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Love it or Leery? Rapid AI Aided Instructional Design for Library Learning

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Abstract

In recent years, the rapid development and widespread adoption of artificial intelligence (AI) technologies have profoundly impacted nearly every domain of human activity. The library and information science field is no exception, as AI is transitioning how libraries operate and interact with their patrons. This paper examines the implications of AI for instruction in libraries, with a particular focus on the changing role of library instruction and information literacy in light of AI and with a focus on leveraging the nature of these technologies using rapid, easily applied instructional design techniques.

Librarians are vital in empowering library users to become self-sufficient researchers, navigating complex information landscapes, and developing critical thinking skills. Before the advent of AI, the primary function of library instruction was to teach patrons how to effectively locate, access, and evaluate information resources available through the library's physical and digital collections. Yet as always, effective library instruction requires flexible learning environments, keeping pace with advancing technology, and the changing information landscape to meet students' need for physical and remote learning environments (Valtonen et al., 2021).

In the past librarians often collaborated with instructional designers trained in teaching and learning design techniques. However, budget declines have reduced access to these resources, requiring librarians to take on the additional designer role (Mullins, 2014). Lack of resources and increased time demands can be a constant battle to ensure effective instruction.

Coinciding with this trend, the rise of AI-powered search engines, virtual research assistants, and automated information retrieval systems has further altered this environment.

Educators should not only help students gain knowledge and skills in AI, but also develop their digital competencies. These competencies will enable students to effectively communicate and collaborate with AI systems. By cultivating both AI-specific skills and broader digital literacy, educators can prepare students to thrive in an AI-powered world (Ng et al., 2023).

The advance of AI tools creates a design and development imperative that encourages increased agility, timely design, and the ability to get learners up to task quickly and efficiently, encompassing trusted instructional methods and the strengths of AI-driven practices.

Today, many common instructional design tasks that were once the domain of librarians can be accomplished through AI-driven tools that provide instant, customized information to users. Despite this, instructional librarians can harness this potential to develop effective learning designs to teach users how to thrive in the changing information landscape. These conditions

raise important questions about the future of traditional library instruction, such as:

- How will library instruction methods evolve to remain efficient and effective in a fast-paced AI-infused information environment?
- What new design skills must librarians develop to effectively create AI-assisted learning experiences that guide patrons in the use of current research tools?
- What tasks can be effectively developed to increase the speed and efficiency of library instruction?

This paper explores these questions, drawing on the principles of Rapid Instructional Design and the use of conversational AI tools such as ChatGPT to augment and advance library instructional design in the age of artificial intelligence.

Love it or Leery? Rapid AI Aided Instructional Design for Library Learning

The Role of Instructional Design Models

One way to create effective library learning is through the use of design models. Instructional design models provide a structured framework for the systematic planning, development, and implementation of effective instructional experiences.

One prominent example of such a model is the ADDIE model. The ADDIE model (Analysis, Design, Development, Implementation, and Evaluation), uses a systematic process to guide instructional designers through an iterative process of assessing learner needs, designing appropriate learning materials, developing the instructional content, implementing the instruction, and evaluating the effectiveness of the overall process. This comprehensive approach ensures that the instructional design process is thorough and allows for continuous improvement (Gagné et al., 2005).

Instructional design models serve as valuable tools for librarians performing design work as part of their duties, helping ensure that the instructional content and methods are aligned with the learners' needs and the desired learning outcomes. While instructional design models like ADDIE provide a structured framework for developing effective learning experiences, they can also have limitations in certain contexts. First, the ADDIE approach can be used with any teaching project of any size, but works best with large and complex projects, such as course development. Another criticism is that complex models like ADDIE can be slow to develop and cumbersome to implement, thus it becomes expensive and possibly redundant, especially in fast-paced or rapidly changing learning environments (Bates, 2019; Howell, 2003).

Also, the linear, step-by-step nature of models like ADDIE may struggle to keep up with the evolving needs of learners and the increasing emphasis on active, engaging instructional strategies. These models were often developed within the context of structured, face-to-face training programs, and they may lack the agility and balance needed between direct instruction and active learning required in modern, technology-enhanced, and learner-centered approaches (Dgvl, 2002; Molenda, 2003).

As the field of instructional design continues to evolve, there is a need for more flexible, iterative, learner-centric models that can better accommodate the diverse needs of contemporary learners and the rapid advancements in educational technology (Hokanson & Miller, 2009).

Alternately, other models and frameworks seek to address these limitations and provide a more balanced and responsive approach to instructional design (Tripp & Bichelmeyer, 1990). One such approach is the Rapid Instructional Design model or RID. The rapid instructional design (RID) model offers a more flexible and responsive approach to developing instructional content, particularly in contexts where there are budgetary and personnel constraints, such as in the development of library instruction programs.

Unlike linear, sequential models like ADDIE, rapid instructional design strategies emphasize an iterative, user-centered design process that provides for rapid prototyping, testing, and

refinement of instructional materials (Meier, 2000). This approach is well-suited for library instruction, where librarians often face tight timelines, limited resources, and the need to quickly adapt to the evolving information needs and learning preferences of their patrons. This timeliness and efficiency are particularly valuable where librarians may need to create or update instructional content on short notice to address emerging research topics, new database acquisitions, or curriculum changes (Ramsay & Sparrow, 2019). This rapid prototyping-based approach to the development process, with a strong emphasis on expedient, cost-effective creation of the final product, embraces complex scenarios, new learning theories, and technologies, and actively involves the learner or end-user throughout the iterative development phases (Nixon & Lee, 2001).

By adopting a rapid design approach, librarians can overcome the limitations of traditional models, such as slow development timelines and one-size-fits-all nature, and create more timely, flexible, and user-centered learning experiences for their patrons, even with limited resources and personnel (Howell, 2003; Molenda, 2003).

Many design models provide the structure to produce relevant instructional products. Models with a user-centric focus, such as RID, can help ensure that the instructional content is tailored to the specific needs and preferences of library patrons, leading to more effective and engaging learning experiences.

The Phases of Rapid Instructional Design

Because of its iterative nature, focus on student activity, and emphasis on practice, the RID model aligns well with the use of AI writing tools for developing instructional content, such as syllabi, course objectives, and learning strategies. Where traditional education often focuses too much on presenting information, RID reverses this approach by emphasizing engagement and active learning over presentation. Further, by alternating between physically active and passive activities, you can create a balanced learning experience. Finally, the new knowledge is designed and encouraged to be put into practice in the real world as quickly as possible. To accomplish this, the rapid instructional design process is based on four phases (Meier, 2000).

Preparation: The Arousal of Interest

Effective learning necessitates that students approach the learning process with a feeling of interest, open-mindedness, and preparedness. However, past educational experiences may have given students the perception of learning as stressful or boring. The instructor's task, therefore, is to create engagement by posing thought-provoking questions, presenting scenarios and problems, setting clear learning objectives, and convincing students of the useful benefits of mastering the content.

Presentation: The Initial Encounter with New Knowledge or Skill

Traditional instructional models have historically devoted the majority of course time to the passive transmission of information. In contrast, the RID approach suggests that the presentation phase should make up no more than 25% of the overall learning experience. This shift in focus

calls for an active learning environment with a variety of sensory engagement, where students collaborate and interact with the new material, rather than merely receiving it in a didactic manner.

Practice: The Integration of New Knowledge or Skill

Where traditional classes have allocated a large amount of time to presentation, rapid instructional design redirects a significant portion of that time to the practice and development of new knowledge or skills. This phase should involve activities like simulations and gaming, problem-solving scenarios, debates, and case studies that give opportunities to practice and get feedback, to enable deeper learning of the material.

Performance: The Application of New Knowledge or Skill

The sooner students apply newly acquired knowledge or skills to authentic contexts, the more likely these competencies will be retained and reinforced. If there is a prolonged delay before students can demonstrate their learning in practical settings, there is a greater risk of losing knowledge. In addition to increasing practice time in class, instructors should provide readily available and realistic opportunities to perform the work and apply the knowledge in context.

Benefits of AI in the Rapid Instructional Design Process

Artificial intelligence uses a large language model based on a deep learning algorithm in which a neural network learns context and patterns from a vast amount of textual data. This allows the model to generate human-like text, understand and respond to natural language queries, and perform a variety of language-related tasks (Kim et al., 2022).

Crafting effective prompts is essential for getting the most out of AI-powered information retrieval, requiring a critical eye to ensure accuracy, detect biases, and avoid misrepresentations. This process of prompt refinement can unlock the full potential of generative AI, enabling instructional designers to receive feedback, refine the content, and implement changes more efficiently, ultimately supporting teachers in conducting their instructional activities and students in learning more effectively (Liua et al., 2021).

Through prompt engineering, AI-based tools can rapidly generate and revise drafts of syllabi, course objectives, and learning strategies, allowing instructional designers to quickly prototype and test these elements.

AI-driven capabilities can customize instruction to different learning styles, create relevant activities, and suggest a balance between physical and mental activities for individual students. By leveraging insights about learners with AI assistance, teachers can create personalized lesson plans engaging diverse learning styles, including somatic, auditory, visual, and intellectual learners (Baidoo-anu & Owusu, 2023). The speed, efficiency, and increasing creativity of AI tools suggest instructional designers may benefit from the responsiveness for adapting to learning contexts and student preferences, ultimately leading to more effective and engaging instructional content (Chng, 2023). The use of AI writing tools can assist in ensuring consistency

across the design of learning tasks, which is essential for effective instructional design (Reiser & Dempsey, 2012).

Concerns about Using AI in the Classroom

As with any technology, there are concerns as educators adapt to new tools and processes. The emergence of AI has caused a sea of caution in the teaching and learning process. Here are some of the initial concerns most relevant to teaching and learning.

Bias in AI-generated content

One of the most pressing concerns is the potential for bias in AI-generated content. If AI systems are trained on biased data, they may perpetuate and even amplify those biases in the educational content they produce. This could lead to inaccurate or discriminatory representations of certain groups, which could have serious consequences for student learning and socialization (Schartz et al., 2022).

When using AI-generated content in the classroom, it's essential to critically evaluate the information and encourage students to do the same. We must discuss the potential biases in AI-generated content and how they can impact learning outcomes. By doing so, we can help students think critically about the sources of information and the potential biases in AI-generated content. This approach will enable students to develop a more heightened understanding of the information to make informed decisions.

Job Replacement and Teacher Autonomy

Another significant concern is that AI could replace human teachers, undermining their autonomy and judgment. The fear is that AI could lead to a de-skilling of teachers and a loss of professionalism. However, while AI can process large amounts of data quickly and accurately, it lacks the emotional intelligence, empathy, and creativity that human teachers bring to the classroom.

As AI integrates into education, we must consider teachers' role and the importance of human interaction in learning. Conversational agents can enhance human-computer interaction by emphasizing social elements, but only if instructors explicitly direct them to do so. Maintaining the human touch is crucial as technology advances.

This shift toward more socially oriented conversational agent design represents a move towards more holistic, user-centric approaches to human-computer interaction that can yield benefits across various settings and applications (Rubin et al., 2010).

However, it cannot be overlooked that teachers play a vital role as facilitators of learning and mentors, rather than just content providers. Moreover, we should encourage students to take an active role in their learning and seek help when needed, highlighting the importance of teacher-student interaction in education (Liu & Wang, 2020).

Over-reliance on Technology

A key concern is increasing use of AI in education raises concerns about over-reliance on technology, potentially harming student learning. As students and educators rely more on AI-generated content and feedback, they may not develop critical thinking and problem-solving skills essential for 21st-century success. As AI handles mundane tasks and decision-making, declining cognitive stimulation could impede critical thinking, complex problem-solving, and innovation (Angwaomaodoko, 2023). While AI-generated content can be valuable, we must encourage a balanced approach, recognizing both the benefits and limitations of technology. Overreliance on AI risks compromising the development of essential skills needed for long-term academic and professional achievement.

Data Privacy and Security

Finally, as we strive to find a balance between technology use and human interaction, we must also prioritize the importance of data privacy and security (Weber, 2013). Educators and policymakers must ensure that robust safeguards are in place to protect student privacy and maintain the integrity of educational data (Ifenthaler & Schumacher, 2016).

As AI systems collect and process large amounts of student data, there is a risk that this data could be compromised or used inappropriately. It's essential to educate students about the importance of data privacy and security in the digital age. We should discuss the potential risks and consequences of data breaches and misuse of personal data. By encouraging students to take an active role in protecting their own data privacy and security, we can foster a culture of responsibility and awareness.

Putting AI into Practice in the RID process

Here are some examples of basic prompts you can use to accelerate the design process effectively based on the four phases of Rapid Instructional Design. Note each prompt will generate fairly accurate information in the correct form, the AI does only what you tell it and responds based on comparison to the data it has been trained on. In a sense, the practice of writing has begun to shift more to the creative and editorial skills of teachers to adapt and adjust ideas into the most engaging and effective learning content and strategy using AI-suggested content.

Preparation-AI for Motivation and Engagement

Prompt:

Acting like an instructor of information literacy, write a paragraph describing four benefits gained from the ability to evaluate information in everyday life. Make this a short list. Make the tone motivating and engaging, but professional sounding.

Response:

The key benefits of developing effective information evaluation skills in the digital age are:

- Becoming a discerning consumer of information enables the ability to distinguish between credible sources and misinformation, ensuring you make informed decisions.
- Cultivating a more nuanced understanding of complex issues enables you to engage in thoughtful discussions and form well-reasoned opinions.
- Developing a more critical and curious mindset fosters a lifelong love of learning and intellectual exploration.
- Being empowered to separate fact from fiction avoids the pitfalls of misinformation, and stay ahead of the curve in an increasingly complex information landscape.

Presentation-AI for objectives

Prompt:

Acting like an instructor of information literacy for a forty-five-minute research session on how to evaluate information using the CRAAP method. Includes five areas, currency, relevancy, accuracy, authority, and purpose. Using Gagné's nine events of instruction, write the outline. Include a presentation, practice, and evaluation section in the plan, Make it concise.

Response:

1. Introduction (Gain Attention)
 - A. Importance of information literacy in the digital age
2. Objectives (Inform Learners of Objectives)
 - A. Understand the CRAAP method for evaluating information sources
 - B. Apply the CRAAP method to assess the credibility of online resources
3. CRAAP Method Presentation (Stimulate Recall of Prior Learning)
 - A. Currency: Timeliness of the information
 - B. Relevance: Appropriateness for your needs
 - C. Accuracy: Reliability and factual correctness
 - D. Authority: Credibility of the source
 - E. Purpose: Motivation behind the information
4. Modeling (Present the Content)
 - A. Demonstrate application of the CRAAP method to sample sources
5. Guided Practice (Elicit Performance)
 - A. Learners apply CRAAP method to evaluate provided online resources
6. Feedback (Provide Feedback)
 - A. Discuss learners' evaluations and provide guidance
7. Independent Practice (Assess Performance)
 - A. Learners evaluate a self-selected online source using CRAAP
8. Assessment (Enhance Retention and Transfer)
 - A. Quiz on key CRAAP evaluation criteria
9. Conclusion (Enhance Retention and Transfer)
 - A. Recap benefits of information literacy and CRAAP method

Practice-Generating Activities

Prompt:

You are an expert information science teacher skilled in creating engaging, well-developed,

effective lesson plans for your students. Generate a list of activities using databases in a library instruction session. The list should contain five possible activities and be 20 minutes each.

Response:

1. Database Scavenger Hunt (20 minutes)
 - Groups race to locate specific information in various databases
 - Present findings and discuss database navigation
2. Lateral Thinking Database Exploration (20 minutes)
 - Explore databases to find information to answer an open-ended question
 - Prepare presentations and discuss insights gained
3. Database Comparison and Evaluation (20 minutes)
 - Explore and evaluate databases for a research topic
 - Create a matrix summarizing findings, discuss strengths and limitations
4. Database-Driven Infographic Creation (20 minutes)
 - Use databases to gather data for an informative infographic
 - Present infographics and discuss the data visualization process
5. Database Research Strategies Workshop (20 minutes)
 - Learn and practice advanced database search techniques
 - Apply strategies to find relevant information, share findings

Performance-Ideas for Use of New Knowledge

Prompt:

Design a concluding statement for a library training program that gives examples of the immediate application of new skills, such as having staff check out books or answer patron inquiries using a new circulation system, and provide coaching, feedback, evaluation, and reinforcement to solidify learning and build confidence in applying new skills in real-world scenarios.

Response:

Now we finished training, this is your chance to put the new skills into immediate practice, with me providing individualized coaching and feedback as you work through tasks like checking out books and navigating the new circulation system. Remember, learning is an ongoing journey, and we're committed to supporting your development every step of the way. Let's get started.

Conclusion

This exploration examines how the rise of AI-powered tools has impacted library instruction and information literacy. Librarians' traditional role in teaching patrons to locate and evaluate resources has evolved as virtual research assistants become more prevalent. To remain effective, library instruction must adapt by leveraging AI-driven tools and rapid instructional design methods.

The prompts and responses demonstrate how conversational AI can be used to develop instructional elements aligned with Rapid Instructional Design (RID) phases. However, crafting

effective prompts requires ongoing effort, highlighting the need for instructor techniques in creating AI-generated learning content.

The importance of flexible learning environments and instructional design models that keep pace with educational technology advancements is emphasized. While traditional models like ADDIE are criticized as slow, RID offers a more responsive approach. By adopting RID combined with AI-assisted design, librarians can quickly develop, test, and refine instructional interventions to create more effective learning content.

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What to Do When You're New: Lessons for New Managers of People or Programs

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Abstract

Being a new manager of people or programs is exciting and challenging. Sometimes people seek out these roles, and other times they are thrust upon them. Either way, it is crucial to have both a foundational philosophy of leadership and a plan of action that will set managers and their new reports or programs up for success.

This session highlights the personal experience of the presenter in roles such as a former coordinator of a new information literacy program at an R1, as well as two recent experiences as a University Librarian at a liberal arts college and Library Manager at a community college. The presenter will discuss mistakes and failures, early wins, and what they did to set themselves up for success in their most recent transition. Highlighted failures include failing to implement strong boundaries from the outset, failures in communicating clearly with direct reports, and failure to get out of the office and into campus more intentionally. Highlighted successes include establishing good listening practices with multiple stakeholders, success managing up, earning bi-directional trust with new reports quickly, and building a positive reputation early.

The presenter's unique philosophy of leadership is informed by servant leadership, intersectional feminism, critical pedagogy, and parenting. Works referenced include "Feminists Among Us: Resistance and Advocacy in Library Leadership" by Shirley Lew and Baharak Yousefi, "Vocational Awe and Librarianship: The Lies we Tell Ourselves" by Fobazi Ettarh, "Pedagogy of the Oppressed" by Paulo Freire, and "Teaching to Transgress" by bell hooks, and the presenter will emphasize how they applied concepts from these works as a way of informing empathetic managerial practices. The presenter will also highlight tangible strategies that any new manager can implement to inform plan of action for learning and help secure early wins.

Participants will engage in discussion to identify common challenges and opportunities new managers may face in the first 90 days in a role. Participants will also engage in active learning to reflect on their own leadership and management styles and how they can put these concepts into practice. Participants will leave the session with a 90-day action plan to ease into a new role capturing wins and mitigating failures.

Lessons Learned: Nurturing Student-Led Initiatives for Enhanced Library Engagement and Learning

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Abstract

Student-led initiatives in academic libraries can provide meaningful and reciprocal opportunities for connection and engagement among students and librarians, with potential outcomes that may include enhanced experiential learning, peer-to-peer support, and community building that promotes library services and resources (Arnold-Garza & Tomlinson, 2017). Librarians with programming responsibilities are well positioned to facilitate student-led initiatives; however, supporting the development and implementation of a student-led program requires intentional planning, relationship-building, and the flexibility to pivot when barriers arise. This session will present the experiences of two undergraduate engagement librarians who collaborated with four student library ambassadors to plan and launch a library program. In addition to describing successes, challenges, and opportunities that arose from this collaboration, the presenters will demonstrate strategies for fostering connection with student leaders as well as reflective practices for continually improving student engagement. Throughout the presentation, audience members will have opportunities to actively participate through prompts, reflection, and discussion. By sharing lessons learned and facilitating interactive learning, the presenters aim to explore the potential of student-librarian collaborations and student-led initiatives. These potentials include highlighting library resources and contributing to the educational experience of student collaborators. Finally, by sharing lessons learned, the presenters aim to offer practical guidance for academic library professionals seeking to implement similar projects.

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Elevate Your Online Instruction: Developing Engaging Student-Centered Information Literacy Tutorials

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Abstract

The Rod Library at the University of Northern Iowa has seen a growing need for asynchronous e-learning content in recent years, due to the increased adoption of educational technology, the prevalence of online courses, budgetary constraints, and staffing challenges. Rather than tasking individual instruction librarians with developing their own digital learning objects, Rod Library has pivoted to a more centralized approach, in which staff with specialized training and software collaborate with instruction librarians to develop e-learning content, such as online interactive tutorials and instructional videos. In 2023, Rod Library transitioned away from using Springshare's LibWizard as its primary tool for creating interactive content and moved to Articulate 360, an industry-standard e-learning authoring software that has allowed the library to place a greater emphasis on usability, accessibility, responsive design, and narrative-based learning.

As a midsize regional comprehensive university, UNI prioritizes meeting the needs of undergraduate students, and the library has worked to create an online presence that aligns with the University's priorities. This paper explores strategies for fostering an accessible, user-centered online learning environment for students, including software selection, assessment, the application of instructional design principles, and the integration of emerging technologies, such as AI Text-to-Speech generation. The authors also outline how they have implemented the ADDIE (Analyze, Design, Develop, Implement, Evaluate) model in a highly collaborative development environment.

Elevate Your Online Instruction: Developing Engaging Student-Centered Information Literacy Tutorials

Introduction

In response to emerging needs for high-quality information literacy instruction in the online environment, many academic libraries are looking to the field of instructional design for tools and best practices. At the University of Northern Iowa (UNI), Rod Library has implemented creative strategies to meet the demand for information literacy instruction and respond to changing user expectations, while remaining mindful of staffing and budgetary constraints. In an effort to maintain reasonable workloads for instruction librarians, as well as to address the increasing demand for asynchronous content for online courses and degree programs, Rod Library has transitioned away from expecting individual instruction librarians to create their own digital learning objects. Instead, Rod Library has pivoted to a more centralized approach, in which staff with specialized training and software collaborate with instruction librarians to develop the majority of e-learning content, such as online interactive tutorials and instructional videos. This transition led to the adoption of new tools, including Articulate 360, an industry-standard e-learning authoring software, and ElevenLabs, an AI Text-to-Speech generation service. The authors also implemented a systematic approach to developing e-learning content based on the ADDIE (Analyze, Design, Develop, Implement, Evaluate) model, to facilitate efficient project management and communication among collaborators.

UNI is a mid-size regional comprehensive university with an enrollment of approximately 9,000 students. With over 80% of students enrolled in undergraduate degree programs, UNI places a strong emphasis on catering to the educational needs of undergraduate students (University of Northern Iowa, 2024). Recognizing that digital learning objects not only teach skills and concepts, but also serve as an important form of outreach that shapes student perceptions of libraries and research, the authors prioritize developing content that is intuitive, inclusive, engaging, modern in design and appearance, and relatable for students.

Review of Literature

The scholarly literature on instructional design and online learning for libraries features discussion of a variety of different software options and development strategies. Articulate 360 is an e-learning authoring tool that has gained popularity in recent years among instructional designers across education, academia, and the corporate sector. With the increased adoption of Articulate 360, it is not surprising that several recent articles discuss the advantages and challenges of using Articulate 360 to create interactive online learning modules for information literacy instruction. In the article “Reuse and Remix: Creating and Adapting Open Educational Tutorials for Information Literacy,” (Mery et al., 2022) discuss how the University of Arizona used Articulate 360, Vyond, and Sidecar Learning to create a series of online tutorials to replace older content. The second half of the article is a case study of how the University of Oregon borrowed and adapted the University of Arizona’s tutorials to meet online learning needs during the COVID-19 pandemic. (Fuller et al., 2021) describe how librarians at the University of Toronto used Articulate Rise 360 to create asynchronous modules to facilitate flipped-classroom instruction for a three-part information literacy series for graduate students. Similarly, librarians

at the University of Alabama, California State University, Los Angeles, and Penn State University have used Articulate 360 software to create information literacy modules for first-year undergraduate students (Ezell, 2021; Franklin et al., 2021; Amsberry & Behler, 2024). LibWizard, Sidecar Learning, H5P, Adobe Captivate, and Camtasia are other popular software options discussed in the literature on developing e-learning content for libraries.

The literature on libraries using instructional design systems (ISDs) includes various approaches. ISDs are methodologies instructional designers employ to develop learning experiences systematically. ADDIE (Analyze, Design, Develop, Implement, Evaluate) is the most widely known and used ISD by designers in library contexts. Other common ISDs include SAM (Successive Approximation Model), Gagné's Nine Events of Instruction, Merrill's Principles of Instruction, and Agile Learning Design. In 1975, Florida State University developed ADDIE to streamline military training by creating a systematic methodology (Branson et al., 1975). Over time, the use of ADDIE moved beyond military applications to other organizational settings, including higher education. Koneur's (2010) article "ADDIE: Designing Web-enabled Information Literacy Instructional Modules" provides an overview of the ADDIE model and its application in designing effective online information literacy modules. Davis's (2013) article "Using Instructional Design Principles to Develop Effective Information Literacy Instruction: The ADDIE Model" describes how Davis used ADDIE to develop a student-centered one-shot instruction session for a journalism course. Several articles discuss how librarians follow ADDIE to guide the development process for specific projects. Librarians at Oakland University used ADDIE to develop a credit-bearing information literacy course (Hess & Greer, 2016). Similarly, librarians at the University of Alabama followed ADDIE to create a suite of information literacy modules for undergraduate students in First Year Writing courses (Ezell, 2021).

Background and Planning

Transitioning From LibWizard to Articulate 360

During the spring semester of 2023, the authors worked with the Associate University Librarian for Learning and Research to reevaluate the software and workflows being used to create digital learning objects at Rod Library. At the time, many of the Library's digital learning objects were created in LibWizard using iFrames to create a split-screen learning experience. In this environment, the Library's live web-based resources, such as the web-scale discovery system and databases, are placed side-by-side with the tutorial instructions and questions. While this facilitates active learning, this configuration creates many issues in the areas of usability, accessibility, responsiveness for mobile devices, and security (Schilperoort, 2020; Chan, 2021). Because of these concerns, Rod Library decided to explore other software options that would facilitate active learning, while also providing more comprehensive accessibility features and a modern look and feel, in order to better meet the needs and expectations of students.

It is important to recognize that there is no one-size-fits-all approach to instructional design and that the priorities of individual libraries and institutions may differ. The authors selected Articulate 360, a suite of industry-leading e-learning authoring tools, based on the specific needs and goals of their library. The Articulate subscription includes two e-learning tutorial creation software programs: Rise and Storyline. Articulate Rise is a cloud-based platform designed for

rapid course development with customizable blocks, while Articulate Storyline is a desktop application for creating complex tutorials with high levels of interactivity and multimedia integration. While some institutions may have access to a variety of software options for developing different types of e-learning content, Rod Library needed a software solution for creating both instructional videos and interactive tutorials. Recognizing that interactive tutorials would potentially replace synchronous information literacy instruction, the authors wanted to create content that would mirror the experience of using Rod Library's digital and physical spaces as closely as possible through highly customizable active learning environments, allowing users to practice navigating the Library's web-based resources, complete activities based on common research scenarios, receive guidance and mentorship from characters in the tutorials, and receive real-time feedback while answering questions.

