

2023

## From Consumers to Creators: Scaffolding Digital Information Literacy Throughout the Undergraduate Curriculum

Emily Metcalf

*Grand Valley State University, metcalem@gvsu.edu*

Lisa Louis

Catherine Rudowsky

Tara Carlisle

Follow this and additional works at: [https://scholarworks.gvsu.edu/library\\_books](https://scholarworks.gvsu.edu/library_books)



Part of the [Information Literacy Commons](#)

---

### ScholarWorks Citation

Metcalf, Emily; Louis, Lisa; Rudowsky, Catherine; and Carlisle, Tara, "From Consumers to Creators: Scaffolding Digital Information Literacy Throughout the Undergraduate Curriculum" (2023). *Books and Contributions to Books*. 35.

[https://scholarworks.gvsu.edu/library\\_books/35](https://scholarworks.gvsu.edu/library_books/35)

This Contribution to Book is brought to you for free and open access by the University Libraries at ScholarWorks@GVSU. It has been accepted for inclusion in Books and Contributions to Books by an authorized administrator of ScholarWorks@GVSU. For more information, please contact [scholarworks@gvsu.edu](mailto:scholarworks@gvsu.edu).

# From Consumers to Creators:

## Scaffolding Digital Information Literacy Throughout the Undergraduate Curriculum

*Emily Metcalf, Lisa Louis, Catherine Rudowsky, and Tara Carlisle*

For decades, the Mary and Jeff Bell Library at Texas A&M University-Corpus Christi (TAMU-CC) has promoted library services across campus and provided information literacy instruction upon request. Despite these efforts, the library's reach was not evenly distributed across subject disciplines or course levels, with over half of the instruction occurring at the first-year level. The TAMU-CC librarians knew that to help students become truly information literate, equitable instruction was needed across more disciplines and throughout all course levels.

In the spring of 2018, we encountered an opportunity to create a robust digital information literacy program in the shape of a campus-wide quality enhancement plan (QEP) that was required for accreditation reaffirmation. We in the library wasted no time proposing a digital information literacy program that would be scaffolded into every undergraduate's academic career at TAMU-CC.

The resulting I-Know program, built with broad campus support by a diverse team of staff, faculty, and students, is a scaffolded plan for digital information literacy instruction whereby students learn in stages how to find, evaluate, create, and communicate information effectively and responsibly. Throughout their years on campus, students will grapple with the discomfort of learning to interact in new

information environments and overcome the fears of what it means to author information as they transform themselves into critical consumers and responsible creators of information.

## **DISORIENTING DILEMMAS AND TRANSFORMATIVE CATALYSTS**

In this chapter, we describe a campus-wide digital information literacy initiative at Texas A&M University-Corpus Christi. “Digital information literacy,” a hybrid concept, is defined for the purposes of our program as “the ability to find, evaluate, create, and communicate information effectively and responsibly by leveraging the appropriate technology to achieve the student’s goals.”<sup>1</sup> This initiative was inspired by a growing sense of unease with the amount of mis- and dis-information in the world. Political and social justice discourse in 2019 illustrated that information was being used increasingly as a weapon in political struggles and culture wars, and the stakes seemed higher than ever before. Further, digital tools had exponentially increased citizen interactions with information. Digital information literacy could not be dismissed as optional; it had become a survival skill.

This new reality demanded a critical evaluation of our information literacy program. We were already concerned that our instruction efforts were heavily focused on first-year students, and we were not as successful in connecting with students later in their academic careers. Some faculty teaching upper-level discipline-specific courses believed that the students’ need for learning about information-seeking had already been met, and while some programs incorporated information literacy throughout their curricula, others did not. Either way, opportunities to educate students on more than the basics were being lost.

However, although the needs were more urgent, we knew that our capacity to expand the program was limited by the number of available librarians, a number that was unlikely to increase substantially. It was difficult to see how we could realize our dreams of offering more upper-level instruction and more in-depth coverage of digital information literacy concepts across the curriculum while maintaining engagement with the first-year program at a desired level.

The university’s reaffirmation of accreditation served as a catalyst, presenting us with an opportunity to address these obstacles. Our accreditor, the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), requires that each accredited institution develop a quality enhancement plan (QEP) for improvement during every ten-year reaffirmation cycle. TAMU-CC was up for reaffirmation in the spring of 2020, so the campus needed to decide on and begin developing a QEP in the fall of 2018. Librarians recognized the QEP requirement as an opportunity to engage the campus in a discussion around information and digital literacy as well as achieve our goals for graduating life-long learners and responsible citizens. If we could convince the campus to embrace information and digital literacy as the next QEP, we could build a pathway for the university to incorporate these important skills throughout the curriculum, thus potentially reaching every student before they graduate.

