University of Kentucky School of Information Science
Internet filtering, digital literacy, and information poverty: Intersections and challenges

<u>Abstract:</u> This is a National Forum proposal that addresses the IMLS strategic goal of increasing public access through a focus on internet filtering, digital literacy, and disparate access to information. Proposed work falls within the "lifelong learning" category because it addresses barriers that limit access to information resources. The total award sought is $54,901, with no cost sharing. In this proposed national symposium, we will investigate these interlocking problems of internet filtering, digital literacy, and information poverty. *This project supports the IMLS goal of lifelong learning because of its emphasis on access to information.* People need access to a wide range of information to learn and grow, but internet filtering threatens this ideal. Furthermore, internet filtering can negatively reduce digital literacy for those who are using a restricted internet. This is a crucial area for libraries and their allies because of the resulting unequal access to information and opportunities in already-marginalized communities. However, the national conversation and research on these topics is scarce; *this symposium is needed to rejuvenate research, spark new collaborations, develop explicit policy recommendations, and work toward resolving these inequalities.*

Internet filtering has three inter-related research issues: a lack of research and knowledge about internet filtering in the U.S.; negative impacts on digital literacy; and disparate effects of filtering, along socioeconomic lines. Each problem is unique and important, but together they pose a significant impact on the accessibility of information to the public. In this national symposium, we will investigate these interlocking problems of internet filtering, digital literacy, and information poverty. We do not have research that addresses the interaction between internet filtering and digital literacy or the ways in which filtering can compound information poverty; we also lack reports from practitioners about the impacts of internet filtering in their day-to-day interactions with patrons and marginalized communities. The proposed symposium seeks to rectify these gaps in our knowledge.

This project consists of three parts: a pre-symposium (first) virtual meeting, a 2-day symposium in Lexington, Kentucky, and a post-symposium (final) virtual meeting. Throughout the project's timeline, we take advantage of technology to connect a broad research and practice community. The virtual meetings will enable a wide variety of people to participate, even if they are unable to travel to Kentucky for the face to face symposium, while the in-person symposium will spark synergy from the interactions that can occur at such meetings. The first virtual meeting will take place in October 2019, followed by the development and dissemination of a call for proposals. Papers and panels will be due in June 2020; they will be reviewed, and decisions announced in August 2020. The symposium will be held in February 2021 in Lexington, Kentucky; a venue and plenary speakers are already lined up. Finally, a final virtual symposium will be held in May 2021 to discuss future research plans and generate a final report. No fees will be charged for registration to allow for more diverse participants.

Proposed outcomes include the following: connecting, developing, and sustaining a body of researchers and practitioners interested in these intersecting themes and problems; research that addresses the breadth and depth of internet filtering; practitioner reports and explanations; and policy recommendations for those who implement internet filtering, for those who create internet filtering technology, for those who advocate for/ against internet filtering, and for local and national policymakers who develop regulation around internet filtering. Information will be disseminated via a dedicated website, a Twitter hashtag, webinar(s), publication in peer-reviewed journal(s), and presentations at multiple conferences.

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This is a National Forum proposal that addresses the IMLS strategic goal of increasing public access through a focus on internet filtering, digital literacy, and disparate access to information. Proposed work falls within the "lifelong learning" category because it addresses barriers that limit access to information resources. The total award sought is $54,901, with no cost sharing.

<u>**Statement of National Need:**</u> Internet filtering is a crucial issue *now* because it restricts access to a broad array of information, needed to combat the rising tides of fake news and misinformation. Experts agree that the best ways to combat "fake news" are improved digital literacy and better access to better information (e.g., Cooke, 2018; Agosto, 2018). Nonetheless, internet filtering—which impacts both literacy and access—remains widespread. Internet filtering has three inter-related research issues: a lack of research and knowledge about internet filtering in the U.S.; negative impacts on digital literacy; and disparate effects of filtering, along socioeconomic lines. Each problem is unique and important, but together they pose a significant impact on the accessibility of information to the public.