In terms of internal workflows and troubleshooting, the authors were interested in a tool that would integrate well into a collaborative work environment and came with robust support options. The Articulate 360 subscription includes access to Review 360, a tool that allows developers to share draft versions of digital learning objects with collaborators for feedback. Using Review 360, stakeholders can easily review content and add comments. Articulate 360 also offers extensive support services, including training videos, community forums moderated by Articulate employees, and customer service assistance, as well as access to an asset library containing templates, images, characters, and other resources. This was particularly important to the authors, as Rod Library does not have its own dedicated IT services, but instead relies on support from a centralized IT unit on campus. The authors wanted to know that if they encountered issues, there would be assistance available through the vendor and the user community.

Deploying Digital Learning Objects

In addition to finding the right tools and resources to develop digital learning objects, library staff must determine the best mode of facilitating online access to the content once it has been created. The authors decided that instructional videos would be uploaded to the Rod Library YouTube channel, as this would allow library employees to easily share videos with users and to embed them in other online content, including LibGuides. Planning for the distribution of interactive tutorials involved a more complex decision-making process. Interactive learning modules created with authoring software, such as Articulate 360 and Adobe Captivate, can be uploaded to a Learning Management System (LMS), using web specifications like SCORM (Sharable Content Object Reference Model) and Tin Can API (xAPI). Depending on the LMS, it may be possible to track various types of user interactions with learning modules, including completion of modules, correct and incorrect answers, and the number of attempts to answer questions correctly. Ultimately, this information may be synced to a course gradebook. While embedding modules in the LMS environment is a great way to provide access for students at point-of-need, in practice, it can be challenging to collect usage data for assessment and evaluation (Ezell, 2021; Franklin et al., 2021).

Because of these known challenges, Rod Library employees met with UNI's Blackboard administrators prior to making any final decisions regarding authoring software or hosting. Based on UNI's current policies and Blackboard configuration, the authors learned that they

would need to work directly with course instructors to add library tutorials to credit-bearing courses. Once modules were added to a Blackboard course, there would be no way to update or change learning modules, meaning library staff would have to coordinate with course instructors to remove or replace out-of-date modules. Because of concerns about coordinating maintenance and assessment, the authors decided to reserve the option of embedding content in Blackboard for special cases and to explore alternatives for general distribution. After reviewing several alternatives to Blackboard, Rod Library decided to host the interactive tutorials on local servers, with the assistance of the University's IT staff. This also meant that the tutorials would be available to all members of the campus community and general public, rather than limiting access to students enrolled in particular courses. It is important to note that some LMS configurations may give students the option to self-enroll in learning modules that are not affiliated with a credit-bearing course. The authors recommend librarians consult with their local LMS administrators and IT staff to learn more about local policies and technology.

Instructional Design Process

The authors use a modified version of ADDIE to develop the Library's digital learning objects, including interactive tutorials and instructional videos, allowing for a systematic yet flexible approach. The authors employ backward design principles by first determining the desired learning outcomes before designing instruction, ensuring the learning experience aligns with those learning outcomes. Additionally, the authors integrate iterative design elements from SAM, such as rapid prototyping, to gather immediate stakeholder feedback on real objects, enhancing the design process and ensuring the final products more efficiently meet learner needs. The Library consolidated instructional design responsibilities to staff with expertise in adult learning theory, instructional design processes, and e-learning authoring software. To support staff development, the Library provided time and training opportunities to enhance competency in these areas. In cases where a library may not have staff with existing expertise, there are various options for training, including graduate programs, professional certificates, YouTube videos from instructional design practitioners, conferences, books, and podcasts.

Analysis

During the analysis phase, the authors conduct a thorough needs analysis to identify learning needs, objectives, and goals. The needs analysis involves assessing learner characteristics, determining the learning environment, and establishing desired outcomes to meet those goals. The authors work with stakeholders, including subject matter experts (SMEs), to establish timelines and expectations to ensure the success of a project.

The authors developed a Digital Learning Object Request form to enhance the efficiency of needs analyses and the productivity of discovery meetings. The form collects information about the instructional topic, key concepts and features to be covered, timelines, learning objectives, target audience(s), preferred formats, existing instructional materials, and other stakeholders to consult on a project. The form links to the team's previously developed digital learning objects to showcase available formats. During discovery meetings, the authors meet with the Library's SMEs, instruction librarians, who have information literacy and subject expertise in their liaison areas. For example, the authors recently collaborated with the Health Sciences Librarian to create

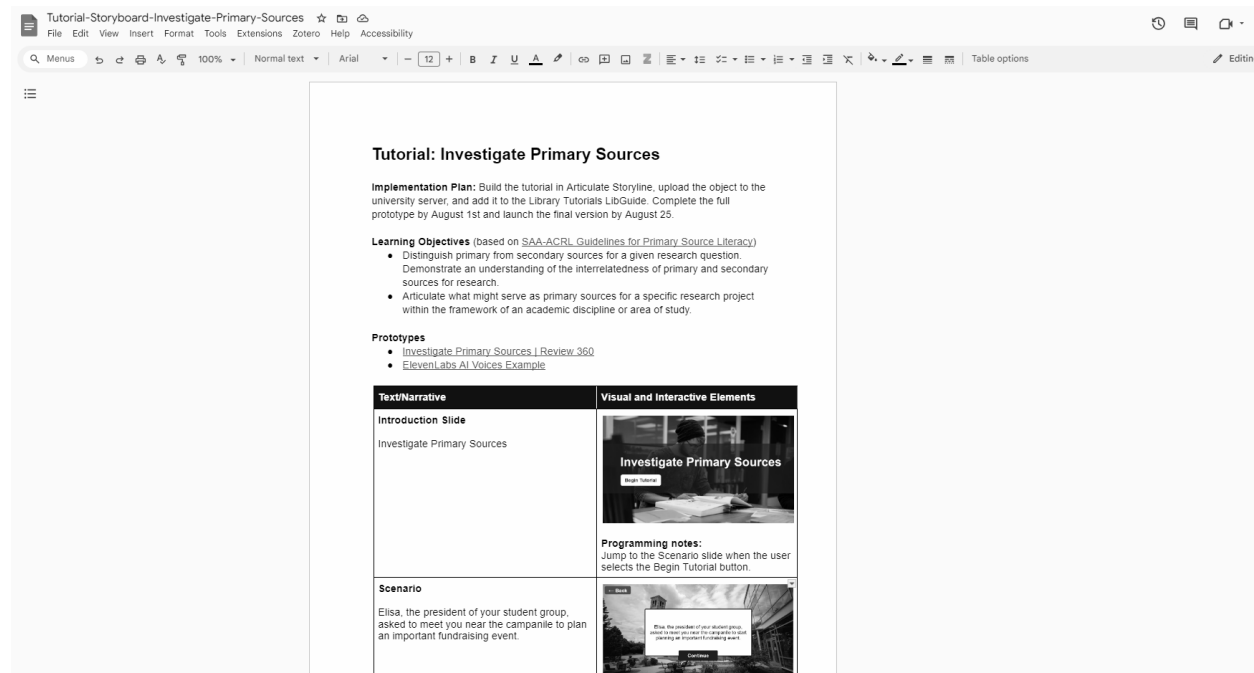
a series of digital learning objects supporting the University's emerging nursing program. Consulting instruction librarians ensure instructional materials are accurate and relevant, enhancing the credibility of the learning experience. Instruction librarians deeply understand teaching information literacy concepts and provide real-world examples for scenario-based learning experiences.

Design

During the design phase, the authors craft specific, measurable learning objectives based on information gathered during the needs analysis, utilizing Bloom's Taxonomy, a hierarchical framework for categorizing learning goals by cognitive complexity (Armstrong, 2010). Following this, the authors generate design documents in Google Documents called storyboards, which outline the content and plans for each slide or segment aligned with the defined learning objectives. Storyboards include plans for narration or text, multimedia and interactive elements, and programming details like character animations or navigational elements. Once drafted, the authors share the storyboard with SMEs and incorporate their content, wording, and design feedback. After the initial revisions, the authors develop and share a partial rapid prototype to gather feedback on the tutorial's look, feel, and functionality. The finalized storyboard and prototype then guide the development of the object in the e-learning authoring software.

Figure 1

A storyboard for an interactive tutorial, including implementation plans, learning objectives, prototypes, and planning for text/narration and visuals/interactives for each slide.



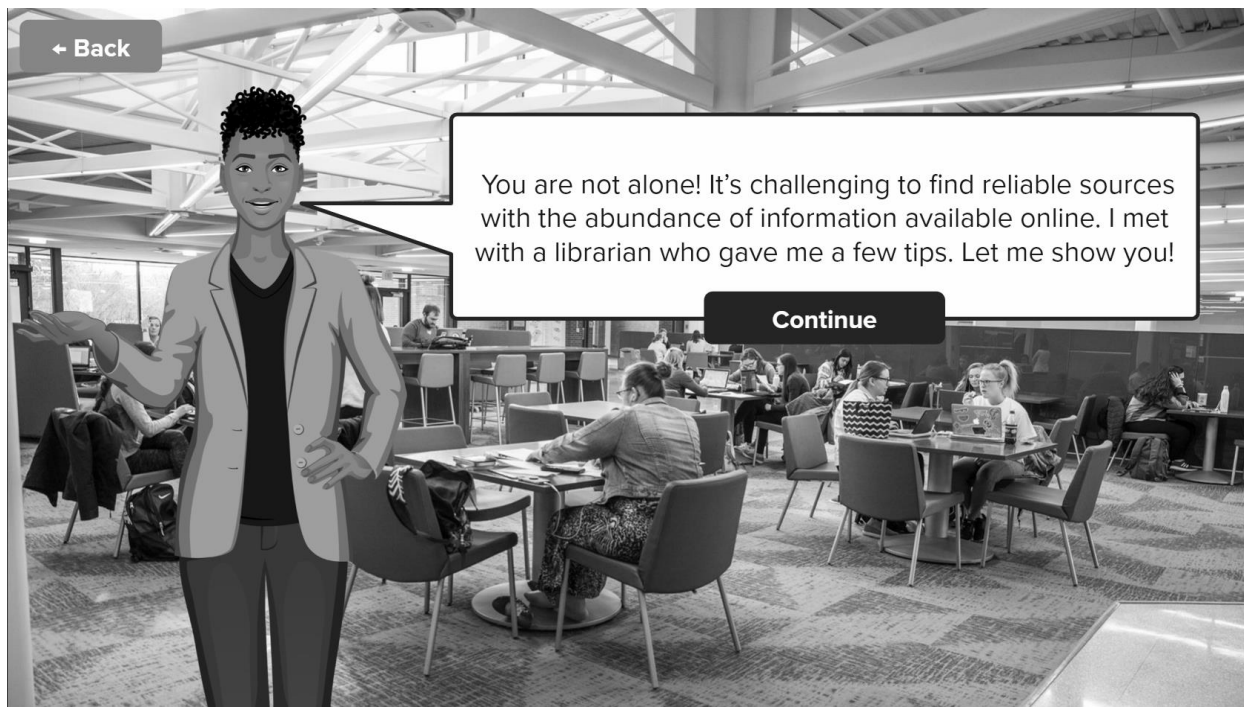
The authors follow scenario-based learning techniques and apply Mayer's (2020) Principles of Multimedia Learning to design effective and engaging learning experiences. Scenario-based

learning engages learners in real-world assignments or challenges (Clark & Mayer, 2012). Scenario-based learning empowers learners to actively solve real-world problems, gaining confidence and proficiency in a low-pressure learning environment. The authors ensure realism by consulting with instruction librarians, who share stories of real interactions with students to inspire the narrative and contextualize the learning experience. For example, in the "Find Sources at the Library" tutorial, the learner actively engages in a scenario where their professor hands back their research paper and tasks them with finding credible sources. The authors based this scenario on real interactions shared by instruction librarians working with undergraduate students.

Engaging the learner while balancing entertainment with educational content is essential in scenario-based learning. Instructional designers using this technique should ensure the content aligns with learning objectives and proactively remove any superfluous information or interactions. Following Mayer's (2020) embodiment principle, the authors incorporate on-screen agents to guide and provide feedback to the learner. For example, in the "Find Sources at the Library" tutorial, Jada, the learner's peer mentor, meets the learner at the Rod Library and guides them through finding a credible source in the library catalog. Following Mayer's personalization principle, Jada's informal tone and conversational language foster a sense of connection with the learner. Additionally, Jada acts as an ambassador for the Library, demonstrating that it is a place where students can find approachable people who want to help them with their research.

Figure 2

Jada, an on-screen agent who provides guidance and feedback to the learner in a scenario-based interactive tutorial.



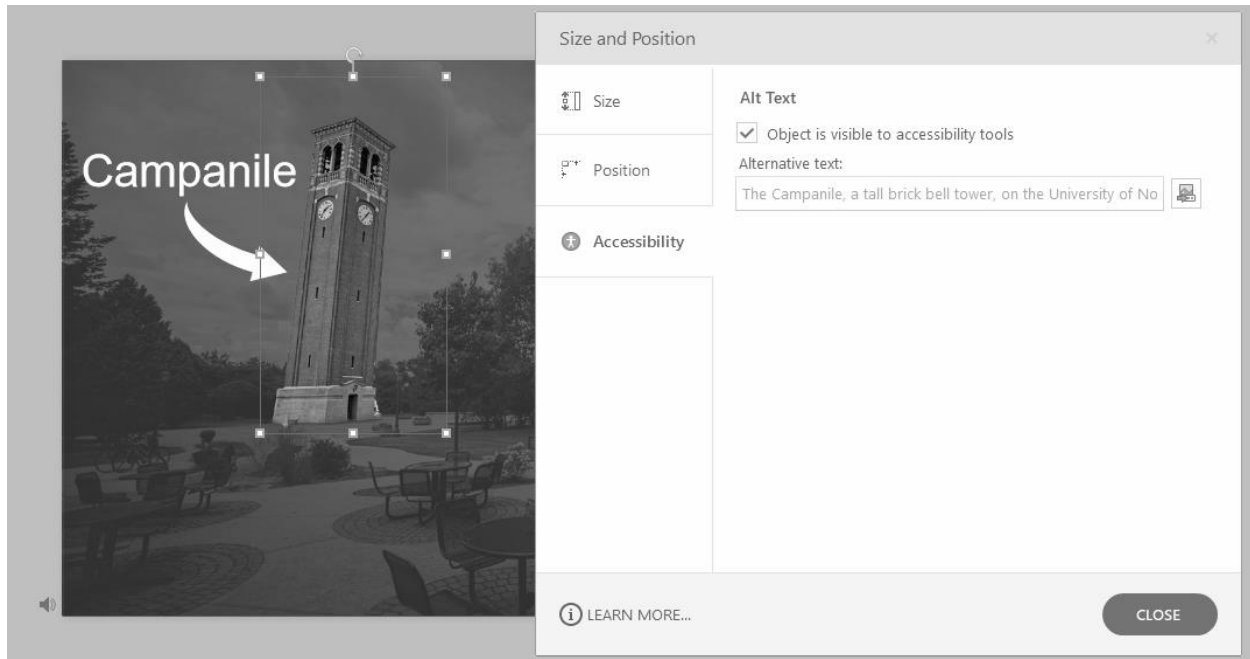
Mayer's (2020) voice principle suggests learning is more effective when audio narration sounds like a human voice rather than a machine voice. For instructional videos, the authors initially recorded scripts using their own voices and then edited those files in Adobe Audition. However, recording was time-consuming, especially if last-minute script changes necessitated rerecording. Articulate Storyline includes integrated AI voices, but the authors found them to be low quality and robotic. To streamline the workflow, the authors explored using AI-generated voices and evaluated several vendors, including Genny, PlayHT, WellSaid Labs, ElevenLabs, and Speechify. The authors selected ElevenLabs due to the realism of the voices, robust voice library, 29 language support, customizable settings, and high-quality audio outputs. Some features, such as custom pronunciation and internal editing, are not available in ElevenLabs but are in some other vendors' products. The authors also created a document with their preferred voices and customized settings to guide the generation process. The document also includes instructions on how to type certain words for accurate pronunciation (e.g., U N I for UNI).

Development

During the development phase, the authors use e-learning authoring software to create instructional content, such as interactive tutorials, as planned in the design phase. The authors perform quality assurance to ensure digital learning objects are accessible using Articulate Storyline's integrated accessibility features, including support for screen readers. The authors include alt-text for images, customize focus order, add and edit closed captions for multimedia, and ensure keyboard navigability for interactive elements. Articulate (2024) provides Voluntary Product Accessibility Templates (VPATs), which assess how accessible a product is using established accessibility standards. Articulate's VPATs are available for download on all of their products. While Articulate products include accessibility tools, it is ultimately the author's responsibility to ensure accessibility. For example, authors must select colors with sufficient contrast to ensure readability, using tools like WebAim's Contrast Checker. The authors' institutional branding guide features primarily medium-tone colors, meaning black or white text does not offer sufficient contrast. To improve accessibility, the authors adjusted the contrast of these colors in their digital learning objects.

Figure 3

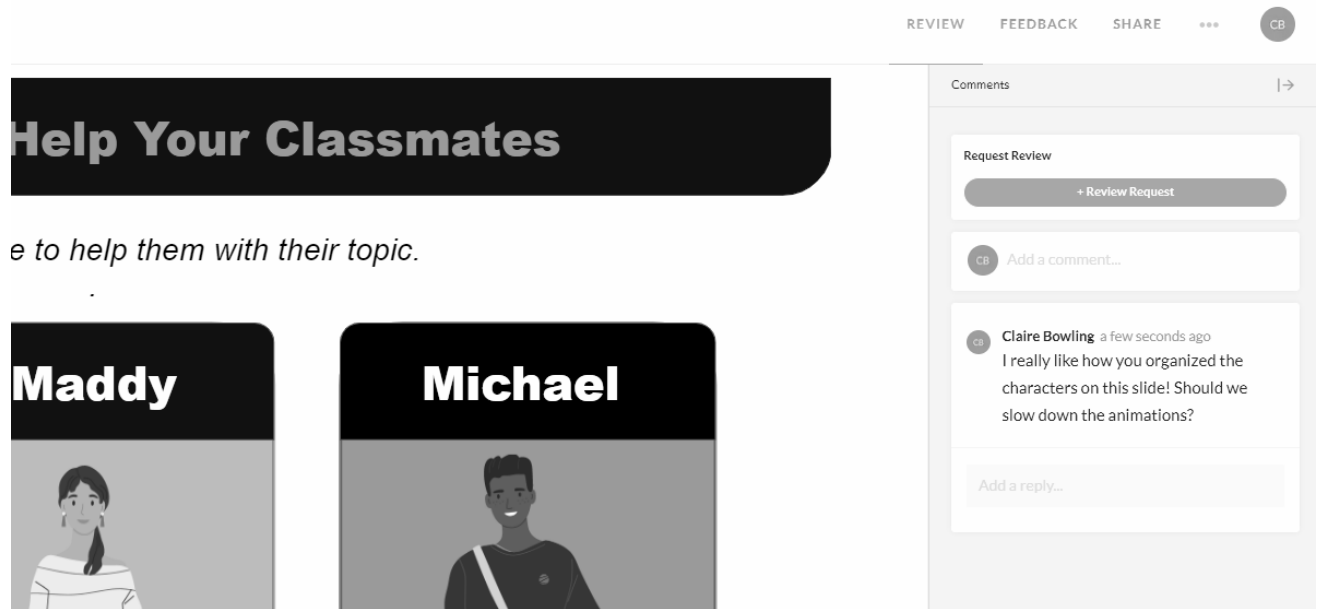
An example of adding alt-text and making an object visible to screen readers in Articulate Storyline, an e-learning authoring software.



After developing the tutorial, the authors share it with SMEs and stakeholders for comments using Articulate's review software, Review 360. This software allows for versioning to incorporate rolling updates based on feedback. Stakeholders provide feedback and mark it as reviewed to indicate whether the object is ready for implementation.

Figure 4

A reviewer comment in Review 360, Articulate's built-in collaboration tool for gathering stakeholder feedback on digital learning objects.



Implementation

In the implementation phase, the authors deliver the learning experience to the learners as planned in the analysis phase. Articulate offers several download options, including SCORM (Sharable Content Object Reference Model) and Tin Can API (xAPI) formats, ensuring interoperability with learning management systems, standardization, tracking, reporting, and reusability. Additionally, Articulate allows for exporting to HTML5 for web hosting and MP4 files for uploading to video hosting websites such as YouTube or Vimeo. The authors upload files to the University's web server and share them on a public Library Tutorials guide. In special cases, the Library uploads tutorials to credit-bearing courses on the Blackboard learning management system, allowing tracking and connecting to the gradebook. However, uploading tutorials to multiple courses is time-prohibitive and creates potential issues if the Library no longer has control over the files. One instance of when the Library uploads tutorials is for peer mentor courses, as library staff closely work with the program and are added as course builders, which provides more control over the tutorial files. There are other hosting options instructional designers may explore, including third-party hosting servers, such as Google Drive, Dropbox, OneDrive, GitHub, or Amazon S3, but these may not provide as robust tracking or reporting capabilities as a learning management system. The authors recommend allotting additional time before an implementation deadline to account for potential errors or issues with uploading and sharing tutorials.

Evaluation

During the evaluation phase, the authors conduct formative and summative assessments to measure the effectiveness of the learning experience. The authors integrate formative assessments to provide learners with ongoing feedback to assist them with improving their learning, including knowledge checks. The authors conduct summative evaluations to assess the overall effectiveness of a learning experience through quizzes with questions aligned with each learning objective. For example, the authors use a LibWizard Quiz to evaluate a tutorial about source types. LibWizard enables learners to authenticate through the University's system. Additionally, the authors distribute feedback surveys to collect information about the learners' impressions of the learning experience. The authors use these insights to make revisions and enhance the learning experience in future iterations.

Figure 5

A formative assessment activity using an Articulate Rise matching question block.

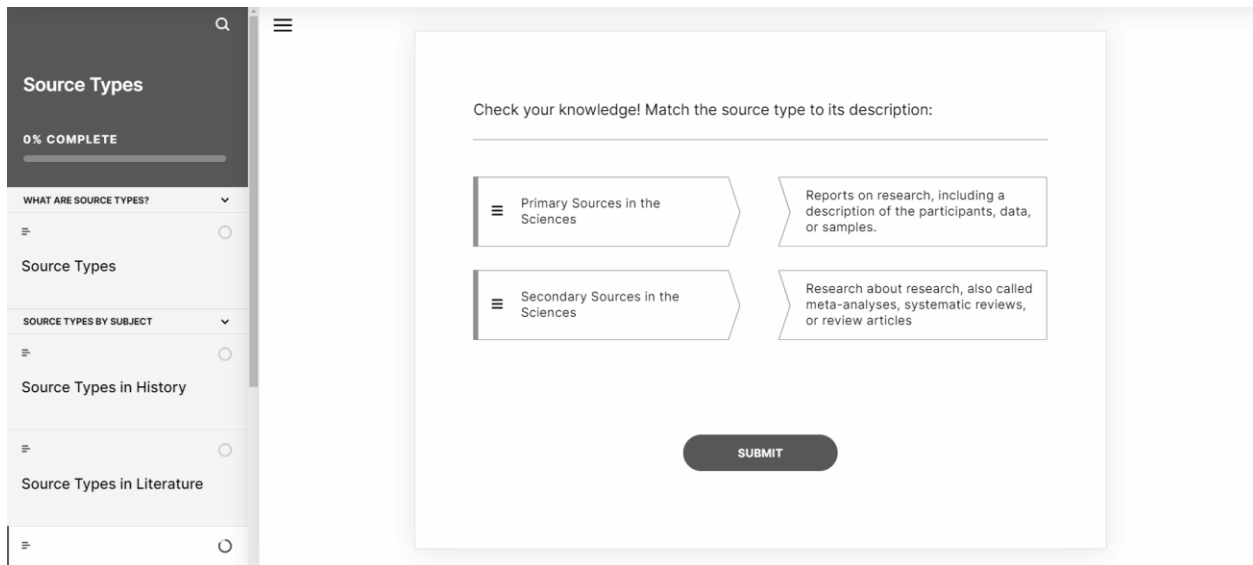
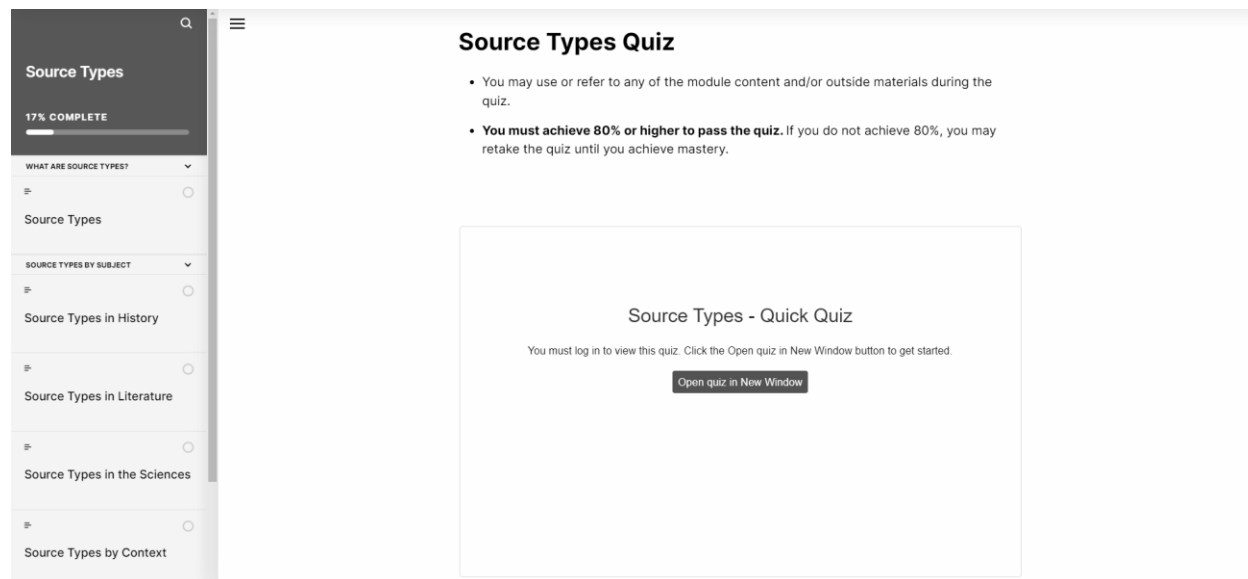


Figure 6

A LibWizard Quiz embedded in Articulate Rise to enable authentication and to perform a summative assessment of the learning experience.



Future Considerations

As the authors plan for the program's future, they intend to develop more robust assessment, maintenance, and digital stewardship practices. The authors are currently exploring options for conducting formal assessment and usability testing, such as Kirkpatrick's Four Level Training Evaluation Model, to measure the effectiveness of their learning experiences, from learner satisfaction to long-term program outcomes. The library recently piloted a new protocol for conducting usability testing on the library's web-scale discovery system, and the authors are considering adapting this for the purposes of evaluating and improving new learning objects. Additionally, the authors plan on incorporating a phase not present in ADDIE: maintenance. Maintenance involves managing the lifecycle of digital learning objects, including making timely updates, deaccessioning, and archiving an object as it reaches the end of its lifecycle. The authors recommend factoring in the human power to make continual updates as web interfaces and needs change. An advantage of Articulate products is their modularity, which allows for more efficient updates as designers can make changes to a single slide rather than needing to re-record an entire instructional screencast.

The authors also plan to incorporate digital stewardship and archiving practices into their workflows. For instance, the authors plan to work with IT staff to find an appropriate long-term storage solution for duplicate copies of digital learning objects and other relevant documentation, such as tutorial storyboards. The authors intend to explore licensing their tutorials under Creative Commons, enabling other institutions to copy and modify them. The authors recommend librarians consider their specific context when determining their approach to developing, implementing, evaluating, maintaining, and sharing student-centered digital learning objects.