## EXAMINING, EXPLORING, AND REFLECTING

In the summer of 2018, TAMU-CC began hosting open town hall meetings for staff, faculty, and students to propose ideas for the quality enhancement plan. In the fall of 2018, proposals for three main ideas—global education, emotional intelligence, and digital and information literacy—were submitted to a committee in charge of the QEP selection process. These proposals were made publicly available, and staff, faculty, and students were encouraged to vote on which QEP the campus should adopt. The TAMU-CC community rallied around the digital information literacy proposal, and with the majority of votes in favor of this topic, the next step was to develop a plan for scaffolding digital information literacy throughout the undergraduate experience. A QEP Development Committee, discussed in more detail later, was formed with broad representation from across campus, and these representatives engaged in every part of the development process, from exploring definitions to developing student learning outcomes, all the way to marketing the plan to the campus and hiring full-time QEP personnel.

An important first step in the development of the QEP plan was determining our institution's needs. We needed to better understand the current state of information literacy instruction on our campus, the habits and skills we would like our students to be capable of as information- and digital-literate graduates, and our available resources.

In examining the state of Bell Library's instruction program at TAMU-CC, we found that 62.5 percent of information literacy instruction between academic years 2013–2018 was concentrated in introductory 1000-level courses.<sup>2</sup> This concentrated effort in first-year courses meant that the librarians were unable to dedicate time to the upper-level classes and faculty. Additionally, many faculty teaching upper-level courses assumed that their students were learning advanced concepts in their first year and consequently did not see the need for additional information literacy training in their upper-level courses. Indeed, only 25.6 percent of instruction sessions in the same time period were in 3000- or 4000-level courses.<sup>3</sup>

We know from examining course descriptions that these upper-level classes are ones in which students are conducting more complex research and are often producing their own information products such as research papers, webpages, or blogs, all of which serve as visible records of the student's and university's output. When students only receive instruction on basic searching skills in their first year, they may not have the chance to become adept at these skills or be introduced to strategies for using and responsibly communicating the information they learned to search for. Rather than leave digital information literacy skills to the first-year courses, we need to engage the whole campus to help foster a culture that incorporates digital information literacy instruction at every level. This kind of scaffolded instruction would allow students multiple opportunities to practice responsible information-seeking and -using habits throughout their time in college and strengthen their critical thinking skills with repeated exposure to these concepts.

While exploring our institutional data, we investigated our students' self-reported behaviors using data from previously conducted student surveys. We learned that between 49 and 65 percent of students reported that they “never” or only “sometimes” used numerical information to reach a conclusion, analyze real-world problems, or evaluate claims

based on numerical data.<sup>4</sup> Likewise, in a survey that assessed graduating students, respondents used phrases like “daunting” and “too extreme” to describe their research experiences. Conversely, some students reported a desire for more experience conducting research and building projects.<sup>5</sup> These seemingly conflicting views pointed to the need for scaffolded digital information literacy instruction in their undergraduate experiences.

Knowing that the need for digital information literacy education has been an increasingly urgent concern for more than a decade, we suspected we were not the first university to think of a campus-wide digital information literacy program. We therefore scoured our fellow SACSCOC reporting peers for examples of past or ongoing QEPs to see if anyone had already devised and implemented a similar project. Several universities we encountered had focused on similar needs at their institutions. Information literacy, media literacy, and digital literacy were all identified as skills that contribute to developing critical thinking and prepare students for an engaged civic and professional life after college.

Several initiatives stood out as having features we were interested in replicating, most notably the University of Tennessee (UT) at Martin’s MILE program<sup>6</sup> and Northern Kentucky University’s GEARUP program.<sup>7</sup> UT Martin’s MILE program scaffolded information literacy instruction throughout the undergraduate curriculum, building upon knowledge and skills gained in earlier classes. This reflected our ultimate goal of creating a program that impacted students throughout their time as undergraduates, founded on skills previously learned in order to achieve higher levels of understanding. The MILE program reached students in their first year, in a general education class and in a course identified by each major. Northern Kentucky University’s GEARUP program also focused on integrating information literacy into courses taught in the undergraduate curriculum. NKU’s model was particularly important to us later on as we planned how best to engage faculty members in the program.

