butler, PhD, is a retired distinguished teaching professor at Northern Illinois University in DeKalb, where she taught school librarianship, instructional technology, and copyright classes. Recent books she has written include Copyright for Academic Librarians and Professionals (ALA 2014) and School Libraries 3.0: Principles and Practices for the Digital Age (Rowman & Littlefield 2015). School Libraries 3.0 is the winner of the SLC/ARBA 2016 Best of Reference Award for Best Professional Guide for School or Youth Librarians.
FEATURE

COPYRIGHT & REVIEW

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Scenarios for the Practicing School Librarian

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The “Nuts and Bolts” of Copyright for School Librarians

School librarians work with a variety of individuals; the largest groups are usually made up of students (most often K–12, but perhaps also preschoolers), teachers, and administrators. However, it is also possible that school staff, students’ parents and guardians, and even the community at large might participate in school library functions and activities, as well as use its facilities and access information in library materials in digital, analog, or print forms. Copyright may come into play when any one of these groups uses materials that they themselves did not create or from which they do not have permission to “borrow” text, images, video, etc. For the purposes of this article, however, I’ll focus on student and faculty borrowing from copyrighted materials in the United States and on the school librarian’s response to such use. Additionally, working with creators of original work will be addressed.

Following are important definitions and scenarios illustrating some of the most important copyright concepts for the school librarian and those with whom you labor. For some of you, this article may provide new information. For others, these scenarios can serve as a review of dos and don’ts. I’ve also included some ways you can use the law as your friend, rather than as the hindrance it sometimes seems to be.

Defining Copyright

According to the U.S. Copyright Office (2014, 1), “Copyright is a form of protection grounded in the U.S. Constitution and granted by law for original works of authorship fixed in a tangible medium of expression.” School librarians may find themselves on either side of the “copyright coin.” You may work with the user of an item (for example, a student who wants to copy information from a private company into his report on the space station) and also advise a copyright owner (for example, a faculty member who has created a new lesson plan that she wishes to sell on a marketplace website, such as Teachers Pay Teachers). In both cases, copyright law “...protects creators’ and owners’ rights to their works,” while at the same time limiting owners’ rights so that others may use the works. “As such, this law actually represents both the owners and the users of works” (Butler 2011, 8).

Copyright in Action in Your School Library

Scenario 1: Focusing on Fair Use

For school librarians, probably one of the most important parts of copyright law is dealing with fair use. Students want to use copyrighted material in papers and presentations. Classroom teachers want to copy and distribute library materials. Are these uses OK?

Fair use is a statutory exemption (part of the law) that focuses on four factors: character of use, nature of the work, the amount of the work used, and the effect on the marketplace. Purposely written to be vague (Rose 1993), the law’s wording has led many educators to assume that fair use means they can copy as much as they want when they want, as long as it is for educational purposes.

This interpretation, however, is a misconception in the extreme. In reality, educational use, like any other use of an original work, must be considered in light of the law. For example, the first fair use factor, character of use, addresses how a work will be used. “Works copied for educational, nonprofit, or personal purposes are much more likely to be considered within fair use than are those items that are copied with the intention of earning money” (Butler 2014, 14). Thus, a student may be able to tape a song to share with his class but not record the same song for sale in a music store.

The second fair use factor, nature of the work, deals with the work’s characteristics: Is the work fact or fiction, published or unpublished? Works most usable under this second fair use factor are nonfiction published pieces” (Butler 2014, 14). With this in mind, a high school science teacher may be able to copy an article about the ecological system of the Mississippi River for her class. However, a history teacher’s copying of a fictionalized account of the Lewis and Clark expedition, dated 1833 and recently found in an old trunk, might not be considered legal under this factor.

The third fair use factor, the amount of the work used, is measured two different ways: quantitatively and qualitatively. Quantity is easy—borrow the least means that if the heart of a work is borrowed—even if it is only a small portion—the use may not be OK. Therefore, if you need to borrow only three minutes of a movie to get a point across, borrow only that excerpt instead of showing the whole thing because “it is interesting to the class.” However, if that three minutes is the heart of the work—i.e., the rest of the movie builds up to that point and then fades away after—then that particular three minutes could be too much.

The effect on the marketplace is the focus of the fourth fair use factor. Basically, if borrowing what you
wish to use adversely affects how much money the owner of the work’s copyright can earn from selling or licensing the item, then copying that work (or part of it) may be too much. For example, if making slides from photos in an art book means that particular art book will not be purchased by a class, then such copying could be an illegal use. (Remember that there is seldom just one answer to a copyright question. WHAT TYPE of copyright permissions are attached to a work, WHO is using the work, and HOW it is being used can all make a difference as to whether a particular “borrowing” of a work’s intellectual property is legal or not.)

Accordingly, the next time a colleague says that the copying he or she is doing comes under fair use, take a look. Does it really? Remember that fair use is supposed to follow all four of the factors—not just the one factor of the user’s choice (Lipinski 2005)! [Editor’s note: See Yvonne M. Johnson’s and Nicole M. Johnson’s article in this issue for information about free tools that can help you make a fair use determination.]

Scenario 2: Centering on the Public Domain

A student wants to create a work of art containing the Bill of Rights and display the piece of art online. Is this copyright infringement?

Any medium in the public domain can be used in any manner that you, your students, and your colleagues desire. This freedom results when materials are no longer under—or have never been under—copyright protection. Examples of public domain media include many federal government documents (e.g., the Bill of Rights, the Declaration of Independence, etc.); phone books; freeware and other items to which creators and owners have given up their rights; items that cannot be copyrighted (e.g., scenery); works with expired copyrights, such as books published before 1923; and works for which no one claims
ownership (e.g., orphan works, see Scenario 5) (Butler 2014).

Public domain can be a complicated issue. For example, while many public domain works are free, it is possible to change and/or revise a public domain item, which may then go back under copyright belonging to the person who made the changes. For instance, the original Romeo and Juliet play is in the public domain; however, a movie version of this play is probably under copyright protection.

So, how does one know what is public domain and what is not? The easiest way to discern this status is to look at the documentation (identifying information) on the work itself. This documentation may say that the item is in the public domain. Otherwise, you can apply a number of rules (Butler 2001; Gasaway 2003; Hirtle 2016; Torrans 2003; U.S. Copyright Office 2011). The rules below apply to works copyright-protected in the United States or to international works that are under one of the world conventions or organizations to which the U.S. and the work’s country of origin belong:

1. Works published before 1923 are in the public domain.
2. Works published between 1923 and 1963, when a copyright notice is attached, can have their copyright renewed for a total of 67 years beyond date of publication.
3. For works published from 1964 to 1977 with an official copyright notice attached, copyright is automatically renewed for a total of 95 years.
4. Works created but not published before January 1, 1978 are legally copyrighted for the life of the owner plus 70 years.
5. All works published on or after January 1, 1978, are copyrighted for the lifetime of the creator/owner plus 70 years...[unless by a] corporate author or... “work for hire”... [which is] copyrighted for 120 years after the date of creation or 95 years from publication, the lesser amount being the one that applies (Butler 2014, 21).

What this all means is that when a patron or you, the school librarian, wants to know whether a work is in the public domain or not, you need to check it carefully. A number of websites are helpful with public domain questions. [Editor’s note: See the Johnson and Johnson article in this issue for information about helpful resources.]

Scenario 3: Obtaining Permission to Use a Work

Suppose you’ve read that listening to Mozart’s music can help students do better on tests (Center for New Discoveries in Learning 2016). You want to play recordings of Mozart’s music in the school library before the tests. Must you obtain permission from a copyright holder? Making this determination can be a daunting task.

While it is possible that a student can legally use a copyrighted work for a learning purpose (listening privately to a recording to learn about chromatic harmony), other use of works may be a copyright infringement, unless one of the following conditions applies to this use: (1) permission has been obtained from the creator or owner of the work, (2) use has been authorized by working with a
clearinghouse (and probably paying a fee). (3) a license to use the work has been acquired (again, usually a fee applies), (4) the work is in the public domain, or (5) the use falls under fair use or another part of the copyright law (Butler 2011; Butler 2014).

How could you proceed with your plan to play CDs of Mozart’s music over the PA system in the library? You know that the creator of the compositions (Mozart) is dead, so you must look to another of the criteria above. You could contact a music clearinghouse to see if a particular Mozart recording is available via the clearinghouse; you also might be able to purchase a license to use such a recording in the library before exam day. Perhaps you can find a Mozart CD in the public domain, or maybe the use of the music falls under fair use or another statutory exemption. If any one of these conditions applies, then you can play the Mozart recording in the library for students before testing begins.

Scenario 4: Licensing, Creative Commons, and Open Educational Resources
Students using subscription databases accessible through your school library’s website want to print whole articles they find. Is this printing copyright infringement? It depends on the license you bought.

“Licenses...are legally binding contracts (that) ...define the ways that a protected (copyrighted) work can be used. The owner of the copyright uses the licenses to delineate which exclusive rights in a work are granted to others for their use...the rights...are limited and nonexclusive, and they only extend to using the work for specified purposes...Essentially licenses are a part of the package that buyers purchase in conjunction with most works” (Butler 2014, 40). Thus, the license for one database that a school librarian buys for a library may state that students can print out complete articles, while the license for another database might decree that these same students can print out only article abstracts.

Creative Commons offers owners and creators of works a number of differing standardized licenses that the owner/creator may use when licensing work. Creative Commons licenses give owners/creators options regarding what parts of their work they are willing to give away and which they wish to keep (Creative Commons 2016). An example of this could be when a student remixes the lyrics to a song with a Creative Commons (CC) Attribution CC BY license, which “…lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation” (Creative Commons n.d.). Because of the particular CC license, the student can legally remix the lyrics, as long as the student gives credit to the original lyricist.

“Open Educational Resources (OER) are teaching, learning, and research materials in any medium that reside in the public domain or have been released under an open license that permits their free use and re-purposing by others” (Creative Commons 2016). Several states, including Arizona, Illinois, Oregon, and Wisconsin are currently committed to OERs (Mulholland and Roscorla 2016; Illinois State Dept. of Ed. 2016). This means that a school librarian in Illinois can access a free statewide website to obtain educational materials with CC licenses for the use of faculty and students in the school.

Scenario 5: Considering Orphan Works
One of the English teachers in your school found an old book of short stories in her grandmother’s attic. The book doesn’t contain a copyright statement, and the publisher is no longer in business. The teacher wants to make copies of one of the stories for her three tenth-grade sections, but she’s not sure if making and using the copies would be legal. She turns to you for guidance. What can you tell her?

An orphaned work is one “where finding the owner(s) is problematic or next to impossible” (Butler 2014, 51). When considering whether to use orphan works, educators have to wonder whether they should “(1) continue searching for an owner, in order to obtain permission to use the work? (2) use only that part of the work which might fit under fair use or another copyright exemption? (3) give up’ and use something else? (4) argue, after searching for a ’reasonable amount of time,’ that in good faith, they have tried, and risk using the work anyway?” (Butler 2014, 51). Unfortunately, there’s no easy answer.