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Fostering Belonging and Community Building with a Wellbeing Collection

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University of Missouri

Jill Kline
Student Success Librarian
University of Missouri

Abstract

Librarians from University of Missouri Columbia will share how they created a small Wellbeing Collection of books that have been used to boost library student engagement through outreach and programming. The book categories were created intentionally to reflect student interest, support student success, and provide access to popular reading titles that the MU Libraries do not currently collect. Students can access books that include support student success topics such new adulting, learning about person finance, navigating college campus services and research skill building. With mental health concerns rising on college campuses, the collection also addresses ways to incorporate stress-relief within academic life on campus. This presentation will discuss how the selection of books impacted the outreach efforts for marketing the Wellbeing Collection to students on campus connections with campus partners and the co-creation of programming with the First-Generation Initiatives office.

You Want Me to Do What? But I Can't Read That... Cataloging Soviet Russia Space Exploration Books

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Southwestern Oklahoma State University

Abstract

The Al Harris Library received a donation of the archive of retired astronaut General Thomas P. Stafford. The continually growing collection includes over 200 boxes containing NASA reports, professional and personal pictures, videos, and more. Part of the collection is the approximately 700 books used for research by Stafford and his co-author Michael Cassutt to write the memoir *We Have Capture: Tom Stafford and the Space Race* (2002). Half of these books are a collection of Soviet-era Russia (USSR) space program books and periodicals written in Russian. Michael Cassutt has characterized the books as the most comprehensive collection about the USSR space program. The main issue the library ran into was how to catalog books in a foreign language no one could read. This article will discuss the unique solutions developed to ensure these items were cataloged properly, and the issues that came up and had to be addressed.

You Want Me to Do What? But I Can't Read That... Cataloging Soviet Russia Space Exploration Books

Introduction

The principal collection of the General Thomas P. Stafford Archives (GTPSA) was gifted to the Al Harris Library (AHL) starting in late 2015 when it was announced the University President, then Dr. Randy Beutler, had accepted the gift on behalf of the University of the retired astronaut General Thomas P. Stafford (1930-2024). The AHL is on the main campus of Southwestern Oklahoma State University (SWOSU) in Weatherford, Oklahoma. SWOSU is a regional university with a 3885.9 FTE for fiscal year 2023. This figure is published in the latest *SWOSU Fact Book Spring 2024*. The library began receiving deliveries of the collection of General Stafford's donations beginning in 2018. The collection includes bound and unbound NASA engineering reports that Stafford consulted on or authored during his days as an astronaut. It includes both NASA and personal photographs in albums, binders, or framed pictures of all sizes. Also included are NASA films, projector slides, and audio and video tapes in various formats. Within this collection personal photo albums and home video Super 8mm films are included. Additionally included are awards and certificates, professional and personal correspondence to and from Stafford, and both personal and professional mementos from throughout his career as an astronaut, administrator, engineer, and businessman.

SWOSU and the Al Harris Library were selected since Thomas P. Stafford was born in Weatherford, Oklahoma in 1930. He was raised in western Oklahoma. Unlike most famous people, Stafford continued his relationships with his close friends and the people of his hometown and returned often to visit the city of Weatherford for various public dedications and honors. He died at the age of 93 on March 18, 2024. The donation to create the archive is one more example of Thomas Stafford's generosity to the community of Weatherford. He established the Stafford Air & Space Museum (TSAASM). It is a Smithsonian affiliate encompassing 63,000 square feet of top-of-the-line exhibits telling the story of the development of aeronautical technology and the history of space exploration. The archive at the AHL complements the Air and Space Museum. Where the museum displays room after room of full-sized historical objects in its exhibits, the archive preserves documents, books, photos, and audio and video recordings and makes them available to the public, especially to students of all ages, for study. General Stafford has contributed to and raised funds to establish and develop The SWOSU Foundation. Also, over the decades he supported education and economic development for the city of Weatherford. It makes sense that SWOSU became the site for his archive and preserves his legacy due to his life-long devotion to Weatherford.

Literature Review

In Barry Gray's 2005 article, *Cataloging the Special Collections of Allegheny College*, he describes the evolution of both a special collection and its cataloging system. It describes challenges over the decades including the discovery of their solutions bearing a resemblance to the challenges the GTPSA experienced while launching into cataloging projects. J.M. Perrin, and R.G. Weaver's 2020 article, *Context is Key: Library and Archive Collaboration for Digital Projects*, provides a detailed description of a project partnership between librarians and

archivists. It illustrates the problems generated when the participants did not communicate the assumptions and vocabulary of doing work as either an archivist or a librarian. The authors call for librarians and archivists to communicate and agree on shared methods and goals for future such partnerships. These authors explore the importance of understanding the context of the many choices in a joint project when librarians and archivists work together. Whittaker's 2006 article, *"Get It, Catalog It, Promote It": New Challenges to Providing Access to Special Collections*, provides an overview of the issues of cataloging special collections and provides a thumbnail history of decades of the fragmentation of public access to holdings in special collections. The overview and history lead the reader to Whittaker's assessment of and recommendations for resolving the fragmentation of public access to collections today. She begins with the age when inventories and catalog cards were handwritten. She points to the backlog of cataloging information that is left behind with each iteration of technological advancements in cataloging. She further addresses the current problems of the accessibility of items in special collections due to the nature of technology used at its creation and due to people in the profession not working together. Whittaker (2006) ends with an expression of hope that, "this call to arms will challenge readers to prove [her] wrong, through an increased commitment on the part of all those who work with special collections, to address our access problems in a systematic and collaborative way..." (p. 133).

Tatianna G. Barr's 2004 article, *Opening Up Special Collections to the Public: A Partnership Between Cataloging and the Special and Area Studies Collections Department at the University of Florida*, provides a positive picture of partnerships she witnessed and participated in between catalogers and curators at the Special and Area Studies Collections (SASC) Department of the University of Florida. Barr provides specific strategies for keeping catalogers and curators on track to complete joint projects. Attar's (2013) article *Modern special collections cataloguing: A University of London case study*, uses her experience of cataloging the early, and handwritten items of the Walter de la Mare Collection to provide examples of cataloging decisions making necessary to meet contemporary standards. Examples include providing appropriate descriptions of the items, provenance, bindings, and using contemporary cataloging rules on an early collection. The author assures readers that cataloging special collections can meet contemporary standards. Although the cataloger will need to be knowledgeable about the collection, expect to assume the role of a bibliographer, and accept and share guidance of experience of meeting the challenges of cataloging a special collection.

In E. Bradshaw and S. Wagner's 2000 article the authors provide an overview of the value of fruitful communication between catalogers and curators when they partner to catalog special collections. This article advises curators to learn the basics of creating catalog records and for catalogers to understand the work and assumptions of curators before a project starts. Understanding each other's disciplines will provide a foundation for successful communication required to carry out a large project. The authors provide examples and advice on solutions of subjects for catalogers and curators to reach an understanding as they plan their projects. Russell's 2004 article, *Special Collections Cataloging at a Crossroads: A Survey of ARL Libraries*, provides an overview of the challenges libraries face when providing cataloging services for their special collections. Funding and organizational buy-in are at the top of the list along with dealing with a backlog of items to be cataloged. Russell (2004) reports on the results of her survey of ARL libraries and her conclusions included the following insight, "ARL libraries

proved to be complex and changing organizations, facing challenges that include reduced staffing, the need to eliminate backlogs, and the need for increased cooperation to take advantage of differing expertise” (p. 300).

The Project Launch

The Collection Management and Technical Services Librarian (CMTL) joined SWOSU in August 2021. During this time, it was the initial opening of the GTPSA to the public. The CMTL was approached by the director and given the task of cataloging the books that were a part of the Stafford Collection. Not seeing an issue with this request, the CMTL readily agreed. Then the CMTL discovered roughly half of the books were printed in Russian. The CMTL was stunned and informed her director that she could not read Russian and asked how she was supposed to catalog books in a foreign language. During multiple meetings with various parties, including the Board of Directors of the Stafford Air and Space Museum, it was mentioned someone who could translate Russian into English, was needed to assist with cataloging. Dr. Katerina Tsetsura, a member of the Museum’s Board of Directors, mentioned she had a Russian student who could come to SWOSU to assist with the translating of the material if the university could provide a pathway to be enrolled at SWOSU, with financial assistance. SWOSU administrators came up with a solution and developed a scholarship for her tied to her work in the AHL.

On July 15th, 2022, this student began her work as a student employee translating and cataloging these books. Next, she had to be trained in cataloging materials. The best way the CMTL decided to train her was to recreate a MARC record in an Excel spreadsheet with multiple examples given of how both the Russian and English translations were needed. Once she felt comfortable with creating MARC records in Excel, her training moved on to creating records in OCLC’s WorldShare Management System. It took a little longer for her to get accustomed to the names of the fields not being present but once she got the hang of it, she was going through books quickly.

Houston, we have a problem

Despite hiring of the student, there was still the issue of the CMTL or the University Archivist and Special Collections Librarian (UASCL) not being able to read the Russian language material. Despite the records holdings in both English and Russian, there was no way for the student’s work to be verified. A cataloger at the University of Oklahoma, in Norman, Oklahoma, had heard about our project and mentioned receiving a minor in Russian and would be willing to volunteer their time to double-check the student’s work. This was extremely helpful but had the limitation of only completing a few books per semester. A new solution had to be found.

The problems did not stop there. It became clear when reviewing the records that the student did not fully understand the purpose of subject headings. Most of the records had the same three subject headings: Astronauts, Space, and Soviet Union. While many of the Russian books were about these three subjects, they did not fully encompass the subjects of each book. These books contained various topics about more nuanced subjects. Regardless, the CMTL was faced with the same original problem: not being able to read the Russian language, to determine the proper subject headings. However, the language barrier would not pose much of a problem soon.

Solutions

This all changed when the CMTL upgraded her phone to the iPhone 14. She began looking for translation apps that could translate text from Russian to English. The CMTL discovered that her new phone came with a translation app already pre-installed on it, so she investigated the app. She found the app could take pictures and translate Russian language in those images to English. After taking a few pictures from pages of *На орбите космический корабль* to test the app, she contacted her director and the Systems & Electronic Resources Librarian to inquire if the library's iPad was new enough to have the same app and capability. This technology was a game changer. No longer did the CMTL have to rely on outside help and the student worker, but she was now able to take a hands-on approach and actively double-check the "completed" books. Returning to the subject heading issue, the CMTL realized the Library of Congress Subject Heading list was not extensive enough for listing the subjects in these books. The search for a space themed Subject Heading list led to the discovery of the NASA Thesaurus.

NASA Thesaurus (NASAT)

While the *NASA Thesaurus (NASAT)* was created for materials indexed in the NASA Scientific and Technical Information Repository (STI Repository), the subject headings would work great for the Soviet Russia Space Exploration Books. While looking at these books with a translation application it was not uncommon for the books, especially the memoirs of former Soviet Russian Cosmonauts to discuss multiple topics ranging from the training of the cosmonauts/astronauts to performing biological experiments in space. The *NASAT* includes subject headings on the training of astronauts and also "includes not only aerospace engineering, but all supporting areas of engineering and physics, the natural space sciences (astronomy, astrophysics, and planetary science), Earth sciences, and the biological sciences" (NASA STI Program, 2012). With the finding of the *NASAT*, the CMTL plans not only to use it on the Soviet Russia Space Exploration Books but the books that discuss the American Space Program. The UASCL also plans on using the *NASAT* for non-monograph items such as NASA reports, photos, films, and even personal objects associated with Stafford's work as an astronaut. By doing this it allows for researchers to see what NASA subjects each book covers, but also allows them to identify other books, regardless of language, or materials in the collection that could be helpful in their research.

Finished Records

Below are a few examples of records using the *NASAT*.

<https://swosu.on.worldcat.org/oclc/1344514963>

<https://swosu.on.worldcat.org/oclc/1344558412>

<https://swosu.on.worldcat.org/oclc/1344515030>

<https://swosu.on.worldcat.org/oclc/1344513945>

Conclusion

Perusal of the Literature Review above provides the reader with a history of the evolution, challenges, and solutions faced by archivists and librarians as they have adopted the methods of

their times to catalog special collections. A lesson illustrated by some of the articles is there are tradeoffs as professionals adapt new approaches to the work of cataloging their special collections. Typically, new technology enables quicker processing of collections. Improving access to items in collections is always one of the goals of switching to new technologies. However, these articles highlight that there are always backlogs of unprocessed items from previous technological stages that don't receive retrospective conversions, resulting in information silos.

The description of the evolution of the physical and digital collections of the General Thomas P. Stafford Archives mirrors the stories by the other authors. The challenges and solutions found during the cataloging project of a collection that includes Russian language works mirrors the other documented challenges. Looking on the bright side, an advantage at the Al Harris Library (SWOSU), is the newness of the Stafford collection means there is no backlog from previous cataloging decisions or technological stages of development that need retrospective conversions. Currently, all items in the cataloging project can be processed without hesitation. Our library does take advantage of a network of professionals who have experience in cataloging special collections to accomplish the goal of making this collection searchable to the public. Readers should seek a solution through multiple options to create their personalized network of expertise. With recent developments, AI technology has expanded the capabilities provided by the translation app.

This paper describes the authors current challenges as they have launched into cataloging the Stafford collection. AHL staff are confident in meeting the challenges of cataloging items in the Russian language and continue to find solutions to all challenges as they arise, much as the engineers and personnel of NASA did during the 1960s. Like them, the harnessing of creativity and out-of-the-box thinking will propel our staff to succeed in meeting the goals to reach our humble version of the Moon.

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Hallucinated Sources: An Analysis of Student-Submitted AI-Generated Citations at the University of Mississippi

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Abstract

When asked to generate a citation, generative AI chatbots like ChatGPT often falsely construct one by combining the most likely terms that would appear in any such citation for the given query; often either nonsense or a distortion of some other work and frequently termed a "hallucination." This article analyzes a number of suspected hallucinated citations that were turned in with student papers or submitted to the library chat helpdesk in the spring of 2023. It finds that, while the vast majority of the citations were indeed hallucinations, most also included some real information such as the name of an actual author, book, or scholarly journal. The article goes on to analyze and break down these hallucinations, producing useful information for librarians who may need to deal with such hallucinations in the form of research requests.

Hallucinated Sources: An Analysis of Student-Submitted AI-Generated Citations at the University of Mississippi

Background

In the spring semester of 2023 a patron (probably an undergraduate student), wrote into the online chat service run by the J. D. Williams Library at the University of Mississippi. The patron had a simple request, one that the librarians and staff maintaining the chat had seen many times before: they had a list of five citations, and they needed to find the full text of the cited articles. But, while the request seemed easy enough, an hour later the patron had successfully stumped the library—none of their citations matched any resources in the library collection or beyond. Luckily, however, one of the librarians remembered a training workshop from earlier in the same semester about generative AI chatbots like the then-new ChatGPT 3.5. The citations, which had defied library attempts to locate their full text, did indeed seem to have been falsely constructed, or "hallucinated," citations generated by an AI chatbot.

AI chatbots, such as ChatGPT 3.5 (and its successor ChatGPT 4.0) from the company OpenAI, are not true artificial intelligence in the sense of Hal 9000 from *2001: A Space Odyssey*, despite the association their name suggests. Rather, they are sophisticated probability engines. By ingesting huge numbers of documents from the open web, often without permission, generative AI chatbots like ChatGPT are able to construct the most likely output to satisfy a given query in much the same way that the predictive text on a cell phone is able to predict the end of an incomplete sentence. A user can easily ask one for citations on a particular topic, and will usually get a response—but the predicted information in such citations often does not match up with any real sources.

As Janelle Shane wrote, "[a generative AI chatbot] is not a search engine; it's only playing the role of one [...] [it's] trained to predict internet text, and is filling in a search engine's lines in a hypothetical transcript between a user and a chatbot" (Shane, 2023). Naïve users may, nonetheless, think that their queries are being processed through a search engine, with the generative AI taking on the role of formatting or facilitating. However, since many chatbots (like OpenAI's ChatGPT3.5 as of spring 2024), had a cutoff for information that had been scraped and analyzed from the web, and since many were not able to make live queries to a search engine, it was unlikely that any user asking for academic citations on a given topic would receive an actual citation pointing to an actual published source. Instead, the generative AI was likely to falsely construct a citation by combining the most likely terms that would appear in any such citation for the given query. This sort of content, which is either nonsense or distorts some other work, is often termed a "hallucination" (Ji et al. 2020).

These "hallucinated" citations often mix the names of real authors, real publications, and real journals with hallucinated authors, hallucinated publications, and hallucinated journals which do not exist. Given the massive amount of web content that AI Chatbots like ChatGPT have ingested, it is simply constructing a statistically reasonable facsimile of a citation, independent of any external context. The resulting hallucinations may be convincing enough at first glance to pass for genuine citations to the people that request them, the librarians who are asked to find

them, or the instructors that must grade them, but the references authors, articles, journals and/or links do not exist in the form that they are presented.

As such, the University of Mississippi Libraries became interested in analyzing these hallucinated citations, looking for commonalities and gathering information that will be useful to future library staffers who may be asked to locate similarly nonexistent citations. They may come from students looking to plagiarize, academics trying to start their research with a list of AI-generated suggestions, or even instructors following up on items that have been turned in. On this basis, the J. D. Williams Library sought to collect and thoroughly analyze a number of these citations.

While it is possible to simply use ChatGPT or another generative AI interface, such as Google's Bard, to request citations in search of hallucinations, the library's preference was to collect actual generations that had been observed "in the wild," so to speak. A library staffer making a request of ChatGPT would be coming at the problem from a very different place than an overworked first-year student, for instance, and both the query and result would reflect that. Generative AI chatbots also fine-tune their generations based on a user's past query history, meaning that a library staffer attempting to query would both lack a real user's history and bring their own to the table, potentially skewing any results.

By reaching out to the University of Mississippi's Department of Writing and Rhetoric during the last month of classes in the spring 2023 semester, and saving any further hallucinations submitted via chat, the library ultimately collected 46 citations which appeared to be hallucinations. These were either submitted to the library's chat reference service, which strips away all patron data, or donated by writing instructors who saw them in student papers during the semester.

Literature Review

A "hallucination" given by a generative AI was concisely defined by Ji et al. as "generated content that is nonsensical or unfaithful to the provided source content" in 2020 (p.3), and the term had been in general use as early as the 2020 Conference on Empirical Methods in Natural Language Processing, in which several proceedings used the term in the sense meant by Ji et al. (EG Filippova, 2020; Maynez et al., 2020). Most subsequent works have followed this example, although some alternatives such as "confabulation" have been occasionally proposed due to the supposed anthropomorphization some have seen as inherent in the term "hallucination" (Edwards, 2023).

With the public release of the OpenAI ChatGPT 3.5 chatbot in late 2022, the term "hallucination" began to enter mainstream discourse as part of a wider dialogue over the use of generative AI tools in composition; the term was used in an NPR article on December 19, 2022, less than 20 days after the product debuted on November 30 (Bowman, 2022). In the framework of that article, the problem of hallucinations was already front and center, with one interviewee calling ChatGPT an "omniscient, eager-to-please intern who sometimes lies to you," while another said that the product routinely delivered "a very impressive-sounding answer that's just dead wrong" (Bowman, 2022). The NPR article also includes one of the earliest post-ChatGPT 3.5 references

to a hallucinated academic source, in which data scientist Teresa Kubacka asked about a nonexistent "cycloidal inverted electromagnon" and received a "specific and plausible sounding [answer], backed with citations," all of which proved to be hallucinations.

Other, highly public instances of hallucinated citations being used in professional context followed. For example, when hallucinated legal citations were discovered in a lawsuit, it led to an alarmed judge in a different court drafting immediate requirements for AI-generated legal text to be hand-checked (Starr, 2023), while the presiding judge in the case at hand later dismissed it and fined those involved, requiring that they also pen letters to the legal authorities named in the hallucinated citations; the plaintiff was on record as claiming he thought that ChatGPT was merely a "super search engine" (*Roberto Mata v. Avianca, Inc.*, 2023).

Academic interest followed upon this popular furor, with over 1,862 articles on generative AI (Gupta et al., 2023, p. 16), ChatGPT, and chatbots in 2023 alone, some researchers addressed the topic of hallucinated citations directly. As early as February 2023, Day was analyzing the results returned by ChatGPT 3.5 when queried about topics of interest to readers of and contributors to *The Professional Geographer*; Day found that none of the 16 cited resources were genuine and published his findings in *The Professional Geographer* for April 2023 (Day, 2023, p. 1025). Writing for *Cureus* in April 2023, and published only a day before Day's analysis, a group of researchers led by Athaluri used OpenAI's ChatGPT 3.5 chatbot to generate scholarly references by having the software create a list of 50 "feasible, interesting, novel ethical and relevant" research topics "appropriate to undergraduate medical students in India." The researchers then used ChatGPT 3.5 to generate 50 research protocols from the prompts, with references; a total of 178 references were duly provided. It was then found that only 61% of them (n=150) could be located, although many of those were partly malformed, particularly regarding their Digital Object Identifiers or DOIs (Athaluri et al., 2023). A month later, in May, *Cureus* published an article from a group led by Bhattacharyya in which ChatGPT 3.5 was used to generate 30 "short medical papers" with a total of 115 citations, after which the citations were checked against Medline, Google Scholar, and the Directory of Open Access Journals. These researchers characterized the citations as "fabricated" (47%), "authentic but inaccurate" (47%), or "authentic and accurate" (7%), and concluded that "[m]ost references to the medical information provided by ChatGPT are fabricated or inaccurate" (Bhattacharyya et al, 2023). A further investigation by Goddard (2023) attempted to intensively dissect a single citation produced by generative AI, including reaching out to the hallucinated article's cited authors directly, confirming the paper's non-existence; this paper, like many in the Athaluri et al. study, also had a malformed DOI link.

In the area of academic libraries, in particular, there has been some inquiry into and acknowledgement of hallucinated academic citations in the approximately 18 months since the initial debut of OpenAI's ChatGPT 3.5. In June 2023, Pun wrote about the impact that generative AI text was already having in the academic library space, with an emphasis on hallucinated citations—which he saw as both a potential pitfall and a possible teachable moment for information literacy (Pun, 2023). Attempting to approach the citation problem from another direction, Kingsley, formerly with Scholarly Communication at the Australian National University and currently with the Cambridge University Library, wrote in October 2023 about the complex situation presented for libraries and researchers of generative AI texts—noting in particular an anecdote about "of library staff being approached by students looking for specific

references that turn out to have been a fictitious creation of ChatGPT," which aligns very closely with experiences at the University of Mississippi; Kingsley goes on to highlight potential copyright problems but also potential benefits in coding large datasets by research services or scholarly communication groups (Kingsley, 2023, p. 342).

As a result, there is a need for analyses of the type presented here from both an academic library point of view as well as attempts to analyze hallucinated citations found "in the wild." This study differs from much previous work, as stated earlier, in that all the collected hallucinated citations were generated and submitted by users, rather than researchers. In this case, previous queries submitted to a generative AI chatbot such as ChatGPT, which may influence later queries as that data is typically kept between sessions (if any existed) were user-generated. The majority of queries also came from undergraduate students, meaning that they likely tend toward the simple or naïve and would not benefit from any advanced subject-area knowledge that a librarian or content specialist would possess.

Methods

The 46 hallucinated AI-generated citations were each thoroughly checked by the investigator, a professional researcher, to determine which parts—if any—contained real information and which pieces were false. This was done using a standard research process, starting with the citation information as provided and working backwards from the publication (journal, book, or website) to the article title and ultimately to the author. Web links in the form of URLs and Digital Object Identifier (DOIs) were also checked, when available, and compared to other URLs or DOIs from the same publication.

For each citation, URLs and DOIs, if available, were checked first. If the URL or DOI matched an article with the exact name and in the exact publication as the citation specified, it was marked as real. If the URL or DOI matched a different article, even if it was within the same publication, it was counted as a hallucination. In the event of a broken link, the cited link would be compared to a known-real link for another resource from the same publication to determine if it followed the proper formatting; it was noted if the formatting was correct, but a correctly formatted dead link was still marked as hallucinatory.

After this, the journal name was checked against a known list of journals in the university library collection. If it was not found there, other sources such as the international library catalog WorldCat were consulted, then Google Scholar, with the wider web being checked as a last resort. If the journal, book, or website cited could be found, it was listed as real; otherwise, it was marked as hallucinated. In instances where part, but not all, of a longer journal or publication title was included in the citation (e.g., "Journal of Childhood Development" vs. "Childhood Development"), it was marked as hallucinated (so long as that was the official name of the publication in question at the time the work would have been published). The cited dates, volume numbers, and page numbers were also scrutinized, and any article that was mis-dated or mis-volumed was marked as a hallucination.

Next, the article title was checked independently of the journal. This was done using the same process, moving from library holdings at the beginning to a wider web search as a last resort

only. If the article existed in some form, but the journal or authors did not, the article was marked as real. The full title had to be an exact match for this to happen; given the large number of common terms in use across disciplines, near-matches could not be counted as real.

Any authors that could be identified were also checked. This presents a challenge because for certain citation styles such as APA, given names are not included, only family names and initial(s). This meant that some very common name/initial combinations (e.g., "J. Smith") could not be checked and had to be assumed hallucinatory. When given and family names were included, or sufficiently distinct family names and initials in the case of APA-formatted citations, academics bearing that name in a field similar to that of the citation were searched. If a scholar could be located with a high degree of certainty with the same name and in a similar field, they were marked as real. If they could not be, they were marked as a hallucination. In the sole case where a real and hallucinated author were co-credited with a citation, it was marked as real.

Finally, the data was entered into a spreadsheet and collated to determine the relative and absolute numbers of each data type (author, article title, article date/volume, publication, URL/DOI) which were real or hallucinated.

Results

In these results, the following shorthand is used: "article" for any section or chapter of a larger work like a book or anthology and a shorter standalone piece, either online or in print, and "publication" for either a periodical, website, or book publisher.

Table 1

Citation Type

Citation Type	Amount
Books	22% (n=10)
Websites	24% (n=11)
Academic Periodicals	54% (n=25)
Total	100% (n=46)

A total of 46 citations were collected from instructors and the library chat service and instructors on campus. Of these, 22% of the citations (n=10) purported to be from books, 24% (n=11) were supposedly from websites, usually indicated by the inclusion of a URL, and the remaining 54% (n=25) appeared to be from academic periodicals.

Table 2*Hallucinations, Real, and Partly Real Citations*

Citation Type	Amount
Real Citation	2% (n=1)
Wholly Hallucinated	4% (n=2)
Partly Real	93% (n=43)
Total	100% (n=46)

Of the 46 citations thought to be AI-generated, 45 had some irregularity that marked them as such—either a hallucinated author, title, date/volume, publication name, or URL/DOI. It is unclear if the sole completely real citation was a case of the generative AI actually delivering a real citation, or if it was a mistake/oversight on behalf of the instructor who submitted it. Two more citations seemed to be completely hallucinated—no real analogue could be located for their title, publication, or author(s). As such, 43/46 ($\approx 93\%$) of the presumably hallucinated citations had at least one real component that could be identified.

Table 3*Hallucinated Authors*

Author Type	Amount
Real Author	39% (n=18)
Hallucinated Author	49% (n=22)
No Author Cited	11% (n=5)
“Collaboration” of Real and Hallucinated Authors	2% (n=1)

Thirty-nine percent of the 46 citations (n=18) had a real author that could be ascertained. There were also five articles submitted with no author, so the percentage of real authors rises to 44% (n=18 out of 41) only counting citations with a listed author. Many of these authors worked in fields plausibly related to the articles that they were said to have written, but there were some oddities that seemed to be the result of the text generator naively making close guesses. For instance, one credited author had retired the year he was "credited" for writing an article by the generative AI, and examination of his CV showed that he had not been actively publishing for some time beforehand. Another author was "credited" with an academic article on symbolism and the feminine ideal but was a feminist poet and essayist who did not write academically. There was also one instance of apparent "collaboration" between a real and hallucinated author.