In this proposed national symposium, we will investigate these interlocking problems of internet filtering, digital literacy, and information poverty. *This project supports the IMLS goal of lifelong learning because of its emphasis on access to information.* People need access to a wide range of information to learn and grow, but internet filtering threatens this ideal. Furthermore, internet filtering can negatively reduce digital literacy for those who are using a restricted internet. This is a crucial area for libraries and their allies because of the resulting unequal access to information and opportunities in already-marginalized communities. However, the national conversation and research on these topics is scarce; *this symposium is needed to rejuvenate research, spark new collaborations, develop explicit policy recommendations, and work toward resolving these inequalities.*

<u>Background:</u> In 2003, the U.S. Supreme Court upheld the constitutionality of the Children's Internet Protection Act (CIPA). According to this law, all public schools and public libraries that receive certain federal funds must install a "technology protection measure" to prevent minors from accessing images that are child pornography, obscenity, or "harmful to minors." While child pornography and obscenity have a long (though sometimes contested) history of falling outside First Amendment protection, the category of "harmful to minors" was newly created by CIPA; this refers to a visual depiction that:

(A) taken as a whole and with respect to minors, appeals to a prurient interest in nudity, sex, or excretion; (B) depicts, describes, or represents, in a patently offensive way with respect to what is suitable for minors, an actual or simulated sexual act or sexual contact, actual or simulated normal or perverted sexual acts, or a lewd exhibition of the genitals; and (C) taken as a whole, lacks serious literary, artistic, political, or scientific value as to minors (2000).

CIPA defines a technology protection measure as an internet filter; to comply with the law, all computing devices in an affected institution must be filtered (not only those used by minors). This requirement is tied to federal e-rate funding, which helps public schools and public libraries afford internet access and other telecommunication products and services. In addition to CIPA, 26 states have enacted further laws requiring internet filtering in public schools and/or public libraries (National Conference of State Legislatures, 2016).

Most internet filtering software is produced by for-profit companies, such as CYBERsitter and Net Nanny. As a result, the exact methods used to filter access are proprietary and not public knowledge. There are a variety of ways that internet filtering can be implemented, but perhaps the most common approach is to install filtering software at the system level (i.e., across all machines at a public library). Filters can work by preventing users from accessing sites that have been black-listed while allowing access to other sites. Users will receive an error message when trying to access blocked sites. Generally, filters group blocked sites into categories such as adult themes, alcohol, gambling, and so on (see Peterson, Oltmann, & Knox, 2017, for examples of actual categories from filtering companies). This sampling of categories, clearly, does not neatly align with the categories

prohibited by CIPA. In fact, all of the categories listed here are protected by the First Amendment as legal speech. Furthermore, because these categories do not map neatly onto the law, filtering becomes "inherently subject to the normative and technological choices made during the software design process" (Deibert, Palfrey, Rohozinski, & Zittrain, 2010, p. 372; see also Brown & McMenemy, 2013).

Internet filters are well-known to have two shortcomings: they both underblock and overblock content (e.g., Cooke, Spacey, Creaser, & Muir, 2014; Cooke, Spacey, Muir, & Creaser, 2014; Deibert, Palfrey, Rohozinski, & Zittrain, 2008). Some content that should not be allowed gets through, while content that should be allowed is blocked; it is suggested that filters over- or under-block 15-20 percent of the time (Batch, 2014). Research testing the efficacy of internet filters is somewhat limited and dated. Chou, Sinha, & Zhao (2010) tested the efficacy of three top-ranked internet filters and found that all were out-performed by using text mining approaches. Finally, some researchers have examined whether internet filtering is effective in protecting minors, but the limited data "fails to provide support for governmental and industry advice regarding the assumed benefits of filtering for protecting minors online" (Przybylski & Nash, 2017).