The bottom line is that if you or a faculty member chooses to use an orphan work and the owner/creator shows up and demands compensation, you may either elect to pay for the use of the item or stop employing it. Should you ever receive a “cease and desist” letter from a work’s owner, honor it immediately!
Whatever the length of the policy, it is important that copyright policies be worded, as much as possible, in a positive manner. Negative language may overly restrict the borrowing of intellectual property by apprehensive patrons, whether students or faculty.
Scenario 6: Dealing with Copyright and Other Countries

Suppose the parent of one of your students bought a movie while he was in China. Now he wants to show it at an after-school club meeting in your library. You wonder whether an international copyright law covers this circumstance.

According to “Circular 38a” of the U.S. Copyright Office (2016), international copyright law does not exist. What does exist are a number of organizations, conventions, and treaties (e.g., Berne Convention for the Protection of Literary and Artistic Works; World Intellectual Property (WIPO) Copyright Treaty, Geneva; Universal Copyright Convention as revised at Paris) agreed upon between various countries, so that participating countries can more easily deal with the vagaries of using in one country a work published in another.

This means that, in the case of a movie created in China, one of the issues you need to address might be any copyright-related agreements between the U.S. and China. Note that, as a general rule, if you are unable to discover what such agreements might be or mean, treat the international work as if it were published in the United States.

Scenario 7: Explaining the Distinctions between Copyright and Plagiarism

Student A fails to identify the sources of text, images, and ideas. Student B may identify sources but uses others’ intellectual property illegally. Are both students doing something illegal?

Copyright and plagiarism “…are indirectly linked in that both are engaged in the borrowing of someone else’s work. Copyright considers whether permission has been granted to use another’s work and/or license agreed to or royalties paid. Plagiarism, on the other hand, focuses on whether the work’s user gives credit (usually a citation) to the work’s creator” (Butler 2015, 150). Thus, a student copying part of the U.S. Constitution for a paper will not have violated copyright (the work is in the public domain), but if the student does not cite where the copied text came from, plagiarism will have occurred. Please note that infringing on copyright is a legal issue while plagiarism is an ethical one, i.e., ethics do not have to be law (Reference 2016).

Scenario 8: Creating Copyright Policies

OK, you’ve done an excellent job of guiding your students and fellow-educators around the pitfalls of copyright infringement. Some department chairs, including the heads of the English and social studies departments, approach you about creating an official copyright policy. Now what?

If your school, district, or library does not have a copyright policy, it is imperative that one be generated; such a policy (and its corresponding procedures) will support you, as well as researchers and owners, in cases where copyright compliance becomes an issue. School district/school library copyright policies are plentiful on the Web; “some of the policies are quite long, covering many pages and formats…and some are very short, stating only that the organization in question should ‘follow the law’ ” (Butler 2009, 11).

While a short copyright policy may be only a sentence or two, or a paragraph in length, a long policy can include things such as excerpts from the law and/or guidelines; types of works that can be copyright-protected (such as books, periodicals, DVDs, videos, the Internet, and computer software); information on how to register a work at the U.S. Copyright Office; a sample permission request form; examples of infringements and consequences; district/school photocopying criteria; and more. Some may even contain guidance applicable to such things as the school copy center and a signature line, so that the school/district has a record of who has read the document (Butler 2009).

Whatever the length of the policy, it is important that copyright policies be worded, as much as possible, in a positive manner. Negative language may overly restrict the borrowing of intellectual property by apprehensive patrons, whether students or faculty.

Educating the User

All your library users, regardless of whether they are students or teachers, need to grasp the ins and outs of copyright. Such an understanding can be difficult for you to help them develop; copyright compliance in a school requires teaching and learning countless things, meeting many standards, and recognizing that few directly address copyright. [Editor’s note: For more on copyright standards, see Barbara Fiehn’s article in this issue.] However, introducing basic copyright concepts to your students—no matter their age—is extremely important, as is providing copyright information to teachers and staff through workshops, individual tutorials, and answering questions.

While the likelihood that an individual will be involved in a copyright lawsuit may be small, in reality, all of us have at one time or another made a choice that either follows copyright law or infringes
upon it. In the school, it may be as simple as copying library software to one extra computer beyond the licensing limit, so that a needy student has material for a class report; showing personally owned movies on a field trip school bus; or putting an article up on the online homework hotline without looking to see if permission is needed to do so. Given the plethora of copyright lessons for students and adults available via the Internet as well as books and articles on this subject, it need not be difficult to find teaching and training materials for school library patrons of any age. [Editor’s note: For educational resources see the Johnson and Johnson article in this issue.]

Lastly, teaching K–12 students what copyright is and why it is important has an added benefit. A student who sees a teacher violating copyright law may remind the teacher about the right thing to do, thus sparing you the necessity of acting on this teaching opportunity!

Maintaining Copyright Compliance

To implement and then maintain copyright compliance in a school, the school librarian (along with support from administration and faculty) is best served by teaching library patrons the basics of copyright, posting copyright notices on equipment that can be used to copy (photocopy machines, computers, etc.), and modeling proper copyright-related behavior. Here is a list of activities that will help you maintain school-wide copyright compliance:

- establish a district/school copyright compliance policy;
- establish copyright compliance procedures;
- analyze organizational impact;
- determine copyright training needs;
- provide necessary copyright training;
- communicate to all stakeholders the copyright policy and procedures;
- audit the copyright process for compliance;
- provide feedback for copyright process improvement; thus
- maintain copyright compliance. (Butler 2009, 2015)

Wiggle Room

How Can We Make the Law Work for Us?

Contrary to popular belief, copyright law can actually help researchers in the context of copying and borrowing, as long as the intellectual property of others is used correctly. In addition, many educators choose to observe copyright guidelines and encourage their students to follow this practice. Below are a few points of interest to school librarians and their patrons to help them use copyright to their advantage.

Copyright Law, Teachers, and Students

In the United States copyright law is written in a somewhat ambiguous manner, giving both owners and users the ability to make some interpretations. Thus, copyright is best seen in shades of gray; a copyright-related question seldom has only one answer. For example, it is probable that we all have met educators who argue that all borrowing of intellectual property for educational purposes is fair use. Such individuals may contend that this is so because they are working with students, and there is not enough money for everything needed in K–12 education. While such need could possibly relate to a moral issue, it is not a legal one, and copyright law asks that everyone borrow others’ works in a legal manner.

For instance, “The first fair use factor, purpose and character of use, looks at how those copying the work are going to use it” (Butler 2014, 14). Parodies, commentaries, and similar “transformative uses” fit under this factor. The United States Copyright Law, 1976, Section 107:16, says that such use is permissible “for purposes such as criticism [or] comment.” This means that the eighth-grade home economics teacher could legally assign her students to find an online advertisement featuring clothing and transform the content into a critique of today’s fashion. Additionally, this critique could then be shared in the original classroom and even used in student portfolios.

Another “plus” regarding copyright law is that in a nonprofit face-to-face classroom setting, if the borrowing of a work obtained in a legal manner is needed for a learning purpose, this can be done by either students or their teachers. This means that if the best way for a fifth-grade class to learn how to place music into digital presentations is to borrow songs from their own personal CDs, put the songs into said presentations, and present these to the class, then students may do so (U.S. Code. Title 17. Chapter 1. Sec. 110).

Law v. Guidelines

“Copyright law is federal law, updated periodically by acts passed by the U.S. House and Senate” (Butler 2009, 11). Copyright guidelines, on the other hand, can be interpreted to mean that the
user has "...acted in good faith" and "...are flexible; they provide a conservative definition for the use of works, not the maximum that the law permits. You actually could, in good faith, use more of a work than those moderate amounts suggested without infringing on the owners' copyright. Unfortunately, the maximum use is not clearly defined in copyright law. Therefore, be aware, the further beyond the guidelines that you borrow from a work, the greater your chance of copyright infringement" (Butler 2014, 47).

Because "Guidelines are far more rigid than the fair use factors...are not binding under the law, and represent minimum amounts rather than maximums...many copyright experts do not encourage their use" (Butler 2014, 15–16). Thus, guidelines have a place; they inform the borrower as to exactly how much can be copied, usually specific amounts, such as 10 percent of a work. However, be aware that in many cases, the law might let you borrow more intellectual property than the guidelines suggest.

Conclusion

Whether using digital content, working with print materials, or operating in social media, we have legal ways to use and borrow from another's works. As you navigate the minefield that copyright observance sometimes appears to be, remember that information is available on the Web, in books and articles, as well as through lawyers, consultants, and other educators. Also note that copyright law can be a good thing. Instead of seeing it as a negative, look at all the things that you can do. Make the choices to borrow from works in a positive manner, and copyright can also become your friend!

Rebecca P. Butler, PhD, is a retired distinguished teaching professor at Northern Illinois University in DeKalb, where she taught school librarianship, instructional technology, and copyright classes. Recent books she has written include Copyright for Academic Librarians and Professionals (ALA 2014) and School Libraries 3.0: Principles and Practices for the Digital Age (Rowman & Littlefield 2015). School Libraries 3.0 is the winner of the SLC/ARBA 2016 Best of Reference Award for Best Professional Guide for School or Youth Librarians.

Works Cited:

——. 2014. Copyright for Academic Librarians and Professionals. Chicago: ALA.


RESOURCES for School Librarians

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This article provides a collection of annotated citations for online resources of interest to school librarians; the focus is on copyright law, related information, and guidelines. The citations are organized by themes based on common issues. Copyright protects originally created works, including movies, recorded music performances, novels, photographs, video games, paintings, poetry, and more. This collection of resources offers a sample of information and materials available to school librarians as they work on copyright issues with students, teachers, and administrators.

**Copyright Defined**


This brief animated video provides an overview of copyright concepts, including attribution, ethics, fair use, and public domain as they relate to the educational use of copyrighted material. The concepts are explained in easy-to-understand language to assist educators with making appropriate copyright determinations for materials used in traditional classrooms and online learning management systems. Although this video focuses on higher education, the information is also applicable to the K–12 environment.

**Fair Use**


The U.S. Copyright Office examines and registers copyrights for authorship of various types of works. The site also provides basic copyright information, including definitions of copyright and fair use, as well as providing updates on current legislation related to intellectual property rights and international agreements related to copyright. If you use only one source, this is it!


This site offers a tool that helps users make a U.S. Copyright Code “fair use” determination. A time-stamped PDF document is provided to the user as evidence to demonstrate that a good-faith effort was made to reach the fair use decision. The site also provides explanations of fair use, including the four fair use factors: purpose, nature, amount, and effect.

The checklist is designed as a tool for making a fair use determination based on the specific facts of individual situations. A copy of the checklist can be retained as evidence of a good-faith effort to make an appropriate fair use decision.

Permissions


A summary of detailed steps to follow to obtain permission to use copyrighted work is provided on this webpage.


The Permission Templates are interactive tools that illustrate how teachers and students might communicate with authors of Web content to obtain permission to use copyrighted work.

Public Domain


This site offers a copyright digital slider for those trying to determine whether or not an item is in the public domain. Directions for use are provided on the site.

Digital Media


This model policy is designed to assist educators and students by providing information and guidelines for the use of copyrighted materials, especially in the development of digital media productions that include photographs, music, film, or video clips.

This site includes general information on copyright topics as they relate to online education. Examples and resources related to text, images, video, and sound recordings are provided to assist users when making copyright decisions about their Web-based course materials.


This site provides guidelines for taping educational television programs for use in classrooms. Also provided are the four fair use factors educators should consider when using copyrighted video.