Table 4*Hallucinated Article/Whole-Book Titles*

Article/Book Titles	Amount
Real Title	22% (n=10)
Hallucinated Title	49% (n=36)

Of the article or whole-book titles submitted, 22% (n=10, again out of 46) matched the title of a real article or book, and were evenly split with five real books and five real articles. Despite listing a real title, these citations were hallucinations due to having author(s), publication dates, or publications that did not match the actual item. As an example, a citation for the book *Classic Diners of Connecticut* credited it to R. Wolfe and Globe Pequot Press in 2009, while the actual *Classic Diners of Connecticut* was written by B. D. Heald and published by The History Press in 2012.

Table 5*Hallucinated Publications*

Publications	Amount
Real Journal, Magazine, Book, or Website	89% (n=41)
Hallucinated Journal, Magazine, Book, or Website	11% (n=5)

When citing an article or chapter within a journal, magazine, book, or website, 89% (N=41) used the name of a real journal, magazine, book, or website, with only 11% (N=5) seemingly hallucinating one. This was by far the most lopsided result in favor of the real among the analyzed citations—the overwhelming majority of the analyzed citations used the name of a real publication of some kind, assigning that real publication hallucinated author(s), publisher(s), date(s), or some combination thereof.

Table 6*Hallucinated URLs*

URLs	Amount
Real URL	0% (n=0)
Hallucinated URL	28% (n=13)
No URL	72% (n=33)

Table 7*Hallucinated DOIs*

DOIs	Amount
Real DOI	0% (n=0)
Hallucinated DOI	9% (n=4)
No DOI	91% (n=42)

Some citations included a URL; 28% (N=13) of the total citations that did so, and 100% (n=13 out of 13) of these URLs were hallucinated. Eight of these URLs used the proper formatting for the publication in which they appeared (e.g., [http://www.cnn.com/\[date\]/\[byline\]/index.html](http://www.cnn.com/[date]/[byline]/index.html)), but in all cases at least one aspect of the URL—such the title, a reference number, or both—was hallucinated. There were also 9% of the citations (n=4) that included a DOI or Digital Object Identifier, a URL-like string of characters that permanently and stably identifies an electronic article or book. One of these was an authentic DOI that pointed to an article on a completely different topic, while two others were malformed and while the last one seemed properly formatted at first glance it did not correspond to any real resource. There was only one article with both a URL and a DOI, and in that case both were hallucinated.

Table 8*Hallucinated Years*

Cited Year	Amount
2020	4% (n=2)
2019	15% (n=7)
2018	15% (n=7)
2017	9% (n=4)
2016	13% (n=6)
2015	4% (n=2)
2014	7% (n=3)
2013	4% (n=2)
2012	0% (n=0)
2011	4% (n=2)
2010	2% (n=1)
Pre-2010	4% (n=2)
No Year Cited	17% (n=8}

Finally, eight of the citations did not include a year, while the remaining 80% (n=38) did. The years cited were, with only two exceptions, from the 2010s, with 2018 and 2019 as the most popular years with 15% (n=7) of the total citations each. The two pre-2010s citations were from 1981 and 2009, respectively. Of the 10 citations which matched the name of a real article or book, as above, only one had the correct year in its citation. Often the year was off by as much as

a decade, usually specifying a much later date than the actual publication (e.g., 2007 instead of 2017).

Discussion

Given these results, some key takeaways for libraries and librarians suggest themselves in dealing with patrons who request assistance with hallucinated AI-generated citations.

First, a significant number of the hallucinations featured a real author from an article or book, even if other details such as the year were wrong. A good number of citations also included real titles. This suggests that an author or title search may be a good starting point for dealing with suspected hallucinated citations, especially since that means that patrons could be given an actual item or information on an actual item and their information needs at least partly met. For instance, even though the citation for *Classic Diners of Connecticut* had an erroneous publisher, author, and date of publication, it could still be useful in a diner-focused assignment. Google Scholar proved to be a particularly useful resource during citation checking, as it often is in checking ordinary citations. Indeed, if an author or title search on Google Scholar is already part of established library citation checking procedure, that procedure may require little modification other than informing library staff about the possibility for citation hallucinations in general. By the same token, looking for a publication or publisher as a measure of realness is likely to be fruitless, as the overwhelming majority of the hallucinations cited genuine publications and publishers.

A very large proportion of the hallucinated citations did not feature the correct publication date. Writing instructors often require students to cite recent research on a topic; if students include this criterion in their generative AI prompts, the program may be responding to their request by returning more recent dates. This is important to note since many users, especially in postsecondary classes, may find that a hallucinated source that matches with a real title is still unusable given their assignment due to its publication date. As an example, the citation for R. Wilk's *Fast Food/Slow Food* from Altamira Press credited the book with a publication date of 2017 when it was actually published in 2006—far too old for an assignment that requires sources no older than 5-10 years.

Finally, and perhaps most significantly, only two of the hallucinated citations were wholly false. Almost all of them were salted with at least some truth, be it the name of a real article, a real author, or a real journal/publisher. For the purposes of the AI text generator this is a question of mere probability—citations with at least one real facet are most likely to match with the ingested text in the training corpus. But, from a library services and information literacy perspective, that makes rooting them out significantly more difficult, since the hallucinated citation may pass several "smell tests" before its true nature is revealed, potentially wasting staff time and effort. This is likely to be particularly acute for library and instructional staff with limited or nonexistent knowledge of, or experience with, AI-based text generators.

Taken together, these findings suggest that library staff training for public-facing library research staff who may be asked to help patrons investigate such hallucinated sources may be warranted. Even a brief tutorial may, in the right situations, equip library staff to respond to patrons in a way

that minimizes time spent on wild goose hunts and maximizes patron satisfaction. After all, it is assumed in almost all cases that the patrons are acting in good faith and genuinely believe that the AI-generated citations are real, and that library staff can help locate them. The only caveat to this possibility is that the current rapid pace of technological development in the area of generative AI text creation, which would require frequent updates to any training in order for it to remain relevant. Given the lack of transparency on behalf of the companies developing generative AI technology, though, it may still be a warranted step in many cases. These results also accord with information gathered by other researchers, cited above, which indicates that a large proportion of any citations generated through ChatGPT 3.5 or any of its free competitors are hallucinations.

Conclusion

AI-based text generators like ChatGPT are a rapidly developing area of inquiry, and hallucinated citations are likely to be something that library reference services will need to deal with. Indeed, as public knowledge of, and enthusiasm for, generative AI technology continues to grow, library reference services may find the need for training to deal with hallucinations to be a very prudent step.

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Hosting a Mini ComicCon at Your Academic Library

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Abstract

Library ComicCons are a form of student engagement that is taking the academic library world by storm, bringing together groups of people to share their interests, talents, knowledge, and skills to create an event that reaches everyone. For the last two years, Bellevue University Library has designed and facilitated BruinCon, the library's own Mini ComicCon event, to bring together library staff, university staff, students, and the community. This session will discuss how to design, build, facilitate, and grow a mini ComicCon at your library, focusing on who you must partner with internally and externally, what you should include in your event, and how to grab people's interest and funding. This presentation will address what libraries need to consider during the planning stages of this type of event—including getting approval, rules and regulations, funding, partners, programming, facilities, timing, technology, marketing, and the amount of work it takes to design and facilitate this kind of event. Mini ComicCons are a fantastic way for academic libraries to reach multiple groups within the academic community and the public. The library has always been a hub for a variety of events, however, a ComicCon is in a category all of its own as it does not focus on one interest, group, talent, or need. This event brings together creators and fans, online and on-campus students, the academic world and the public. It brings together people from all walks of life due to their love of comics, games, cosplay, art, fandoms, and more.

Cataloging a Collection of Unusual Things

Creating a Library of Things Collection from Conception to Circulation

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Abstract

Creating any new collection in an academic library can be exciting and challenging for library staff. Amplifying the challenge, the items in the collection have not typically been in circulation in libraries in the past, and the catalog records are not discoverable in a bibliographic utility. The Library of Things Collection has grown popular in public libraries but is less common in academic libraries. Students pursuing degrees in higher education and living in campus residual or private rental facilities have shown a need for short-term use of household, recreational, and technological items. Missouri Southern State University George A. Spiva Library created a Library of Things Collection to meet the needs of students living away from home. This paper will present the process of creating a library of things in an academic library from conception to circulation. The process included creating bibliometric and item records for discoverability in the library catalog and circulation loan rules. New packaging was purchased and used to enable open stacks viewing and retrieving items by patrons for circulation with security measures in place. Writing a Borrowing Policy and Liability Waiver was required. Technical Services Staff collaborated with Circulation Staff to create policies on circulation and maintenance of the collection. Circulation statistics reveal the most popular items in the collection. The paper will conclude with lessons learned and plans for the future.

Cataloging a Collection of Unusual Things Creating a Library of Things Collection from Conception to Circulation

Introduction

The well-being of students in higher education is critical for academic success ("National Academies of Sciences, Engineering, and Medicine," 2021, p. 21). Physical and mental health influence students' well-being, and stress can have a negative impact on health ("National Academies of Sciences, Engineering, and Medicine," 2021, p. 4). The stress of living in a new place, the challenges of academic coursework, and financial difficulties can harm a student's well-being. University students living away from home in residential or private housing may need more access to resources to prepare meals or items for recreational activities. Financial concerns may cause a lack of transportation to purchase items for their domestic needs. Omosidi and Jamiu reported that some sources of stress for college students are the lack of transportation and recreational activities and that students participating in stress-relieving activities will perform better in school (2019, p. 1). The need for items to be available, loanable, and returnable is made evident through the limitation of square footage in student housing, resulting in the inability to store items and the cost of the needed items, resulting in the lack of ownership. Spiva Library met this need with a Library of Things Collection.

Robison et al. define a Library of Things as "any collection of physical objects that serve a utilitarian purpose as tools, equipment, or goods; that circulate beyond the walls of the library; that provide a cost-savings benefit to patrons by supplying something for which they have an existing need; that has an inherent appeal to patrons; and that defy standard processes for acquiring, cataloging, and circulation" (2017, p. 3). Academic libraries previously provided physical objects for circulation including curriculum kits to support teacher education programs and audio-visual collections. Today, many academic libraries provide technology loan programs and materials to support the study of game creation and games for recreational use. However, academic libraries providing access to items to meet domestic needs are less common.

Definitions

Game: "RDA: A resource designed for play according to prescribed or implicit rules and intended for recreation or instruction" (OLAC, 2020).

Monograph: "Item either complete in one part (e.g., a single monograph, a single map, a single manuscript, etc.) or intended to be completed, in a finite number of separate parts" ("MARC 21," 2016).

Kit: "Used for a mixture of various components issued as a unit and intended primarily for instructional purposes where no one item is the predominant component of the kit" ("MARC 21," 2016).

Realia: "RDA: See three-dimensional form. OCLC BF&S: All naturally occurring objects and any other three-dimensional item made or modified by humans that does not fit into any of the other categories. Use for machines, stitchery, clothing, rubber stamps, templates, pattern stencils, alphabets for lettering, shapes for flowcharts, jewelry, pottery, musical instruments, fabrics, tools, utensils, sea shells, rocks, holograms, and furniture" (OLAC, 2020).

Three-Dimensional Form: “RDA: A form or forms intended to be perceived visually in three dimensions. Includes sculptures, models, naturally occurring objects and specimens, holograms, etc.” (OLAC, 2020).

Literature Review

Academic literature on the Library of Things has increased, especially about public libraries. However, literature regarding the Library of Things in academic libraries is less common. This paper aims to contribute to the literature by providing specific information on how an academic library can create a Library of Things collection.

Gaming

The literature on games and gaming in libraries is extensive. Nicholson provides a historical summary of toys, games, and puzzles in North American libraries covering the past one hundred fifty years (2013, p. 341). He explains how academic libraries use games to support game design educational programs and students’ recreational and scholarly needs (Nicholson, 2013, pp. 341-357). Cross et al. also describes the growth of game studies at universities and game collections at academic libraries and the need for academic libraries to develop collections based on the interests of patrons and new courses offered at the university (Cross et al., 2015, pp.129- 132). The research included data from a survey reporting the location of the collection, prevention of loss, and promotion (Cross et al., 2015, p. 136). Robson et al. (2018, pp. 80-90) presented a case study of creating a tabletop game collection at an academic library. They included the need for preservation and statistics on various preservation methods (Robson et al., 2018, pp.80-90).

Technology, Architecture Material, and Tools

Other literature focuses on creating collections of three-dimensional resources without limiting the items to games. Hahn et al. (2010, pp. 34-50) describe a case study on creating and maintaining loanable technology programs at the University of Illinois at Urbana-Champaign. The authors surveyed students and interviewed faculty to collect information on the technology students needed (2010, pp. 34-50). The article provides information on technology purchased, circulation statistics, technology loan forms, cataloging and packaging, web page creation, and staff training (Hahn et al., 2010, pp. 34-50). Hindmarch and Arens describe creating a materials collection to provide resources for faculty and students at the College of Architecture and Environmental Design at California Polytechnic State University (2009, pp. 4-12). The authors explain the challenges of building a collection of three-dimensional items, including acquisition and organization of materials, providing access to patrons, and cataloging (Hindmarch & Arens, 2009, pp. 4-12). Bossart et al. (2019) provide information from a semester trial of a tool library created to support students at the University of Florida. The authors provide a list of tools collected, circulation statistics, and information about other university tool libraries in the United States (Bossart et al., 2019).

Cataloging

Aitchison (2021, pp. 492-509) provides specific information on cataloging Virtual Reality games and provides complete MARC records as an example. Robson et al. (2019, pp. 199-215) describe increasing the discoverability of tabletop games in academic libraries using cataloging. The authors provide RDA rules on cataloging three-dimensional objects, creating subject headings, genre terms, and access points, using a 500-note field to describe the game accurately, and using facets. (Robson et al., 2019, pp. 199-215). They state the importance of collaboration between catalogers, systems, and Information Technology staff to provide a successful tabletop game collection (Robson et al., 2019, pp. 199-215). Rubel (2017, pp. 59-67) describes enhancing cataloging records by adding orographic previews for realia collections and additional cataloging information.

Three pieces of literature aided the author in creating the Library of Things at Spiva Library. The book *Audio Recorders to Zucchini Seeds: Building A Library of Things* (Robison & Lindley, 2017) contains chapters written by authors who created various kinds of Library of Things Collections. The article *Cataloging Three-Dimensional Object: The Funniest of the Funny Formats* (Moore, 2017, pp. 11-19) provided detailed explanations of three-dimensional objects' cataloging procedures and information about the OLAC Cataloging Policy Committee website, <http://olacinc.org>. This website provided a free downloadable pdf of *Best Practices for Cataloging Objects Using RDA and MARC 21* (OLAC, 2020).

Background

During the summer semester of 2021, the library received donations from two staff members for various household items, including knitting materials, yarn, cooking and baking pans, puzzles, games, and tools. The Cataloging and Technical Services Librarian proposed creating a Library of Things Collection to the library director, who approved it with an initial budget of \$2,000. The new collection was built from the ground up, and the preparations for the new collection took over one year. Collaboration with the Library Operations Specialist and The Collection Development and e-Resource Librarian created policies and procedures for circulation, location of the collection within the library, and the eventual purchasing of items to enhance the collection from the original donated materials. Ensuring protection from legal issues led to writing a Borrowing Policy and Liability Waiver, adding notes to the items in containers and catalog records, and requesting and receiving permission for the collection from Academic Affairs. The new collection was opened for circulation for the fall semester, August 2022.

Methodology

Cataloging

Cataloging the items was the first step in this project. Cataloging three-dimensional materials is essential and allows the items to be discovered in library catalogs (Robson et al., 2019, p. 199). The cataloging decisions influenced the rest of the project's workflow. The Cataloging and Technical Services Librarian began with the original cataloging of the donated materials, and the

records improved over time through experience and reference to literature and previously created MARC records of three-dimensional items.

Spiva Library's local practice in creating original bibliographic records is to use the MARC 21 format, Resource and Description Access (RDA) cataloging rules, and OCLC Connexion Client 3.1 to create the record and then export it into the library's integrated library system, which was Innovative Sierra ILS at the time of the collection's creation. After reviewing the literature, evaluating how the library's curriculum kits were cataloged, and viewing bibliographic records for similar items in OCLC, the author used the visual materials work form.

Bibliographic Records

The first records created for items in the new Library of Things Collection were bibliographic records containing fixed-length and variable-length data fields. Table 1 lists data used for the fixed fields.

Fixed Fields

Table 1

Fixed Fields and Descriptions

Fixed Field Position	OCLC code	Value	Description
008/06	DtSt	S for single date N unknown date	Date of creation of the item
008/07-10	Date 1	(four digit year)	Four numerals for the year item was created.
008/15-17	Ctry	Varied	Two or three letters for country where the item was published. MARC Code List for Countries (http://www.loc.gov/marc/countries/).
008/18-20	Time	nnn	Not applicable for three-dimensional items.
008/22	Audn	# (for unknown)	Target Audience
008/33	Tmat	G game R realia B kit	Type of Visual Material. If the items were a board, card, or outside game, g was used. If the item contained more than one thing, b for kit was used. If the item was a single piece, r for realia was used.
008/34	Tech	n	Not Applicable

008/35-37	Lang	Usually ENG for English	Language used on the item. MARC Code List for Languages (http://www.loc.gov/marc/languages/).
008/39	Srce -	D for other	Cataloging Source
Leader/06	Type	o for kit r for 3D artifact	Type of Record
Leader/07	Blvl	M for monograph	Bibliographic level- all items cataloged were single items or put together simultaneously, unlike a serial with items added to it regularly.
Leader/17	ELvl	Blank, 3 or 7 minimal level	Encoding level
Leader/18	Desc	I for ISBD punctuation	Descriptive Cataloging Form

Variable Fields

The Cataloging and Technical Services Librarian used the Library of Congress Classification to be consistent with the rest of the collection at Spiva Library. The Library of Congress website (loc.gov) provides a list of classification numbers, which were used to create the call numbers. When creating an original record, the author found it beneficial to assign Library of Congress Subject Headings first and then look for an appropriate call number based on the subject. The Library of Congress Subject Headings are also available at loc.gov. After the call number and subject headings were assigned, each necessary and available information was applied with downward progression numerically by the MARC field number line.

Data was inserted in MARC field 024 (Other Standard Identifier) if a UPC was located on the item. Marc field 040 records the cataloging source, and subfield \$b was used to enter ENG for English as the language of cataloging, and subfield \$e was used to enter RDA for the description conventions. MARC field 245 was used to input the title of the item. If the title was printed on the items' original packaging, it was transcribed as written. If the cataloger created a title, the author used Marc field 500, stating, "Title proper devised by cataloger."

The MARC field 250 for Edition Statement was used if the item provided the information, especially on games. MARC 264 was used to input data on publisher, place of publication, and date of publication. If Spiva Library created the item, the author considered Spiva Library to be the responsible party for its issuance. Since this field is repeatable, the author made two entries for this field if the copyright date was found on the item. The MARC field 300 subfield \$a describes the item or the contents of a kit, subfield \$b states physical details, and subfield \$c provides the dimensions in centimeters.

The MARC fields 336,337, and 338 contain the RDA Content Type, Media Type, and Carrier Type. These were copied from the Value Lists for Codes and Controlled Vocabularies located at

<https://www.loc.gov/standards.valuelist/>. The MARC 336 subfield \$a content type was “three-dimensional form,” the subfield \$b was “tdf,” and the subfield \$2 was “rdacontent.” The MARC field 337 subfield \$a was “unmediated,” subfield \$b was “n,” and subfield \$2 was “rdamedia.” MARC field 338 subfield \$a was “object,” subfield \$b was “nc,” and subfield \$2 was “rdacarrier.”

The MARC 500 field is a general note field. The author used this field for the necessary entry “title proper devised by cataloger.” However, *Best Practices for Cataloging Objects Using RDA and MARC 21* (OLAC, 2020) recommends using the 588 note field. The 520 field was used to provide a description if it was written on the box or website.

MARC field 650 is used for subject headings, and the author assigned Library of Congress Subject Headings that best described the item. The headings may be found at: <https://www.loc.gov/aba/publications/FreeLCSH/freelcsh.html>. If the library issued the item, the author used MARC 710 to add Spiva Library as a corporate author. Table 2 shows an example of a record created of a cake pan shaped like a Teddy Bear.

Table 2

Bibliographic Record Example

		##### n o m 2 2 ##### 7 i 4 5 0 0
001		1289504390
003		OCoLC
005		20220110135315.0
008		211220 s 2021 mou nnn b n eng d
035		(OCoLC)1289504390
040		MOZ b eng erda c MOZ d U o r BLW
049		MOZA
050	0 4	NK 8459.C43 b T4339 2021
245	0 0	Teddy Bear cake pan kit / c created by George A. Spiva Library.
264	1	Joplin, Missouri, c George A. Spiva Library.
264	1	Woodridge, Illinois : b Wilton Industries, Inc., c 1986.
264	4	c ©1986
300		1 kit (1 twelve inch teddy bear Wilton cake pan, 1 instruction booklet) : b metal, paper ; c 34 cm x 25 cm x 5 cm, in clear plastic bag 40 cm x 32 cm
336		three-dimensional form b tdf 2 rdacontent
336		text b txt 2 rdacontent
337		unmediated b n 2 rdacontent
338		object b nr 2 rdacontent
338		volume b nc 2 rdacontent
500		Title proper devised by cataloger
500		Library of Things kit with instruction booklet and one teddy bear shaped cake pan.
650	1	Character cake pans.
650	1	Cake pan.
650	1	Baking pans.
710	2	George A. Spiva Library, c creator.

Item Records

As the project progressed, the author discovered that some board games' bibliographic records were available in OCLC Connexion Client. The OCLC bibliographic records that matched the item were downloaded into the iii Sierra software. After the bibliographic record was created either from original cataloging or copied from OCLC, item records were attached to it. The item record included the copy number, location code (mslot), status (in process), and item type, along with internal notes and public notes. The internal notes included the item's call number, a label location code, date acquired, contents, gift note (if donated), and location within the library. Later, notes on the purchase date, vendor name, and cost were added. Donated items with missing parts included notes on what was missing so patrons would not be held responsible. Each item record contained a message to circulation staff: "Inform patron Borrowing Policy and Liability Waiver Form must be signed, and the item must be returned at main circulation-not in the book drop. The item will not be cleared from the patron's account (checked-in) until it is inspected for all parts returned in clean, workable condition." The notes on the patron view of the catalog were title, publication, copyright date, description notes, subjects, added authors, OCLC number, location, call number, status, and the public note of "MSSU patrons only and a Borrowing Policy and Liability Waiver Form must be signed. Item must be returned at main circulation with all parts included in clean working condition."

Circulation Rules

Since Spiva Library is a member of a consortium, the library requested new circulation rules for the collection through the consortium office. During the planning stage of the collection, it was decided that the items would be limited to our university faculty, staff, and students. As the collection came together, three groups of materials emerged and were organized into household, recreational, and technological things. The technological items were of significant expense, so they were given a two-day loan period with no renewal, and the rest of the collection was given a seven-day circulation policy with no renewals.

Packaging and Security

The library's local practice is to use a barcode, security sticker, pocket, and stamp with the library's name on each item in the collection. Following this practice for the Library of Things required creative thinking. The solution was to purchase clear bags with handles and clear storage boxes to hold each item. The barcode, security sticker, and pocket were attached to the packaging, and a list of contents and care instructions were added later at the suggestion of the Library Operations Specialist.

Location and Circulation Procedure

Another step in the project was creating an informational guide for circulation staff, entitled *Library of Things Circulation Binder*. A three-ring binder was used, which contained pictures of the items, content lists, descriptions, and circulation rules. Some items, such as fishing poles, could not hold a barcode and were shelved behind the main circulation desk. These items were given a cardstock entry in the binder with a picture of the item, description, circulation rules, and the barcode. Circulation staff scanned the barcode in the book, and the item was delivered to the patron upon checkout. The technological items (the drone, printer, go-pro camera, and podcast

recording kit) were also shelved behind the main circulation desk to enhance security. Open stacks were used to shelve the rest of the items.

The circulation procedure enables the patron to select an item off the shelf, take it to the main circulation desk, and then present their university identification card. The patron is asked by circulation staff if they have signed a Borrowing Policy and Liability Waiver; if they still need to, they are asked to do so. The form is photocopied, and a copy is given to the patron, with the original stored in the binder. The patron must return the item to the main circulation desk on the due date. The borrowed item cannot be placed in the book drop or returned elsewhere in the library. Upon return, the circulation staff places a note with the return date on the item and contacts the Technical Service Department (TS). TS staff evaluates the item by counting all pieces, looking for damage, and cleanliness. If everything is in order, the item is checked in using the date it was returned.

The Library of Things collection was initially housed on the 4th floor close to the technical service work area to provide easy access to maintain the collection. In August 2023, the collection was moved to the Main floor to increase its visibility.

Borrowing Policy and Liability Waiver Form

The library is under the authority of the Academic Affairs division of the university. The Library of Things Collection was submitted for approval to Academic Affairs (AA) as the collection drew near completion. AA approved the collection and commented favorably about its addition to the library. They requested a liability waiver to be written and then signed by each patron who borrowed items from the collection. They requested that the Cataloging and Technical Services Librarian compose it. The author viewed several liability waivers created by other libraries, which were open and viewable online, and drafted a document after acquiring permission from the original policy owner. The technical items were given an item-specific waiver for the patron to sign if borrowed, and the drone waiver contained a statement asking the patron to show proof of an FAA license. The signed forms are kept in the *Library of Things Circulation Binder*.

Collection Development

The Cataloging and Technical Services Librarian interviewed staff, students, and library student workers to collect ideas for items to purchase for the collection. An informal, anonymous email was sent to students inquiring about what would be helpful to them in the collection. Based on patron feedback, more items were added to the collection each year. During the fall 2023 semester, the Library Operation Specialist created an interactive whiteboard asking for students' favorite board games. The games mentioned on the board were purchased and will be added to the collection in 2024.

Marketing

Marketing the Library of Things involved creating a collection-specific Libguide containing information about the collection, a picture, and a description of each item. The Libguide provided access to the Borrowing Policy and Liability Waiver, donation form, and a link to a

Suggestion for Purchase page. Marketing was also done for the collection through library instruction sessions, and it has been presented at university staff training events. The collection is listed in library promotional literature and signs within the library and is featured on the library's webpage.

Results: Circulation statistics

The collection began with forty-nine items and has grown to one hundred-four as of June 2024. It was organized into sixty recreational, forty household, and four technological items. Over the three years of the project, the number of items increased, as did the circulation statistics. Table 3 provides the total number of items and valid checkouts between August 2022 and June 2024. The raw data revealed thirty-one checkouts prior to August 2022 (before the collection opened), which relates to testing. The raw data of checkouts of ninety-nine for recreational things and forty-one for household things was changed to eighty-seven and twenty-two, and the total was reduced from one hundred forty-six to one hundred fifteen. Chart 1 compares the circulation of games with all recreational things and with the rest of the collection between August 2022 and June 2024. Chart 2 illustrates a year-to-year comparison of circulation data with year one listed as testing data. One year represents an academic year from July 1 through June 30.