<u>Research problems:</u> With this background information about internet filtering, we can turn to the three inter-related research problems. First, as described above, CIPA requires internet filtering in public school and public libraries that receive e-rate federal funding (2000). Despite this federal law, the exact rates of filtering implementation in the U.S. are unknown. In 2009, Jaeger and Yan estimated that at least 51.3% of public libraries used internet filters and that 100% of schools used internet filters. In contrast, Kolderup (2013) reported that 65% of public libraries were filtering by 2005. However, by 2014, the Institute for Museum and Library Services (IMLS) estimated that 73% of public libraries received e-rate discounts in 2014 and over 90% of libraries had used e-rate at least once in the past eleven years (IMLS, 2014); according to CIPA, all of those libraries would have to certify they were using filters. It is troubling that CIPA mandates internet filtering yet there seems to be no hard data on compliance in libraries or schools. We do not know how filters are being implemented: which categories are blocked? Is there variation regionally? Other factors such as size of the institution, training of the individuals in charge, socioeconomic level, race/ethnicity, religion, and so on may play a role as well; currently we do not know. More research needs to be conducted to understand the depth and breadth of internet filtering in the U.S. The lack of data is in sharp contrast to other nations, particularly the U.K. and Scotland. Though there is no equivalent to CIPA there, researchers have investigated the rate of internet filtering in public libraries. In 2013, Brown and McMenemy (2013) reported that all of their respondents had implemented filtering. Blocked content included actually illegal content/activity, potentially illegal content/activity, and value judgement-grounded categories (such as the category "tasteless) (p. 192). Across the U.K., Cooke, Spacey, Creaser, and Muir (2014) studied the implementation of internet filtering and, again, 100% of their respondents reported using filtering. They noted that "currently, there appears to be little standardisation [sic], guidance or transparency about measures being taken to prevent misuse" (2014, p. 6).

Second, internet filtering leaves users (especially minors and those who are less technologically sophisticated) unable to fully master digital literacy (Adler, 2011; ACLU-RI, 2013; Batch, 2014; Cooke et al, 2014; Przybylski & Nash, 2017). As Cooke and colleagues explained, "by limiting their access to the full range of content, users are not learning the information literacy skills that afford genuine and sustainable protection in the digital arena" (Cooke, Spacey, Muir, & Creaser, 2014, p. 189). Users do not learn how to evaluate risky sites, for example. The American Association of School Librarians (AASL) has several standards that address digital literacy in this context, such as "learners act on an information need by making critical choices about information sources to use" and "learners exchange information resources within and beyond their learning community by accessing and evaluating collaboratively constructed information sites" (AASL Standards Framework for Learners). Minors who only access a filtered internet in school settings will not learn the full range of skills necessary to be successful in these ways. On the other hand, perhaps internet filtering has benefits in terms of digital literacy, by preventing access to images that are "harmful to minors" (as required by CIPA). We do not have concrete measurements of the potential or actual advantages of deploying internet filters from a child development or digital literacy perspective; this sort of research would round out and add depth to the conversation about internet filtering.

Third, the implementation of internet filtering is idiosyncratic, as filtering companies use different algorithms, categories, and white- or black-lists to determine which sites get filtered. Researchers studied the deployment of filtering across the state of Alabama and found that "no two implementations of the same system had the same selection of common categories, and no two filtering systems had the same category set" (Peterson, Oltmann, & Knox, 2017, p. 4596). Each library and school under study had a different filtering configuration—even those in neighboring counties. Often the categories that filtering companies offer to block do not align with the legal requirements of CIPA, which only mandates blocking content that is "harmful to minors." In contrast, filters may block content that is categorized as "adult/mature content," "alcohol," "alternative sexuality/lifestyles," "extreme," "nudity," "suspicious," and so on (these labels are taken from an actual filtering company; see Peterson, Oltmann, & Knox, 2017). All of the categories listed here are protected by the First Amendment as legal speech. Furthermore, because these categories do not map neatly onto the law, filtering becomes "inherently subject to the normative and technological choices made during the software design process" (Deibert, Palfrey, Rohozinski, & Zittrain, 2010, p. 372; see also Brown & McMenemy, 2013). In effect, various communities get different internets due to filtering (Peterson, Oltmann, & Knox, 2017). This results in unequal access to information, constraining people's ability to find the information they need and desire. There are *legitimate* reasons to want access to information in all of the categories listed above, yet implementing a filter to block those categories would block people's access to this information. Because internet filtering is tied to federal funds, it is more likely to be implemented in low-income areas that need the funding assistance. Thus, information poverty becomes concentrated in areas of economic poverty, compounding injustice. Information poverty has been defined as "groups and individuals who do not have adequate and equal access to quality and quantity information" (Shen, 2013). Britz (2004) emphasized that information poverty is caused in part by unequal or poorly developed information infrastructure, which would include the unequal ways that internet filtering is deployed. Information poverty is a complex phenomenon, with economic, ethical, and technological threads, which cannot be fully unraveled here; suffice it to say, we believe the ways that internet filtering is implemented often magnifies information poverty problems, though scant research has been done to illuminate such issues.