The program is designed to help users make copyright determinations for a specific image, work of art, designed object, or portion of a built environment. Users answer a series of questions that provide insight on generally accepted practices within the visual resources community. The site recommends that users have a basic understanding of copyright principles before using the Digital Image Rights Computator.

Open Educational Resources (OER)


Creative Commons makes available free, easy-to-use standardized licenses authors can use to establish the conditions under which others have permission to use the authors’ creative work.


The Illinois Open Educational Resources website provides tools for curating, sharing, and creating career and educational resources. This example of a state-wide open resource exchange includes a variety of stakeholders, such as state leaders, school districts, educational technologists, workforce partners, and non-profit organizations, collaborating to share openly licensed educational resources.


This website offers a “#GoOpen District Launch Packet” as well as technical resources, publications, and other information to encourage educators to use openly licensed educational materials for the purpose of transforming teaching and learning.
Sample K–12 Copyright Lessons


The Teaching Copyright website includes free lesson plans, handouts, supporting documents, and other resources to assist K–12 educators interested in teaching copyright concepts and ethical use of the intellectual property of others.


The Adventures of Cyberbee site includes copyright resources for elementary and middle school teachers as well as an interactive tool that can be used for teaching students the basics of copyright.


This short video presents an example of a copyright lesson for students in grades 9–12. Topics addressed include copyright guidelines, vocabulary relating to intellectual property, and application of copyright rules to research projects.


The copyright and fair use curriculum developed at the University of Rhode Island (and supported by charitable foundations and the URI Harrington School of Communication and Media) addresses copyright and fair use. The curriculum is based on the Center for Media and Social Impacts’ “Code of Best Practices in Fair Use for Media Literacy Education.” Lesson plans include activities and readings for high school and college students.


This brief video includes a lesson for students in grades 6–8. The teacher explains fair use guidelines and connects the discussion to the use of video content. Students work in small groups facilitated by the teacher to apply fair use standards to digital content.
Conclusion

This article provides a sampling of resources that may assist school librarians, when confronted with copyright questions and dilemmas, as they work with their clientele: students, teachers, and administration.

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Nicole M. Johnson is a 2016 graduate of the University of Iowa with a BA in English with an emphasis in writing. Since graduation, she has worked on a contractual basis for Pearson Educational Services. In her role at Pearson, Nicole scores English, history, and writing assessments for grades four, five, eight, and ten.
Copyright Updates for K–12 Librarians

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Introduction

As this special issue goes to press, a civil lawsuit accusing Robert Plant and Jimmy Page of Led Zeppelin of plagiarizing the opening chords of the 1971 rock classic “Stairway to Heaven” heads to federal court in Los Angeles. Federal judge Gary Klausner ruled that “Stairway to Heaven” and the 1967 instrumental “Taurus” by the band Spirit were similar enough that a jury should decide whether Led Zeppelin was liable for copyright infringement (“Led” 2016). Copyright concerns continue to bedevil K–12 librarians, who are often called upon to act as the copyright officers in public schools. As the Led Zeppelin case demonstrates, students who borrow even brief riffs or short chord progressions from rock and roll standards for a school band program may inadvertently engage in copyright violation. This article describes recent copyright developments of concern to these librarians in three areas: a recent court case involving a university library, pending legislation supported by ALA, and a regulatory update. Many recent cases, laws, and regulations stem from issues raised by the Digital Millennium Copyright Act (DMCA) of 1998.

Court Case

The most recent court case related to copyright that is of interest to K–12 school librarians is Cambridge University Press v. Carl Patton et al. Three academic publishers, Cambridge University Press, Oxford University Press, and Sage Publications, sued Georgia State University (GSU) for copyright infringement. Carl Patton was named as a defendant in the suit since, at the time it was initiated, he was president of the university. GSU routinely placed copyrighted material on e-reserve, without paying licensing fees, for courses offered by the university. At first glance, it might appear that the publishers should prevail. Before the widespread distribution of digital material (via course management systems such as Blackboard or WebCT), instructors who wanted to distribute copyrighted texts to students would assign a coursepack created by campus bookstores or commercial copying companies (for example, Kinko’s). The creators of these coursepacks paid licensing fees to the publishers for permission to reproduce and distribute copyrighted material. Digital distribution, however, bypasses bookstores and commercial copying companies. Consequently, no third party exists to pay the publishers for permission to use protected material. In this instance, GSU professors essentially replaced paper coursepacks, which were licensed, with e-reserves, which were not licensed. The academic publishers bringing the suit, Cambridge University Press et al., claimed that they were suffering economic harm at the hands of Georgia State University.

The Patton court disagreed. The court noted that, while publishers may have a system for licensing of paper excerpts, they did not always have one for digital excerpts. This, according to the court, implied that there was no market for licensing of digital excerpts. Therefore, allowing GSU professors to distribute excerpts digitally caused little market harm to the plaintiffs. In its decision, the court noted that technological advances had created new means for delivering copyrighted material to end users, causing headaches for consumers (including librarians) to define fair use standards for digital material. The court wanted to strike a balance between the rights of copyright holders, who must be provided with an economic incentive to produce material, and consumers, who use this material to build on the ideas of others. The court found middle ground by distinguishing between Georgia State University’s nonprofit use of copyrighted materials (placing the works on e-reserve) from the commercial sale of coursepacks.

Annemarie Bridy, a copyright and fair use scholar at the University of Idaho, has explained three takeaways for school librarians from the GSU case. First, librarians who follow the doctrine of fair use do not need to obtain a license when they are the secondary users of copyright material (placing the items on e-reserve). Further, failure to obtain such a license does not convert such nonprofit secondary use into commercial use (that is, librarians do not become commercial users simply because they failed to obtain a license). Second, the court decision did away with arbitrary quantitative thresholds for fair use of copyrighted material. The 10 percent threshold contained in the legislative history of the 1976 Copyright Act does not carry the force of law and may represent a floor rather than a ceiling of fair use. Third, a secondary user’s failure to “transform” a digital work (such as offering a critique or a parody) does not violate fair use if the material is used for educational purposes (Bridy 2014). Thus, posting digital work on a library’s website or institution’s course management system without “transforming” it does not violate fair use standards. Regardless, K–12 librarians should still proceed with caution and evaluate each fair use situation on a case-by-case basis.

Legal research presents a daunting challenge to information professionals. However, school librarians do not need to go to a law library...
The court wanted to strike a balance between the rights of copyright holders, who must be provided with an economic incentive to produce material, and consumers, who use this material to build on the ideas of others.

to do this specialized research. LexisNexis, an extensive online database of legal materials, is widely available and contains the texts of federal and state court cases. This resource provides "Headnotes" on most cases, which illustrate and explain the key legal points under consideration. The transcript of the Patton case contained in LexisNexis also provides the core terms librarians can use to decipher the case and conduct further research into the topic: fair use, excerpt, infringement, copyrighted, copying, permission, digital, coursepack, license, educational, classroom, publisher, user, guidelines, nonprofit, weigh, copied, electronic, educational purposes, holder, secondary, transformative, licensing, injunctive, original work, favored, work-by-work, unpaid, Copyright Act, and copyright infringement. Also, the particular glossary for Patton is very good on civil infringement and fair use.

**Pending Legislation**

*Your Own Devices Act*

As of June 2016, ALA supports three pieces of pending legislation.

H.R. 862, Your Own Devices Act (YODA), introduced by Rep. Blake Farenthold (R-TX), amends federal copyright law "to allow the owner of a machine or other product operated in any part by a computer program to transfer an authorized copy of the computer program, or the right to obtain such copy, when the owner sells, leases, or otherwise transfers the machine or product to another person" (U.S. House of Rep. 2015a). In other words, when a librarian or library purchases (or sells) a digital device, YODA transfers a copy of the embedded software with that device and overrides the end-user license agreements usually included with such software. Further, if the owner of the device has the right to receive security updates or patches that right passes to the subsequent owner of the device. YODA is an important step toward addressing the problem of restricted licenses on software imbedded in digital devices (Walsh 2014).

Many K–12 school librarians, as well as their students and faculty, bring their own devices (smartphones, laptops, tablets) to work. If H.R. 862 is signed into law, these librarians and patrons can use newly purchased hardware (and embedded software) without fear of violating copyright law. By the same token, when end users sell surplus hardware, they are also transferring ownership of software contained in that hardware. However, YODA would prohibit school librarians, libraries, and library patrons from retaining an unauthorized copy of a computer program after transferring that program to another user or institution.

*Breaking Down Barriers to Innovation Act*

The second pending bill supported by ALA, S. 990, Breaking Down Barriers to Innovation Act of 2015 (BDBD), revises procedures under the DMCA "for the Librarian of Congress to conduct an administrative rulemaking every three years to determine whether to exempt certain noninfringing uses of a copyrighted work from the statutory prohibition on circumventing a technological measure controlling access to a particular class of work" (U.S. Senate 2015). The question,
Thus, librarians who engage in a technological workaround to provide fair use access to library material are not guilty of copyright infringement. A further upshot is that librarians can unlock mobile devices (smartphones, tablets, and library networking devices) without obtaining consent of the original carrier network before switching to a new carrier.

Regulatory Update

Today, user-upload services such as SoundCloud, YouTube, and Vimeo make massive amounts of music and video content available. Regrettably, users of those websites post large quantities of infringing content, often under the guise of “fair use.” Consider the following caveat posted on YouTube regarding a Moody Blues album:

Copyright Disclaimer Under Title 17 Section 107 of the Copyright Act 1976, allowance is made for “fair use” for purposes such as criticism, comment, news reporting, teaching, scholarship, and research. Fair use is a use permitted by copyright statute that might otherwise be infringing. Non-profit, educational or personal use tips the balance in favor of fair use. I receive No Profit on this audio/video, strictly for comment only, YouTube controls the commercials. NO INFRINGEMENT OF COPYRIGHT IS INTENDED. (“Hippie Chick” 2012)

Commercial trade organizations such as ASCAP (American Society of Composers, Authors and Publishers) and IFPI (International Federation of the Phonographic Industry) contend that the users of these websites post massive amounts of copyrighted material. Since 2012
[A] secondary user’s failure to “transform” a digital work (such as offering a critique or a parody) does not violate fair use if the material is used for educational purposes (Bridy 2014).
the recording industry has sent over seventeen million takedown notices (May and Cooper 2016). The industry argues that upload services draw revenue from Internet advertising (for example, the pop-up ads in YouTube videos) and, thus, have a financial disincentive to comply with takedown requests. The search engines create added traffic (and revenue) by linking to infringing content, an action that raises the question: Should the safe harbor provision of section 512 of the DMCA also apply to user-upload services (May and Cooper 2016)?

The Registrar of the U.S. Copyright Office is authorized to establish regulations consistent with U.S. copyright law (Bailey 2016). At present, the DMCA provides for a notice and takedown process for copyright works on the Internet. Those who comply with the takedown notice often are extended immunity from legal action. However, the Copyright Office is considering changing the DMCA mandate to a notice and staydown process in which the hosting organization cannot merely remove the copyrighted material from its platform; it must also ensure that the material does not appear on it in the future (Bailey 2016). This change, if implemented, would have implications for school librarians and school libraries because librarians may be responsible for ensuring that the copyrighted work never appears on the school’s Internet platform again. Historically, using recorded material has been frowned upon by the courts, even though fair use standards exist. School librarians must tread carefully before posting audio material on a school’s website lest they become responsible for filtering Internet content to prevent copyright infringement.