Table 3

Number of Things and Number of Checkouts

	Recreational	Household	Technological	Total
number of items	60	40	4	104
total checkout	87	22	6	115

Chart 1

Circulation Comparison between Games, All Recreational, and All Items

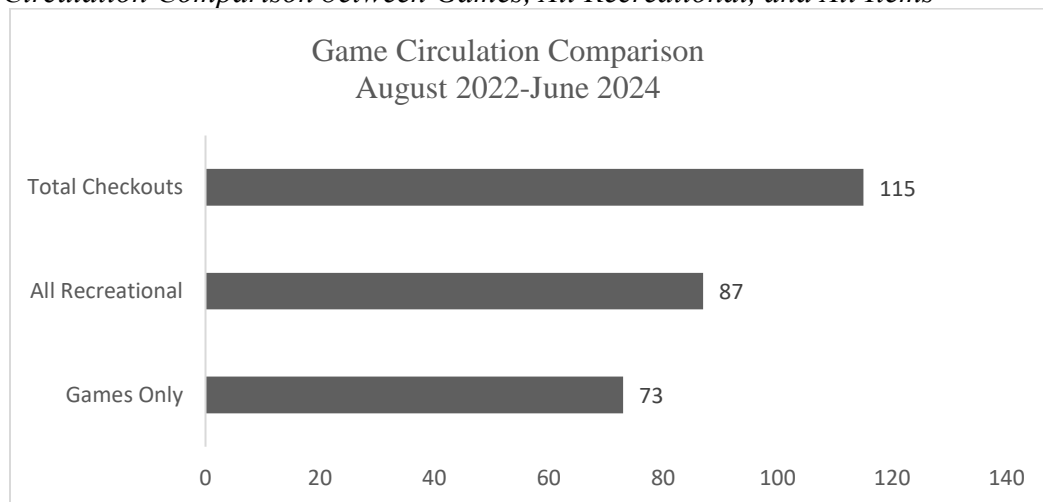
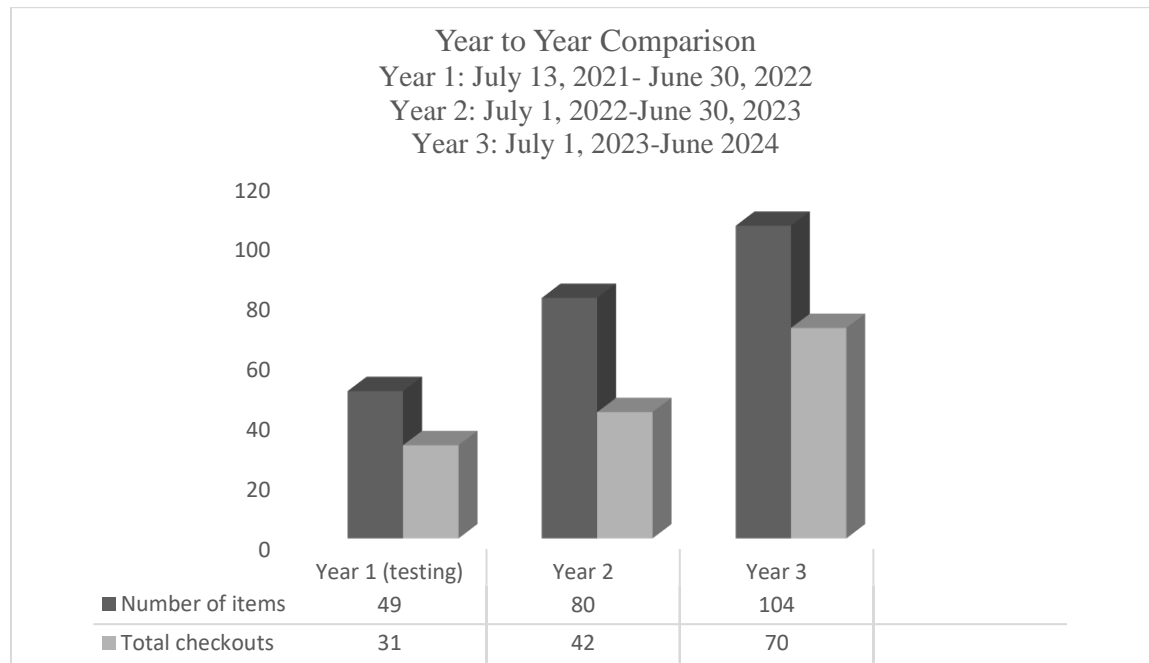


Chart 2

Year to Year Comparison of number of items and number of checkouts



Discussion

The recreational items were checked out twice as often as the household items, and the indoor games within the recreational items were the most popular. Based on the high number of checkouts for recreational things and board games being the highest type of game, the library used most of the \$1000 budget for the third year to purchase board games using the data collected from the interactive whiteboard display. The newly purchased games will be cataloged and processed for the collection in 2024. The collection relocation to the main floor benefited the circulation statics, growing from 42 to 70 checkouts. Comments and donations from faculty, staff, students, and student workers have been overwhelmingly positive and supportive.

Lessons Learned

One of the kits purchased early in the development of the collection contained over fifty small parts and was difficult to process. Each part was identified, labeled, and stored in one container. Upon reflection, the cataloging and processing of this kit were too time-consuming, and the kit has yet to circulate. The author will provide packaging for each part and circulate them separately in the future. The use of *Best Practices for Cataloging Objects Using RDA and MARC 21* (OLAC, 2020) was valuable, and having access to it earlier in the project would have increased efficiency in cataloging. Seeking approval from Academic Affairs earlier in the project would have lessened the delay in opening the project. An increase in trained staff to process returns would increase the availability time for the item. Finally, the library staff desires more

patrons to access materials, so the collection will no longer be limited to faculty, staff, and students. Community patrons who purchase a Community User Card and sign the Borrowing Policy and Liability Waiver will be given borrowing privileges to the collection.

Conclusion

Building the Library of Things Collection has been a rewarding and educational experience for library staff. The students and faculty provided positive feedback, encouragement, and excitement. The library has partnered with the campus food and hygiene pantry and houses the pantry on the third floor. The Library of Things is now located close to the pantry, and it is hoped that the items in the collection will be borrowed and used to prepare the food collected from the pantry. This partnership increases support given to students to enhance their well-being and provides a positive community with campus groups and faculty. The increase in circulation statistics suggests the Library of Things is meeting the goal of increasing the well-being of students by providing needed resources for domestic and recreational needs.

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Retrain, Retrain and then...Retrain!

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Abstract

Originally, Access Services trained student employees in-person by a combination of supervisors and senior workers. After the pandemic, the volume of senior workers decreased, and video training proved too difficult to continually update. Library staff determined it was difficult to give consistent knowledge to students when four different people trained them. For technology training, originally a 2-3 hour session was conducted. It was found lacking so changes were made. Virtual training was tried but it was not loved by trainees. Another in-person training was conducted but unfortunately, due to policy changes, getting students together before the start of the semester became impossible. Library staff switched to a digital training model with presentations. This proved to be consistent and easy to update.

Creating Partnerships with Instructional Designers to Facilitate Online Learning

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Abstract

Park University is a mid-sized, private university located in Parkville, Missouri. Most of our student population is nontraditional, with many of our students based in military centers around the globe and/or taking classes entirely online. Over the past few years, the library has been building a close partnership with the Digital Learning Team, which consists of educational technologists and instructional designers. This session will describe our collaboration journey from when we met one-on-one with the Digital Learning Team members to highlight library resources, to today, now being embedded as consultants in the course development cycle as a key step for faculty developers. Librarians now offer consultations with course developers on how to utilize library resources and open educational resources (OER) into their course design early in the development cycle. This session will discuss our new collaboration, outreach and engagement strategies for how to work with faculty and others focused on course development, as well as challenges with this model. The facilitators will offer perspectives from a library outreach and instructional librarian perspective, an administrative perspective, and a faculty course developer.

Building Committed Curiosity with Valentine’s Day and Books

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Abstract

Over the past four years, the Calvin T. Ryan Library at the University of Nebraska Kearney has faced limited accessibility for both the campus community and the public. Factors such as Covid lockdowns and a recent library renovation contributed to this challenge. However, in response, the library staff have prioritized outreach as a key initiative this year. Their efforts began with a creative approach: the Web Services and Engagement Librarian collaborated with Access Services to launch a Valentine’s “Blind Date with a Book” giveaway. This event was seamlessly integrated with two new newsletter subscriptions. These subscriptions focus on staff picks and new book releases. The primary goal is to foster connections within the campus community and local community. The library recently adopted LibConnect, a marketing tool provided by Springshare, which enabled the staff to kickstart this campaign. In this presentation, two of Ryan Library’s staff members will delve into the technical tools and promotional channels employed to engage with their audience. The marketing strategy included leveraging social media, optimizing the library website, distributing posters and handouts, utilizing the existing campus newsletter, and strategically placing advertisements on campus networked kiosks.

Building Committed Curiosity with Valentine’s Day and Books

Introduction

The Calvin T. Ryan Library stands as a vital academic hub for the University of Nebraska Kearney (UNK) and its broader community. Over the past four years, the library has navigated significant challenges posed by Covid-19 lockdowns and an extensive renovation project. These obstacles temporarily disrupted traditional access patterns and services, prompting the library to innovate and adapt rapidly. Despite these hurdles, the library has not only persevered but has also proactively enhanced its engagement through strategic outreach initiatives. These efforts have been crucial in maintaining its role as a central resource for both the university campus and the surrounding public.

At the Calvin T. Ryan Library, the Access Services Associate, Kelsey Baxter partnered with Web Services and Engagement Librarian, Professor Todd Jensen in taking proactive measures aimed at strengthening and improving connections. This paper discusses the outreach campaign conducted by the Calvin T. Ryan Library, targeting both campus and community patrons. This endeavor has not only addressed immediate challenges but has also positioned the library to remain an active part of both communities. By examining this initiative, this paper aims to highlight the library's resilience and commitment to serving as a dynamic academic and community resource. It underscores the importance of adaptability and innovation in ensuring continued relevance and accessibility in modern library services.

Application

To address these challenges that the library has faced, a decision was made to adopt LibConnect, a marketing tool provided by Springshare, which enabled the launch of a subscription-based email service centered around book recommendations. Previous attempts at newsletters included one that was printed and then mailed, and a WordPress Blog called In Brief Online. Before the switch to LibConnect, the library emailed one newsletter per month to the entire campus community which consisted of library news and renovation updates, but also included a handful of book recommendations. Kelsey Baxter, one of the library’s Access Services Associates, proposed to the library’s Marketing Committee a separation of *library news*—which would go out to the entire campus—and *book recommendations*—which would go out to subscribers only. This separation was suggested as the original newsletter was too long and people were not engaging with it due to its length. Additionally, because the audience did not choose for themselves to receive it and it was just sent out on a mass email list, interaction with the newsletter and library was low.

Splitting library news and book recommendations into two separate lists allowed for more in-depth and unique book recommendations to be sent out via email every month. The book recommendations were split between two lists, with one list being sent out every two weeks. The first list of the month consisted of new books, seasonal recommendations, and staff book reviews. The second list consisted of staff and subscriber picks, and a link directing subscribers to where they could recommend their own favorite books.

Marketing strategies for advertising the book recommendations email list included posting a link to the signup page on the library's social media pages and website, distributing posters and handouts across campus, and sending information through an all-employee email with a link to subscribe to the book recommendations list. Most student subscribers to the list came from physical signage, whereas most faculty and staff subscribers came from the mass email linking to the subscribe page.

In conjunction with the launching of this subscription list and to provide additional advertising, as well as provide a perk for the initial new subscribers, the library decided to host a "Blind Date with a Book" giveaway for Valentine's Day.

Findings

By noon on Valentine's Day, the library had 94 subscribers consisting of three community users, 24 faculty, 45 staff, 19 students, and three retirees. By the time these subscribers had signed up to the book recommendations list, library staff had sent out two emails to all employees, put posters up for students around campus, placed fliers on tables in the library, and posted information about this event on the library's social media pages. Every method of advertising had a link or QR code to sign up as a subscriber to the book recommendations list, however, the Blind Date with a Book giveaway was only shared via the social media posts on the Monday before (the 12th), the campus-wide email to faculty and staff the morning of Valentine's Day, and the book recommendations list released Valentine's Day morning at 10:00 a.m. to current subscribers. Of the library's 94 subscribers, 67 (approximately 71.28%), received communication from the library about the Valentine's Day book giveaway. Through these methods of communication, patrons were informed of the Blind Date with a Book giveaway, which noted that if they subscribed to the book recommendations list by noon on Valentine's Day, they would win a mystery book that could be claimed at the circulation desk. These books were wrapped in brown paper with clues as to their subjects written on it.

Out of 94 subscribers, 50 came to pick up the book that they won, which included one community user, nine faculty, 27 staff, and 13 students.

Library staff tracked a separate group of new subscribers who only discovered the Blind Date with a Book giveaway after the email had been sent out to everyone else at noon during that day. Patrons who happened to walk into the library after noon when the email went out were told that if they subscribed that afternoon, that they could still pick up a book after 5:00 p.m. on Valentine's Day. Nine new subscribers signed up, seven of whom were students, two were staff members. These patrons had not received any previous emails regarding the subscriber form and had not seen the social media posts about the event. Of the nine walk-in subscribers, five students returned after 5:00 p.m. to pick up a book.

By close on Valentine's Day, the number of newsletter subscribers had increased to 105 (two of whom had subscribed after the email went out at noon announcing the event, but who were not walk-in subscribers from that afternoon). The day after the giveaway, a second email was sent to all the current subscribers stating that they could pick up a book if they had not already done so, and could pick up a second one if they chose to do so. As a result of the follow-up email, seven

subscribers picked up a book for the first time (one faculty, one staff, and five students), 12 picked up a second book (six staff, six students), and two new subscribers picked up a book (one staff, one student). A total of 88 books were given away (there were 98 books earmarked for the event, leaving ten were left over).

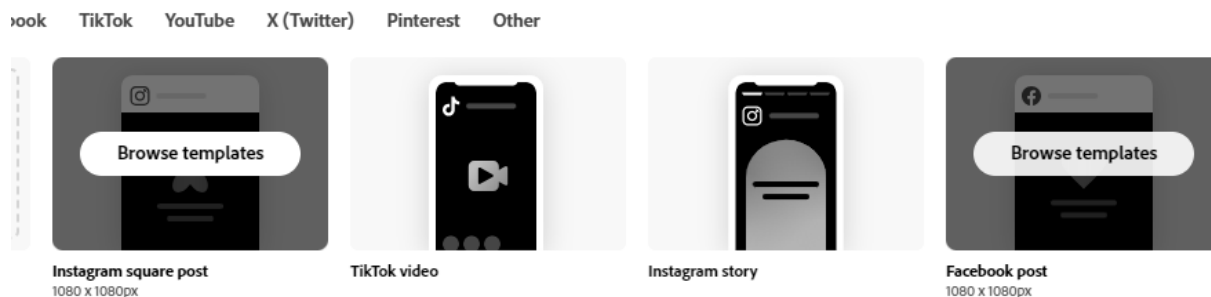
Preparing Promotional Images

The marketing campaign for *Blind Date with a Book* involved multiple mediums including print, social media, campus kiosks, and the library website. It was essential to carefully consider how to create content tailored for each of these channels. As part of the University of Nebraska system, Calvin T. Ryan Library employees have access to the Adobe Creative Cloud software package. This access allowed the library staff to design content that is appropriately sized and formatted for each marketing and social media outlet.

Each platform—whether it is the website, campus kiosks, or social media—had specific requirements for image sizes, resolutions, and formats. It was crucial to understand these differences to ensure the campaign is effective across all channels. Facebook and Instagram could both be the same size, 1080 by 1080 pixels (see image below for reference), but the library homepage’s main graphic is sized at 800 by 450 pixels, while print materials could be a maximum size of 17 x 22 inches. Finally for campus kiosks the university requires landscape-orientation with a 16:9 aspect ratio 1920x1080 (UNK Communications & Marketing, 2024).

Figure 1

Adobe Express screenshot from work account



Once sizes were determined, the next step in creating graphics involved understanding the necessary resolution needed for each medium. The recommended minimum resolution for printing is 300 DPI (dots per inch), while the resolution for screens (computer or mobile) is 72 DPI (Westpress, 2024). DPI is what makes an image look crisp and high-quality. The higher the number, the more ink droplets are tightly bunched together (Adobe, 2024). These numbers were important to remember, as attempting to print an image at 72 DPI would likely result in a blurry image on paper. When viewing images online, a higher DPI will not make the image look any better but will make the file larger, which may slow the site down site when it loads or the file when it opens (Largprinting, 2024). Therefore, for anything intended for printing, it is advisable to use at least 300 DPI. For images intended for online use, 72 DPI is sufficient.

In choosing the file type for social media, website, and campus kiosks I went the .png format. The reasoning for this is best described by the JPEG vs. PNG article by Adobe: PNGs are not really built to store high-quality photos. They specialize in handling detailed, high-contrast web graphics. They're often the default format for screenshot images since they can provide a highly accurate representation of your desktop and don't compress pixels together. A huge color palette and lossless compression ensure they retain plenty of detail. (Adobe, 2024)

When using an online graphic design program like Adobe Express, be sure to verify the DPI of images after downloading them (Adobe Express usually downloads images at a resolution of only 72 DPI, which is not suitable for print material). Promotional graphics for the Blind Date with a Book campaign were created using Adobe Express. To produce high-quality images for printing, library staff had success by downloading the image as a PDF, then converting to TIFF.

Creating Images

Creating images is a matter of personal style and choices. This section will discuss the process Ryan Library staff used in creating graphics for this campaign. Each project was started in Adobe Express due to its extensive template selection. Any other online graphic program (such as Canva or Piktochart) will have an array of templates and designs to choose from. Below are examples of a promotional image, each varies by font and/or overall size.

Figure 2

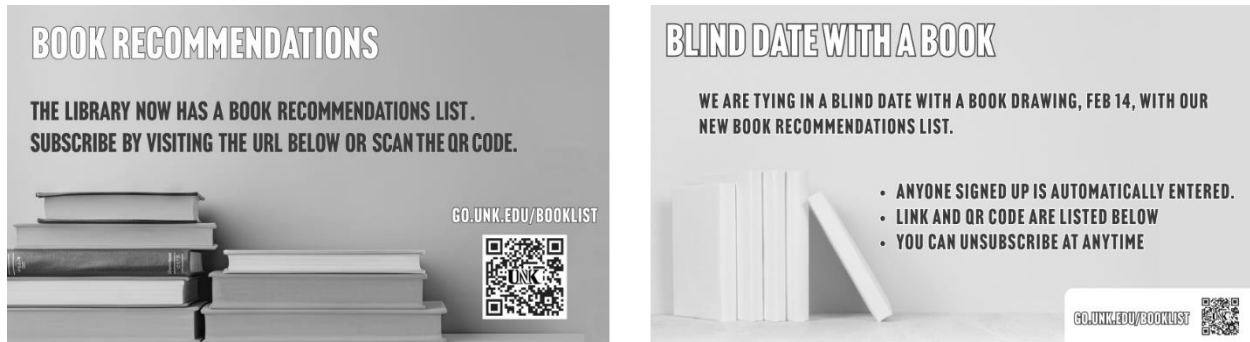
Fonts and Sizes



In the initial stages of production, library staff created multiple examples without immediately settling on a preferred style and sought feedback from colleagues. They chose to maintain consistency within a project by sticking to a similar style. Despite focusing on Valentine's Day for this campaign, it remains connected to the ongoing Book Recommendations campaign, and as a result, certain print materials, online images, and kiosk visuals maintain the same style as our regular Book Recommendations campaign, as illustrated in the following images.

Figure 3

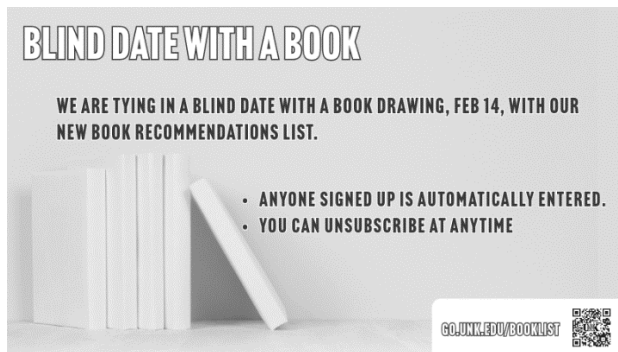
Style Similarity



The library's staff reused the same image across different platforms/media, which underscored the importance of understanding DPI. For instance, the images used for book recommendations are consistent whether they are for print or the library website. Starting with a higher resolution allows designers to scale down the images as needed. Resolution can be decreased easily, but up sampling adds more pixels/dots per inch (DPI) and creates blurry images, ugly blocks of color, and high contrast in images (Westpress, 2024). The graphic below is the website version of the Blind Date with a Book print out.

Figure 4

Web Version of Blind Date print out



Promotion

For the "Blind Date with a Book" promotion, library staff utilized various channels as mentioned earlier: social media, the library website, and campus kiosks. Since this was their first library-run promotion, a lot was learned. Setting up promotions on campus kiosks required the most effort. The staff needed to identify the contact person and determine the required format for materials. It was during this process that two different contacts for campus kiosks were discovered. In most buildings across campus the kiosks are managed by Communications & Marketing, while those in the student union are overseen by the Office of Student Engagement. Thankfully, both entities use the same format, allowing the same materials to be used for both sets of kiosks.

On social media, (Facebook and Instagram), promotion for the event began on February 12, just two days before the giveaway. Overall, the posts performed exceptionally well compared to usual metrics. The Facebook post garnered 118 impressions, which Facebook indicated was higher than typical posts. The Instagram post performed even better. Across all metrics in the “Overview” category—Reach, Impressions, and Interactions—engagement was significantly above average.

Figure 5

Facebook Statistics

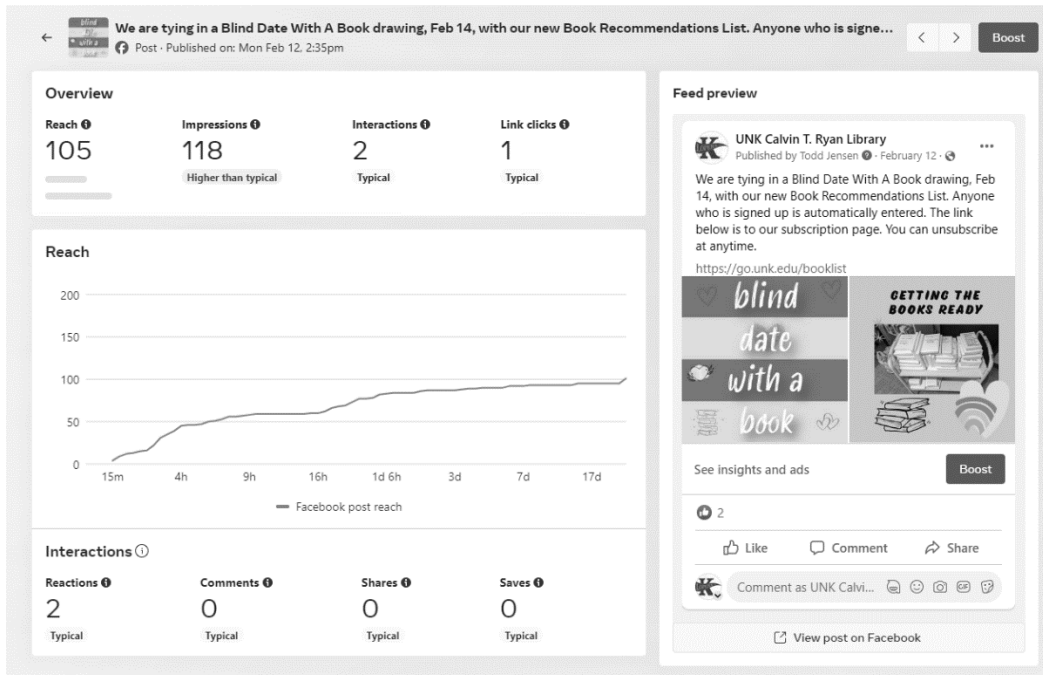
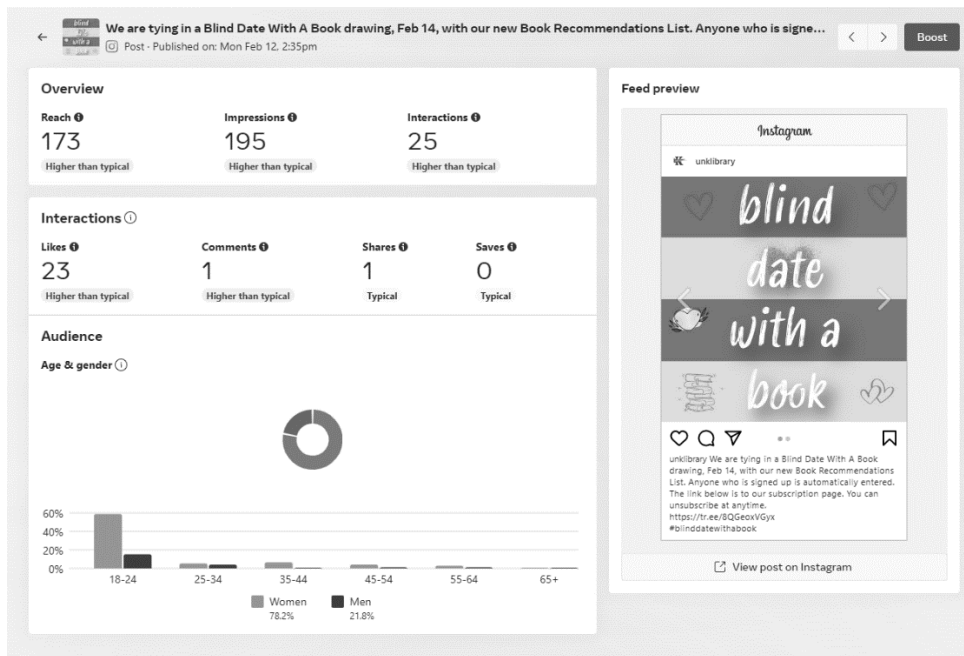


Figure 6

Instagram Statistics



Overall assessment of statistics from the promotions was tricky. The number of people who saw and reacted to the event's promotion on the kiosks is unknown and clicks on the promotional graphic on the library home page were not tracked. While the library utilized the promotional tools available, the picture of all the promotional data is incomplete, but there are opportunities to compile more data.

Conclusion

In conclusion, the "Blind Date with a Book" promotion at Calvin T. Ryan Library highlighted the effectiveness of utilizing diverse marketing channels to engage both the university community and the public. Through a coordinated effort across social media, campus kiosks, the library website, and targeted emails, the library attracted many subscribers eager to participate in the event. The campaign's design and implementation leveraged the University of Nebraska Kearney's resources, including access to Adobe Creative Cloud for customized graphic content that maximized impact across various platforms.

The results were encouraging, with 105 subscribers by the end of Valentine's Day, demonstrating significant engagement from faculty, staff, students, and community members. Notably, the strategic timing of communications—such as the campus-wide email and targeted social media posts—played a crucial role in driving participation and ensuring visibility among different user groups.

Moreover, the event's post-campaign phase illustrated ongoing interest, with additional subscribers joining after the initial rush and existing subscribers returning to claim multiple

books. This sustained interest underscores the campaign's effectiveness in fostering continued library engagement beyond the event itself.

Moving forward, lessons learned from this promotion will inform future marketing strategies, emphasizing the importance of tailored content for each platform and proactive engagement with both existing and potential library users. By optimizing resources and refining outreach tactics, Calvin T. Ryan Library remains committed to enhancing accessibility and enriching the academic and cultural experiences of its community.

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A New Chapter: Our Library's Change in Citation Management Tool Support

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Abstract

University of Nebraska Medical Center (UNMC) Leon S. McGoogan Health Sciences Library had been a long-time subscriber to RefWorks, starting in the early 2000's. The library utilized legacy RefWorks with many of the services offered to faculty, students, staff, and affiliate clinical partners at Nebraska Medicine and Children's Nebraska. These services include mediated literature searching, systematic review and scoping review support, instruction, and troubleshooting support. UNMC librarians appreciated the ease of sharing articles by folders, the option to create multiple accounts for projects, and the ability to share item records so that anyone (inside and outside of UNMC) could access these citations.

When ProQuest announced that it would retire legacy RefWorks and require all users to transition to the newest version of RefWorks, the Education & Research Services (E&RS) librarians at UNMC met to discuss options for future citation management support. The big question was: should the library stay with RefWorks or look at other available options that could be quickly rolled out to the university communities? After discussion, it was quickly decided to pivot away from RefWorks and support Zotero and EndNote as the campus primary citation management software packages. This paper describes how the McGoogan library systematically approached this change to support library users, ensuring they were prepared before the subscription ended.