In this national symposium, we will investigate these interlocking problems of internet filtering, digital literacy, and information poverty. To the best of our knowledge, no similar national forum has been held since 2013, when the American Library Association convened a workshop on internet filtering. In the subsequent years, we have had little information about the breadth or depth of internet filtering in the U.S. We do not have research that addresses the interaction between internet filtering and digital literacy or the ways in which filtering can compound information poverty; we also lack reports from practitioners about the impacts of internet filtering in their day-to-day interactions with patrons and marginalized communities. The proposed symposium seeks to rectify these gaps in our knowledge.

Project Design: This project consists of three parts: a pre-symposium (first) virtual meeting, a 2-day symposium in Lexington, Kentucky, and a post-symposium (final) virtual meeting. Throughout the project's timeline, we take advantage of technology to connect a broad research and practice community. The virtual meetings will enable a wide variety of people to participate, even if they are unable to travel to Kentucky for the face to face symposium, while the in-person symposium will spark synergy from the interactions that can occur at such meetings. The calls for each part will be circulated in academic and practitioner circles to recruit a diverse participant pool in terms of background, expertise, race/ethnicity, gender, and so on. For example, the calls for each part will be circulated among public library and school library listservs to recruit librarian participants.

In September 2019, we will begin recruiting participants for the first virtual meeting, to be held in October 2019; in this meeting, participants will generate ideas for research projects, practitioner reports, and opportunities in anticipation of the symposium. From this meeting, we will generate the call for papers for the symposium (to be distributed in January 2020) and an initial report/ white paper of research questions/ problems in this area. The call for papers/ panels will be based on the above statement of national need and will call for

socio-economic, information science, library science, technological, or justice-based approaches to this issue. We anticipate the call for papers/ panels will focus on the need for empirical research into the breadth and depth of internet filtering and its interactions with digital literacy and information poverty. Paper and panel proposals will be due in June 2020, for competitive blind review (overseen by the organizing committee, who will recruit reviewers).

Proposals will be reviewed in July 2020, decisions will be announced in August 2020, and the program will be disseminated in September 2020 via email listservs and social media. A dedicated website for the symposium and associated research will be created and maintained by student workers. Next, research activities, practitioner reports, and theoretical perspectives will be shared and discussed at the symposium held in February 2021 at Lexington, Kentucky. We will host two plenary speakers: C.M. Winters Palacio and Dr. Svetlana Mintcheva. Winters Palacio was a librarian and Assistant Professor at City Colleges of Chicago for 14 years and is co-creating a multi-part podcast on information poverty in Chicago tentatively titled "From #IPiC and Beyond." Mintcheva has been the Director of Programs for the National Coalition Against Censorship for the past decade and has extensive experience discussing freedom of speech and censorship. Both plenary speakers were chosen for their respective expertise in the areas of information poverty and freedom of speech; both have agreed to participate (see attached c.v.s).

Previous reviewers (of the initial proposal) suggested making the outcomes more explicit. Thus, proposed outcomes include the following: connecting, developing, and sustaining a body of researchers and practitioners interested in these intersecting themes and problems; research that addresses the breadth and depth of internet filtering; practitioner reports and explanations; and policy recommendations for those who implement internet filtering, for those who create internet filtering technology, for those who advocate for/ against internet filtering, and for local and national policymakers who develop regulation around internet filtering. The final session of the symposium will be a brainstorming session with all participants to develop these policy recommendations and plans to distribute them to the appropriate parties. As discussed in the dissemination plans, the reports, research, and policy recommendations will be published in a relevant venue(s). Because of the explicit foci on bringing together practitioners with researchers and developing explicit policy recommendations, we anticipate this symposium will be more impactful than the 2013 meeting.