Keeping Up with Changes
Librarians have two excellent options to check the status of pending legislation. (The material on these two websites overlaps.) ALA tracks copyright issues and legislation here: <www.ala.org/advocacy/advleg/federallegislation/copyright>. The federal government provides status updates on intellectual property legislation here: <www.copyright.gov/legislation>.

Works Cited:


just because

you can
doesn’t mean you should

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Introduction

When was the last time you saw a student copying from a print reference source? As print sources gather dust, digital materials’ use grows. Digital materials are more to the liking of students raised with technology in hand. For young learners, the process of on-screen copy and paste has made replication with pen and paper obsolete.

I know from experience that today’s libraries provide an array of digital resources to patrons, resources the likes of which most school librarians could only wish for ten years ago. Thanks to state and regional consortiums, even small schools may have access to subscription periodical databases, online encyclopedias, and video streaming, as well as free-access sites. The 2014 School Library Journal Spending Survey report by Lauren Barack found “85 percent of school librarians can gain access to electronic resources for free from their state” (2014, 2). As an example, the Kentucky Virtual Library “Our Services” page (2008) says that this organization subscribes to sixty databases serving the educational and research needs of Kentucky citizens and students “through 300 member libraries” (Kentucky Virtual Library 2016). In addition, many school districts and public libraries choose to augment their state or consortium digital collections with additional subscription resources, and, as reported by Barack (2016), nearly a third of reference material is digital and 21 percent of respondents indicated they planned to increase spending on e-books in the coming year. In some states, other digital resources are available through government or private agencies such as the Arizona Center for After-school Excellence, Massachusetts’s Digital Commonwealth, and the Minnesota Learning Commons.

The "IFLA Code of Ethics for Librarians and Other Information Workers” presents in the preamble “belief in the human necessity of sharing information and ideas implies the recognition of information rights.” Following this strong statement is Article 2, which affirms, “[promoting] the ethical use of information thereby helping to eliminate plagiarism and other forms of misuse of information” (2012). In my opinion, many people will agree with these lofty goals. Another international organization, the Association for Educational Communications and Technology in its Code of Professional Ethics, Section 3, Article 8, specifies that members “shall inform users of the stipulations and interpretations of the copyright law and other laws affecting the profession and encourage compliance” (2007). While such international organizations establish foundations for practice, it is in national and state organizations that librarians and technologists find their closer-held statements of ethics or codes of conduct.

Professional Ethics

Library and technology professional organizations may include in their codes of conduct statements covering the ethical use of technology hardware and intellectual property. While the wording may vary in specificity, the general content usually includes teaching students and faculty about intellectual property rights and ethical behaviors in print and digital environments, behaviors such as citing sources, honoring “fair use,” recognizing appropriate limits of use, and observing online etiquette (AASL 2007; ALA 2008; Illinois School Library Media Association 2016; IFLA 2012). Thus, reading through codes of conduct or ethics becomes an interesting comparison in phrasing and emphasis.
1.3.3 Follow ethical and legal guidelines in gathering and using information.

3.1.6 Use information and technology ethically and responsibly.

3.3.7 Respect the principles of intellectual freedom.

4.3.4 Practice safe and ethical behaviors in personal electronic communication and interaction.

(2007 4, 6, 7)

A search for state standards, including ethics statements, reveals many, among them the Illinois Standards Aligned Instruction for Libraries (I-SAIL), Kansas Model Curricular Standards for Library Media and Technology, Minneapolis Public Schools Information Media/Technology Standards, and Model School Library Standards for California Public Schools.

Digital Resources

New Resources, New Challenges

Susan Sharpless Smith wrote "A major facet of academic inquiry is the concept of building on others’ work and then synthesizing the previous knowledge into something new. The ease of this in the electronic world makes it more important than ever to teach the ethics of properly acknowledging prior knowledge” (2010, 24). The digital resources used by students and teachers in 21st-century schools have moved beyond clip art and CD-ROM-based materials to file sharing, photo editing, video streaming, mashups, and more. Each digital resource format stimulates its own questions and concerns related to property rights.

File Sharing

At the turn of this century, the prosecutions of both file-
Modeling ethical use is important as students choose free digital streaming as a source for making their own productions.

sharing application companies and individuals who used the applications made headline news, resulting in failures or metamorphosis of companies such as Napster and Kazaa, and minimal to massive monetary punishment (Kravets 2012). In 2012, the Supreme Court let stand the $675,000 file-sharing damages award against a college student for making thirty music tracks available on a peer-to-peer network. According to David Kravets, most cases involving individuals resulted in out-of-court settlements of a few thousand dollars (2012). The financial losses to the music industry were, however, large and resulted in publishers of other digital media becoming cautious about making their digital content available (Johnson 2013). The development of a number of content-protection processes known as DRMS (digital rights management systems) now restrict, limit, or hamper the illegal sharing and use of digital content (Reference 2016). The simplest example of DRM technology is the access key used to unlock software for a computer (Mitchell 2004). Other DRM examples are “the copy-protected music CDs and the content scrambling system, or CSS, designed to prevent users from copying movies embedded in DVDs and software restrictions preventing the space- and device-shifting of e-books” (Cohen 2003, 47). Ask any computer-savvy teen how well these publishing strategies work!

Today digital users may automatically back up and synchronize documents, pictures, and other data to the cloud using file-hosting resources such as Google Drive or Dropbox. Doug Johnson is one of the many authors who have praised and discussed the advantages of the cloud as a cost-effective alternative to current educational digital storage (2013).
These hosting services are not providing the same type of illegal file-sharing services as those used in the late 1990s. However, the potential for misuse of intellectual property always exists and the examples from the past, I believe, should become part of instruction on ethical use of digital resources.

**Digital Photography**

As a photographer from the pre-digital age, I know digital photography has made the manipulation of images undetectable, an impossible feat with old darkroom printing. Doug Johnson has asked, “What obligations do communicators have to present an undoctored photograph, even if its message may not be as powerful as one that has been digitally enhanced?” (2013, 150). I consider this an essential question to be answered in K–12 schools. The digital photography curriculum map for Groton Public Schools (n.d.), for instance, mentions ethics fourteen times, including ethics of image manipulation in the software unit. The teacher resources in this curriculum also include the ethics code from the National Press Photographers Association.

Johnson indicated that he has moved from Photoshop Elements to the online applications Flickr, Picasa, and Picnik, which give him all the storage and editing power he needs (2013, 76). Those applications and others such as Splashup and JayCut make it easy for students and teachers to experiment with photo and video editing without the expense of more-traditional editing software. As a result, a part of technology ethics instruction should, I believe, address digital manipulations.

**Video Streaming**

School librarians, building and district technology staff, and administrators have a variety of video streaming opportunities from which to choose. A school must take care when using streaming providers such as Netflix, Hulu, or Amazon without express written permission (Duncan and Peterson 2014, 3). It is important to always check such sites for user agreements and copyright information. The same holds true for streaming videos found via YouTube and similar options.

School librarians must make students aware that they (the librarians) are providing streaming video only within the confines of the copyright law. Modeling ethical use is important as students choose free digital streaming as a source for making their own productions.

**Mashups**

“The term mashup originally comes from pop music, whereby people seamlessly combine music from one song with the vocal track from another—thereby mashing them together to create something new” (Engard 2009, 3). A mashup is similar to a remix—“a new or different version of a recorded song that is made by changing or adding to the original recording of the song” (Merriam-Webster n.d.)—and the two words are often used as synonyms. Mashups are divided into two types. First is a collage of disparate elements as in music. Second is the use of a webpage or software application combining data and/or functionalities and combined in a new manner (Engard 2009). "Advances in Internet and communication technology have created a new space in which the mashup community has grown" (McGranahan 2010, Conclusion). Public school students, teachers, librarians, artists, and anyone who takes the time to learn how can make a digital mashup. Even the course management software Blackboard has a mashup application in its text editor features for students and faculty (Northern Illinois University 2016).

"Mashup artists are at the forefront of a larger movement in which consumers become producers who reshape and remix the culture around them” (McGranahan 2010, Conclusion). Some mashups are at the margin of copyright law due to the material used for creating transformational works (Menell 2016). Thus, the argument of fair use may or may not cover mashups (“Ryan B” 2010).

Nicole C. Engard wrote “first and foremost, when creating a mashup, respect copyright and rights management terms. …It’s critical that copyright and the uses allowed by the copyright holder be respected” (2009, 14). Preferring to err on the side of caution, I would facilitate a discussion of intellectual freedom and mashups with students before beginning mashup projects. Student coders can prototype enhancements to the library website, and those meeting student or faculty needs could be implemented. The students will be much more creative than I am. A few ideas are a splash page (with digital resources) that launches with the activation of a Web browser on any student-access computer, or literary tours integrating Google Earth, Google Maps, and site images, or that use Earth Album to do the same thing. Additional ideas include interactive maps of the library, news and weather updates, new book reviews, and data generated from the school automation system.
Conclusion

This article has looked at professional ethics, especially those focusing on copyright and schools, and then at some of the newer issues in our digital world as copyright applies to them. What can you take away from all of this? Perhaps that we need to be selective about what media (digital and otherwise) we choose to use for learning and for creating knowledge and that our professional ethics and standards are guides as we move through the digital world.

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Works Cited:


From Mary Virginia Gaver to the CLASS Research Summit
A Journey toward Causality and Student Success
Since the 1950s the influence of a full-time, certified school librarian in a school library has been positively correlated to student achievement. Mary Virginia Gaver’s 1963 study report Effectiveness of Centralized Libraries in Elementary Schools is the publication that set school library research in motion. This pioneer research investigating the effect of school libraries on elementary reading scores was one of the first to relate achievement tests to the presence of a school library and certified school librarian (Dickinson 2005). Since then, a foundation of twenty-five correlational studies have clearly established this connection between school libraries, certified school librarians, quality school library programs, and student academic achievement (Scholastic 2016).

However, more than fifty years later we still understand little about how the practices of school librarians cause student success. Efforts are under way to generate causal research on the influence of school libraries and school librarians on student achievement. By defining the emerging roles of the school librarian in the digital age, we can implement professional practice that drives educational achievement.

Mary Virginia Gaver (1906–1991) was born into the analog world of linear physical data. Early in the twentieth century Gaver advocated for school libraries and sought to discover how school librarians and school library programs impact student achievement. Before Gaver entered the field of research, school librarians counted books, staffing levels, and hours open. But Gaver asked the difficult question: What do we do in the school library that makes a difference to the intellectual development of our students? To put a finer point on it, “Gaver turned the attention of the field from counting the resources as proof of effectiveness to looking at the student learning that was the result of the use of those resources under the direction of a skilled school librarian” (Dickinson 2015).

By defining the emerging roles of the school librarian in the digital age, we can implement professional practice that drives educational achievement.

Mary Virginia Gaver understood that access to a real school library was vital to the education of young students.