A New Chapter: Our Library's Change in Citation Management Tool Support

Introduction

The University of Nebraska Medical Center (UNMC) Leon S. McGoogan Health Sciences Library has long been a legacy RefWorks subscriber. RefWorks is a cloud-based citation management tool that gives the user an ability to create a citation collection with organization and the ability to collaborate with peers and colleagues (ProQuest, 2024). RefWorks, a tool that is solely online, was the first to be web-based (Vaughn, 2013). RefWorks, now owned by ProQuest, began in 2001 (Wikipedia, 2024a), and is a good tool for the on the go user. It allows individuals to access their accounts from any computer without having to worry about installing software.

The McGoogan Library provides additional support for two other citation management software, EndNote and Zotero. EndNote, primarily a software-based program, was acquired by Clarivate in 2016 (Wikipedia, 2024b), and has gone through several version changes, with the latest being EndNote 21 as of June 2024. Zotero, a free, open-source software with downloadable and online options that was developed in 2006 (Wikipedia, 2024c). For other citation management software programs (ex: Mendeley), librarians will assist with finding online tutorials, but the McGoogan library does not have an expert in these other software and does not assist with troubleshooting questions, instead referring users back to the company's tech support.

The McGoogan Library incorporated legacy RefWorks with many of the library services offered to faculty, residents, and affiliate partners: Nebraska Medicine and Children's Nebraska. These services include mediated literature searching (Westmark et al., 2022), systematic review and scoping review support, instruction, and troubleshooting support. The McGoogan librarians appreciated the ease of sharing articles by folders, the option to create multiple accounts for projects, and the ability to share item records so that anyone, both inside and outside of UNMC, could access these citations. Also available at UNMC is EndNote, provided by the Office of Vice Chancellor for Research (VCR Office) and the INBRE Program. EndNote is available to all UNMC faculty, students, and staff with a valid UNMC email address. Many of the library users found using legacy RefWorks in their scholarship and research activities with the online cloud-based feature and quick access to full-text articles with a "GetIt@UNMC" link convenient. There was the bonus of continuing to use their account after graduating or leaving UNMC if the library held a subscription. It was also an accessible resource to train students and introduce them to a citation manager they could use throughout their student and future professional careers.

ProQuest RefWorks (New RefWorks) was introduced in 2016. ProQuest allowed current and new users to use the platform while keeping the legacy platform available for those who did not wish to migrate early. The McGoogan Library did not make the transition to the latest version mandatory and left the legacy RefWorks version as the default for all new accounts. In October 2022, ProQuest announced that it would retire legacy RefWorks and that all accounts would need to be transferred to the new version by June 2023. The Education & Research Services (E&RS) librarians met to discuss creating a new set of education materials and communications to support library users migrating to ProQuest RefWorks. By the November 2022 department meeting, after the team experienced the differences in how ProQuest RefWorks supported the

needs of librarians and users compared to legacy RefWorks, the team decided to look at other available citation managers.

Literature Review

In general, library users will look to librarians for support and questions regarding citing and citation best practices (Lee, 2013). Providing support to freely accessible citation management tools or providing a subscription-based tool bring an opportunity for libraries (and librarians) to offer educational opportunities and scholarly support and adds additional services that might not have been available previously (Marshall, 2020). Educational opportunities can be a mix of consultations and small group instruction, classroom instruction, and troubleshooting/orientation. In addition, citation software like RefWorks and EndNote can be used for article delivery through a search service provided by a library (Westmark et al., 2022).

There are several citation management tools that a person can choose from. People usually use the one they are familiar with, or is provided by their institution, or is recommended/used by a colleague or co-author. EndNote, RefWorks, Zotero, and Mendeley are just a few of many citation managers, but arguably, probably the most popular citation management options available (Ivey & Crum, 2018). Many of these tools share the same features: import/export database search results, create bibliographies, access full text (through an institution or open access), and embed in-text citations into manuscripts. The benefit of having a choice of citation managers is that users can choose their interface preference. Ivy and Crum (2018) compared RefWorks, EndNote, Zotero and Mendeley, looking at their features and usability. Citation managers are divided into three types: the primarily web-based option, (RefWorks), a mix of web based and online (Zotero, EndNote Online, and Mendeley), and software only (EndNote with full feature).

Description

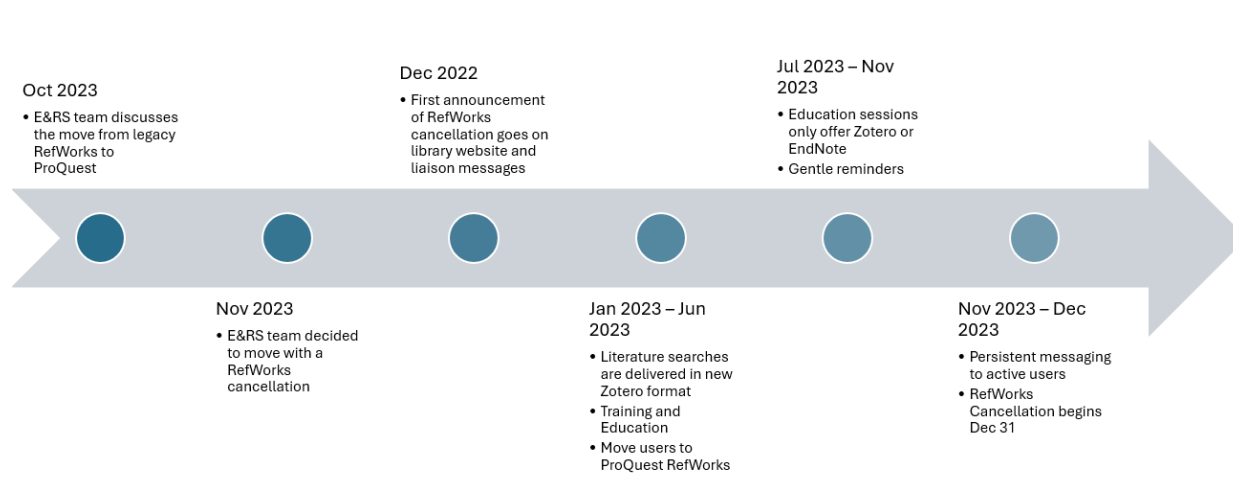
In addition to RefWorks, EndNote was and continues to be another available citation management software option at UNMC, and one that McGoogan librarians have a long history of providing instruction and troubleshooting support for. While EndNote was and continues to be freely available for those at UNMC, the E&RS team wanted to include other options for non-EndNote users and clinical affiliates that did not have a required UNMC email address to access EndNote. Between the October and November 2022 team meetings, the team identified another tool used by students and researchers: Zotero. Zotero was already an approved resource by UNMC's Information Technology Services and was allowed to be downloaded on campus computers.

One of the E&RS librarians, the library's Zotero expert, had been using Zotero in their classroom instruction within the College of Pharmacy and their day-to-day activities for a couple of years. They created and maintained an active Zotero LibGuide (Schmidt, 2024) that included step-by-step instructions on getting started and using Zotero. As this librarian had become familiar and comfortable with Zotero, they provided the support and instruction to both the team and the campus for this citation manager.

After a team discussion, working with the library’s associate dean and head of E&RS, and based on the team’s confidence in the Zotero lead librarian’s expertise, the team decided that the ProQuest RefWorks version was not going to meet the needs of the library users, and most importantly, the librarians serving mediated search results. The E&RS team recommended cancelling the ProQuest RefWorks annual subscription to the Head, Collection Development and Metadata librarian, and then began the logistical planning to pivot to using and teaching Zotero.

Figure 1

Timeline of the transition from RefWorks to Zotero



Knowing that RefWorks has been a long-standing product at the McGoogan Library, and that the campus and its affiliates had many users of this citation manager, there had to be strong communication and thorough steps to make this transition from legacy RefWorks go as smoothly as possible. The following are the steps implemented by the team for the transition:

1. The McGoogan Library’s access services department, AskUs, was made aware of this decision so they could help field questions and guide users to their respective liaison librarian to assist with the transition and to the Zotero LibGuide. The AskUs department was kept up to date in their regular department meetings.
2. The E&RS librarians send monthly liaison messages to each college, department, institute, and clinical affiliate. They included a note about the upcoming RefWorks cancellation and encouragement to adopt Zotero or EndNote as a primary citation manager. These messages were regularly sent from December 2022 through December 2023.
3. The library website was updated to include the planned cancellation and when it would be removed. The library’s RefWorks research guides were also updated to inform users of the scheduled cancellation date.

4. When sending out literature search requests, a note was included to inform library users of the upcoming RefWorks cancellation and the available options.
5. The RefWorks administrator, an E&RS librarian, emailed all legacy RefWorks users, letting them know of the upcoming change. As the library approached the cancellation date, emailed reminders were sent out, especially to accounts with active logins (e.g., those who logged in within the last month, etc.).

The McGoogan Library provides a mediated literature search service to UNMC students, staff, and faculty, along with library affiliates. As a part of this service, a list of results is shared that includes the citation information, abstract, and a “GetIt@UNMC” link to check for full text. Legacy RefWorks offered a RefShare option where a folder could be shared without having to log into a RefWorks account. With this feature retiring with legacy RefWorks, a new method needed to be used that didn’t disrupt library users from getting access to articles.

The library’s Zotero expert created output styles specific to UNMC users and our affiliated partners. This output style, created in HTML code, is copied to an online tool to generate the affiliate links to full text and the article information. When copied from the HTML tool and pasted into a Word document, this document provides:

1. The article citation.
2. The article abstract.
3. A permalink (example: Get It @ UNMC link) that will link back to the holdings to check for full text.
4. A Google Scholar link to look for Open Access articles.

Figure 2

Example word document for the mediated literature search service

1.

Shi Y, Stanmore E, McGarrigle L, et al. Development of a community intervention combining social media-based health education plus exercise programme (SHEEP) to improve muscle function among young-old adults with possible sarcopenia: Co-design approach. *Maturitas*. 2024;186:108027. doi:10.1016/j.maturitas.2024.108027. .

OBJECTIVES: There is no precedent for the use of social media in preventing sarcopenia. The aim of this study is to develop a social media-based intervention programme for the young-old population in the community in China to improve their awareness and behaviours regarding sarcopenia prevention. **STUDY DESIGN:** Using guidelines for developing complex interventions, this study was divided into two main phases: a co-development phase and a preliminary test phase. Both were carried out in Changsha, China. The development phase employed co-design methodology with relevant stakeholders, including two rounds of consultation with patient and public involvement (12 members) and two rounds of focus groups (30 participants); this was followed by the three-week preliminary test phase (22 participants). **MAIN OUTCOME MEASURES:** This study evaluated the consultation with patient and public involvement, and mainly collected qualitative data from the two rounds of focus group interviews and a final semi-structured interview following the preliminary test, so as to explore the participants' experiences, comments, and suggestions for revising the social media-based intervention. Handgrip strength was also evaluated. **RESULTS:** The health education included seven videos of 4-6 min each related to sarcopenia, including information on the concept, influencing factors, adverse effects, manifestations, screening methods, and preventions. The exercise video consisted of four types of training (warm-up, aerobic, resistance, and flexibility training) and lasted 30 min, with a suggested engagement of at least 3 days/week. The specific contents and "dosage" of the final intervention were unanimously favourable to the diverse stakeholders involved (older adults with possible sarcopenia, experts, researchers). After the preliminary test, an improvement in handgrip strength was observed, from $M15.92 \pm SD5.22$ kg to $M19.13 \pm SD5.44$ kg ($T = -5.44$, $P < 0.001$). Subgroup analysis revealed that this improvement was evident in both men and women. **CONCLUSIONS:** The social media-based intervention was universally endorsed by the participants and showed indications of a positive influence on sarcopenia. A feasibility study is now needed.

Gefit@UNMC

[Search Google Scholar for the Article Title](#)

Along with providing a list of citations, librarians export and attach a RIS file from Zotero that requestors can then import into their preferred citation manager (EndNote, Zotero, Mendeley, etc.).

In addition to getting users ready for the Proquest RefWorks cancellation, the E&RS librarians also let individuals know that Legacy RefWorks was retiring in June 2023. Reminders were sent via email to active legacy RefWorks users by the library's RefWorks administrator. The library's monthly liaison messages to colleges, departments, and clinical affiliates included the cancellation notice. Librarians met with those who wanted to transfer to ProQuest RefWorks. McGoogan librarians also encouraged users to consider EndNote or Zotero before the end of the year (2023) when they met with users for consultations.

Between December 2022 and December 2023, the E&RS librarians held two hundred and forty-eight 1:1 and small-group consultations for Zotero and EndNote. Librarians and library staff answered ninety-six reference and library policy questions on EndNote and Zotero (how to access the resource, where it is located on one's workstation, etc.). Eleven education sessions, a

combination of non-curriculum (library-held classes) and curriculum-based, were taught during this time frame. The library’s Zotero LibGuide (<https://unmc.libguides.com/zotero>) saw a usage increase during this time with total views of 3,913 compared to 758 views the previous year (Dec 2021 – Nov 2022).

Table 1

Zotero and EndNote instruction sessions, consultations, and reference/library policy questions.

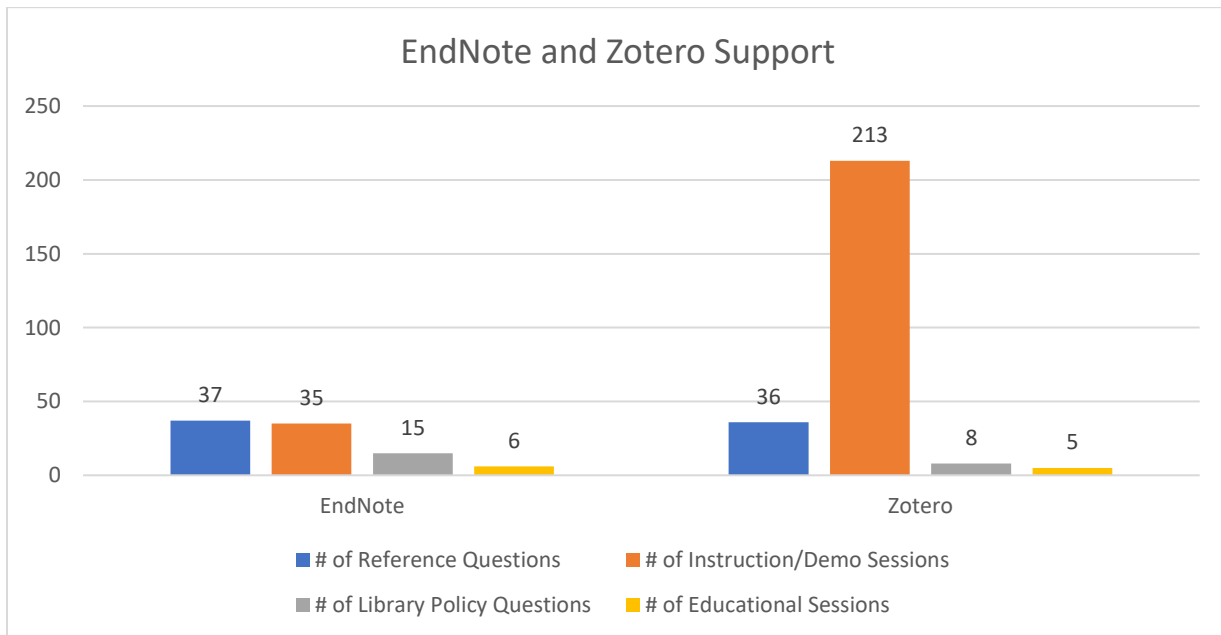
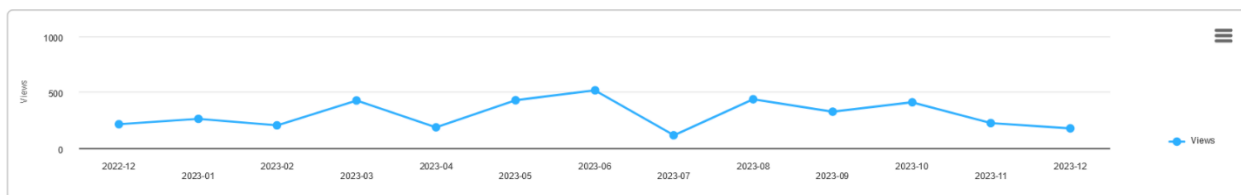


Table 2

Zotero LibGuide usage between December 2022 – December 2023



Conclusion

During this transition period, the E&RS team adjusted the delivery of the library’s mediated literature search service to help make this transition go smoothly. In previous years using legacy RefWorks, search results from a literature search request were delivered in a RefShare folder that could be accessed and saved to an existing account, and accessed without having a RefWorks account or logging in. The team’s main concern with losing legacy RefWorks was how to support the library’s mediated literature search, systematic and scoping review service, and at the

same time, strongly support the ongoing research of the university. E&RS librarians wanted to make sure that this service was not disrupted by any changes and provide easy access to library resources.

In December 2023, thanks to the E&RS team's planning and communication, the RefWorks subscription period ended quietly. The E&RS team did not receive a wave of panic calls from users looking to a) find their lost references after the end date, or b) save their lists of citations before the end of the month. The E&RS team attributed their success to the strong planning and consistent messaging they delivered to the library customers, numerous instruction opportunities, and the many one-on-one and small group consultations offered.

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Targeted Research Guides to Improve Student Engagement

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Abstract

Research Guides play an integral role in library instruction and often serve as students' introduction to library materials and resources. While a majority of research guides are developed to be specific to a given subject or discipline such as Biology, English Composition, or History, evidence exists that supports the development of course or assignment specific guides. Guides developed in this manner provide students with resources and materials that aid in the completion of a specific assignment or course unit. These guides can be integrated directly into the learning management system to provide students with relevant information at the point of need. This paper documents a scenario in which such a guide was developed and used over the course of Spring Semester 2023 to provide business students with resources to complete a major course project.

Keywords: research guide design, libguides, course based research guides, learning management systems.

Targeted Research Guides to Improve Student Engagement

Introduction

During the Spring Semester 2023 the author, while occupying the position of User Services Librarian at Kansas State University's College of Aerospace and Technology, was tasked with redesigning the branch libraries research guides and instructional material. Previous iterations of research guides were created using basic websites based on pre-developed templates through the hosting provider. The research guides had fallen into disrepair and had not been updated over several years and no longer reflected current course offerings. While redeveloping the research guides using SpringShare CMS provided by the Kansas State University's Hale Library, the author sought to make the new research guides more relevant to course materials and assignments thus improving student usage of the research guide and engagement with both course materials and library resources. The approach to research guide creation in this paper is more involved than the more widespread method of creating research guides based on general subject matter. The method is supported by an adequate body of research and evidence to support greater student engagement.

Literature Review

In 2011 Dana Oullette, then Information Services Librarian at Concordia University in Alberta Canada, conducted a student focused usability study of subject guides, also known as course guides, finding aids, or research guides. Oullette found that design is a contributing factor in how students perceive a research guide. Indeed, the results of this study indicated that a one size fits all approach to research guides does not appeal to students and that librarians should assess the need of students and faculty when creating guides (2011).

In addition to design considerations, Brewer, Rick, and Grondin maintain that guides must be introduced early in the course or assignment and that suggestions for regular updates to content should be obtained through regular student feedback (2017). With regard to content, a student usability study conducted at Cal Poly Pomona University Library found that librarians should be careful in selecting resources to ensure that they are relevant to students needs and reflect the directed activities of a specific course rather than a broader subject (Conrad & Stevens, 2019). It was also noted that research guides could contain too many resources and diminished student perceptions of guide efficacy due to information overload (2019).

In some cases, students may not even be aware of the existence of research guides, and it would seem that even among students who are aware of research guides, usage is relatively low regardless of class standing, academic level, major or college (Carey et al., 2020). While usage statistics may not be encouraging, it should be noted that students who use research guides have reported them to be useful (Brewer et al., 2017). It has been suggested that using the research guides in teaching sessions and during individual consultations may boost usage among students (Carey et al., 2020).

Manual matching and suggesting of research guides for inclusion in specific courses can enhance the effectiveness of library resources within the LMS and improve library-faculty relations while

seeking to improve student resource utilization within the course (Clever, 2020). The creation of research guide modules embedded directly within the LMS offers a particularly beneficial approach in that it places library resources into a system that students use and interact with on a daily basis (Karplus, 2006).

This approach for the direct integration of library content into courses provides students with seamless access to resources tailored to their curriculum needs. This method not only enhances the visibility of library resources but also ensures their relevance and accessibility throughout the learning process (Smith et al., 2023). In order for integrations of this nature to achieve success, it is crucial for academic librarians to engage faculty and student in feedback to enhance user experience and overcome challenges in organizing materials.(Gibeault, 2018).

Background

In Spring of 2023, a member of the business faculty approached the author to create a research guide for a strategic management course. The purpose of this course was to introduce students to the challenges of establishing an international business office in a foreign country, in this case, India. Students were required to provide an analysis of a given city or region of the country using evidence available through the library and outside resources. Students were then expected to write an evidence-based justification for their selected site of operations. The course instructor was concerned that previous students had simply relied on Google to gather information for the assignment. He wanted to find better sources through the library and the author suggested that the best course of action was to create a research guide based specifically on the project. The instructor provided a copy of the course syllabus and the assignment guidelines on which the author based the creation of the research guide.

Methods

The course guide was developed considering major portions of the assignment. Students were required to consider factors such as climate, local politics, transportation, education, and demographics. The instructor and the author agreed that it would be best to create portions of the research guide to reflect each one of these concepts and to include additional information from the local GIS. Within each of these sections resources were provided from a mix of available library databases, journals, and outside information from the government of India at the local and national level. The inclusion of Indian government-based websites provided students with real world information that was not readily available through academic sources. It also served to introduce students to the fact that internet connectivity is not always up to western standards and that they could experience interruptions in the country.

Distribution

The research guide was created 3 weeks prior to the introduction of the assignment using feedback from the instructor and suggestions from the author. Upon final revisions, the guide was quietly launched one week prior to the assignment. It was agreed that this was the best policy in order to account for any unforeseen errors and to fully evaluate the guide's features. A few link errors were discovered at this time and repaired or removed as needed. This also

allowed the author time to create video tutorials and walkthroughs for the guide that were embedded in the Canvas Learning Management System (LMS).

The guide was introduced to students through an information literacy session conducted for each of the three sections participating in the class. Students were introduced to the guide as a resource to assist in the completion of the assignment. The author briefed students on the resources to be found in each of the sections and how they might be used to find pertinent information. The author also provided information on the video tutorials and how to access them in the Canvas LMS. Students were also given the librarian’s contact information as well as instruction on how to set up a reference appointment if further assistance was needed.

Results

Initial use of the research guide was promising with well over one hundred views in the first week alone. By the end of the project one month later total guide views were at 757 which placed the guide in the top fifteen most used guides for the entire university system. The most used portions of the guide were the sections on Demographics, Politics and Education, and the guide homepage, which provided some background information on the nation of India and a brief explanation on the relevance of the site to the assignment. A chart of total page views for each section can be found below in Table 1.

Table 1

Total research guide pageviews for all three course sections over a period of 1 month.

Page Views 03/08/2023 - 4/10/2023		
Page ID	Page Name	Views
9598449	APA 7 Citation Guide	14
9597900	Demographics	215
9596847	GIS Information	61
9596846	Home	208
9598116	Politics and Education	136
9598313	Transportation	79
9598417	Weather and Seismic Conditions	44
Total Views		757

In addition to data collected through SpringShare Analytics for the research guide. The author was able to collect analytics from Canvas LMS. This information is significant in that it shows that roughly 50% of students accessed the research guide through the LMS rather than through an external link. See Table 2 below for more information.

Table 2

Canvas usage statistics for research guide divided by class. Online section is noted. All other sections were in-person.

Canvas LMS 03/08/2023 - 04/10/2023

Course Section SB				
Resource	Students Enrolled	Unique Student Accessed	Percent Accessed	Page Views
How to research for the Paper	28	19	67.8%	57
Section SA				
Resource	Students Enrolled	Unique Student Accessed	Percent Accessed	Page Views
How to research for the Paper	31	21	67.7%	74
Section TA - ONLINE				
Resource	Students Enrolled	Unique Student Accessed	Percent Accessed	Page Views
How to research for the Paper	30	16	53.3%	62
Totals	89.00	56.00	62.9%	193.00

Discussion

These numbers suggest that embedding research guide links in the LMS in conjunction with library instruction lead to greater use of the research guides rather than simply providing a link or integrating the guide through the LMS using a Learning Tools Interoperability (LTI) (Fagerheim et al., 2017). While there is a significant amount of research supporting the use of LTI to integrate research guides into the LMS, the LTI also tends to embed a subject or generic guide (Fagerheim et al., 2017). This can result in low usage due to lack of perceived relevancy and placement of the LTI link in the learning management system. The numbers provided by both SpringShare and Canvas LMS in Tables 1 and 2 seem to support the assertion that direct

embedding of the research guide into the LMS, supported by information literacy instruction, provides a viable strategy to induce student engagement with library resources.

The method described above provides a viable and replicable method for creating research guides that are focused on a given course or a major course assignment. In replicating this approach, the author suggests integrating a qualitative survey to gauge student perceptions of the guide and its usefulness. This would provide insights beyond mere statistics and could inform the librarian of improvements that can be incorporated in general and specifically within guide sections. As an example, the APA 7 Citation Guide, Weather and Seismic Conditions, and GIS Information were the least used portions of the guide. A qualitative analysis of these sections through survey or open-ended response from the students could yield valuable information on why these sections were not as well used as others. Results of the analysis may reveal the need to redesign these areas or even remove them from the guide entirely.

Conclusions

While general research guides and subject specific guides tend to be the most favored options for research guide creation, they tend to have very low usage numbers suggesting low student engagement with library resources. The method described in this paper suggests that the creation of course or assignment specific guides supported by library instruction and distributed direct integration into the LMS results in higher student engagement with the guides and library resources. Future studies exploring this methodology should incorporate qualitative measures to gauge student perceptions of the guide.

This study involved a very small number of students, 89, distributed over three sections of a single course. The methodology of research guide creation and distribution described holds promise as a means of improving student engagement with research guides and library resources. Further studies should assess the viability of the course or assignment specific guide method over a larger distribution of courses and students. Such a study would provide crucial feedback on the sustainability of this method.

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Oh, the Noise! Facing the Challenges of Exponential Growth in Student Population

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Abstract

The University of Texas at Dallas has experienced extraordinary growth over the past 15 years, with enrollment increasing from 14,944 students in the fall of 2008 to 30,885 students in the fall of 2023—a 106% increase. This growth has presented challenges for the Eugene McDermott Library in maintaining services and adequate study space for students. Overcrowding combined with less-than-ideal furnishings and a higher ratio of students to staff after the pandemic resulted in a surge of inappropriate behavior and conflict within the library. Library staff employed a variety of strategies to identify problem areas, create study spaces that better align with expected student activity, and equip staff to efficiently address conflict when it arises. This paper will explore the library's efforts to address these challenges and ensure the availability of relevant academic resources, programs, and services for the student body. As a case study, it will discuss the difficulties caused by the lack of physical space and how library staff managed the unique challenges of a crowded library. The study will review the library's experiences and history, share ideas for improvement, detail the changes implemented, assess the impact of these changes, and propose strategies for future improvement.