Finally, three months after the symposium, another national virtual meeting will take place to discuss future research plans, funding opportunities, and partnerships. From this meeting, we will generate a final, comprehensive report of themes, approaches, collaborations, and policy recommendations; the report will be made open access and freely shared with interested parties. In addition, we will pursue relevant funding opportunities to continue this work, with the Institute of Museum and Library Services and other relevant agencies. In this final virtual meeting, we will create plans for sustaining momentum and the research agenda.

Dissemination plan: Based on feedback from reviewers on the preliminary proposal, dissemination plans have been expanded and now explicitly contain five elements. During all phases of the project (the planning for the symposium, the actual meeting, and post-symposium discussions), a dedicated website and a Twitter hashtag discussion will be utilized to spread information, particularly with individuals who may not be able to attend. We will seek webinar opportunities, post-symposium, to share key lessons from the symposium, such as with the Office for Intellectual Freedom of the American Library Association. The plenary talks, final report, and policy recommendations will be posted on the symposium website for free access. From this symposium, we will generate papers appropriate for publication in peer-reviewed journal, such as the *Journal of Intellectual Freedom and Privacy* or the *Journal of Information Ethics*. Finally, the chief convener of the symposium, Dr. Oltmann, will attend multiple conferences, such as the American Library Association Annual Meeting, to share the results with practitioners and researchers; these conferences will be practitioner-focused to help ensure the information is shared out to librarians.

We also plan to secure participation from practitioners at schools or libraries that have struggled with implementing or regulating internet filters. To facilitate this, the calls for participation will be circulated across public librarian and school librarian listservs and state or regional association listservs (such as the Kentucky

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Library Association). We believe the practitioner voice is essential to the success of this symposium. Calls will also be circulated on academic listservs, such as the JESSE and ASIST lists.

Diversity Plan: Based on feedback from initial reviewers on the preliminary proposal, this diversity plan has been strengthened and made more explicit. The calls for participation in the three different components (virtual meeting, symposium, and post-symposium virtual meeting) will be circulated broadly, across several academic listservs, to practitioners in libraries and schools, and to relevant nonprofit organizations (such as the Electronic Frontier Foundation and the Center for Democracy and Technology). We will also use social media (such as Twitter) to expand the circulation of our calls for participation. We will circulate the calls for participation to specific communities such as the Chinese American Librarians Association, the Black Caucus of the American Library Association, and REFORMA (the National Association to Promote Library and Information Services to Latinos and the Spanish-Speaking); this will help secure participation from diverse librarians, some of whom are responsible for the decisions to filter or not filter, and many of whom can share unique input about how uneven filtering affects their communities. We anticipate mixing praxis with academic research will be complementary and informative for all sides.

We expect to get participation from diverse personnel with these approaches and will strive to have underrepresented minorities' voices heard at the symposium. We expect our contributors to be diverse in terms of race/ethnicity, gender, sexual orientation, socio-economic and educational backgrounds, and research orientations. To facilitate attendance by a broad range of participants, there will be no registration fee for attendees or presenters. The organizing committee includes a lesbian and a woman of color. One of the plenary speakers is a woman of color as well.

National Impact: This project has national impact in three senses. First, internet filtering takes place nationwide, in many communities in every state. Yet the impacts and consequences of internet filtering have not been poorly studied to date in the U.S. This symposium will stimulate such research and thus provide insight into the extent and effects of internet filtering. Second, we will promote participation nationwide, recruiting participants from academia, research, advocacy, and practice. We will particularly strive to include diverse voices from underrepresented minorities in the symposium. Finally, we anticipate wide impact resulting from the symposium, including published articles, reports, and white papers; new research and practical collaborations; creative approaches to challenging internet filtering; and explicit policy recommendations to a range of relevant actors. In particular, we believe the explicit policy recommendations that will be generated by the participants and shared broadly are a unique and valuable contribution of this symposium.