Biography

Mary Virginia Gaver understood that access to a real school library was vital to the education of young students. As a child she canvased door-to-door with her mother and brother to raise funds to buy books for the elementary school in their small mill village of Danville, Virginia. Gaver later served as an English teacher and in 1928 became the librarian at the local high school. She trained as a librarian through the District of Columbia Public Library, eventually earning a bachelor’s degree in library science in 1932 and a Master’s degree in library science in 1938, both from Columbia University. Gaver brought direct experience to the education of school librarians, teaching at the University of Virginia, Emory University, and Trenton State Teacher’s College. She opened the

The Study
At the close of the 1950s, the need became apparent “to convince school administrators that a real school library was an essential for a good elementary program” (Gaver 1963, 129). To find evidence, Gaver launched her landmark study, the results of which were published in book form in 1963 as Effectiveness of Centralized Libraries in Elementary Schools. The initial study, intended as a preliminary to a larger study, set out to develop measures of the relationship between library service and educational achievement. To do this Gaver carefully chose six schools that represented three library categories (see figure 1). She selected (I) two schools with only collections of books deposited in a classroom, (II) two schools with a centralized collection monitored by a non-librarian, and (III) two schools with school libraries, which she defined as “An organized central collection of books and other materials, broad in variety and content, housed in a room in a school for the use of students and teachers and under the direction of a librarian.” (Gaver 1963, 1).

Gaver's ground-breaking study found that schools with school libraries and school librarians (schools A and B) showed higher educational gains, defined as improved scores on the Iowa Test of Basic Skills (ITBS) from fourth through sixth grades. Findings also differentiated in favor of the school library category based on the test of library skills that she developed for this study (Gaver 1963). Gaver’s evidence also showed that the library provision of the school (classroom library, central collection, or school library) is related to the amount that children read. Children in schools with school libraries read twice as much as those in schools with centralized collections (but no librarian) and three times as much as those in schools with only classroom collections (Gaver 1963).

But Effectiveness of Centralized Library Service in Elementary Schools was more than an examination of achievement scores. Gaver developed several instruments and looked at a variety of dimensions of library service. Her findings showed a clear differentiation in favor of the school library category for collection of materials, accessibility, and the volume of library-related activities. Her findings also showed in favor of the school library category for mastery of library skills, in addition to the amount of reading and gains in ITBS scores (Gaver 1963).
Ideally, future research related to school libraries will incorporate strong causal research designs while integrating best practice with theory and policy.

1963). This initial study, which she labeled “Phase I,” was intended as a “fishing expedition.” The findings that school libraries and school librarians influence student achievement were so conclusive that Gaver did not extend the study. Without the need for further study Phase II never came to fruition (Gaver 1988).

Impact on Our Field

Mary Virginia Gaver conducted the first correlational research in the field of school libraries. Many in our field trace the beginning of the search for proof that effective school libraries impact student learning to her study published just over fifty years ago. While conducting her study she developed measures of the effectiveness of school library programming and the positive influence of a certified school librarian. Although her study addressed a small sample size, she demonstrated that improved student achievement correlated with the presence of a school library staffed by a certified school librarian. Gaver was the first to research the activities in libraries that contribute to student success.

The work of Mary Virginia Gaver is important to us in today’s digital environment in school libraries. In many ways the state studies evidencing the positive effect of school libraries on student achievement are descended from Gaver’s work and provide a strong exploratory research base (AASL 2014). Beginning with the first Colorado Study (Lance, Welborn, and Hamilton-Pennell 1993), the Library Research Service’s School Library Impact Studies have shown that school libraries have a profound positive impact on student achievement (Library Research Service 2016). More than twenty-five of these studies have clearly established a correlational link between school librarians and school library programs, and student success (AASL 2014).

Today’s digital environment allows us to display effects that were never possible in Gaver’s analog world. Recent efforts to establish causality have been mounting. In April 2014 the American Association of School Librarians held a national forum funded, in part, by a grant from the Institute of Museum and Library Services. The purpose of this summit was “to articulate a research agenda and investigate causal phenomena in school library instruction, resources and services” (Habley 2014). The resulting white paper, Causality: School Libraries and Student Success (CLASS), proposed “a progression of research methods and projects that will support efforts toward theory building, exploratory research, and demonstration research” and “outline mechanisms by which a community of scholars can be cultivated and nurtured toward furthering the research agenda and its activities” (AASL 2014).

A second research summit was held in Washington, DC, in April 2016. The CLASS Summit II sought to deepen the research by bringing “a national focus and agenda to research surrounding causal evidence that school libraries make positive contributions to student achievement.” Fifty participants, including thirty professors and twenty doctoral students, worked to establish “an ongoing national research summit to ensure continuous [strides] in school library causal research” (Habley 2016).

The AASL CLASS Summit II had an innovative format. Participants prepared papers describing their research vexations and ventures. Each came to the table with a sketch of the research problems currently occupying their minds and the ways they planned to investigate these problems. Colleagues with similar research interests grouped together to discuss ways to introduce causal research into the process. As a NxtWave scholar and doctoral student, I had the privilege of participating in this trail-blazing event hosted at the American Library Association offices in northwest Washington, DC. A day-long discussion led by Dr. Shana Pribesh of Old Dominion University centered on causal research design using the PICO (Participants Intervention Control Outcome) model. Like Gaver, Pribesh asked the hard question: “How do you isolate the effect of the school librarian when the influence of the school library is diffuse?” To show causal relativity, she recommended using a control group, either artificial or naturally occurring, and careful temporal order of treatment before outcome to be sure that the cause precedes the effect. Dr. Pribesh discussed different research models that could be used, including the use of a control group, or, when that is not possible, using matched samples.
Ideally, future research related to school libraries will incorporate strong causal research designs while integrating best practice with theory and policy.

**Future of School Library Research**

Mary Virginia Gaver would be proud to know that so many have followed in her footsteps. Her groundbreaking correlational research has led, by way of state studies, to establishing the positive impact of school libraries and school librarians on student achievement. Researchers now turn to establishing “a causal relationship between the work of effective state-certified school librarians and the creation of motivated, engaged, and agile learners” (AASL 2014, 5). This goal can be accomplished by using certain experimental and quasi-experimental methods. Quantitative methods such as randomized control trials, time-series designs, and matching studies will isolate the effects of school librarians and strong school library programs, and allow for causal description. Additional qualitative methods will allow for a causal explanation. By developing an action-research agenda, researchers intend to codify theory about school libraries and school librarians, identify and test best practices, and measure large-scale impact (AASL 2014).

From the linear analog world of Mary Virginia Gaver to today’s hyperlinked digital environment, school library research has evolved from finding correlational relationships to uncovering the causes of student success. Future research will allow for high-definition characterization of the emerging roles of school librarians and their professional actions that drive student achievement. This integration of theory and practice will launch us into new worlds of research-driven practice.

**Rita R. Soulen** is a school librarian for Norfolk Public Schools in Virginia. She is also a NxtWave Scholar in the PhD Curriculum and Instruction Program at Old Dominion University and adjunct faculty serving as a supervisor of student teachers.
Annotated List of Works Cited:


This white paper reports on the 2014 CLASS Summit and proposes a progression of research that supports theory building, exploratory research, and demonstration research, and outlines mechanisms to cultivate a community of scholars to further the research agenda.


By focusing on one child, evidence-based practice can be used to systematically improve results and provide a strong foundation for the school librarian’s role in student achievement.


Author Mary Virginia Gaver, professor at Rutgers University, described her 1960 study of six schools in two states. This edition, published in book format, differs from the original mimeographed version by inclusion of a Foreword and Acknowledgements and a new chapter, “Afterthoughts and Next Steps.”


Mary Virginia Gaver described her early years, her work to establish a school library system, her time at Columbia University, her work for the Federal Works Project Administration library program for Virginia, her professorships at Trenton State College and Rutgers University, and her international activities. Later chapters describe her time as president of the American Library Association and the Women’s National Book Association.


AASL announced a research summit focused on setting an agenda for school library research. The summit took place in Chicago, April 11–12, 2014. The keynote speaker was Thomas Cook of Northwestern University. The purpose of the summit was to articulate a research agenda and investigate causal phenomena in school library instruction, resources, and services.


Use this guide to explore studies about the impact of school libraries on student achievement. Part of the Colorado State Library, the LRS designs and conducts library research to inform practices and assess needs.


The 2016 compendium School Libraries Work! amasses data to empower librarians and other stakeholders. School librarians equipped with research-based frameworks, recommendations, and support for school library programs become a powerful force for educating America’s students.

The summit was intended to bring a national focus and agenda to research surrounding causal evidence that school libraries make positive contributions to student achievement. The event will become an ongoing national research summit.


This study examines the relationship between quality school library programs and student academic achievement.
REDUCING THE INFORMATION LITERACY GAP IN HIGH SCHOOL STUDENTS

An Action Research Study
Introduction
A wealth of resources are available on information literacy. Information literacy (IL) is a multifaceted skill that encompasses information seeking, identifying research questions, finding answers to research questions, and then evaluating and using information appropriately (ALA 2001). Much research has been conducted on the low level of IL found amongst high school students. Failure to make connections between IL skills taught in high school and the skills required in post-secondary education is another problem (Varlejs, Stec, and Kwon 2014). Our goal was to teach students critical-thinking skills related to digital and media literacy competencies within the framework of our local curricula. Students must be able to navigate 21st-century technologies as graduates transition from high school to post-secondary institutions and the work force. We perceived the need for a formal approach in the teaching of research skills with an emphasis on technology. The focus of this article is our teaching experience with developing cross-curricular pedagogical materials and, over a two-year period, using those materials to help students develop their research skills.

Over the past eighteen years I (high school science instructor Heather) have encouraged students to participate in school and regional science fairs. Acting as head judge at our regional science fair, I observed that an important component of successful competition is the students’ ability to conduct proper research for their projects. While preparing students for local, regional, or national science fairs I found that many students lack the most basic information literacy skills. Clearly, the teaching of information gathering and processing falls short of what is required for students to compete at high-level science fairs. Rather than simply accepting the status quo, I decided that something needed to be done. The time had come for action research and a talk over coffee with the school librarian Margot.

Together, Margot and I decided to apply for a professional development grant from our school board. The purpose of the grant was to develop a standardized approach to teaching research skills that was multidisciplinary and suitable for students in grades seven through twelve. The grant included three days of release time for a team of English, social studies/history, and science teachers: two from junior high and two from senior high. In her capacity as a district-wide resource (school board librarian as well as high school librarian), Margot facilitated all team meetings. During the release time the team worked collaboratively to develop a set of student-friendly tools to improve literacy skills; these tools were level-appropriate and correlated with the curriculum.

Our first step was to establish learning goals. Some were skills that we believed students needed to develop so they could succeed in high school research projects such as prepping for a science fair. Other learning goals were tied to providing students with a set of skills to transition more easily from high school to the rigors of research at post-secondary education institutions.

In our school, the study was initiated with two classes of grade ten science students and two classes of grade eleven science students. In year two, we presented the material to four new groups of grade ten students and to three groups of grade eleven students who had received instruction in IL the previous year. This process provided us with useful information regarding students’ acquisition of...
IL skills over a two-year period. Similarly, the junior high teachers involved with the project adapted the materials to the level appropriate for their students and incorporated and reinforced these skills within their class research projects over a two-year cycle.

Teaching Methods
We created handouts that focused on research steps and selection of information sources, and a checklist to evaluate a website, as well as an interactive PowerPoint presentation for students. All handouts were general and could, therefore, be used in any subject area when teachers made assignments related to their teaching goals. The handouts and presentation were used with students in grades seven through twelve.

