each module completed by each student. This meant that in a class of 50 students, a faculty member would receive 300 e-mails or papers: one for each of the six modules from each student. Students registered a related complaint in that they were frequently asked to complete the tutorial by different instructors in different classes. This meant that they were expected to take Searchpath over and over again. Students asked why they were not able to send their scores from their first test(s) to more than one faculty member.

Fortunately, the solutions to both of these issues were related. In 2008, the Libraries developed a new database to store the Searchpath quiz scores of all users. This database, which both students and faculty could access using their University ID and password, retained all student quiz scores for a minimum of two years. It also allowed faculty members to log in to the system and, with the permission of their students, view all the student quiz scores for a given class in a simple table rather than in six separate e-mails for each student.

Once the new "back end" database was in place in the spring of 2009, the time came to evaluate and redevelop the tutorial itself. The original contents of the Searchpath tutorial consisted of six modules. The user moved from the general concepts of research through techniques to locate and use information in the Libraries and online, and ends with issues of copyright and ways to avoid plagiarism. While the goals of the tutorial have not changed, i.e., these are concepts that students of all ages and all times need to master, we found that our target population had changed enough that our methods of teaching needed to change as well.

Consequently, while we retained the basic structure of the Searchpath tutorial, we worked throughout the spring and summer of 2009 to evaluate the needs of our current generation of students, and to create a new series of research modules that reflected those needs. In an effort to differentiate the new version of the tutorial from the original, we renamed it "ResearchPath."

A "Millennial" Approach

After a review of the literature in library and information science, education, and website production, we identified several characteristics of the current "Millennial" generation of students. Millennials, usually defined as students born after 1982, are generally more comfortable with multiple modes of learning, and often have different preferred learning styles. Consequently, in our redesign of the ResearchPath tutorial, we sought to address visual, auditory, and kinesthetic learners by designing a new set of modules that present research concepts in visual images and text, using an audio voice-over track, and through a series of interactive projects where students would have to apply concepts.

Since the original Searchpath tutorial was developed in 2001, the base level of knowledge with which students came to WMU has changed. Students on the whole are more comfortable (1) with technology in general, although they are by no means expert, and (2) with the concepts related to how information is organized on the Internet and in database systems. We also found that some technologies that were in vogue in 2001 have subsequently using in their papers. They were locating and analyzing more scholarly journal articles and he felt the quality of the papers increased dramatically as a result of the single classroom session.

Although some pundits claim that the current generation of students have technology as "part of their DNA," I still find that a "one-shot" instructional session is highly worthwhile. "Knowing" technology is not the same as knowing where to go and how to search. My colleagues and I often are limited to 50 or 75 minutes in which we try to tailor what we cover to the specific assignment given to the class. As a result, I need to make every minute count, since I only have that single meeting to educate them. Persuading a professor to bring a class in is only half the battle, however. The other half is overcoming students' natural resistance to formal library research instruction in the library. Many of them come in with the mindset that they already know how to conduct research, and "Why is the professor wasting their time with this visit to the library?"

Today's college students began "researching" in elementary school by using Internet search engines such as Google and Yahoo. The patterns were established early in their schooling, and by the time they get to high school, these patterns are firmly entrenched. Yes, they often do use journal databases such as InfoTrac, but they still assume that they can find all their research materials through the public Web. When these students arrive in college and take writing-intensive 3000- and 4000-level courses, they are surprised to learn that the way in which they conducted research in high school is usually not acceptable to college professors. This is the uphill battle that I encounter nearly every time I enter the library classroom. The exceptions to this, of course, are most graduate students. They understand how much they do not know about library research and are normally quite interested and motivated to learn what I have to teach them.

One of the things I most enjoy in my teaching is opening up students' eyes to the wealth of information that is available
on the "private" Web—the 450-plus databases and 46,500 online journals that the WMU Libraries offers the academic community through its subscriptions. When I tell students how much the Libraries spends annually for these resources, I see many a jaw drop open—as I tell them, scholarly information is not free and it is not cheap. One of my most important classes is the HIST 2900 "Introduction to the Study of History" course that all incoming history majors are required to take. The Libraries is embedded in this course and so, early on, I get to meet with all the history majors. I specifically adjust my instruction to the research needs of the students, and in HIST 2900, I have 50 minutes in which to tutor the students in how to find monographs, scholarly journal articles, dissertations, book reviews, and reference books on the topics they have chosen for their research papers. It is quite a challenge to cover this much in such a short amount of time, but I have fine-tuned my presentation—and still manage to give the students some free time to do their own searching. This semester I worked with a young undergraduate who was researching a most interesting topic—how Lyndon Baines Johnson's personality impacted his presidency. We had fun with that one.

In the last several years I have changed the way in which I teach in an effort to include more active learning. Where once I would just present the students the best search words. For example, when I tell students in my children’s literature classes that we want to find some poetry books about the people in the United States who speak Spanish, I wait for them to volunteer words such as “Latinos,” “Hispanics,” and “Chicanos” to put in our online search. I have found that this serves a dual purpose—it makes the students more invested in the learning process and it gets across the notion of using synonymous terms to broaden a search.

One of my favorite classes is the PSCI 3460 “Women in Developing Countries” course. In this class, each student must find a scholarly article, 15 pages or longer and written in the last six years, on the topic of women in the political arena in the developing country of their choice. While this may sound easy, it can be challenging. Here again, I focus my instruction on the best ways to find these articles, but many times students are frustrated because they cannot find something appropriate for the country in which they are interested. I thoroughly enjoy working individually with these students in the class and I am nearly as happy as they are when they find just the right article. Matching students to the best information is one of the most rewarding things about instruction—it is such a joy to see them excited about the materials they are finding.

My instruction does not stop when the class session is over. I ordinarily put together specialized handouts for each of my classes, detailing the best places to search for books, journal and newspaper articles, government documents, etc., and I always include my name and contact information at the bottom. As I tell my students, the only dumb question is the one left unasked, and I encourage them to seek further assistance after class if they need it. I often hear back from students, sometimes in person or on e-mail.

Despite my best efforts, it is impossible to transform a group of undergraduate students into mini-librarians after only one library session. However, we live in a world of information overload, and academic librarians, as information experts and educators, can help students choose and evaluate the "best" sources for their research needs, while empowering them to become independent researchers. That, in a nutshell, is my philosophy when it comes to library research instruction.