Demonstrated Expertise: Dr. Shannon M. Oltmann, associate professor in the School of Information Science at the University of Kentucky, will be the primary convener. Logistical support will be provided by the School of Information Science (see letter of support). The organizing committee includes:
- Dr. Emily J.M. Knox (associate professor at the School of Information Sciences at the University of Illinois)
- Chris Peterson (researcher at the MIT Center for Civic Media)
- Deborah Caldwell-Stone (interim director, Office for Intellectual Freedom, American Library Association) (see attached c.v.s of the organizing committee)

Oltmann, Knox, and Peterson have conducted extensive research on internet filtering and access to information (particularly in Alabama; see citations below). In addition, Knox and Peterson participated in a symposium on internet censorship in 2013, hosted by Google Washington and the American Library Association's Offices for Information Technology Policy and for Intellectual Freedom; this proposal represents a further evolution of that conversation. Knox hosted (and Oltmann was on the planning committee) for the 2017 Information Ethics Roundtable, so they have experience planning and implementing a conference. Caldwell-Stone has extensive

experience in defending freedom of speech and advocating against restrictive internet filtering. The organizing committee will be responsible for crafting the initial calls for participation, circulating those calls, securing reviewers for symposium proposals, and coordinating details for the face-to-face symposium. Finally, additional expertise will be brought by the participants (researchers and practitioners) in the symposium.
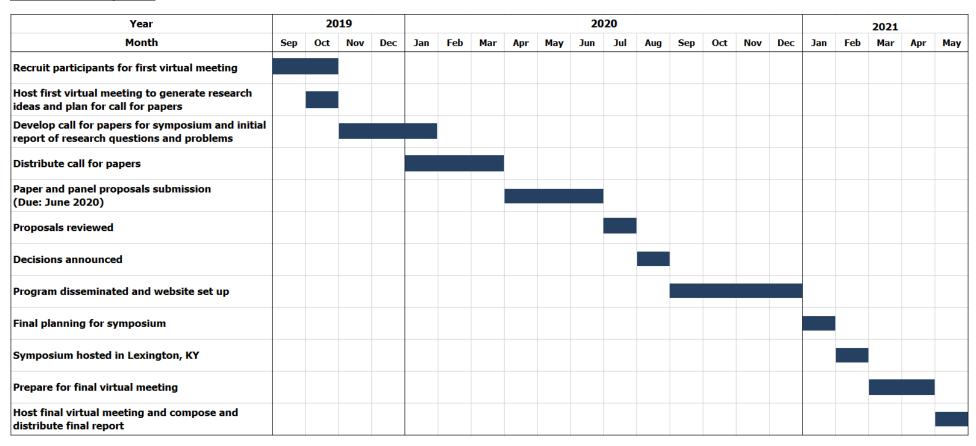
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Schedule of Completion

Year	2019				2020												2021				
Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Recruit participants for first virtual meeting	■	■																			
Host first virtual meeting to generate research ideas and plan for call for papers		■																			
Develop call for papers for symposium and initial report of research questions and problems			■	■																	
Distribute call for papers					■	■															
Paper and panel proposals submission (Due: June 2020)								■	■												
Proposals reviewed										■											
Decisions announced											■										
Program disseminated and website set up													■	■	■						
Final planning for symposium																	■				
Symposium hosted in Lexington, KY																		■			
Prepare for final virtual meeting																			■	■	
Host final virtual meeting and compose and distribute final report																					■

DIGITAL PRODUCT FORM

Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (e.g., digital content, resources, assets, software, and datasets). The products you create with IMLS funding require careful stewardship to protect and enhance their value, and they should be freely and readily available for use and re-use by libraries, archives, museums, and the public. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and practices that could become quickly outdated. Instead, we ask that you answer questions that address specific aspects of creating and managing digital products. Like all components of your IMLS application, your answers will be used by IMLS staff and by expert peer reviewers to evaluate your application, and they will be important in determining whether your project will be funded.