We deconstructed the process of information gathering into four steps: (1) planning, (2) searching, (3) evaluating, and (4) fair use. Descriptions of these steps are described in figure 1. We will explain each step in more detail in the following sections.

Figure 1. Research steps and activities within steps.

<table>
<thead>
<tr>
<th>RESEARCH STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLAN</strong></td>
</tr>
<tr>
<td>Analyze the topic</td>
</tr>
<tr>
<td>Find background information</td>
</tr>
<tr>
<td>Select search terms and resources</td>
</tr>
<tr>
<td><strong>SEARCH</strong></td>
</tr>
<tr>
<td>Use keywords</td>
</tr>
<tr>
<td>Use search engine features</td>
</tr>
<tr>
<td><strong>EVALUATE</strong></td>
</tr>
<tr>
<td>Assess website quality</td>
</tr>
<tr>
<td>Use a checklist</td>
</tr>
<tr>
<td><strong>FAIR USE</strong></td>
</tr>
<tr>
<td>List sources</td>
</tr>
<tr>
<td>Use citation builder tools</td>
</tr>
</tbody>
</table>

We (and/or the other teacher participants) presented a slide presentation with supplementary handouts (Appendices A and B) in a seventy-five-minute class. In our school the presentation was given in the school library, which contains a class set of thirty-two computers and an interactive whiteboard. Students viewed the slide presentation and were provided opportunities to try the techniques described in the presentation. Students were required to create a two-sided, three-panel brochure. In grade ten classes each student researched one of three genetic disorders: Tay Sachs disease, cystic fibrosis, or phenylketonuria. Grade eleven students researched a topic of their choosing in the area of pseudoscience. All assignments required that students use a minimum of three sources.

My (Heather’s) students arrived in the high school library with this assigned science research project and a one-week deadline. The assignment required students to use a minimum of three sources, including one e-book made available through our digital library collection and one public website.

Step 1: The Planning Process
Students were asked to reflect and answer the following questions related to their assignment:

- What do you already know about the topic?
- How detailed does the information need to be?
- In what field is the research being conducted?
- What kind of sources do you need to consult?
- Do you need to browse the Internet?

After students had a clear idea about their research topics we moved on to finding background information. We advise students to consult general and/or specialized dictionaries, encyclopedias, and Web directories to orient themselves in the context of their topics and to help gather terminology to use when searching the Web. The following are examples of suggested resources to get students started:

- Merriam-Webster’s online dictionaries and thesaurus [free] <http://merriam-webster.com>
- Historica Canada’s Canadian Encyclopedia [free] <www.thecanadianencyclopedia.com> (one example of a specialized encyclopedia)

We encourage students to look at Wikipedia to familiarize themselves with a topic but warn them not to use Wikipedia as a reliable reference in their final project. In our experience, high school students are generally unaware of the pitfalls of Wikipedia: anyone can be an author, and information can be manipulated despite Wikipedia’s move to more-stringent standards. In our school a paid subscription to Britannica School is available, and students are strongly encouraged to use this more-reliable source for information they use in their projects.

Web directories are also introduced as a way of easing the problem of browsing the Web and, unintentionally, encountering—and possibly believing—sources that are
not authoritative. Topics in Web directories are organized by subject and are maintained by humans rather than software (Boswell 2014). Students look at sites containing resources organized by categories accessible through menus. Examples include:

- **HowStuffWorks.** [free] <www.howstuffworks.com>

We provide students with a summary of advantages and disadvantages of commonly used information sources (see Appendix A). This summary helps students pinpoint the type of resources that best suit their needs.

**Step 2: Search Terms and Search Engines**

Following step 1, students learn techniques to search more effectively for information on their assigned topics. The following points are introduced and emphasized with examples:

1. Convert ideas to KEYWORDS
2. Choose unique terms (e.g., global warming)
3. State the context, if necessary (jaguar: cat or car?)
4. Consider using phrases: top ten, review, best, how to
5. Use AND to narrow your search; use OR to broaden your search. Entering AND, OR, NOT in all capital letters is important so search engines don’t ignore these “little” words (UK Sourcers 2016).

We also review the possible range of available search engines. Examples include:

- Google
- Google Scholar
- Sweet Search: A Search Engine for Students
- Ask.com

The following tips for using search engines are reviewed:

- The order in which items appear in the results list is based more on popularity than quality.
- A search engine is a tool; it should never appear as a source in a bibliography.
- There are many specialized search engines. (The majority of students are not aware of Google Scholar, and we, therefore, give concrete examples of the benefits of quality information accessible through Google Scholar.)

**Step 3: Evaluation of Sources**

High school students generally don’t understand that certain websites have more or less legitimacy in terms of bias, quality, or accuracy of information. We explain the CRAAP test (below) developed by the staff of the Meriam Library at California State University, Chico, and we emphasize the importance of assessing the quality of resources found—especially online resources.

**CRAAP TEST:**

- **Currency:** Timeliness of the information
- **Relevance:** Importance of the information for your needs
- **Authority:** Source of the information
- **Accuracy:** Reliability, truthfulness, and correctness of the content
- **Purpose:** The reason the information exists (Meriam Library 2010)

Shortcuts that most search engines employ are introduced. We use examples from Google:

- Dictionary, calculator, clock, “I’m Feeling Lucky” button
- Exact phrase: “underground railroad”
- Numbers: +2
- Synonyms: ~investigation
- Conversions: 2 ounces in grams
- Specific file type: diabetes filetype:ppt
- Exclude adult content: safesearch:teen sexuality
- Specific domain: site:gov
- Info about a website: info:www.howstuffworks.com

All materials in this journal subject to copyright by the American Library Association may be used for the noncommercial purpose of scientific or educational advancement granted by Sections 107 and 108 of the Copyright Revision Act of 1976. Address usage requests to the ALA Office of Rights and Permissions.
We have all seen neophyte researchers cut and paste part of a website directly into their assignments.

Following our lesson, student assignments show a marked reduction of attribution errors. Students are taught:

- To clearly identify the sources used.
- To cite both published and unpublished sources.
- To avoid plagiarism.
- To lead readers to more information on the same or similar subjects.
- When in doubt, cite!

The final lesson segment introduces citing sources in an official format. High school students are required to provide a bibliography as an integral part of research assignments. Prior to this series of lessons, students tended to provide a simple list of book titles or website URLs in their bibliographies, in no particular order. For many students, bibliographies for science fair projects are their first exposure to higher standards of research. During our instruction students are asked to compare the following examples and are then provided tips for bibliographies in general.

**BOOK, NO FORMAT:**

*Cystic Fibrosis* by Justin Lee

**BOOK, WITH MLA FORMAT:**


**WEBSITE, NO FORMAT:**

http://www.thecanadianencyclopedia.ca/en/article/montreal

**WEBSITE, WITH MLA FORMAT:**


Invaluable tips for students learning to create bibliographies:

- Record sources as you are doing your project; do not wait until the end.
- Place your sources in alphabetical order.
- For a website, record the date you used it.
- Try to use sources that provide their own citations:
  - databases and e-books with an auto-cite feature
  - scholarly articles that provide their own citations
- Use the citation format you are told to use. (We teach students MLA format because free citation builders such as EasyBib offer MLA free of charge. Also, Britannica School’s auto-cite default is MLA.)

Online citation builder tools are explained using free services such as:

- EasyBib: The Free Automatic Bibliography and Citation Generator <easybib.com>
- Citation Machine <www.citationmachine.net>

Finally, students are directed to further resources when help is required with specific IL questions:

- "How to" videos on YouTube
- Google search support
- School, college, or public librarians—They are there to help!

**Action Research Questions**

The research questions driving this research are: Would these cross-curricular pedagogical materials we developed help to:

- show students how to find and use print and online tools in research planning?
- develop effective Internet skills: to use advanced search engine
features, to evaluate the credibility of websites, to learn to cite properly and use online citation builders?

• assist students from grades seven through twelve, and facilitate the acquisition of formal research skills necessary for the twenty-first century?

Our goal was to address the information literacy gap that has arisen most significantly as the quantity of online information sources has exploded in recent years.

**Study Methodology**

At the high school level, students were evaluated on their choice of sources and correct citation formatting. All photos had to be correctly referenced. Rubrics developed by Margot were used to evaluate citations and quality of information. The scientific content was evaluated separately from the information component of the assignment. Following the evaluation of the assignment, informal discussions with students focused on the process.

The cycle was repeated the following year, with a new group of incoming grade ten students and groups of grade eleven students, some of whom had been taught IL the previous year. Science fair projects were also evaluated in both years to determine the efficacy of our interventions.

Prior to participating in the presentations, Heather had noticed that most students had a very haphazard approach to the research project and often did not know how to get started. Prior to this intervention, Margot had noticed students’ employing many ineffec-
tive strategies such as attempting to use “science fair” as a search term, placing “.com” as an extension to a search topic, or simply typing the whole research question verbatim into the search engine. Margot also noticed that most students considered websites (like Wikipedia) that are frequently displayed at the top of the list of results from a Google search to be reliable sources of information, confusing the popularity of the resource with an indication of quality. In contrast, after the direct instruction on effective strategies and ethical information use, we both saw notable improvements we attribute to the IL instruction. For example:

• After receiving the IL instruction, fewer students added “.com” to their Web searches (example: “electricity.com”).

• Students with IL training were more sophisticated in their online searches. Instead of typing an entire research question verbatim into a search engine, students searched on keywords. They were also more likely to evaluate sources instead of simply using the first few sources identified in an online search.

• A marked improvement in the number of students citing images was seen. Prior to the lessons on IL, no students seemed to be aware that using an image without proper citation is plagiarism. This improvement was especially apparent in students’ science fair projects.

• The number of students extracting text and using it without adding or altering details was diminished. This change was most notable in the junior high school.

**Evaluation of Project**

To assess the success of our action research plan, we had informal discussions with students. Comments received included: “I wish we had known this a long time ago,” “I never thought about using keywords before,” (students following a November presentation); “Thank-you for teaching us Boolean logic and correct citation format” (a recent graduate who was now studying sciences at college). We also evaluated the research projects students did over the period of two years. We evaluated the diversity of resources used by students who received the special instruction, the quality of the resources, and students’ ability to cite references correctly.

Findings indicated that the information literacy training resulted in substantial improvements in basic literacy skills. Improvements were most profound in students who received the instruction for two consecutive years.

**Conclusion**

High school students need guidance if they are to successfully engage in research projects. The tools described in this article are cross-curricular pedagogical materials...
designed to help students develop practical, hands-on skills for planning research, and for searching, evaluating, and using online information. Our goal was to provide high school students with the knowledge to complete high school research projects, to ready graduating students for college-level research, and generally to prepare students to join the 21st-century work force.

This action research project was presented at a school board-sponsored workshop. The audience included teachers, school administrators, and school board (district) personnel. Feedback was very positive. Educators’ action research was effective in addressing the problem of high school students’ weak information literacy skills and narrowing the IL gap between the skill set of secondary school students and the expectations in college courses. We believe that action research involving teachers from multiple disciplines and from multiple schools working collaboratively is an effective method to initiate change and to overcome barriers in successful implementation of essential pedagogies, including information literacy.