Additionally, we considered the Association of College and Research Libraries *Framework for Information Literacy for Higher Education*.<sup>8</sup> This resource was already key to the library’s instruction program, but we knew from anecdotal evidence that while librarians and some faculty supported the Framework, librarians did not have the time with students to really engage with it. Over 70 percent of our instruction sessions from academic years 2013–2018 lasted less than an hour, and in that time we prioritized ensuring students had the skills to succeed at a particular assignment.<sup>9</sup> Faculty expectations to cover discrete hands-on skills took precedence over engaging with the information literacy concepts we often thought should underpin our skill-oriented instruction. The possibilities of the QEP let us view the Framework in a new light. It was not only a theoretical approach to information literacy but also a tool to be deployed in designing an institutional initiative. Later in the planning process, the Framework was key as we developed student learning outcomes.

We also reflected on Mezirow’s theory of transformative learning which provides a holistic understanding of the learning process, starting with the daunting first stage of uncertainty and fear, also described as the “disorienting dilemma.”<sup>10</sup> In this initial stage of what Kathleen King refers to as the “transformation journey,” an individual must be willing to shed habits of mind, whether conscious or unconscious, and go beyond their standard

frame of reference to reach a deeper phase of learning.<sup>11</sup> This initial disorientation not only challenges our students to rethink how they find, evaluate, create, and communicate information in the digital landscape, but our faculty, too, must think anew as they integrate digital information literacy into their curriculum. The subsequent stages of transformative learning are testing and exploring, affirming and connecting, and developing new perspectives. These four stages embrace uncertainty, critical evaluation, and encourage the development of new ideas and methods. With transformational learning serving as a theoretical underpinning and the ACRL Framework as our guideline, we were confident we could foster a more expansive understanding of digital information literacy.

Our exploration spanned library data, student reflections, existing programs and learning theories, the Framework, and research surrounding scaffolded instruction, embedded librarianship, and faculty engagement.\* All of this information confirmed that it was not only possible to scaffold digital information literacy throughout a curriculum, but it was necessary to fulfill the university's mission of transforming students into lifelong learners and critical thinkers.

## **BUILDING SKILLS AND CONSTRUCTING KNOWLEDGE**

A necessary early task was to create a definition for “digital information literacy” that would suit our campus and the QEP’s intent. Developed by representatives from Bell Library and the Department of Information Technology, we wanted to address not just information literacy as described by the ACRL but also address the digital tools students use to access, create, and disseminate information. The ACRL defines information literacy as “the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.”<sup>12</sup> The American Library Association (ALA) definition for “digital literacy” is “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.”<sup>13</sup> From these definitions, we crafted our own concept of digital information literacy for the TAMU-CC campus: “The ability to find, evaluate, create, and communicate information effectively and responsibly by leveraging the appropriate technology to achieve the student’s goals.”<sup>14</sup>

Although the QEP was intended to be put into practice as early as the spring semester of 2020, several outside factors meant that, at the time of the writing of this chapter, all the details of the QEP implementation were not yet fully realized. However, we have always been aware that many skills will need to be honed by librarians and faculty in order for us to build and implement this new digital information literacy curriculum.

Librarians will need to become experts in digital information literacy. They will continue to teach instruction sessions, but as we plan on scaffolding their efforts into higher-level courses, they will need to prepare themselves for additional classes and new faculty interactions. Librarians already have the content expertise in the resources for subjects they liaise with, but the development of resources and materials for new upper-level classes

---

\* For our full literature review, please see the *I-Know Quality Enhancement Plan*, 11–16.

will require their time and energy. Librarians may need to develop novel approaches to teaching some of the more advanced digital information literacy concepts required in these courses.

Faculty will also be asked to serve as willing partners and become digital information literacy authorities. Those who choose to champion the QEP may develop as experts by evaluating their assignments, teaching digital information literacy themselves, and engaging with assessment that incorporates the QEP's objectives. Those who do not choose to dive quite as deeply into digital information literacy will still need to familiarize themselves with the intent of the QEP and engage with the program to ensure that students in their classes are getting the digital information literacy instruction and practice they need.

