LIBRARIANS LEAD THE GROWTH

of Information Literacy and Global Digital Citizens

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ibrarians are leaders in growing global digital citizens. Consider the question of what libraries actually mean to our society now and in the future. In the face of exponential change, what is the new role of the librarian in this modern information age?

The libraries of the future are more than just housing centers for books and media. They are invigorating meeting places and communities where truly meaningful learning and discovery take place. Within the comfort of their environments we learn useful and often surprising things about the world, our citizenry, and ourselves.

What's sad about this truth is the notion that runs parallel to it, that the love of books and the adventures they take us on are disappearing in the wake of the digitalization of knowledge. As technology has transformed reading and learning, it has also transformed our vision of the library in both structure and function.

The fact is we have always needed librarians as guides and providers to assist us in learning and discovery. Furthermore, we must realize that librarians in the information age play a critical role in our access to and application of knowledge.

Then and Now

An image of librarians as gatekeepers of knowledge is a highly stereotypical profile that's existed for hundreds if not thousands of years. As such, it's quite outdated and doesn't fit with the realities of today and tomorrow. If we look at the issue with our hearts as well as our heads, we realize librarians are actually our most trustworthy guides and facilitators in our quest to acquire knowledge and skills. They were all those years ago, and they remain so today. The difference now is that with the advent of the Internet and its transformation of how we read, learn, and consume knowledge, librarians have had to work tirelessly to adapt to this transformation by acquiring new sets of skills that coincide with the marriage of the traditional and the digital. Librarians, especially school librarians, create opportunities for learning like never before in history.

To fulfill their modern duties and adapt to new technologies, librarians have processes by which they guide research endeavors and other forms of individual exploration. In a 24/7 Wikipedia-on-demand world, the relatively limited and ailing research skills of people—and this is people in general, not just students-have made us-21st-century researcherssomewhat complacent. An example of this is how we use Google. Most of us type in a question to produce literally millions of search results for our query, and then we never bother to look past the second page. More often than not we're willing to take the top link at face value, regardless of whether or not it is the best source for the information we seek.

Leverage Marketing author Madeline Jacobson cited a study done in 2014 by Advanced Web Rankings, a company specializing in marketing SEO (search engine optimization), and revealed some alarming statistics about our most common search habits:

- · over 67 percent of clicks on search engine results pages are on the top five listings, and
- · websites that are on the first search results page receive over 90 percent of Web traffic.

What we learn from this—and from the number of times Google has come under fire for the questionable integrity of what often appears as their highest-ranked search results—is that it pays to have solid and methodical research skills. Not just any skills either, but the kinds of chops that librarians can boast. This skill set is called information fluency.

Information Fluency: A Researcher's Best Friend

From my perspective, information fluency is the ability to unconsciously and intuitively interpret information in all forms and formats to extract essential knowledge, authenticate it, and perceive its meaning and significance. In addition, information fluency includes knowing how to apply that knowledge to complete real-world tasks and solve real-world problems effectively.

As with all the other essential fluencies of modern learning,

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information fluency is a structured process that is both highly teachable and easily learnable. It is defined by the 5As:

Ask: This stage involves compiling a list of critical questions about what knowledge or data is being sought. The key here is to ask good questions because that's how we get good answers.

Acquire: Accessing information is easier than ever because now we are dealing with exponential surges in quantity. However, these large amounts of information must be filtered. This stage involves accessing and collecting informational materials from the most appropriate digital and non-digital sources.

Analyze: With all the raw data collected we must now authenticate, organize, and arrange it all. This stage also involves ascertaining the authority of the source and distinguishing the good from the bad.

Apply: Once data is collected and verified, and a solution is finally created, the knowledge must then be practically applied within the context of the original purpose for the information quest.

Assess: This stage involves open and lively discussions about how the problem-solving journey could have been made more efficient and how the solution created could be applied to challenges of a similar nature.

Ultimately, the best person for our students (and us) to seek out to develop these skills is our librarian. It makes sense that information fluency is the kind of information gathering and vetting process librarians will teach to learners, preparing them to successfully navigate seas of information that are both traditional and digital.

Whether the 5As happen in conversation, in online research, or

with paper books, the process is still the same. As with all processes, however, there is a starting point. Knowing how to formulate and structure important, meaningful, and relevant questions, long before researchers even begin to access the most appropriate knowledge sources, is one of the most important skills school librarians teach.

Five Steps to Ask Effective Questions

The practice of formulating a powerful question in research isn't about typing spontaneously into a search bar; it's about exploring the topic to determine first what types of questions need to be asked, and then to determine the best primary and secondary information sources to

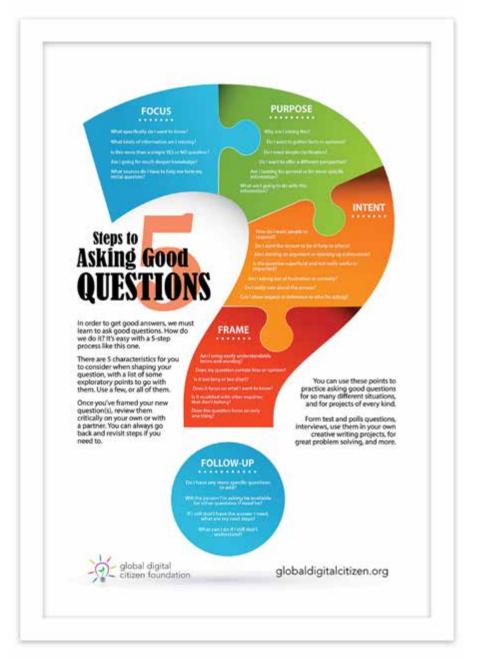


Figure 1. Question-creation process applicable to many disciplines.

apply to those questions. This makes the Ask stage of information fluency perhaps the most crucial stage of them all.