**APPENDIX A: SELECTING INFORMATION SOURCES**

<table>
<thead>
<tr>
<th>SOURCE:</th>
<th>BEST FOR:</th>
<th>ADVANTAGES:</th>
<th>DISADVANTAGES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encyclopedias</td>
<td>Background information</td>
<td>Easy to use</td>
<td>Out-dated information</td>
</tr>
<tr>
<td></td>
<td>Quick facts</td>
<td>Broad overview</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Authoritative</td>
<td></td>
</tr>
<tr>
<td>(Print /Online)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wikipedia</td>
<td>Background information</td>
<td>Easy to use</td>
<td>May be inaccurate</td>
</tr>
<tr>
<td></td>
<td>Quick facts</td>
<td>Very accessible</td>
<td>Info may be manipulated by others</td>
</tr>
<tr>
<td></td>
<td>Obscure information</td>
<td></td>
<td>Bias or slant</td>
</tr>
<tr>
<td>Specialized Books</td>
<td>Historical information</td>
<td>Age- or level-appropriate</td>
<td>Not always current</td>
</tr>
<tr>
<td></td>
<td>Quality bibliographies</td>
<td>Well-organized</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comprehensive</td>
<td></td>
</tr>
<tr>
<td>Newspapers or</td>
<td>Current information</td>
<td>Short articles for general use</td>
<td>Possible bias</td>
</tr>
<tr>
<td>News Magazines</td>
<td>Local information</td>
<td>Detailed analyses of events</td>
<td>Authors are not necessarily experts on the subject</td>
</tr>
<tr>
<td>Popular Magazines</td>
<td>Short articles</td>
<td>Easy to understand</td>
<td>Authors are not necessarily experts on the subject</td>
</tr>
<tr>
<td></td>
<td>Photographs and illustrations</td>
<td></td>
<td>Articles can lack depth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sources not often cited</td>
</tr>
<tr>
<td>Scholarly Journals</td>
<td>In-depth information</td>
<td>Peer-reviewed</td>
<td>Terminology and depth of articles may be difficult for novices to understand</td>
</tr>
<tr>
<td></td>
<td>Recent research</td>
<td>Specialized audience: other researchers and professionals in field</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bibliographies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Websites</td>
<td>Government information</td>
<td>Easy to find</td>
<td>Difficult to browse</td>
</tr>
<tr>
<td></td>
<td>Varied points of view on a topic</td>
<td>Accessible</td>
<td>Too much information</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td>Up to date</td>
<td>Possible bias</td>
</tr>
<tr>
<td></td>
<td>Company information</td>
<td>Information may not be found anywhere else</td>
<td>Not all websites are available to the general public</td>
</tr>
<tr>
<td></td>
<td>Videos</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from University Library, University of Illinois at Urbana Champaign. 2016. “Select the Best Information Source.” <www.library.illinois.edu/ugl/howdoi/selectingsources.html> (accessed October 6, 2016).
Heather McPherson is a senior science teacher at Laval Senior Academy in Laval, Quebec, and a PhD student at McGill University. In 2016 she won the McGill University Department of Integrated Studies in Education “Indy” Educator Practitioner-Researcher Award. Her article “Material Science and the Problem of Garbage: Where Does All That Stuff Go?” will be published in the November issue of The Science Teacher. With Maggie McDonnell, she wrote “Articulation between High School and CEGEP Science Post-Reform: Understanding the Gap,” which will be published in College Quarterly.

Margot Dubé is a school librarian. She is based at Laval Senior Academy and has additional administrative responsibilities at the school board level to provide support to other library staff within the district. She is a member of ABQLA (l’Association des bibliothécaires du Québec — Quebec Library Association).

Works Cited:


A Star Is Born

A new teacher enters the classroom for the first time equipped with teaching strategies, technology-integration models, and classroom experiences acquired during his or her teacher preparation program. Innovations in technology could mean that even newly acquired integration strategies and models are yesterday's news. Potentially, their student teaching experiences may be limited by their mentor's use of technology, campus access to technology, the emphasis on standardized testing, and even the district's vision for technology (Bullock 2004; Frazier and Sadera 2013). This reality could result in new teachers developing lessons that do not take advantage of innovative opportunities for teaching and learning. These new teachers are often unaware that down the hall exists their greatest resource for today's technologies and their strongest potential instructional partner. No, it is not their team leader. No, it is not the veteran teacher in the next room. No, it is not the campus technology specialist; and no, it is not the curriculum specialist. Their future partner is someone they have probably never encountered in their teacher preparation program; this bright star is their school librarian.

Studies continue to indicate that, while access to technology has increased, effective technology use and integration into teaching practice is still lacking (Bracewell et al. 2007; Ertmer and Ottenbreit-Leftwich 2010). Simply placing technologies in classrooms is not a guarantee that those technologies will be effectively integrated into transformative teaching and learning processes (Hosseini and Tee 2012). Too often technology is considered a supplemental tool and used for low-level integration efforts that are not linked to instructional practices or learning outcomes. Providing teachers with assistance in implementing emerging technologies could help teachers more-effectively integrate technology (Banister, Ross, and Vannatta 2007).

While some technologies may, indeed, facilitate student learning, effective integration into content areas by using the appropriate pedagogical strategies are crucial ingredients in the success of learning outcomes (Bull and Bell 2009). Instructional technologies are increasing exponentially, making it critical that teachers have opportunities that support meaningful integration of technology into the curriculum to support student learning (Hutchison and Reinking 2011; Kariuki, Franklin, and Duran 2001).

Barriers that affect teachers' use and integration of technology have been well documented (Ertmer 1999, 2005). To evaluate the knowledge of teachers using a TPACK model for integrating technology, Zahra Hosseini and Meng Yew Tee (2012) conducted a study of thirty pre-service teachers. The results of their study identified a variety of factors that impacted teachers' development of technology knowledge. Factors included personal motivation, needs, prior knowledge, and experiences; cultural behaviors and group structure; quality and accessibility of computers and technology resources; and continued pressures to teach to assessments (Purcell et al. 2013). In another study Punya Mishra and Matthew Koehler (2006) found a lack of knowledge of strategies for integrating technology to also be a contributing factor. Across several studies, time constraints have been consistently identified as barriers to the integration of digital technologies into the classroom (Ertmer 1999; Kopcha 2012; Johnston 2012; Vrasidas 2015). Too often, time is considered a luxury in
education and as Candace Roberts and Holly Atkins stated, "...without the time to explore, create, and develop using technology tools, no true transformation can occur” (2015, 2555).

**The Bright Star**

The National Board for Professional Teaching Standards (NBPTS) set of standards for school librarians includes several standards focused on their role. Within these standards exists a strong focus on leadership as well as a charge that school librarians remain current about emerging technologies, learning theories, and teaching techniques. Their knowledge of design, development, assessment, resources, and information access empowers school librarians to serve as instructional partners with teachers. Within this partnership, librarians can provide professional development and model the best approaches to using and integrating technology effectively (Mardis and Everhart 2011; Staples, Pugach, and Himes 2005). “Poised at the intersection of information and technology” (NBPTS 2012, 26), school librarians can serve as leaders in helping teachers become information and technology literate to strengthen teaching and learning processes. School librarians offer support to teachers by mentoring and encouraging best teaching and learning practices that support powerful learning environments dedicated to creating lifelong learners.

Research studies indicate that a direct correlation exists between student achievement and school library programs when librarians assume a leadership role in the school (Francis, Lance, and Lietzau 2010; Gavigan and Lance 2016; Lance, Rodney, and Hamilton-Pennell 2000; Lance and Hofschire 2011, 2012; Smalley 2004). Since new technologies often appear first in the school library, it is critical that librarians fully understand the importance of these tools and actively engage in explaining and promoting their effectiveness and innovative use in the classroom. School librarians must understand how to incorporate technologies that support the design and delivery of effective instruction. Through collaboration, librarians must support teachers in exploring creative and innovative ways to take advantage of the capabilities of technologies to engage students and facilitate higher-level thinking.

Too often, teachers are not aware of how school librarians can support their teaching and technology-integration efforts. Equally, pre-service school librarians are provided limited opportunities to work with classroom teachers. To address these concerns, it is critical that teacher education programs provide opportunities for pre-service teachers and pre-service school librarians to collaborate. Pre-service teachers need opportunities to collaborate with pre-service school librarians so that pre-service teachers can experience the value of partnering with the school librarian. Providing pre-service school librarians with opportunities to collaborate with pre-service teachers can better prepare librarians for their role as support for classroom teachers. Ever-changing technologies create a vital and ongoing need for teachers to collaborate with school librarians throughout their teaching careers.

The university under study is at the forefront of addressing the need for this vital connection between school librarians and teachers; the School of Education recently adopted a new department configuration that partnered the school librarian- and instructional technology-preparation programs.

**The Pilot**

We plotted a scheme to bring these two stars together in a contrived constellation. The encounter would take place in a pre-service educational technology course during the students’ final project. The project goals were to use instructional technology in various courses in the Teacher Education and the School Library and Information Science programs to introduce teacher candidates to the value of collaborative partnerships with school librarians and to provide practical experiences for school librarian candidates. The intent was to provide teacher candidates with real-world learning experiences in technology integration and collaboration with pre-service school librarians; these experiences encouraged teachers to continue these practices once in the field. Explicit instruction and support from school librarian candidates in the use of technology is vital to increasing classroom teachers’ technological, pedagogical, and content-area knowledge, and their effective application of this knowledge when in their fields of practice. Successful exposure to instructional technologies during pre-service teacher preparation can positively influence knowledge, skills, and dispositions of teacher candidates and prepare them to make informed decisions necessary for the effective use of technology in the classroom (Marino, Sameshima, and Beecher 2009).

Too often, teachers are not aware of how school librarians can support their teaching and technology-integration efforts.
Future Stars
Participants in this pilot ranged in age from eighteen to fifty-four years old. Ninety percent were female. Among the pre-service teachers, 47 percent were Caucasian, 38 percent Hispanic, 6 percent African American, with the remaining 9 percent reporting across other races/ethnicities. Among the pre-service school librarians, 68 percent were Caucasian, 16 percent African American, with the remaining 16 percent reporting across other races/ethnicities.

Their Universe
At a regional university in the southern part of the United States, teacher candidates are required to enroll in an educational technology course prior to admission to the teacher-education program. Often, this course is their first exposure to an education-related course. Therefore, they enter the classroom with limited or nonexistent exposure to pedagogy or technology integration strategies.

The Alignment
As a culminating experience in the educational technology course, participants were assigned to five-member teams. Their charge was to identify an existing lesson from their EE curriculum materials and establish that as “Monday’s lesson.” Then, they were asked, working as a team, to develop a lesson for “Tuesday,” following the same 5E lesson plan format. The 5E lesson plan model was developed in 1987 during a retreat in Colorado as part of a curriculum development effort (Biological Sciences Curriculum Study 2016). Since that time the BSCS 5E model has become a widely accepted model that describes a teaching sequence that can be used for programs, specific units, and individual lessons.

This early pilot sparked a long-term relationship between the teacher and the school librarian—two stars in the educational universe.
technology for his or her assigned stage of the 5E model. Through an exaggerated exercise in technology integration, this project provided each participant with an opportunity to incorporate an individually determined technology element into the lesson sequence. Prior to the pilot incorporating collaboration with a pre-service school librarian, the five-member team had only each other and their course instructor as resources. The pilot introduced the team to a pre-service school librarian who would provide guidance, expertise, and support throughout the group project.