## **PLANNING AND PILOTING IN PRACTICE**

As mentioned, a QEP Development Committee was formed and was designed to include stakeholders from across the university, including representatives from each academic college, the Library, the Office for Distance Education and Learning Technologies, Faculty Senate, Staff Council, Planning and Institutional Research, Marketing and Communication, Student Engagement and Success, the student body, and the SACSCOC liaison. It was crucial to have a planning committee representing diverse perspectives and constituencies in order for the plan to be successful across varied disciplines and curricula. Based on expertise, the dean of Libraries and the associate vice president for Teaching and Learning Technologies co-chaired the committee.

The committee met regularly and worked on QEP components in-between meetings to plan the entire program from definitions and scope to student learning objectives and assessment. Their work also included identifying necessary resources and establishing a timeline. Planning started with establishing a scope and goal that would guide the rest of the QEP. Early on, it was agreed that the digital information literacy program would aim to address student knowledge, skills, behaviors, and values with regard to interacting with information using digital technologies. As a result, the goal of the newly titled I-Know digital information literacy program was to “prepare students to find, evaluate, create, and communicate knowledge using digital technologies so that they can successfully and responsibly navigate the increasingly complex modern information landscape as global citizens.”<sup>15</sup>

Having established a foundation and working with the ACRL Framework, the Development Committee set out to establish the scope of the program as well as the student learning objectives. The committee determined early on that concepts of digital information literacy should be scaffolded into a student's academic career so that they might achieve a deeper level of understanding through practice. As the Framework emphasizes, conducting research requires more than a practical set of skills. It also requires learned behavioral skills, such as persistence, adaptability, tolerance for ambiguity, and self-reflection throughout the process. This critical reflection enables students to challenge their assumptions or habits and develop a more exploratory and creative approach to the research process. By recognizing these dispositions in themselves, as well as acquiring practical skills, students are more likely to apply and transfer what they have learned to a new setting.<sup>16</sup>

The Development Committee also decided to have an aggressive goal of impacting all undergraduate students regardless of discipline as digital information literacy instruction had been provided unevenly throughout the curriculum. The Development Committee determined that foundational concepts such as finding and understanding information would be covered in First-Year Seminar, a required course for all incoming first-year students regardless of discipline. Building on this foundation, the committee determined that one prerequisite course for each degree program would be identified in which these concepts would be expanded upon to include evaluating and applying information in ways relevant to the discipline. Additionally, concepts such as synthesizing and creating information would be explored in a capstone or other required upper-level research-intensive course.

Student learning objectives (SLOs) based on the TAMU-CC definition of digital information literacy were developed to be scaffolded into the curriculum at three levels of increasing complexity. The ACRL Framework, the library's existing information literacy SLOs, and the UT Martin MILE's SLOs were consulted in developing the I-Know SLOs. We developed four SLOs, which were then incorporated into three courses (see figure 10.1).

SLO Level	Course	Topic	Student Learning Objective
Level 1	First Year Seminar 1101 and 1102	<b>Find</b>	Identify and pursue effective digital approaches for accessing information (such as keyword searching and citation following) as well as assess the quantity, quality, and relevance of their search results.
Level 2	Major Pre-requisite Courses	<b>Evaluate</b>	Evaluate a source's credibility and suitability in the context of their information needs.
Level 3	Major Capstone/ Research Courses	<b>Create</b>	Create effective research questions based on curiosity and gaps in the information or data available.
Level 3	Major Capstone/ Research Courses	<b>Communicate</b>	Use appropriate technology (such as shared documents and digital presentation software) for creating knowledge, collaborating with peers, and contributing to scholarly conversations.

**FIGURE 10.1.** Texas A&M University-Corpus Christi student learning outcomes from the I-Know quality enhancement plan.

An assessment subcommittee devised a plan that would assess student learning through the lens of the SLOs as well as the I-Know program holistically. This comprehensive plan includes two main approaches and incorporates both direct and indirect measures of student learning. The Threshold Achievement Test for Information Literacy (TATIL), a national standardized test, will be administered to first-year students and seniors to measure any changes in the degree of mastery of information literacy concepts over the span of their academic careers.<sup>17</sup> Members of this committee will compare assessment data within cohorts at the start of each semester using TATIL and over time from the start of the program to graduation. Because it is a standardized national assessment tool, TATIL will also allow us to benchmark across peers and similar institution types. In addition,



a subcommittee of the QEP Development Committee created an assessment rubric to measure digital information literacy as demonstrated in classroom assignments to serve as a direct measure of all three SLO levels. The rubric is based on the VALUE Rubrics designed by the Association of American Colleges and Universities, specifically the Information Literacy VALUE Rubric and the Critical Thinking VALUE Rubric.<sup>18</sup> In addition, the Development Committee established targets and goals for assessment outcomes.