A five-step process designed to work with information fluency can be used to formulate the most effective and useful research questions possible in our quest for knowledge (see figure I).

- I. Focus: What specifically do I want to know? What kinds of information am I missing? Is this more than a simple YES or NO question? Am I going for much deeper knowledge? What sources do I have to help me form my initial question?
- 2. Purpose: Why am I asking this? Do I want to gather facts or opinions? Do I need simple clarification? Do I want to offer a different perspective? Am I looking for general or for morespecific information? What am I going to do with this information?
- 3. Intent: How do I want people to respond? Do I want the answer to be of help to others? Am I starting an argument or opening up a discussion? Is the question superficial and not really useful or important? Am I asking out of frustration or curiosity? Do I really care about the answer? Am I willing to show respect/ deference to the person I'm asking?
- 4. Framing: Am I using easily understandable terms and wording? Is my question neutral or does it contain bias or opinion? Is it too long or too short? Does it focus on what I want to know? Does the question focus on only one thing?
- 5. Follow-up: Do I have any more-specific questions to add? Will the person I'm asking be

available for other questions if need be? If I still don't have the answer I need, what are my next steps? What can I do if I still don't understand?

Once learners understand and internalize this process for creating questions, other critical research skills can be developed. These skills include understanding the problem to be solved, identifying keywords, forming questions around keywords, brainstorming, thinking laterally, understanding ethical issues, listening deeply, viewing wisely, speaking critically, filtering out information white noise, and sharing personal knowledge and experience.

Reach Even Higher

So far we've thought about why librarians deserve respect as facilitators and guides to seek and gain knowledge, and about the processes they teach learners while stressing the importance of being real-life information detectives. We've also talked about how to ask the most powerful questions in the most profitable knowledge pathways. This, however, is not the extent of a school librarian's positive influence on learners. There's a much larger connection to the future here we haven't yet considered.

More than many other educators, school librarians are exceptional candidates to cultivate global digital citizenship in learners. The question is how and, more importantly, why global digital citizenship is so critical to current and future learners.

First, we need to define what a global digital citizen is; this can be accomplished by defining each of its characteristics separately: digital citizenship and global citizenship.

Digital citizenship describes how a person should behave in the online world. Digital citizens:

- · adhere to guidelines that govern the ethical and responsible use of technology, and
- act responsibly in all relationships and interactions in the digital world.

Global citizenship is a well-understood concept relating to how one participates in and contributes to the world as a whole. Global citizens:

- · see the world as a community in which all people live and prosper together,
- · understand their actions contribute to the values of the entire planet, and
- · endeavor to participate in and contribute to the entire world.

When these two sets of characteristics are mixed, it's the perfect recipe for the global digital citizen. United they address how we participate and contribute in the blended physical and digital worlds, and how we can leverage the digital world to grow citizens in this new reality. School librarians lead their staff members and students to develop into responsible global digital citizens.

Another important point to make here is what we at the Global Digital Citizen Foundation put forth as the tenets of digital citizenship: respect and responsibility for yourself, for others, and for property. In terms of school librarians and their role to empower learners in the ways of global digital citizenship, it's the last point we're concerned with here.

To respect and be responsible for property refers to not only the physical but also the intellectual—in other words, knowledge. How we give credit to creators of intellectual properties by citing sources and authorship properly says much about our respect for those who devote their time to creativity in the service

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of others. Exploring the rules of "fair use" and copyright laws, and how they apply to sourcing and using online information is a crucial part of modeling and teaching this respect. Likewise, treating our own property and others' with care and respect, including intellectual properties, is vital to preserving a sense of digital

and global community.

All in all, very few professionals on the planet revere both the power of knowledge and the importance of respecting its origins more than school librarians do. It's a code of honor that's practically built into the vocation. Imagine all the ways students benefit from having such an individual in reach, especially one who harbors both a fundamental passion for learning and discovery, and a keen familiarity with the new ways technology enhances it.

Passion, integrity, responsibility, and citizenship. That pretty well sums up the essence of the modern school librarian in today's information world, and why we can't do without them.

Looking Deeper into Global Digital Citizenship

Educators everywhere, including school librarians, have so much to think about when it comes to teaching guidelines for safety and proper etiquette for digital students

in their tech-oriented lives. An important way to guide students towards global digital citizenship practices is to ensure the knowledge and teaching practices educators, including librarians, employ are both current and relevant.

School librarians, the champions of information-age knowledge

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systems, international agencies, and corporations to help people and organizations connect to their highest purpose and realize their wishes for the future. A resident of Japan, he believes in creating balance in the reality of a digital present and future. Therefore, he studies Aikido, Buddhism, and the shakuhachi, a traditional Japanese bamboo flute. Joyful curiosity is the foundation of his approach to creating vital learning environments for groups around the world. His several best-selling books, including Literacy Is Not Enough (Hawker Brownlow Education 2012), Growing Global Digital Citizens (Solution Tree 2018), and Mindful Assessment (Hawker Brownlow Education 2017), have garnered many awards and are used in schools and universities around the world.

formation, will continue to adapt as the unknowable future unfolds. They will refine and apply their skills to promote information fluency, to facilitate the asking and answering of relevant questions about our societies, and to develop global digital citizens with the skills to innovate change in our interconnected world.

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