Oh, the Noise! Facing the Challenges of Exponential Growth in Student Population

Introduction

As mentioned above, the University of Texas at Dallas has seen exponential growth in the student body which has created the simple challenge of where these students should be on campus. In the case of the library, the building rapidly turned into the default place to congregate between classes. Through this whole challenge the library has maintained roughly 700 seats for students in the various sections of the building. Students rapidly filled and exceeded this capacity and overwhelmed and outnumbered library staff. In the return to campus after the 2020-2021 pandemic a large portion of UTD students had never experienced normal behavior in a shared space. Problems ran the gamut from loud hang-out sessions to birthday parties and horseplay, verbal abuse towards library staff, and criminal activity that disrupted study spaces. As staff tackled these issues, it was decided to focus on what were perceived as underlying causes contributing to conflict:

- Students did not have a clear understanding of library rules and expectations for their behavior.
- The library had the wrong furniture in the wrong places. The largest study area on the main floor was a large open space with group meeting tables and clusters of armchairs. The furniture communicated as a social space more than a study space.
- The main floor of the library had large blind areas where problem students could congregate without staff supervision. The study area was divided by long rows of stacks that separated the students from service desks.
- Inadequate cameras and means to identify students who were causing problems. If staff needed support from UTDPD to correct student behavior, the students could and did leave the building faster than PD could get to the library. Without positive identification of students, there was no way to follow up administratively.
- Library staff were unprepared and untrained in how to confront students to correct behavior. This resulted in many negative or counterproductive interactions that stirred up defiance in some groups of students.

Over the course of 3 years, McDermott Library staff have tried many tactics to gain control of and correct student behavior in the building. This project is ongoing but significant improvement has been achieved with considerable increases in understanding and knowledge of group behavior.

Once the library secured funding to help fix the issues presented, staff focused on improving security measures, updating furniture to better suit quiet study, create a noise report and monitoring system and procedures, and developed new procedures on dealing with disruptive patrons to help equip staff to efficiently address conflict when it arises.

Review of Literature

Every campus and every student body are different so lessons from other space studies should be considered broadly. Some of the libraries discussed in literature review were trying to make spaces more collaborative and others quieter. Some of these libraries were trying to fill spaces that weren't attracting users. The situation at McDermott Library does have the silver-lining that students do want to be in the building; staff just needed to make adjustments to the space, library policies, and security practices such that they were filling it with the right types of activities. Academic libraries are challenged to keep adapting our spaces to fit not only the changing number of our students but also evolving expectations for studying and learning styles. There have been many studies that we found that investigated the ways in which environmental issues influence behavior and focus for students. Not surprisingly there are a wide range of answers when you look for the ideal library environment. Some unsurprising things that people agree on as necessities are comfortable places to sit, controlled noise, decent lighting, access to electricity, safety and security (Deville, 2020). Throughout the UTD library's efforts to improve the environment of the main study spaces, these needs remained at the forefront. In a similar case study, researchers at Upper Midwest University's library took a deep dive into the environmental details of their newest library and see how the behaviors matched up with the architecture. They summed up: "When designing the macro-space, the overall architecture of the building should realize that the orientation, size, shapes, and differences in access to natural light acts as cues for behaviors and thus impact the activities within the place, intentionally or unintentionally." (O'Kelly et al., 2017, p. 858). A research article from the *Journal of Librarianship and Information Sciences* backs up this statement, adding that library spaces also directly relate to user satisfaction. (Cha & Kim, 2020). With all these ideas in mind, it is important to look at library buildings and study spaces and assess what messages the physical attributes are sending to patrons.

At McDermott Library, the second-floor study area contains a wide variety of seating options for studying alone or in groups. Based on the behaviors that staff were seeing in the building, they wanted to steer the population towards individual study or smaller groups. In a dissertation presented at Stephen F. Austin State University, Shannin Williams investigates which furnishings most attracted students in quiet study areas like the one we hoped to create. Her research indicated that study carrels were more attractive to those students, followed by lounge chairs, then open tables with chairs. Out of 460 observed students, the majority chose individual study carrels over lounge chairs or open tables. (Williams, 2011). Williams also noted that "New furniture (73%) was more likely to be used than existing furniture (27%)" (Williams, 2011, p. 62). These conclusions supported the idea that it was time to do more than just rearrange the furnishings the library already had. The library would need to get some new stuff in and jettison furniture that attracted social groups.

While librarians nationwide credit a lot of the changes in student attitudes to the interruption caused by a global pandemic, misbehavior of young library users is not a new problem. Library journals contain numerous articles that address how to improve youth engagement and curtail mischief going back decades. A 1995 article in the *Wilson Library Bulletin* stressed that one of the library's roles is to be a refuge for users (Comstock-Gay, 1995). The campus library should be a place where users and staff feel safe and comfortable, it is a refuge for students between

classes or a place away from noisy homelife where they can study. Like the furniture, McDermott Library needed to consider staff training, user expectations, and security. For this study, library leadership would look at all these things, starting with an official code of conduct for students. This is a key step towards improving user behavior. It must be clear, especially to young library patrons, what is expected and what is unacceptable behavior. In an *American Libraries* article entitled “Young and Restless in the Library”, Patrick Jones (1995) concluded that “Developing realistic expectations of young adult behavior is the first step to solving the young adult patron challenge” (p. 1038). Setting clear boundaries would be a first step towards a more secure and more comfortable environment, but this alone would only be a gesture. Staff also needed to improve the tools and methods used for enforcing limits.

Our next area of research was to find previous studies from libraries that were trying to solve security problems or determine what factors of their spaces were most conducive to proper library usage. Some key ideas stood out. One such idea is that security and procedural changes take time. Iterative changes are not only easier, they are likely the only way to see how moving parts affect each other. In a long-term project to improve security and crowd management at Appalachian State University, administrators observed that “a few lessons that may help other libraries reviewing safety and security operations. The first is that patience and perseverance pay off. Aspects of safety and security improve, regress, and improve again. Library personnel should expect this reality and maintain focus on the ultimate goal.” (Johnson et al., 2023, p. 48) McDermott Library’s goals were to make the second floor a quieter and safer place for students to study and for staff to work.

Addressing Behavior and Establishing Consequences

In the Summer of 2022, the McDermott Library established a committee to review and rewrite the library code of conduct to better reflect the current situation and allow library staff to appropriately enforce library rules. The committee drafted the new Library Conduct Rules and received approval to enforce them from the Dean of Students. The new conduct rules provided a framework for library staff to develop new procedures in addressing poor behavior in the library. Here, if a patron did not follow the rules, they were asked to leave the library and if the behavior continued, staff had full authority to send a referral to the Dean of Students.

As library staff began enforcing the library rules, they quickly discovered additional problems and found it extremely exhausting, filled with many negative interactions with library patrons which caused burnout within the Public Services department. Staff leaders tried to figure out what worked and what did not but were limited to what could be done due to low staffing levels and lack of security expertise. Issues with patrons including criminal offences, verbal abuse, and vandalism spiked during this time. However, the silver lining in lack of success in initial attempts soon provided the needed evidence to library administration that significant change was warranted.

Up until this point, frontline staff were stuck in a cycle of poor behavior from the community with no consequences. Limited budget, staffing, and available resources gave little hope for improvement. Using the data at hand, library staff were able to articulate our problems to Library and University administrators which resulted in approval to increase security measures in

the library, update large sections of library furniture, and better equip library staff on de-escalation and security matters.

Monitoring Noise and Behavior

Early in the project, staff realized a need to accurately monitor behavior and noise throughout the library. The library did and still does not have adequate staffing to actively patrol the library, so they turned to the existing online chat service and created a noise reporting system through LibAnswers. Members of the Access Services department mapped out the library and created color-coded noise zones and installed signage throughout the library that included zoning information and a QR code to lead library patrons to the chat service. If a patron had a complaint or issue to report, they could now easily contact library staff about their specific issue. The new noise reporting system became a valuable tool for library staff to monitor and respond to noise and behavior issues in the library and allowed staff to track and measure improvements in behavior at the library. Additionally, the library installed Occuspace space monitoring and seating availability to help promote areas in the library that were less busy.

Improving Furniture and Study Space

The chat channel and zone data allowed staffers to identify the types and arrangements of furniture that most encouraged students to misbehave. One McDermott staffer summed up: “If you give them furniture that feels like their living room, they will treat it like their living room.” Librarians and library staff addressed these issues of furnishings in different ways, starting with things that could be done immediately and working up to purchasing new furniture. To begin with, staff separated large groups of armchairs as much as possible. Wooden study carrels were repositioned to divide wide open spaces, and some furniture was entirely removed from the library. Each of these changes would make a marginal difference. In some cases, students simply relocated problem behaviors. The most extreme measures taken by the library at this stage included relocating reference and periodical stacks to make all the study areas on the main floor visible from the desk and replacing tables with modern solo-study cubicles.

Figure 1

Before stacks moves; the Reference and Periodical Stacks divided the floor

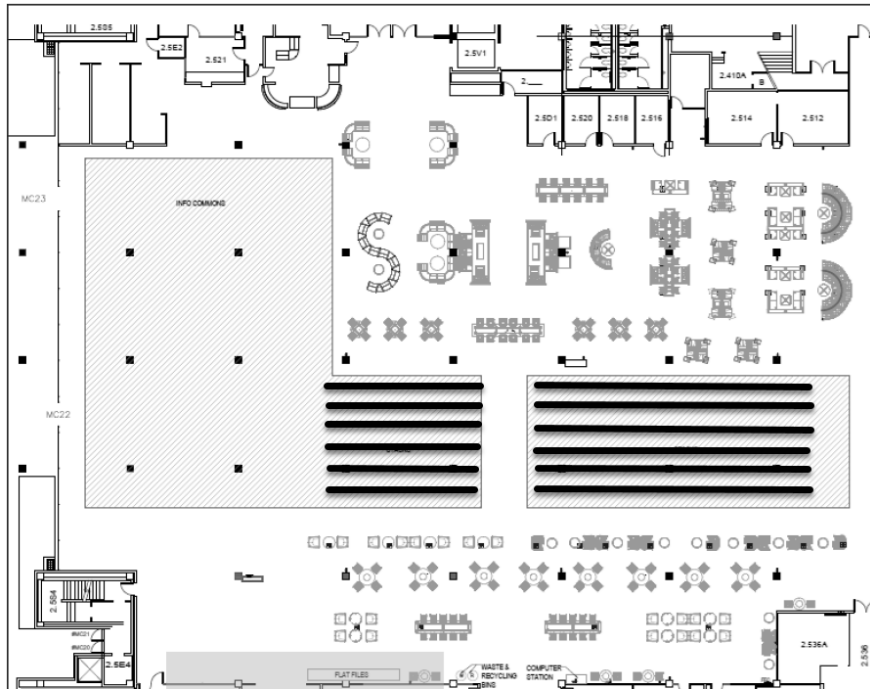
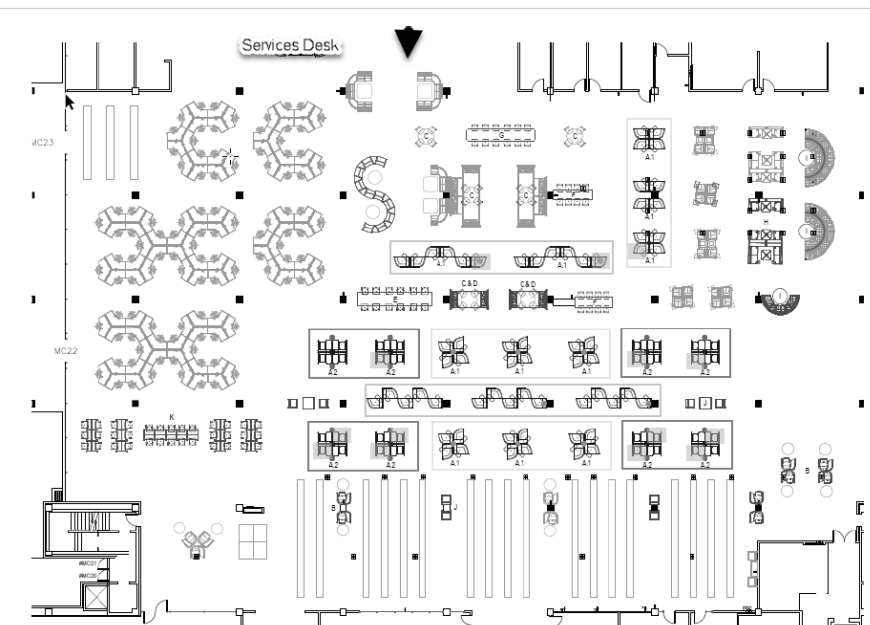


Figure 2

After stacks and furniture replacement; Stacks are now at the south side of the floor, so all seating areas are visible from the Services Desk



Preparing for the next round of furniture replacement, McDermott Library staff have devised the following guidelines for furnishings: Furniture should have a finite number of seats per grouping. Single seating up to pairs are acceptable, furniture should not encourage large numbers of students sitting together. Seats should be attached to desks or tables such that they cannot be moved by students. The student union provides spaces for social groups, this is not the library's purpose.

Staff Training

Library Administration and department heads recognized that staff from top to bottom were not trained in how to handle post-COVID student behavior that many libraries and schools have witnessed. It became a priority to offer training to all front desk staff. The library connected with the Human Resources Department and University Police Department who provided de-escalation training. The library also provided opportunities for front desk staff to attend Library Journal training on Library De-escalation and Creating Safer Libraries: Foundations for Librarians and Frontline Staff. These training resources received mixed reviews from staff, in part due to the emotional aspects of dealing with the public in negative situations and library staff not feeling heard and understood. This trauma response has complicated efforts to address and provide services to employees particularly impacted by stress, burnout, and anxiety, but there is much more that can be done including developing more tailored trainings and improving communication channels between library administrators and front-line staff.

Assessment and Impact of the Changes

Public Services staff at McDermott Library who have worked over the last 3 years confirm that there is a noticeable difference in behavior at the library since the changes were made. However, during peak times throughout the semester, the library is still too loud, and it can feel as if progress is fleeting. However, implementation of the new security measures, noise reporting system, furniture changes, and having real consequences for poor behavior. The library has seen measurable improvements in reducing complaints from students on noise, and a reduction in referrals to the Dean of Students office. In the most recent academic year, there has been a 50% reduction of Behavior Assessment and Intervention Team referrals to the Dean of Students from 2023 to 2024.

Based on weekly chat activity reports, staff are able to compare the number of complaints received in the same week of the previous year. While the percentage varies, these numbers indicate a reduction in disturbance complaints, up to 70% reduction in some weeks.

Figure 3

Disturbance tracking. Counts of complaints or disturbances by day and by area of the library. Totals along the top are per zone for the whole year. Totals on the left are daily total complaints for the whole building

Disturbance Report System												
2023-2024												
Incidents reported by zones												
	zone label		BusStops 3&4	BusStops 1&2								
	Pink	Red	Orange	Yellow	Green	Blue	Purple	Info Com	Copy Cent	Total		
Total incide	56	19	51	58	58	99	88	70	9		Total incidents	day of week
8/21/2023			1	1			1			3	8/21/2023	Monday
8/22/2023						3		1	1	7	8/22/2023	Tuesday
8/23/2023					3		3			9	8/23/2023	Wednesday
8/24/2023	3			1		4	1			12	8/24/2023	Thursday
8/25/2023	2		2					2	1	8	8/25/2023	Friday
8/26/2023										0	8/26/2023	Saturday
8/27/2023										1	8/27/2023	Sunday
8/28/2023			2		1		1			8	8/28/2023	Monday
8/29/2023					2		1	1		4	8/29/2023	Tuesday
8/30/2023					1		2	3		9	8/30/2023	Wednesday
8/31/2023					4	1	1	2		12	8/31/2023	Thursday
9/1/2023			1							1	9/1/2023	Friday
9/2/2023										0	9/2/2023	Saturday
9/3/2023										0	9/3/2023	Sunday
9/4/2023										0	9/4/2023	Monday
9/5/2023			1		2		4			12	9/5/2023	Tuesday
9/6/2023	1		3				2		2	12	9/6/2023	Wednesday
9/7/2023		1	1			3	3	1		15	9/7/2023	Thursday
9/8/2023				1						1	9/8/2023	Friday
9/9/2023										1	9/9/2023	Saturday
9/10/2023							1			2	9/10/2023	Sunday
9/11/2023			1		2	2	2			10	9/11/2023	Monday
9/12/2023	2		1				2	3		14	9/12/2023	Tuesday
9/13/2023			1				2	1		8	9/13/2023	Wednesday

Improving Security

To make study spaces safer, library staff discovered a crucial need to identify patrons at the library. Previously when an incident occurred and police were called, the individuals involved in the incident were able to quickly exit the building before the police arrived. The existing security cameras were inadequate and often could not provide a clear picture of those involved. Further, even with photographic evidence, it was difficult to prove that an individual was in the library once the case became their word against staff members'. Through many failed attempts to maintain accountability for poor behavior, library staff realized that some means to positively and proactively identify patrons was paramount. A team from administration and access services began surveying local libraries and discovered a possible solution down the road at UT Arlington (UTA). UTA had student ID activated turnstile security gates to identify patrons before they entered the library. The UTD library administration decided to purchase and install similar turnstile gates at their library. These gates are very similar to those used in subway stations, requiring students to touch a pad with an active student ID before entering. Guests are able to enter the library by showing a valid ID to front desk staff.

Additionally, the library installed 37 new security cameras that provided clearer images and allowed staff to quickly identify patrons involved in incidents at the library. Further, the University Chief of Staff and Provost approved a plan to have a full-time Public Service Officer stationed at the library during peak times.

The new cameras and security gates helped to provide the needed evidence to prove that policy offenders were in fact in the library at the time of misbehavior. In fact, within the first week of installations, the turnstiles and cameras helped identify a criminal offender in the library in a matter of minutes. The gates provide a physical and psychological barrier to users communicating that the library is a safe space for students to study and a warning to bad actors that they will be monitored and identified.

Strategies for Future Improvement

The McDermott Library is a mix-use building where library staff share the space with many other departments. The library currently only controls approximately 70% of the building. Lack of space is the main cause of the issues that the library is facing as enrollment numbers have skyrocketed over the last 15 years with an increase of 106% going from 14,944 students in the fall of 2008 to 30,885 students in the fall of 2023.

Without growing the physical footprint of library space, options are limited. However, there is hope on the horizon regarding space allocation. The university is currently building a new student union next to the library which will be the biggest building on campus. The new union should alleviate some of the library's capacity issues, especially if appropriate furniture is installed that matches the students' need for collaborative spaces. Additionally, several of the departments that are currently housed in the library will be moving to the new union providing the opportunity to claim additional space in the library.

Further, the library has plans to install additional furniture that promotes quiet study. Over the last year, trackable data has shown the positive impact of changing the group study spaces and lounge furniture to single study furniture. Over time and as budget allows, the library plans to add additional single study furniture. As the university has grown and security needs have changed, the safety of students, faculty, and staff is paramount. Right now, a security officer is only guaranteed to be in the library 40 hours per week, which is insufficient for a 24-hour library serving 30,000 students. To improve security in the library, the university needs to make a commitment to providing full-time security officers during all opening hours.

Conclusions

Through the changes that have been implemented and the lessons that have been learned in the process, the library staff will continue to adapt spaces and resources to improve the experiences of students and staff using the building. Among the things that staff have gained from this experience are an increased awareness of how furniture and environmental factors silently inform users' behavior, an enhanced set of skills and tools to respond quickly to disturbances and greater administrative awareness of the challenges that accompany increased enrollment after the 2020-2021 coronavirus pandemic.

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When the Whole is Greater than the Sum of its Parts: Statewide Consortia Collection Development

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Abstract

In times of flat budgets, collection development can be intensive, painful, thankless work. And that intensity, pain and thanklessness only increases exponentially when one is responsible for the collections of an entire state. This presentation will share an insider's view of how large-scale collection development decisions are made, including best practices on resource evaluation, consensus-building, quantitative and qualitative considerations, vendor negotiation strategies, and how to communicate about difficult decisions. While the challenges of statewide collection development are significant, this session will also highlight the satisfaction derived from collaboration, shared purpose, and overcoming the odds to deliver the best set of resources for patrons. Attendees can expect to leave feeling more confident and prepared for their own collection development work.

When the Whole is Greater than the Sum of its Parts: Statewide Consortia Collection Development

Introduction

Flat or near-flat budgets and the decades' old budget stresses caused by the "Serials Crisis" continue to define the backdrop of libraries trying to retain current resources and acquire new resources for a growing and changing community of users. In order to meet users' needs, libraries look to groups such as state-wide consortia to leverage their size, scale, funds, and influence with resource vendors in ways that they cannot on their own. If a state-wide consortium has stable, centralized funding, this additionally benefits libraries by freeing up their individual institutional budgets to use on additional or supplemental resources. But what happens when the state-wide consortium has a flat budget as well? What strategies can they employ to continue to deliver the best set of resources to their user communities?

The authors of this article will use a case study of a state-wide consortium, NC LIVE, to provide an example of a robust collection development process in a way that will help readers feel more confident as they work through their own collection development challenges. This case study will offer insights not only on how collection development decisions are made, but also on how to build consensus, what quantitative and qualitative considerations should be weighed, vendor negotiation strategies, and how to communicate difficult decisions to your user community.

Literature review

In the literature, consortia purchasing is sometimes referenced as cooperative collection development (CCD). Not surprisingly, many of these articles focus on the benefits of CCD, whereas our study wishes to focus on how the practices of consortia can be applied at the individual level to achieve measurable benefits. The most popular benefit cited is cost savings. In Levinson and Hess' (2020) survey, 73% of respondents from listservs related to CCD responded that their library participates in CCD with the greatest benefit to them being the purchase of electronic resources through consortia in return for advantageous pricing.

Library consortia also share with one other to support the broader network of library consortia. The International Coalition of Library Consortia (ICOLC) is comprised of around 200 library consortia and provides a community of peers in which consortia can share ideas, best practices and professional development (International Coalition of Library Consortia, n.d.). This "community of communities" has positively impacted the member libraries these organizations represent, as well as helped libraries articulate their need for these resources. For example, the ICOLC Strategies for Open Collaboration in Library Consortia Task Force encourages library administrators to reallocate a portion of their resources to invest in alternative solutions because, by working together, consortia can create greater impact, enact real strategic change, and support the ongoing transfer of funding to community-owned initiatives (Skog, 2022). Our case study falls in line with this Task Force's recommendation. While NC LIVE is fortunate to be supported by recurring state funding, our study is applicable to any library consortia or indeed any individual library.

In Rick Burke's case study article on the Statewide California Electronic Library Consortium (SCELC) and how a library consortium empowers libraries, he notes that a consortium is driven to do more with less, demonstrate excellence, and take a strong position within a greater library landscape. Much of what SCELC achieved was due to its nimbleness and responsiveness, which Burke attributes to its status as an independent nonprofit "relatively unshackled when compared to a state system" (Burke, 2021, p. 886). NC LIVE has also found this to be the case. Its many successes were possible because its public/private partnership structure allowed it to be very responsive, offering much latitude in negotiations for resources.

Each state's library consortium was formed in its own historical context. Wright's article, which predicted that participation in library consortia is valuable, necessary, and will become more crucial in the future, recognizes that multi-type consortia have differing levels of existing cooperation and potential barriers (Wright, 2008). Each consortium has its own story to tell. Its processes and structure are dependent on the history of its formation. NC LIVE is no exception. This case study will dive into how NC LIVE's structure and history drive how its large-scale collection decisions are made, how resources are evaluated, how negotiations are framed, how consensus is nurtured across multiple library communities, and how resource decisions are communicated. The authors hope that the success of this model in delivering the best set of resources to a state's libraries will better prepare attendees for their own collection development work.

NC LIVE

NC LIVE is North Carolina's statewide library cooperative, supporting 200+ public and academic libraries across North Carolina. Founded in 1997, NC LIVE provides e-resources, software products, services, professional development and technical support to North Carolina's libraries. NC LIVE is a public/private partnership, funded in part by the NC state legislature with supplemental funding provided by North Carolina's private colleges and universities via member library dues.

NC LIVE's statewide collection consists of 1.8 billion full-text articles, eBooks, streaming videos, digitized newspapers, language learning lessons, and more. This content is selected by the Resource Advisory Committee (RAC), which consists of 12 librarians from NC LIVE's four communities of interest (COIs): the UNC System, the NC Community College System, the NC Independent Colleges and Universities, and the Public Libraries of NC. Resources are chosen in three-year cycles and the selection process takes approximately 18 months.

NC LIVE's impact and successes

Statewide consortia like NC LIVE negotiate with vendors from a position of strength. To illustrate this, it is instructive to consider the resource negotiation from the vendor's point of view. If a deal can be struck with NC LIVE for a three-year period, a vendor needn't spend any time or money selling their product to 209 libraries individually. Additionally, their legal and billing teams needn't come to legal terms and invoice 209 libraries individually. And finally, through one deal, the vendor effectively wins 100% of a state's market share.

However, if a deal *cannot* be struck (or if a deal lapses without being renewed) a vendor will have 209 doors to knock on to attempt to win back the business, whatever contracts won will likely be year-to-year, each sale will generate its own legal and billing work with their associated costs, and 100% of the market share will never be achieved due to the inability of so many small to mid-sized libraries to afford their product out of their own budgets.

NC LIVE leverages this dynamic to secure incredible discounts—generally 80-90% off list price. In our most recent resource cycle, \$3.5 million spent secured \$50.2 million worth of resources, a 1:14 ROI. As the astute reader has already surmised, there are implicit negotiation levers within the structure of consortia deals that can (and should) be pulled when negotiating with vendors.

Decision making and criteria.

Since 2016, the RAC has used the following seven criteria to inform its resource selection decisions:

Selection criteria

- Value across COIs
- Cost per use
- Quality of content for \$
- Quantity of content for \$
- Accessibility
- User experience
- Change cost to community

The RAC uses these criteria to be data-informed rather than data-driven. By data-informed we mean that we take data into account when making decisions but reserve the flexibility to be creative and/or make exceptions so long as there is a compelling reason to do so. While most of these criteria are self-evident, the last and most interesting criterion—change cost—bears explanation. Change cost refers to the *human* change cost associated with swapping out a like-for-like resource. For example, when NC LIVE changed its language learning resource in two successive resource cycles, we imposed a change tax on 209 libraries to learn a new resource, and we interrupted the learning progress of the thousands of patrons using those resources. In both instances, we were cognizant of the change cost, but switched resources nonetheless because we believed that the cost savings and better quality of the new resources outweighed the change pain.

The simplest way to use the change cost criterion at your library is as a tiebreaker: if, after applying all other criteria, two resources of the same type are evenly rated, stick with the incumbent and save everyone the pain of change.

Building consensus

NC LIVE has a leg up when it comes to building consensus across multiple stakeholder groups because a statewide, multi-community ethos is built into its identity. NC LIVE was established as a consortium of North Carolina libraries *working together* to provide all North Carolinians—

students, faculty, business people, and residents in all stages and walks of life—access to an array of essential and powerful online resources and related services.

Declarations of cooperation are one thing; cooperation in practice is another. In NC LIVE’s case, CCD entails an 18-month process of shepherding twelve dynamic personalities with varying—sometimes conflicting—desires to consensus. A tip: it is easier to find consensus when you agree on what it looks like in advance. In NC LIVE’s case, we do not define equity in rigid terms (e.g. a point system or a rigid, COI-spending allocation), but rather allow the committee sufficient leeway to define equity in the context in which it finds itself.

The scope of our constituency—“all North Carolinians”—is a powerful settler of debates. When, as sometimes happens, a committee member champions a resource of interest only to a niche user group, another committee member will cite our charge to serve the broader population and the special interest evaporates.

Experience has taught us that many librarians desperately seek to avoid conflict, preferring to stew bitterly than raise public objection. As a collection development leader attempting to build consensus, it is critical to read subtle body language cues for signs of dissent; make a point to meet with committee members individually, where they are more likely to voice concerns; and to administer anonymous, “or forever hold your peace” snap polls as a final decision checkpoint.

A word about sacred cows: much as we seek out resources that are valuable and relevant to all COIs, there remain resources which are critically important to one or two of our communities. For example, our community colleges rely on our Nursing and Allied Health databases so much that their accreditation for those programs would be jeopardized were we to discontinue our subscriptions. In our selection process, these community-specific “must haves” are identified early on as sacrosanct. Rather than causing divisiveness, this transparency has always had a clarifying effect: by acknowledging what we *cannot* change, we turn our attention to those resources that are up for grabs.