The Development Committee also outlined the necessary resources, including personnel, faculty development activities, and budget to ensure success. Lastly, the committee established a timeline with a phased approach with the intention of increasing participation in the I-Know program to reach 100 percent of those courses incorporating the SLOs within five years. After the initial five years, the goal is for the SLOs to be seamlessly integrated into target courses and for digital information literacy to be a part of the campus culture.

## **TAKING TRANSFORMATION FORWARD**

With a robust, well-supported plan and strong campus enthusiasm, the I-Know program is now ready for implementation. Due to the proactive approach and campus-wide intention of the program, we recognized the need to hire individuals to assist in implementing the plan and ensuring its success from the outset of our work. Therefore, the university's first step of implementation was to hire a director of the I-Know digital information literacy program. As of summer 2021, this position has been filled and the I-Know implementation plan is underway.

To assist the new director and to provide continuity, the QEP Development Committee is being transitioned into a QEP Advisory Committee, with most members willing to continue serving. This group will continue to provide support to the director as the plan is put into practice and unforeseen opportunities or obstacles arise. In addition, the director is hiring an instructional design librarian to serve on the I-Know team, who will work closely with the instructional services librarian and the First-Year Seminar coordinators during the first stage of implementation.

The I-Know program will integrate the first SLO into the First-Year Seminar and create professional development for faculty during the 2021–2022 academic year. Planning will also begin for the next phase of the I-Know program, which involves reaching out to disciplines to identify appropriate prerequisite courses for incorporating digital information literacy concepts. Starting in the fall 2022 term, the true transformation will begin as we start to provide professional development opportunities for both librarians and teaching faculty to hone their digital information literacy skills. Librarians will work in partnership with teaching faculty in small groups across disciplines to integrate digital information literacy competencies into the curricula. The I-Know program will add educational materials and resources to TAMU-CC's learning management system, which is a central access point for both faculty and students. The team will also establish benchmarks and share achievements through public forums and conference presentations.

Because this program was developed as a quality enhancement plan for our SACSCOC reaffirmation process, the I-Know program was critically evaluated by a visiting team

of SACSCOC representatives who provided a written analysis of the QEP, including comments for strengthening the plan. This valuable feedback was a welcome contribution that would not normally be part of a planning process, outside of a reaffirmation review. Their suggestions provided insights into faculty development, discipline- or subject-specific digital information literacy rubrics, assessment measures, and additional digital tools in support of the program. As SACSCOC points out, this peer-review process “stimulates evaluation and improvement, while providing a means of continuing accountability to the institutions’ stakeholders and to the public.”<sup>19</sup> Institutions that are not members of SACSCOC may find similar resources through their regional accrediting bodies or through the Council of Higher Education Accreditation.

Once the plan is implemented and underway, our assessment will provide us with insights into necessary adjustments depending on levels of success and results achieved. We designed the program to be dynamic and to evolve as discoveries are made and lessons are learned. To document these discoveries and changes along the way, we will compile and share annual reports with the campus community. These reports will ultimately be collated into a five-year interim report that is presented to SACSCOC. This five-year report will mark the end of the required documentation for the I-Know program; however, the plan is that this program will continue to be integrated into courses, faculty will continue to develop as digital information literacy experts, and students will continue to evolve as critical thinkers and information users.

## CRITICAL REFLECTIONS FOR INSTRUCTIONAL IDENTITIES

The accreditation process required for our university provided us with an opportunity to implement an institution-wide digital information literacy program. However, we believe that others can benefit from our experience to help extend or even reimagine their information literacy efforts, even without the boost provided by an accreditation imperative. As librarians, faculty, and administrators think about information consumption and creation at their institutions, we encourage them to reflect on the following questions:

- Are you satisfied with the reach and content of your library’s instruction program?
  - Are you teaching the skills you feel are important to encourage critical thinking? When students return to the library, are you able to build on the skills previously taught, or do all sessions cover the same material? Do students leave sessions confident in their abilities? Can they replicate what they have learned in different contexts?
- What opportunities or channels exist at your institution for large-scale program development?
  - At TAMU-CC, we were fortunate that a QEP requirement existed for us. What is your campus’s or department’s accrediting body? Do they include statements about critical thinking, digital technologies, or marketable skills? Maybe your university’s mission statement or strategic plan includes requirements for information literacy or digital competencies. These are all opportunities to explore as