Instructions

All applications must include a Digital Product Form.

☐ Please check here if you have reviewed Parts I, II, III, and IV below and you have determined that your proposal does NOT involve the creation of digital products (i.e., digital content, resources, assets, software, or datasets). You must still submit this Digital Product Form with your proposal even if you check this box, because this Digital Product Form is a Required Document.

If you ARE creating digital products, you must provide answers to the questions in Part I. In addition, you must also complete at least one of the subsequent sections. If you intend to create or collect digital content, resources, or assets, complete Part II. If you intend to develop software, complete Part III. If you intend to create a dataset, complete Part IV.

Part I: Intellectual Property Rights and Permissions

A.1 What will be the intellectual property status of the digital products (content, resources, assets, software, or datasets) you intend to create? Who will hold the copyright(s)? How will you explain property rights and permissions to potential users (for example, by assigning a non-restrictive license such as BSD, GNU, MIT, or Creative Commons to the product)? Explain and justify your licensing selections.

One digital product will be a website which will have a Creative Commons license (CC BY) that lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. This will allow for maximum use and openness. We will include a link to the Creative Commons website to explain the license and its terms. The copyright for the website will be held by Dr. Oltmann.
A second digital product will be recordings of two plenary talks given at the symposium. The speakers will hold the copyright for their respective talks. They will be encouraged to share these talks and make them freely available via our website.

A.2 What ownership rights will your organization assert over the new digital products and what conditions will you impose on access and use? Explain and justify any terms of access and conditions of use and detail how you will notify potential users about relevant terms or conditions.

The organization (the University of Kentucky) will not assert ownership rights over the digital products. We will allow others to access and use the digital products without conditions other than attribution (the Creative Commons CC BY license). We will explain this on the website.

A. 3 If you will create any products that may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities, describe the issues and how you plan to address them.

The speakers will be asked for permission to share their talks via the website.

Part II: Projects Creating or Collecting Digital Content, Resources, or Assets

A. Creating or Collecting New Digital Content, Resources, or Assets

A.1 Describe the digital content, resources, or assets you will create or collect, the quantities of each type, and the format(s) you will use.

The digital content that will be created includes a) a website; and b) digital recordings of two plenary talks.
The website will be universally accessible and will include the calls for participation and other related information. There will be only one website.
The digital recordings will be uploaded to the website after the plenary talks are given at the symposium, if the speakers grant permission; there will be two recordings.

A.2 List the equipment, software, and supplies that you will use to create the content, resources, or assets, or the name of the service provider that will perform the work.

a) the website will be created with freely available software and coding software. It will be universally accessible. It will be created using a desktop computer, by the student workers.
b) the digital recordings will be created with cameras operated by student workers.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG) you plan to use, along with the relevant information about the appropriate quality standards (e.g., resolution, sampling rate, or pixel dimensions).

a) the website will be in XML and CSS.
b) the digital recordings will be in high quality MP4 format (exact specifications to be determined).

B. Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan. How will you monitor and evaluate your workflow and products?

The work on the website and the video recordings will be performed by student workers and the project director, Dr. Shannon Oltmann, will serve as the quality control reviewer to make sure all products meet high quality standards. I will conduct weekly check-in meetings with the student workers to ensure they are performing as expected. The project as designed has a focused timeline; certain activities must be done by certain dates (see narrative for more detail). This will serve as a natural way to monitor and evaluate the workflow and products.

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period of performance. Your plan may address storage systems, shared repositories, technical documentation, migration planning, and commitment of organizational funding for these purposes. Please note: You may charge the federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the federal award (see 2 C.F.R. § 200.461).

The assets will be maintained by Dr. Oltmann and the School of Information Science at the University of Kentucky. The website will be maintained for at least 12 months after the conclusion of the symposium; future work may be posted on this site, depending on the future work plans of participants. The video recordings will be shared with the speakers themselves and (if granted permission by the speakers) stored on the website for at least 12 months. At the conclusion of these 12 months, the website may be archived and stored via the institutional repository, UKnowledge.

C. Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata. Specify which standards you will use for the metadata structure (e.g., MARC, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

The student workers, who will be library science masters students, will be responsible for creating appropriate metadata for the website and the videos. Part of their responsibilities will be determining which metadata standards are most appropriate for the website and videos; as library science students, this will give them a hands-on opportunity to apply knowledge that they have learned.

C.2 Explain your strategy for preserving and maintaining metadata created or collected during and after the award period of performance.

Not applicable.

C.3 Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of the digital content, resources, or assets created during your project (e.g., an API [Application Programming Interface], contributions to a digital platform, or other ways you might enable batch queries and retrieval of metadata).

Not applicable.

D. Access and Use

D.1 Describe how you will make the digital content, resources, or assets available to the public. Include details such as the delivery strategy (e.g., openly available online, available to specified audiences) and underlying hardware/software platforms and infrastructure (e.g., specific digital repository software or leased services, accessibility via standard web browsers, requirements for special software tools in order to use the content).

The website and videos (if granted permission from the speakers) will be openly available online; anyone with an internet connection will be able to access them. The website will be universally accessible.

D.2 Provide the name(s) and URL(s) (Uniform Resource Locator) for any examples of previous digital content, resources, or assets your organization has created.

Not applicable.

Part III. Projects Developing Software

A. General Information

A.1 Describe the software you intend to create, including a summary of the major functions it will perform and the intended primary audience(s) it will serve.

Not applicable.

A.2 List other existing software that wholly or partially performs the same functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

Not applicable.

B. Technical Information

B.1 List the programming languages, platforms, software, or other applications you will use to create your software and explain why you chose them.

Not applicable.

B.2 Describe how the software you intend to create will extend or interoperate with relevant existing software.

Not applicable.

B.3 Describe any underlying additional software or system dependencies necessary to run the software you intend to create.

Not applicable.

B.4 Describe the processes you will use for development, documentation, and for maintaining and updating documentation for users of the software.

Not applicable.

B.5 Provide the name(s) and URL(s) for examples of any previous software your organization has created.

Not applicable.

C. Access and Use

C.1 We expect applicants seeking federal funds for software to develop and release these products under open-source licenses to maximize access and promote reuse. What ownership rights will your organization assert over the software you intend to create, and what conditions will you impose on its access and use? Identify and explain the license under which you will release source code for the software you develop (e.g., BSD, GNU, or MIT software licenses). Explain and justify any prohibitive terms or conditions of use or access and detail how you will notify potential users about relevant terms and conditions.

Not applicable.

C.2 Describe how you will make the software and source code available to the public and/or its intended users.

Not applicable.

C.3 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

Not applicable.

URL:

Not applicable.

Part IV: Projects Creating Datasets

A.1 Identify the type of data you plan to collect or generate, and the purpose or intended use to which you expect it to be put. Describe the method(s) you will use and the approximate dates or intervals at which you will collect or generate it.

Not applicable.

A.2 Does the proposed data collection or research activity require approval by any internal review panel or institutional review board (IRB)? If so, has the proposed research activity been approved? If not, what is your plan for securing approval?

Not applicable.

A.3 Will you collect any personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information? If so, detail the specific steps you will take to protect such information while you prepare the data files for public release (e.g., data anonymization, data suppression PII, or synthetic data).

Not applicable.

A.4 If you will collect additional documentation, such as consent agreements, along with the data, describe plans for preserving the documentation and ensuring that its relationship to the collected data is maintained.

Not applicable.

A.5 What methods will you use to collect or generate the data? Provide details about any technical requirements or dependencies that would be necessary for understanding, retrieving, displaying, or processing the dataset(s).

Not applicable.

A.6 What documentation (e.g., data documentation, codebooks) will you capture or create along with the dataset(s)? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the dataset(s) it describes?

Not applicable.

A.7 What is your plan for archiving, managing, and disseminating data after the completion of the award-funded project?

Not applicable.

A.8 Identify where you will deposit the dataset(s):

Name of repository:

Not applicable.

URL:

not applicable.

A.9 When and how frequently will you review this data management plan? How will the implementation be monitored?

Not applicable.