Vendor Negotiation Strategies: the sweetener

Because vendor negotiation strategies are a topic deserving its own article, we will restrict our discussion to one under-discussed strategy: the sweetener. This strategy consists of determining which of a vendor’s offerings are valued and devalued by *the vendor*, overlaying that valuation with the consortium’s valuation of the vendor’s offerings, and looking for discrepancies. All companies set sales priorities each year: increase sales of X product by a certain dollar amount or market share, retain Y% of current subscribers to product Z, etc. Often these priorities are driven by internal strategy and have little to no correlation to the priorities of customers.

If you determine that a company has prioritized product X as their top sales goal and your libraries lust for product Y, which the vendor’s sales team is treating as an afterthought, you have a tremendous opportunity. Assuming that product X is at least somewhat interesting to your libraries, you can often get the vendor to throw in product Y for free (or at a deep discount), so long as you subscribe to product X. It is a win-win proposition: the sales representative sells the

product they have been intended to sell and your libraries get the product they desire for little to no money.

One of NC LIVE's greatest negotiation successes was convincing a vendor to throw in \$22 million worth of software for free so long as we subscribed to \$1 million worth of content. The vendor had devalued their own software at the time, but that software was incredibly valuable to our libraries. The company's top priority was selling content, and that content happened to be of sufficient interest to our libraries to buy. Sometimes what to the vendor is a sweetener is to the consortium a meal. Or, to quote the esteemed philosopher Adam Keefe Horovitz, "I like my sugar with coffee and cream" (Beastie Boys, 1998).

Communicating successes and difficult decisions

A strong and transparent set of selection criteria does not exempt you from criticism, but it helps. Everyone understands the constraint of a flat budget, so if access to a resource must be discontinued due to a vendor's price hike, it may be painful, but it is at least understandable and defensible. Similarly, if a resource doesn't meet minimum accessibility or usability standards, librarians will generally support the rationale to move on.

When announcing resource cancellations, we seek to balance transparency to member libraries with discretion for vendors. If we do not select a resource because the vendor prices it 3X their competitor's price, we don't embarrass them publicly by citing their quote, but simply share that our decision was based on price. If a resource is not renewed because it has fallen out of favor with patrons, we simply say that it has a high cost-per-use. The key is to share enough information with member libraries so that they understand why we have made a decision, but not so much information that we embarrass or alienate the vendor, which could jeopardize future negotiations.

The greatest challenges we have had in communicating resource decisions stem from instances where the sales representative, smarting from the loss of a statewide deal, misrepresents the negotiation. Often these sales representatives have established longstanding relationships with librarians, have wined and dined them at conferences, and in many cases have convinced them that they are a trusted friend. Sadly, this means that the sales representative's misrepresentation is often believed, which creates animosity toward the CCD leader. Due to the confidential nature of vendor proposals, disproving the misrepresentations of an unsavory sales representative is not so simple as producing the paperwork.

We were once confronted in a public forum by a library dean who stated that vendor representative X told them that they made a competitive offer and that we didn't even consider it. Since all offers are reviewed and receive the same treatment, we responded that that was not the case. The dean responded that they had known the vendor representative longer, so therefore they believed them. The only response left to us was the one we gave, which was that who they believe is ultimately up to them.

Leading a statewide CCD process will sometimes place you between an upset vendor and an upset member library, but so long as the selection process was fair and the communication was

followed through and handled in a professional manner, you are best served concentrating on the successes you achieved for your community of users, rather than responding to false accusations. While challenging in the moment, one should try to empathize with the librarian, recognizing that their position is based on misplaced trust, which sometimes happens in vendor relations.

If you lead a consortium or serve in any role related to licensing and pricing terms, working with vendors and establishing good relationships can be a rewarding and positive experience. The trick though, is in striking the right balance. Vendor relations is a crucial aspect of a successful CCD, but one must finely balance the relationship between being professionally friendly while maintaining your position as a formidable advocate on behalf of your libraries. Time must be invested in developing these relationships with the goal being that your vendor representative will “hate” that you represent your community so well, but still want to have lunch with you and will remain open to finding win-win outcomes. Developing relationships with vendors helps them trust you as a negotiating partner, allowing them to be candid about where they’re coming from, and establishing the shared understanding necessary to find common ground. At the consortia level, this is even more important because the stakes are higher. Nurturing respectful relationships and maintaining confidentiality are two of the most fundamental preconditions for successful negotiation outcomes.

Conclusion/Concluding Thoughts

Why, then, do we do it? Why does any group agree to pool their resources, relinquish individual autonomy to a representative governing body, and put the greater good before their individual interest? For the same reasons that we live in society: because we can accomplish more together than apart and if we combine our resources and our talents, we can build better collections.

CCD also speaks to scarcity: libraries simply do not have the human capital, training, and time for all the collection development and associated decision-making processes that consortia can streamline for them. Consortia can work back and forth with vendors, enact pressure for better terms, and hire professionals specially trained in successful pricing negotiations. They have the space and time to gather and analyze data when reviewing an offer or determining what the ROI and impact of a resource will be. They also hold a more neutral perspective when it comes to serving the broader population and can serve as a buffer when unpopular collection decisions must be made. All of this enables libraries to save time, get resources for great value, be insulated from unruly vendors, and focus on other CCD activities or other library functions.

The authors hope that this case study shows a glimpse into the complexity, value and challenges of large-scale collection development. While the case study presented is specific, with a bit of abstraction most of its insights can be applied to any CCD context. Cooperation is the bedrock of librarianship and CCD is no exception: by working together, striving toward a common goal, libraries can achieve so much more together than they can individually. We hope to have inspired you to find new ways of making the whole even greater than the sum of its parts.

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Did Video Kill the Text-Based Tutorial Star? Creating a Video Research Tutorial for University Students

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Abstract

While information literacy instruction from a librarian benefits students in myriad ways, face-to-face instruction cannot always occur, due to staffing constraints and a lack of instructor buy-in. The gap between the students that can be reached with in-person instruction and those that cannot may be filled by online tutorials, including video tutorials. Because academic literature on the creation of videos for student use provides a wide range of differing best practices, such as for video length, the aim of this presentation is to explore a case study of video creation to provide guidance for other librarians. At the University of Nebraska Kearney, the Instruction and Reference Librarian partnered with the Web Services and Engagement Librarian to produce a series of video tutorials focusing on various aspects of the research process. The number of views for the LibGuide housing the video research tutorial and the LibGuide containing its text-based counterpart suggests that students prefer the video format, but that there is still a place for a text-based approach. The presenters hope to expand on the success of their video tutorial by exploring additional aspects of information literacy, and will discuss their plans to further develop the series.

Did Video Kill the Text-Based Tutorial Star? Creating a Video Research Tutorial for University Students

Introduction

While information literacy instruction from a librarian benefits students in myriad ways, face-to-face instruction cannot always occur, due to staffing constraints and a lack of instructor buy-in. The gap between the students that can be reached with in-person instruction and those that cannot may be filled by online tutorials, including video tutorials.

Because academic literature on the creation of videos for student use provides a wide range of differing best practices, such as for video length, this project aims to explore a case study of video creation to provide guidance to other librarians. At the Calvin T. Ryan Library at the University of Nebraska at Kearney (UNK), the Instruction and Reference Librarian, Professor Rachel Hammer, partnered with the Web Services and Engagement Librarian, Professor Todd Jensen, to produce a series of video tutorials focusing on various aspects of the research process. The number of views for the LibGuide housing the video research tutorial and the LibGuide containing its text-based counterpart suggests that students prefer the video format, but that there is still a need for a text-based approach. The authors hope to expand on the success of their video tutorial by exploring additional aspects of information literacy.

The University of Nebraska at Kearney is a public university offering both undergraduate and graduate degrees within three colleges: the College of Arts and Sciences, the College of Education, and the College of Business and Technology. UNK offers both on-campus and distance education options. UNK had 4,427 undergraduate students and 1,848 graduate students enrolled during the 2021-2022 academic year (“UNK,” 2024). As of the 2023-2024 academic year, UNK’s Calvin T. Ryan Library employs eight librarians as faculty members, so the student-to-librarian ratio is approximately 734:1. Even if UNK only offered on-campus courses, and even if all faculty members were to request information literacy instruction for each of their courses, the librarians would be unable to meet the demand, so not all UNK students can be reached by in-person instruction. Therefore, a virtual counterpart must be provided to allow all students access to this vital information. The Calvin T. Ryan Library’s website currently houses two information literacy tutorials created using the SpringShare LibGuides software: one text-based and one composed of videos. This project focuses on the latter.

Literature Review

The authors’ assertion that a video research tutorial benefits students is predicated upon the claim that information literacy instruction is vital for students to understand how to engage with information objects they encounter both within and beyond their academic careers. If, as Agosto (2018) asserts, librarians are “information educators,” then information literacy instruction falls under the purview of all librarians (p. 6), including those like Professors Hammer and Jensen. According to Faix and Fyn (2020), “misinformation thrives in a ‘post-facts’ climate, such as the current political situation in the United States” (p. 496), and information literacy instruction, especially that which aligns with the Association of College and Research Libraries (ACRL) Framework for Information Literacy for Higher Education (2016), can combat the power of misinformation and disinformation. According to the Framework (ACRL, 2016), librarians have

a responsibility to create new forms of information literacy instruction that help students “[understand] the contours and the changing dynamics of the world of information” (p. 7). Tutorial videos are new to the Calvin T. Ryan Library at UNK and are part of a revised information literacy program at this library, fitting into the ACRL’s call for a redesign of information literacy curricula.

Research demonstrates the efficacy of video research tutorials. A case study by Breneiser, Rodefor, and Tost (2018) explores the use of tutorial videos to help students learn to conduct statistical analyses. While not library-specific, this case study does lay groundwork for tutorial videos for any subject. The authors decided to use videos to supplement classroom instruction to increase self-efficacy and independence amongst students. Breneiser et al.’s videos exist to teach students to do the work on their own, and the library tutorial videos discussed in Hammer and Jensen’s project aim to do the same. Additionally, Breneiser et al. found the videos “necessary to support student learning in the absence of lecture support from an instructor,” and their case study determined the videos “provided adequate guidance” for the students. Video tutorials work. Because librarians cannot possibly reach all students in-person, the online videos can help fill the gap created by the absence of a professor’s instruction.

In a case study of online library instruction videos for Radford University, Resor-Whicker and Tucker (2015) state guidelines established for the creation of their library’s tutorial videos, including the creation and use of scripts for tutorial videos to aid with closed captioning and having the speaker modulate “the tone and volume of [their] voices throughout the video in order to enhance the messages [they] were putting forth with vocal variety” (pp. 92-93). This falls in line, to a degree, with Gall’s (2014) call to inject “personality” into online videos to replicate the comfort born of familiarity students felt toward librarians upon the completion of an in-person library orientation (p. 286). Video narrators should also consider the pace of the narration. A study by Baker (2014) recommends a speed of approximately 3 words per second. 63% of the nursing students surveyed regarding four library tutorial videos “preferred the current pace” of 2.7 words per second (Baker, 2014, p. 73). Hammer used this guideline for her pacing while recording the audio.

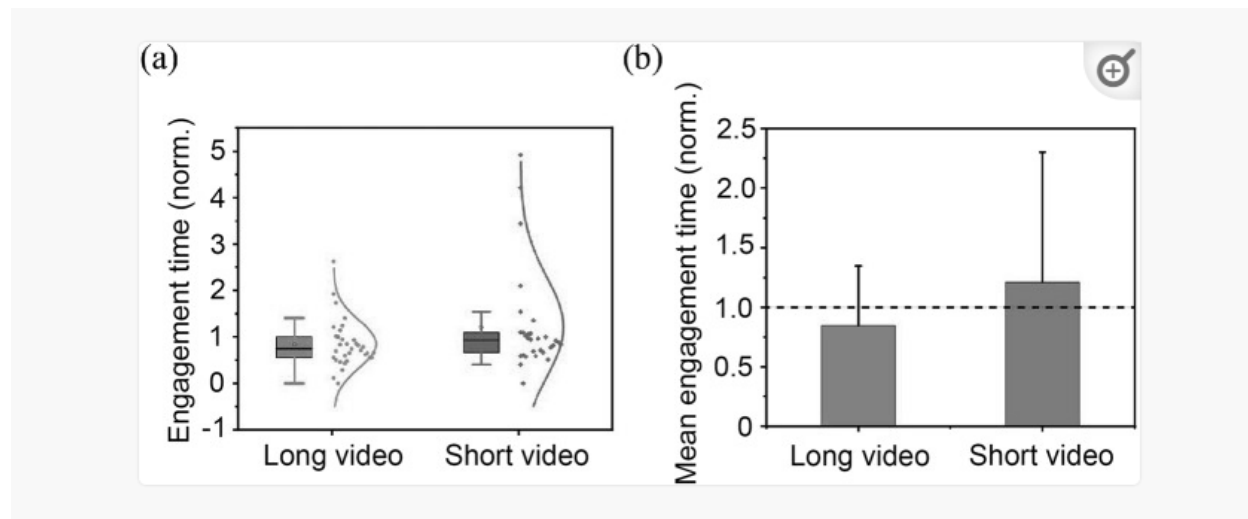
Regarding the audio for the tutorial videos, a library guide created by Story (2020) recommends using a high-quality microphone, recording in a quiet place, testing audio quality prior to recording, and being cognizant of ambient noise. Most people do not have a studio set up, so this can be remedied by using a microphone and headphone setup. Additionally, the podcast site, Riverside, gives similar recommendations about being aware of background noise (Brietman, 2024). One may think they have found a quiet place to record, but speaking into a microphone on a webcam can pick up a multitude of ambient noises. For this reason, Jensen finds it best to use a separate microphone.

In researching video length, Jensen has found recommendations for varying advice. Recommendations were two to three minutes (Pierce, 2020), fewer than three minutes (Baker, 2014), six minutes or fewer (Guo et al., 2014), and fewer than twelve minutes long and not more than 20 minutes long (UCSD). Zhu et al. (2022) shows the difference between two groups watching short videos of less than six minutes and those watching videos over that amount. Their study shows that the short-video group “has much [sic] fewer variances of engagement time, and

more than 70% of students watched over three-quarters of the video length. A 24.7% improvement in median engagement time was also demonstrated with the normalized data” (p. 5). This can be seen in Figure 1 below:

Figure 1

The engagement time for both groups



In another study, “How Video Production Affects Student Engagement: An Empirical Study of MOOC Videos,” Guo et al. (2022), found that “shorter videos are more engaging,” and they recommend segmenting videos “into chunks shorter than 6 minutes” (p. 42) Therefore, shorter videos will be more effective.

Motion graphics and animation are used frequently in media and marketing. Nova (2024) lists three factors into why they are so prevalent: these aspects are “adaptable and really good at grabbing people’s attention,” can “fit into any style, tell any story, and make complex ideas easy and fun to understand,” and often “[make] things more engaging and lively.”

Ezell (2023) discusses how “83% of people prefer watching videos to accessing instructional or informational content via text or audio.” Gall (2014) posits that this student preference rests on the “convenience and portability” of videos (p. 286). Not only do video tutorials allow librarians to reach more students, but they are also more likely to be used than other tutorial formats. If librarians are going to create video tutorials, they need to understand the resource’s importance to their intended audience. Effective research tutorials require thought and planning. Librarians cannot make the videos too long, or the information will be ignored. If librarians do not create tutorials in the format people like, then the resource may go unused.

Tutorial Creation Process

When the library faculty discussed the library’s need for a video tutorial in some form, Hammer used the information literacy sections of a text-based library tutorial which she had revised as the

basis for the sections of the video research tutorial. The librarians brainstormed additional sections for the new project. In its current form, the video research tutorial contains videos covering brainstorming a topic, writing a research question, generating key words and terms, constructing a search string, reading an academic article, and evaluating resources using two methods. The tutorial also contains welcome and farewell videos.

To make the videos, Hammer first wrote a script for each section before recording audio of herself reading these scripts. Then, she provided Jensen with both the audio files and the scripts. Jensen handled the rest of the video creation process, which included creating and animating visuals, editing the audio files, and adding an introduction and closing to each video, which he also created. The introductory and closing portions of all 16 existing videos follow the same format; only the text on the screen was changed to reflect the title of each video. Once created, the videos were uploaded to [the Video Research Tutorial LibGuide hosted on the UNK Library's website](#). Each section of the tutorial has its own page within the guide, and on these pages, a PDF of the script for each video can be found directly underneath its corresponding video.

Content Considerations for Videos

The topics covered in Hammer's scripts fall into two categories: the research process to find information objects and information object evaluation. The first category contains videos on brainstorming a topic, writing a research question, generating key terms, and constructing search strings. The second portion of the tutorial includes instruction on reading academic articles and evaluating sources using SIFT and the rhetorical situation. This video arrangement takes students on a journey from the beginning to the end of the research process. The sequence also moves from the least to the most complex concepts. During her time as an adjunct professor of English at Colorado Christian University for both traditional first-year students and online adult students, Hammer observed how students fumbled their way through the research process, and this experience informed her topic choice and approach to the topics.

While teaching, Hammer also determined that many students struggle with interpreting and evaluating materials. Because of her background in rhetoric and composition, Hammer implemented lessons exploring the rhetorical situation to aid with students' source evaluation; she has incorporated pieces of these lessons into the video research tutorial. A basic overview of rhetorical analysis opens doors to interpretation by showing learners the connections between the information object, its creator, and its intended audience. The SIFT method, created by Mike Caulfield in 2017, provides scaffolding for analyzing resources, especially those found on the internet. SIFT calls for readers to stop, investigate the source of an article/video/etc., find better coverage of an event or topic (such as from a known or trusted source), and trace information included in the resource back to its original location and form. For example, if a news article includes a video clip, the final SIFT step calls for finding the original video to get its wider context. Hammer chose to incorporate the SIFT method into the library research tutorials due to the prevalence of clickbait on students' social media feeds. However, SIFT can also be used to analyze academic sources. Rhetorical analysis and SIFT pair well to give a well-rounded view of a source's trustworthiness and usefulness in a particular context.

To inject personality into the videos to create a familiarity toward her for students, Hammer took three primary approaches. She took care to vary her speech patterns within each recording, used informal first- and second-person language, and injected lighthearted, personalized examples. While she took the content and creation of the scripts very seriously, Hammer did not want the videos to seem serious or labored to students. To keep the audio recordings from becoming stale, Hammer modulated her voice to emphasize key points and highlight jokes. The tone may tend toward cheesy at some points, but Hammer tried not to go overboard. Within the first portion of the tutorial covering how to locate resources, Hammer uses one example for each topic: televised baking shows. A consistent example demonstrates how a topic moves through the research process from the earliest brainstorming step to the creation of search strings. Choosing an example topic based on the librarian's personal hobbies makes the videos more relatable while also making the librarian more personable.

Hammer heightened the approachability of the scripts (and the content) by speaking of herself in the first person, inviting students into the process with second-person words, avoiding library jargon, using contractions, and throwing grammar rules to the wind (within reason). For example, the second video about brainstorming a research topic contains the following paragraph:

Let's say I want to write a paper about one of my hobbies: baking. There are several ways to go about narrowing this topic. Do I want to research a certain discipline of baking, such as pastry or bread? Baking in a certain country or region? A particular baker?

The second-person contraction "Let's" opens this paragraph in a friendly way, and using two sentence fragments as questions at the end of the paragraph cuts out unnecessary words while also making the tone more casual. The script closes with another invitation to the audience: "For the rest of this video series, we'll look into three potential topics." Hammer emphasizes the role the audience plays in this tutorial by including them in her work. The librarian will not explore topics alone; the audience will join her.

Technological Aspects of Videos

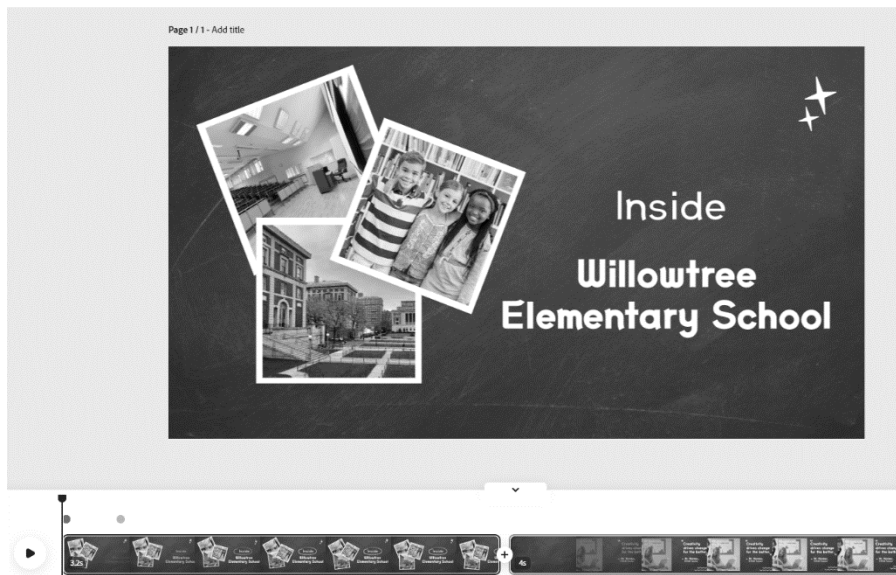
In creating video tutorials for this series, there were four areas in which Professor Jensen wanted to focus: audio, video length, storyboarding, and style/visual appearance. The information for the videos, recordings and text were prepared and created by Professor Hammer. Jensen informed her that the audio recording did not need to be perfect. Any long pauses, or an occasional "um," can be taken out easily in production. Jensen uses these audio guidelines for himself when creating tutorials; people talk more naturally when they do not have to worry about perfection. The most important tips Jensen gives for the recordings are using the best microphone one has (preferably a headset with an attached microphone), finding a quiet place to record, and testing one's setup.

Jensen recommends starting with a storyboard as one begins the creative process. Per NG Production Films, a storyboard is a series of drawings or images that show the sequence of scenes in a video. It is a great visual way of explaining ideas. Typically, a storyboard will be

hand-drawn or drawn in a drawing program, such as Photoshop or InDesign. Jensen used a slightly different process in the creation of storyboards for these videos. He has access to the Adobe Creative Cloud; through this, he can use Adobe Express Online. Instead of making mockups or drawings, Jensen first looked through Adobe's animated templates to find one he felt matched this project. Jensen knew he wanted something with a chalkboard design, so he searched for chalkboard in templates and changed the type to animated templates. The template he chose is titled "Green School Intro YouTube Video," as is shown in Figure 2 below:

Figure 2

Green School Intro YouTube Video

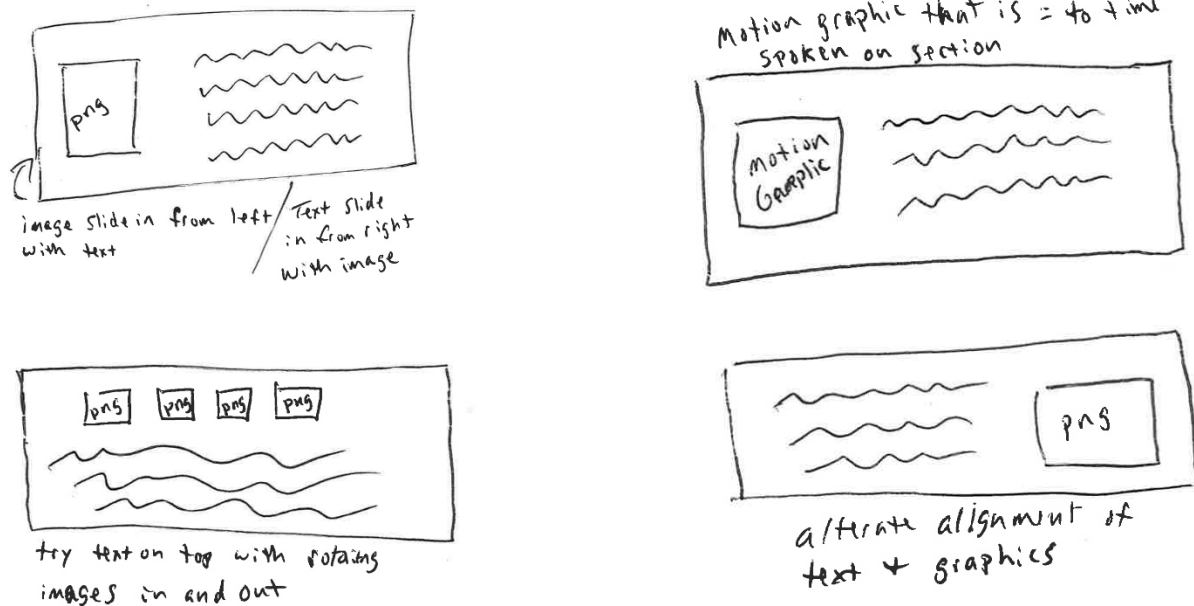


The visually interesting aspects such as motion and fading to text and graphics drew Jensen to this template. There was not so much of each aspect that it made his eyes strain; this is where the creators' personal choices and preferences will become apparent and where storyboarding will help channel and direct the style in creating video tutorials.

As a personal choice, Jensen avoids creating storyboards within any type of drawing program. His preference, as shown in Figure 3 below, is to draw out his ideas by hand beforehand. It is important to remember that storyboard drawings do not have to look great artistically speaking; the point is to create ideas for the layout. The result may look completely different, but in Jensen and Hammer's project, the storyboard drawings ended up being close to the finished product.

Figure 3

Storyboard



Note:

Top left: Image slide in from left with text, Text slide in from right with image.

Top right: Try text on top with rotating images in and out.

Bottom left: Motion graphic that is equal to time spoken on section.

Bottom right: Alternate alignment of text & graphics.

In creating the style and visuals for the videos, Jensen considered various factors. He used social media post analysis as a starting point. The Calvin T. Ryan Library's top video posts on Instagram and Facebook contain motion graphics. The top post for this style, spring 2024, had 252 impressions and a reach of 211. The videos with a slideshow, such as in a PowerPoint style, do not reach as wide an audience or have as many impressions. The top view for a slideshow style post in the spring of 2024 had 65 impressions and a reach of 62. The topic of the post plays a role in its popularity, but when all top posts follow a certain style, that implies the audience prefers one over another. By studying the analytics of the UNK Library's social media, Jensen had a clearer idea on what style to make the video research tutorials. His research into video duration showed that videos should be short and based on what the intended audience (students) views the most; there should be moving parts.

Conclusion

Professors Hammer and Jensen, and their fellow librarians at UNK, understand the need to constantly revise, expand, and update their video research tutorial. As of June 2024, four new sections for the tutorial are in various stages of development. These sections, which will likely contain multiple videos each, explore plagiarism, citation practices, the peer review process, and information object types (such as primary, secondary, and tertiary resources, as well as popular

and scholarly resources). The librarians at UNK may also add exercises, quizzes, and activities to the tutorial in the future; this must be discussed with the entire library faculty before plans can be put in place. Professor Jensen is also developing a companion video tutorial series that walks patrons through how to use the library search. So far, video topics include accessing one's library account, the search bar itself, and filtering search results.

Plans for the video research tutorial project include conducting research to determine the usage and efficacy of each section of the tutorial. The authors will use this information to refine the existing tutorial. Research will also be done to illuminate the gaps within the provided instruction, providing the authors with ways to expand the tutorial. The text-based tutorial will similarly be researched, revised, and expanded. While Hammer and Jensen have not yet conducted research on the video research tutorial amongst their target audience, they hope their well-researched and carefully considered approach helps students learn the fundamentals of the research process, as well as information literacy. This paper and presentation outline one university library's approach to a video research tutorial to spark ideas for other librarians to create their own, tailored to their students' needs.

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