- you prove the need and establish the channels for campus-wide programming.
- How could a campus-wide initiative like the I-Know program be implemented on a smaller scale?
    - If a large-scale program is not possible, what smaller openings are available to you? Is there a department where a scaffolded approach might work? Or is there an opportunity to offer professional development in the form of communities of practice or a workshop program? Even finding one class to try out some digital information literacy assignments can make a big impact.
  - What relationships do you have on campus that you can leverage around information literacy instruction?
    - The most important part of our I-Know program has been the people. The campus community was engaged in selecting it, supporting it, and developing it, and that's why it has such great potential. Do you have people within the library who would like to engage with a program like TAMU-CC's? How about in academic departments? Is there someone in university marketing who could help advertise a program or maybe make a video about a successful collaboration on assignment development? Take stock of the relationships you already have and think about who else you might like on your team to help implement a successful digital information literacy initiative.

As you reflect and think about possibilities on your own campus, remember that digital information literacy initiatives are happening all across academia. They are in libraries and archives and embedded in classes and whole curricula. You already have supporters out there—willing collaborators who would love to work with you to help however they are able. If you are not sure where to start, reach out to someone from a program you admire. Ask them how they did it and how you, in turn, could create something amazing.

## NOTES

1. "I-Know Evolution," Texas A&M University-Corpus Christi, accessed September 17, 2021, <https://www.tamucc.edu/library/i-know/evolution.php>.
2. Emily Metcalf, "AY 13-AY18 stats for QEP" (unpublished dataset, September 9, 2021), Microsoft Excel file.
3. Metcalf, "AY 13-AY18 stats for QEP"
4. "I-Know Digital Information Literacy Quality Enhancement Plan," Texas A&M University-Corpus Christi, 8, accessed September 10, 2021, <https://www.tamucc.edu/library/i-know/assets/documents/qep-iknow.pdf>.
5. "I-Know Quality Enhancement Plan," Texas A&M University-Corpus Christi, 9.
6. "UT Martin MILE Program, University of Tennessee at Martin, accessed September 17, 2021, [https://www.utm.edu/qep/\\_pdfs/UT%20Martin%20MILE%20Program%20-%20A%20Quality%20Enhancement%20Plan.pdf](https://www.utm.edu/qep/_pdfs/UT%20Martin%20MILE%20Program%20-%20A%20Quality%20Enhancement%20Plan.pdf) (site discontinued).
7. "Igniting the Information Literacy Flame," Northern Kentucky University, accessed September 23, 2021, <https://www.nku.edu/content/dam/qep/Igniting%20the%20Information%20Literacy%20Flame.pdf>.
8. *Framework for Information Literacy for Higher Education*, Association of College & Research Libraries, American Library Association, February 9, 2015, <http://www.ala.org/acrl/standards/ilframework>.
9. Metcalf, "AY 13-AY18 stats for QEP"

10. Patricia Cranton, "The Origins of Transformative Learning Theory," in *Understanding and Promoting Transformative Learning: A Guide to Theory and Practice* (Sterling, VA: Stylus Publishing, 2016), 15–29.
11. Kathleen P. King, "The Transformation Model," *International Journal of Information and Communication Technology Education* 3, no. 2 (2007), 26–31, <http://dx.doi.org/10.4018/jicte.2007040103>.
12. *Framework*, ACRL, Introduction.
13. "Digital Literacy," American Library Association (ALA), accessed September 24, 2021, <https://literacy.ala.org/digital-literacy/>.
14. "I-Know Evolution," Texas A&M University-Corpus Christi.
15. "I-Know Quality Enhancement Plan," Texas A&M University-Corpus Christi, 20.
16. *Framework*, ACRL.
17. Threshold Achievement, Carrick Enterprises, accessed September 17, 2021, <https://thresholdachievement.com/>.
18. "VALUE Rubrics," Association of American Colleges and Universities, accessed September 17, 2021, <https://www.aacu.org/value-rubrics>.
19. Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), *The Principles of Accreditation: Foundations for Quality Enhancement* (Decatur, Georgia: SACSCOC, 2017).