**Illuminations**

At the conclusion of the project, focus groups were convened to discuss the perceptions of the participants and, as with any star-crossed experience, there were positives and negatives.

When asked about the collaboration experience, participants commented specifically about the resources that the librarians contributed to the project:

“School librarians were helpful in bringing resources to the table; they gave us the idea of what to look for.”

“They know a lot more websites to find information that we can use in a lesson.”

“They know a lot more resources than I do.”

Additionally, the teacher candidates commented about the support provided during lesson plan development:

“The school librarian has access to all books and he/she can let us know what the latest books are and how we can use the books in our lessons.”

“Using technology in our lesson plans is a great benefit to our students because students can have visuals on what we’re learning.”

“The librarian suggested many different websites, activities online, and software that can enhance my lesson that I did not know existed.”

Evidence suggested that collaborating with the librarian could address the well-documented barrier of lack of time:

“Lessons are most likely done several days or weeks in advance.”

[They are] “faster at gathering information than me and can narrow and filter out all the unnecessary information while only giving me what I need for my lesson.”

In contrast, the cons related to working with a school librarian were minimal. Participants noted collaboration issues such as:

“When you have a specific idea in mind about a certain resource, sometimes what they bring to the table isn’t what you are looking for.”

“They don’t make lesson plans, and you get a ton of links, and then we as teachers need to sort through them for the ones that will work in the lesson.”

“The librarian is a busy person and sometimes cannot get to you right away.”

“Sometimes the teacher and the librarian might not agree on certain ideas.”

The most telling outcomes were related to perceptions noted before and after the collaborative experience. Prior to the collaboration participants commented:

“I didn’t know what to expect.”

“I didn’t think that a librarian would be very helpful in helping me make a lesson plan.”

“It was not imperative for teachers and librarians to collaborate. Teachers don’t usually deal with the librarian in schools that I have seen unless they are taking their class to library time to check out books or researching a certain topic.”

“I thought it might be fun, and it will take some load off me.”

After the collaboration a notable shift in perceptions was evident:

“After, I realized I was wrong. My librarian gave me some links that were great, and I combined ideas from two and incorporated them into my lesson plan.”

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**Through an exaggerated exercise in technology integration, this project provided each participant with an opportunity to incorporate an individually determined technology element into the lesson sequence.**
“The librarian was nice though... He helped.”

“As far as technology goes, I was going to integrate technology either way, but after this experience I have much more confidence in being able to write lesson plans and including technology.”

“I will collaborate with a librarian in the future. They will be able to give me ideas from links that I may not have thought of. Having a variety of ideas will make my lesson plans that much more interesting for my students.”

“This experience is definitely something to keep in mind for the future.”

“It was a nice experience. I enjoyed going through my librarian’s ideas. Some of the suggestions were right on the money, and others were just not what I was looking for. But I would rather use the help than not.”

Time was again a common theme:

“Sometimes as teachers we don’t have time to spend hours on doing research on a subject. I like the idea of collaborating with a librarian because I can give my librarian a topic, and she can do the research, and then I can go over her findings and piece them together to make one lesson. This will save me hours of work.”

“I could have done the lesson without a librarian’s help, but it will take me longer and the quality will not be as good. Overall, the addition of a librarian increased the quality of the lesson and sped up the lesson-making process.”

Looking to the Future

This early pilot sparked a long-term relationship between the teacher and the school librarian—two stars in the educational universe. The future shines even brighter as we implement an expanded collaborative study across multiple sections of the educational technology course. Data collection will include pre- and post-project perception surveys, journals, and focus groups. The use of experimental and control groups will ensure the reliability of the study outcomes. As research partners, we hope that outcomes of our future research provide evidence that supports the benefits of collaborative partnerships in pre-service programs and between practicing school librarians and teachers in their schools. These new constellations could not only increase the momentum of current collaborations but blaze new trails for future research in the area of teacher and librarian collaborations.

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Jana M. Willis, PhD, is chair of the Literacy, Library and Learning Technologies Department and professor of Instructional Design and Technology at the University of Houston—Clear Lake (UHCL), College of Education. For her work with the Texas State Teachers Association Student Program, UHCL’s Office of Student Life named her UHCL Organization Advisor of the Year for the 2012–2013 academic year. She is chair of the Society for Information Technology and Teacher Education’s Digital Games and Simulations Special Interest Group. She serves on the editorial review board for Association for the Advancement of Computing in Education journals and was 2015–2016 managing editor of Texas Forum of Teacher Education published by the Texas Association of Teacher Educators. Among her recent publications are “Flip This Classroom: A Comparative Study” published in early 2016 by Computers in the Schools (coauthored with Tiffany Unruh and Michelle L. Peters) and “Increasing Teacher Confidence in Teaching and Technology Use through Vicarious Experiences within an Environmental Education Context” published in 2016 by Applied Environmental Education and Communication (coauthored with Brenda Weiser and Donna Smith).
Works Cited:


ALABAMA
Michelle Davis
Cristin Dillard
Amanda Elliott
Laura Ezell
Corrie Heard
William Holt
Beverly Hood
Rebekah Brooke Hudson
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2015–2016 NEW MEMBERS TO AASL

AASL welcomes all 2015–2016 new members to the community. No matter where you are located—urban or rural, public or independent, whether you are a solo librarian or in a school or district among many—this community is here for you! To find and connect with new AASL members, visit us on ALA Connect at connect.ala.org/aasl.

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Dorothy Wiman
I have been drawing for as long as I can remember. As a young person, I loved The Muppet Show and Maurice Sendak’s Where the Wild Things Are. My childhood dream was to become a children’s book illustrator, work for Disney, or work for Jim Henson designing puppets. My father and mother were both art teachers and were very encouraging of my development as an artist. I loved to draw so much that once my mom found me asleep on the floor with the pencil still in my hand touching the paper in the middle of a drawing!

It will come as no surprise that my major in college was drawing. My first job was as an elementary art teacher. For five years I taught art to children from kindergarten through sixth grade. I love working with kids, picture books, and cartoons, so I guess it was inevitable that I was hired by Walt Disney TV Animation as a storyboard artist drawing cartoons. A storyboard artist is a person who takes the script for a show and draws out what the cartoon will look like. The artist draws and composes the shots that will be in the cartoon, camera moves and layout, and the acting for the characters. Storyboard artists are in a sense “directing” the animators on what they will be animating and what the characters will be doing and feeling—the storyboard is effectively a blueprint for that show. The first animated TV show I drew for was Pepper Ann. I went on to draw storyboards for many Disney TV shows, including Lilo and Stitch, Hercules, American Dragon, and Phineas and Ferb. Working for Disney was very rewarding and exciting. It was a dream come true.

Even though I was excited about the projects I worked on for Disney, I had to be careful what information I shared with friends, family, and other artists. The contract I signed specified that my work product was “work for hire,” which meant that any art I created while working at the studio belonged to the company. That meant any artwork that I created while working at the Disney studio was owned by them. Nothing I storyboarded could be made public until the animated cartoon that I storyboarded had aired on TV. (Any personal work created by me at home belonged to me.) NDA (nondisclosure agreements) are another common aspect of working...
in the entertainment industry. Nondisclosure agreements are designed to protect the property on which the artist is working. NDAs ensure that the studio, network, etc. has control over any information related to a project and the release of that information. Even after a show had aired, I could not sell any of the art I created. However, it can be used for self-promotion. This means I can use the work that I have done for Disney in a portfolio of my work when searching for other jobs as a storyboard artist.

I worked for Disney for sixteen years on numerous productions and then decided to return to teaching. I teach college students at California State University, Fullerton, with my husband, Chuck Grieb. Teaching Animation and Storyboarding is very rewarding. I hope to instill in my students an enthusiasm and love for animation—especially storyboarding—I have always felt. My love for storytelling continues in my work outside of school as a freelance storyboard artist and illustrator of children’s books. In a sense, I get to do everything I love!

Working with my husband is also a dream come true. Chuck and I have enjoyed animating and storyboarding together and now teaching. We make a great team, and I know that I am stronger and better as an artist and teacher for my being with him. He challenges me, offers insight, critique, and a fresh POV. When I am creating a piece of art, Chuck is a reliable measure, critic, and part of my process, whether I want to hear his feedback or not! With both of us being artists, the level of understanding we have for each other’s challenges is complete, and we are both very supportive when the other wants to buy more art supplies!

In addition to teaching and storyboarding, I also illustrate children’s books for Mighty Media Press. I have illustrated six books for the Monster & Me™ series. It has been a lot of fun, as monsters are one of my favorite things to draw! In my illustrations I enjoy putting in “Easter eggs” for the readers to find. I got the idea from one of my favorite illustrators, Mercer Mayer, who would put a cricket and spider in all the illustrations in some of his Little Monster books. Looking for them in the drawings was so much fun that I started putting little things in some of my illustrations. None of my “Easter eggs” are direct copies of copyrighted works, but they are meant to suggest familiar things that kids and adults alike might enjoy. For example, I would never put a Mickey Mouse into my books since he is the symbol of Disney and more than just a character.
However, in the background of a drawing, amongst other statues or decorations, I might include a statue similar in appearance to a “weeping angel,” a character from the popular *Dr. Who* series.

I still need to be mindful about protecting my illustrations—especially since I often post my work on social media. Sharing illustrations digitally comes with its own set of risks. Any image that you see on the Web belongs to someone, and if you would like to use an image, piece of art, photo, etc. you must get permission from the individual who created the work. When putting my work up on my website, Facebook, Instagram, Tumblr, etc. there is a risk that people will see it, like it, and use it for their own purposes. If someone is using my work to make money and does not have my permission, then that behavior is, of course, stealing.

Unfortunately, preventing someone from stealing intellectual property can be difficult. A friend of mine recently found that a piece of her art had been printed on shirts that were for sale on Amazon. To my knowledge, I have never had a piece of my artwork stolen and sold. My artwork has been used on Twitter once in a type of meme, but I was given credit for the artwork. My husband has had his work used (without his permission) to accompany newspaper articles in another country. Oddly enough, though they did not request permission or pay for the art, the articles credited him as the artist, which is how he discovered that his work had been used in this manner.

I still need to be mindful about protecting my illustrations—especially since I often post my work on social media.

Artwork created by Wendy Grieb. Copyright Wendy Grieb.
Even though there is some risk to posting my work online, I find it worthwhile. I enjoy seeing the work of other artists and receiving feedback from them on my work as well. It is much easier today to find information and to see other styles of artwork than it was when I was young. I find the tremendous resources available online very beneficial for doing research for my illustrations and when learning new art-creation processes.

Wendy Grieb is a professional working in the Los Angeles animation industry; she also teaches animation and illustrates children’s books. An Annie Award–winning storyboard artist, she has worked as a developmental artist, illustrator, and character designer for companies such as Disney, Nickelodeon, Sony, Klasky Csupo, White Wolf, and more. She lives in Yorba Linda, California.

Even though there is some risk to posting my work online, I find it worthwhile.

Being an artist is very rewarding, and technology has made access to imagery and information easier than ever before. Having this access is wonderful, but it also important for an artist to pay attention to and control how his or her work is perceived and used by others. Intellectual property, the value and uniqueness of the imagery artists create, needs to be recognized by all.